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## **2018-2022 Medium-term Plan Proposal**

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## FOREWORD

*Nothing is possible without men,  
but nothing is lasting without institutions.*

*Jean Monnet*

Since its foundation more than seven decades ago, the Inter-American Institute for Cooperation on Agriculture (IICA) has acted as a bridge between all of its member countries, supporting them in their efforts to achieve agricultural development and rural well-being, as well as building channels of understanding through technical cooperation. In doing so, the Institute has continuously adapted to the evolution of agriculture in the hemisphere, by addressing its challenges and opportunities.

Our hemisphere possesses great political, economic, social, cultural and environmental diversity. Although many of our peoples share historical and cultural roots, the Americas is characterized by heterogeneity, which should be viewed as great capital for undertaking joint work through improved complementarity and cooperation schemes.

The Americas is a relevant stakeholder in the global agricultural trade, boasting an extraordinary wealth of natural resources. This has enabled the hemisphere as a whole to position itself as a fundamental guarantor of global food and nutritional security as well as of the environmental sustainability of the planet, both in the present and looking toward the future. However, we must acknowledge the persistence of, as well as the need to resolve, significant technological and institutional gaps and setbacks.

The member countries of IICA must create a new paradigm for the role played by the rural areas. The current perception that these areas simply generate poverty and expel human resources must be replaced by a new approach that values rural areas as hubs for progress, by fostering their use of new technologies as well as by increasing their connectivity.

This scenario provides a different framework of opportunities for an immense number of small-scale producers across the hemisphere who have historically been the adjustment variable in the dynamics of production processes, and whose viability is more heavily determined by the impact of climate change and climatic variability.

At present, climate change and the deterioration of natural resources are factors that determine development. In order to increase and improve production, it is imperative that strategies and behaviors be modified. To achieve this, it is also necessary to establish new institutional frameworks for an agriculture with greater total productivity across all factors, which is broadly inclusive and resilient, but also includes the participation, leadership and drive of youth and women.

Furthermore, we must broaden the outdated perception of the agriculture sector as a mere supplier of raw materials, and instead view agriculture as a biomass industry and a key player in this new era characterized by societies that aspire to be less dependent on fossil fuels. To this end, we must implement climate-smart production models in which bioeconomy largely expresses this transformative vision, thus fostering smart and sustainable agricultural development using, as a foundation, our vast amount of natural resources.

The increasing recognition of agriculture's central role in the global agenda provides IICA, as a specialized agency of the Inter-American System, with a tremendous opportunity to renew its leading role and assume new responsibilities, in all of their dimensions, over the next 25 years. This compels us to rethink traditional views of agriculture in our hemisphere, which has long been regarded as a sector that supplies primary goods for global value chains.

Similarly, we must challenge ourselves to move beyond a technical cooperation model that originated in the 1940s, and replace it with a new cooperation paradigm that is geared toward efficiency, flexibility, decentralization, collaborative work and networking; that focuses on processes; and is based on the mobilization of human, institutional and financial resources.

All of the abovementioned efforts must be undertaken within a framework in which collective knowledge building among the most diverse stakeholders consolidates IICA as a strategic resource for the Americas that fosters the agricultural development and rural well-being of its member countries.

The new Medium-term Plan (MTP), presented herein to the Institute's governing bodies, shall serve as the Institute's guide and vehicle in implementing these changes.

This new road map is based on five hemispheric programs that will lend uniqueness to IICA's vision; channel the Institute's programmatic actions toward the identification of cooperation actions through the design and implementation of projects; and provide technical advice and assistance to governments and other social and economic stakeholders involved in agricultural and rural life in the Americas. The programs are detailed below:

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
5. Agricultural Health, Safety and Food Quality

The implementation of this 2018-2022 MTP will require, now more than ever, active participation from the ministries of agriculture and foreign ministries of our countries, in order to drive the Institute's new institutional management under the basic principles of hemispheric cooperation and shared responsibility.

This plan must serve as a tool to guarantee IICA's sustainability over the next 25 years:

- An IICA characterized by greater efficiency in promoting technical cooperation of excellence among all of its Member States.
- An Institute that possesses modern governing bodies that foster dialogue on the primary obstacles, to and opportunities for developmental cooperation, while fostering active participation by the private sector.
- An IICA where charitable work allows for overcoming obstacles to development within the continent through differentiated strategies, particularly in Central America and the Caribbean, that empower countries in their search for innovative solutions.
- An institution that is consolidated as a network of networks, acting as an organizer, mobilizer and encourager in every collective and pluralistic sphere of activity where issues related to agriculture and its future are addressed.
- An inter-American organization with the capacity to connect the interests, innovations and good practices in food production of the Northern, Southern and Andean subregions in particular, with countries that require new knowledge. The private sector and its relationship with governments and civil society will play a fundamental role in this regard.
- An IICA that creates opportunities for dialogue between the public and private sectors as well as civil society, for the benefit of agricultural development and rural well-being.
- A multilateral organization that moves forward in developing a new framework of strategic partnerships that effectively projects its image and *raison d'être*, and implements an aggressive strategy aimed at securing external, human and financial resources to better serve our countries.
- An institute that strengthens its commitment to subregional and regional integration bodies, by providing a portfolio of supranational projects designed to solve common problems.
- In short, an institution that consolidates itself as a bridge that connects countries, regions and topics, and forges work linkages with other international organizations and organized civil society, within the framework of a new solidarity scheme that contributes to the fulfillment of our historic mandate.

**Manuel Otero**  
**Director General**  
**2018-2022**

## INTRODUCTION

Pursuant to the mandate issued by the Inter-American Board of Agriculture (IABA) in August 1981, the Director General of the Inter-American Institute for Cooperation on Agriculture (IICA) must prepare a medium-term plan (MTP) that clearly defines the Institute's duties, results and use of budgetary resources during his or her four-year term. The MTP must guide the technical cooperation that IICA provides in order to address the national, regional, and hemispheric demands of its member countries.

To this end, the Director General of the Institute must take into account the experience accumulated by IICA throughout its 76-year history; prevailing conditions in the agriculture sectors and rural areas of the member countries; new sectoral challenges; and the Strategic Plan (SP) through 2020 requested by the IABA at its Fifteenth Regular Meeting held in Montego Bay, Jamaica in 2009, and which was approved at the Thirtieth Regular Meeting of the Executive Committee held in San Jose, Costa Rica, in October 2010.

The 2018-2022 MTP defines the guidelines and course of the strategic actions that IICA will develop during this period. The progress detailed in recent MTPs serves as a starting point for the present document, which incorporates a renewed vision for technical cooperation aimed at addressing the new opportunities, challenges and commitments of IICA's member countries, both individually and in the Americas as a whole. Some of these are: a) the Sustainable Development Goals (SDGs) adopted by countries at the United Nations General Assembly (September 2015), which will define the global development agenda for the next 15 years; b) evidence of weakening multilateralism, especially in the field of trade, which is beginning to exhibit protectionist trends in a world that has proven to be multipolar; c) a continuous reduction in resources allocated for official development assistance; and d) a timid reactivation of the global economy following a recession period marked by the global financial crisis and substantial fluctuations in international commodity prices.

This MTP is divided into six chapters, which successively address the following topics: IICA's mission, vision, primary role and values; analysis of the main global and hemispheric trends and identification of challenges and opportunities for agriculture in the Americas; selected strategic objectives; IICA's new technical cooperation model; planning, programming, monitoring and evaluation; and corporate services.

Chapter I lays the foundation for the support that IICA will provide to its Member States in their search for sustainable agricultural development and rural well-being. To this end, the Institute will establish its mission and vision, placing emphasis on technical cooperation geared toward addressing the demands of the member countries within the framework of the strategic objectives defined in Chapter III.



Chapter II outlines the main characteristics of the global scenario that serves as a context for agriculture's performance, as well as the main trends at the global and regional levels. The chapter also enumerates the primary opportunities and challenges of countries in the Americas with respect to agriculture and the rural milieu.

Chapter III describes the Institute's strategic priorities, which will address the primary opportunities and challenges of agriculture in the region while channeling its programmatic work toward the achievement of four strategic objectives related to the SDGs.

The manner in which IICA will manage its technical cooperation is outlined in Chapter IV. The chapter describes the guiding principles of the Institute's management as well as a cooperation model focused on five technical programs: a) Bioeconomy and Production Development; b) Territorial Development and Family Farming; c) International Trade and Regional Integration; d) Climate Change, Natural Resources and Management of Production Risks; and e) Agricultural Health, Safety and Food Quality.

The main modalities and instruments of IICA's technical cooperation are defined in Chapter IV. The modalities are the ways in which the Institute will deliver its technical cooperation services to the countries, while the instruments are the means through which cooperation services will be put into action.

The abovementioned action plan will be complemented by two strategies for relationships and linkages, by means of which IICA will seek to organize networks and strategic partnerships to strengthen the application of a collaborative approach with other international agencies, and which will allow for: a) developing a foundation of shared knowledge; b) strengthening inter-agency, joint technical cooperation activities; and c) fostering horizontal cooperation. The second strategy will involve the development of institutional capabilities for increasing external resources to complement the Regular Fund, through the development of project proposals presented to bilateral donors and international agencies.

The 2018-2022 MTP proposes a technical cooperation model in which actions are carried out based on national cooperation agendas, as well as regional and hemispheric agendas. These agendas, which will be developed through broad consultation processes with key stakeholders and strategic partners, bring the Institute's actions closer to the demands of stakeholders involved in agriculture and rural life in countries across the Americas.

Chapter V describes a proposal for an institutional management system that facilitates budgetary planning, programming and administration based on austerity and transparency, as well as the consolidation of a monitoring and evaluation system that makes it possible to assess the impact of IICA's technical cooperation actions. This proposal seeks to strengthen the notion of a results-oriented IICA that executes resources more effectively and efficiently for the benefit of its member countries.

Lastly, Chapter VI defines the operational framework for the corporate services that will facilitate the provision of technical cooperation with greater flexibility and in a manner

that is attentive to the demands and real needs of the member countries; this, in turn, will enable the Institute to achieve high levels of effectiveness. This chapter also describes the guidelines for the strategy that the Institute will implement to improve its internal structure, administrative processes, human talent management, and technological support services in the areas of information and communication. It also outlines the manner in which the Institute will support the execution of technical cooperation actions.

## I. MISSION, VISION, PRIMARY PURPOSE AND VALUES

IICA's **mission**, which is determined by its institutional mandate, is defined in Article 3 of the Institute's foundation charter<sup>1</sup> as follows:

*“to encourage, promote and support our Member States in their efforts to achieve agricultural development and rural well-being,” which the Institute states it will achieve “through international technical cooperation of excellence.”*

Over the years, this mandate has been interpreted in several different ways, depending on the specific objectives, primary instruments of action, and thematic areas prioritized during each period.

These varying interpretations have been shaped not only by international conditions, but also by the economic and political situations faced by the member countries during each successive period for which a Medium-term Plan (MTP) was prepared.

Throughout his campaign, as well as during his inaugural address on 15 January 2018, the current Director General expressed his intention to honor the institution's original mandate through a modern, integrating approach that takes advantage of knowledge available and existing opportunities at the regional and global levels.

The new guidelines defined by the current administration are synthesized in 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.”*

Consequently, the provision of technical cooperation to the member countries **will** continue to be the **primary purpose** and central focus of the work that the Institute will carry out during the 2018-2022 period; however, this technical cooperation will be strengthened and will rely on knowledge management as its primary instrument. To this end, the Institute will undertake all work necessary to develop professional networks and establish inter-institutional agreements with a broad range of agencies, institutions, private-sector entities and civil society organizations.

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<sup>1</sup> General Secretariat of the Organization of American States. 1979. Convention on the Inter-American Institute for Cooperation on Agriculture. Washington, D. C., United States of America. (Treaty Series No. 48, OAS Official Documents, OAS/Ser.A/25).

IICA's mission, vision and primary purpose are based on the following values, which characterize the Institute's organizational culture, as well as the work and behavior of each staff member.

1. **Respect for diversity:** The Institute values and respects the political, economic, social, cultural and environmental diversity of the countries and populations that make up IICA; the Institute is committed to respecting the diversity of its human resources as well as fostering their development.
2. **Gender equality and equity:** The Institute promotes a gender perspective and the mainstreaming of a gender-based approach in its internal institutional management as well as in the technical cooperation it provides to the member countries in order to achieve agricultural development and rural well-being.
3. **Environmental responsibility and conservation:** The Institute is mindful of the deterioration of natural resources as well as the negative impacts of climate change on development, and therefore fosters sustainable agricultural practices and conducts its work in a smart and sustainable manner in order to achieve a balanced use of natural resources in all of its activities.
4. **Collaborative work:** As an institution that acts as a bridge between topics, countries and regions, IICA values and fosters the establishment of networks, dialogue and supportive collaborative work between the different internal and external stakeholders that make up the Institute.
5. **Institutional efficiency:** The Institute values efficiency in the work and activities that it carries out, and promotes a technical cooperation model that is geared toward efficiency and excellence. Internal processes focus on the achievement of institutional objectives and are characterized by flexibility, decentralization and empowerment.
6. **Honesty and transparency:** The Institute is characterized by its transparency and honesty in carrying out its processes and actions, respectively. IICA possesses deft and efficient administrative systems that solidify and boost the Institute's confidence in its administration of internal funds as well as external resources.
7. **Continuous learning:** Technical cooperation is founded on and strengthened by knowledge management; IICA values and fosters interest in continuous learning and efforts to achieve it, as well as the development of knowledge networks and learning processes based on accumulated experience.

## II. TRENDS IN GLOBAL AND REGIONAL AGRICULTURE AND CHALLENGES FOR AGRICULTURE IN THE REGION<sup>2</sup>

Beginning in 2004, with the spike in global demand for food and commodities in general, the Americas experienced a period of strong economic growth. The crises of the 2009 to 2016 period, which rocked the economies of the developed world, curtailed this expansion, although not to the same extent in each country. During this period, LAC also made significant strides in boosting food security (undernutrition declined from 9.1% in 2004 – 2006 to 6.4% in 2014 – 2016<sup>3</sup>) and in reducing poverty,<sup>4</sup> which fell from 39.7% to 28.2% over the same period. Particularly in countries like Chile, Brazil, Peru, among others, these gains also coincided with important structural transformations in the global economy, and specifically in the agriculture sector.

Economic expansion during this period, which was fairly widespread in the region, was bolstered to a great extent by the growth in global demand for commodities, specifically food, and by the resulting price increases that were particularly steep during 2004 to mid-2008, and 2009 to mid-2011, when nominal food prices rose at monthly rates of 1% and 1.5%, respectively.<sup>5</sup> This enabled net exporters of these products, such as the Southern Cone countries (in the case of food); Venezuela, Mexico and Ecuador (energy); and Andean countries, such as Peru and Chile (minerals), to increase the value of their exports and their levels of economic activity. Similarly, other countries such as Bolivia, Nicaragua, Costa Rica and Colombia also benefitted through the expansion of their export capacity in one or more groups of these commodities.

The region has made significant strides and the agriculture sector has played a key role in these achievements. Some countries have become dominant players in the global food market and contribute significantly to global food security. Moreover, in some countries,

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<sup>2</sup> This chapter is based and relies heavily on data and content from three main documents: a) an unpublished document prepared by Martín Piñero, Gustavo Gordillo and Andrew Jackue for the Regional Office for Latin America and the Caribbean of the Food and Agriculture Organization of the United Nations (FAO) based on studies by the following authors: Díaz Bonilla, Eugenio; Soto, Juan; Berdegú, Julio; Tomaselli, Andrés; Maluf, Renato; Trigo, Eduardo; Namdar, Mína; Sotomayor, Octavio; Trejos, Rafael; Santibáñez, Fernando; Butto, Andrea; Mourad, Patricia; Faret, Pablo; Lobo, Luis; López, Dina and Cunningham, Mirna; b) Gordillo, G. Postulados sobre gobernanza y gobernabilidad rurales en América Latina (Proposals on governance and governability in rural Latin America - first draft). Grupo Alianza FAO/IEP (FAO/IEP Alliance Group); and c) ECLAC (Economic Commission for Latin America and the Caribbean, Chile); FAO (Food and Agriculture Organization of the United Nations (FAO), Italy); IICA (Inter-American Institute for Cooperation on Agriculture, Costa Rica). 2017. The Outlook for Agriculture and Rural Development in the Americas: A Perspective on Latin America and the Caribbean 2017-2018. San Jose, Costa Rica, IICA. The information for other documents that have been cited less extensively is provided in notes at the bottom of the page.

<sup>3</sup> More information in FAO (Food and Agriculture Organization of the United Nations, Italy). 2017. Food Security Indicators (online). Rome. Italy. Consulted on 15 Apr. 2018. Available at: <http://www.fao.org/economic/ess/ess-fs/ess-fadata/cn/#.WvfGkmgvzIU>.

<sup>4</sup> ECLAC (Economic Commission for Latin America and the Caribbean, Chile). 2018. CEPALSTAT (online). Santiago, Chile. Consulted in May 2018. Available at: <http://estadisticas.cepal.org/cepalstat/portada.html?idioma=english>

<sup>5</sup> IICA (CAESPA) estimates based on IMF data.

surpluses arising from greater economic activity were used to increase the supply of public goods, and in particular, to strengthen and expand food security and social welfare programs, including adopting legislation to guarantee basic human rights such as access to food security. Successes in reducing extreme poverty, at least in countries like Brazil, Chile and Mexico, among others, is one positive aspect of these 15 years of regional economic growth. On the other hand, efforts to eliminate inequality and reduce extreme rural poverty, especially in indigenous communities, have proven to be less effective than in urban areas. In 2014, extreme poverty in the rural areas was more than three times greater than in the urban areas (27.6% vs. 8%).<sup>6</sup>

A defining feature of the cycle of economic growth in recent decades, driven by financial, technological and trade globalization, has been the widening gap between the wealthiest sectors of the society and the lower middle class, and in particular, the most disadvantaged who have become more dependent on social programs. One social group that has been particularly hard-hit has been the youth, who find it increasingly difficult to secure paid employment. This phenomenon of more inequality within a climate of economic growth has had important economic and political consequences within the countries, which have started to affect global governance.

On the other hand, the international conditions that triggered this favorable cycle of economic growth, increased food demand and production at the global level, and improvement in social conditions in the region's rural areas gradually disappeared and are no longer present. Consequently, the Food and Agriculture Organization of the United Nations (FAO) reports that food insecurity affected approximately 42.5 million more people in LAC in 2016, when compared to 2015.<sup>7</sup>

In this new regional climate where the well-being of lower income groups has suffered and which has been marked by greater insecurity with respect to maintaining social policies, the new international and regional context is posing new and particularly complex challenges. Analyzing and correctly interpreting this context is essential to defining the development strategies of member countries as well as IICA's technical cooperation initiatives.

## 2.1. Global scenario

From the perspective of the Americas, the evolution of the context will be dominated by four major trends: a) trends in the world economic cycle, b) restructuring of international trade in a multipolar world, coupled with reforms in the institutions linked to world governance, c) the increasing impact of digitization, automation in the labor market and the use of biotechnology d) the impact of climate change.

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<sup>6</sup> ECLAC (Economic Commission for Latin America and the Caribbean, Chile). 2018. CEPALSTAT (online). Santiago, Chile. Consulted in May 2018. Available at: <http://estadisticas.cepal.org/cepalstat/portada.html?idioma=english>.

<sup>7</sup> FAO ((Food and Agriculture Organization of the United Nations, Italy). 2017. The State of Food Security and Nutrition in the World (online). Rome, Italy. Consulted on 15 Apr. 2018. Available at: <http://www.fao.org/3/a-i7695e.pdf>.

### 2.1.1. Evolution of the world economic cycle

A significant feature is the stagnation in the global economy during the second decade of the XXI century, which reached its lowest point in 2016. However, both the demand for food and the prices of agricultural commodities remained at reasonable levels, sustained by demands from some emerging countries, particularly China. The economy recovered somewhat as of 2017, due to a great extent to strong economic growth in India and China (with annual growth rates of 6.7 and 6.9%, respectively<sup>8</sup>). Slow global economic growth is expected to continue for a few years more, in parallel with the final phase of the world cycle that is currently underway. This downturn was driven by low performance in the economies of most developing countries. However, it should be noted that the aforementioned favorable performance of China, India and a few other emerging economies, especially in Asia, have halted the decline in world economic growth, and more so in the global food demand.

Although less favorable than in previous decades, the situation is still relatively conducive to regional agricultural production in terms of markets and prices, suggesting that Latin America will continue to enjoy conditions that foster increased production and the expansion of its agrifood trade. However, this success will depend on its making a concerted effort to increase international competitiveness through the development of its transportation and communications infrastructure, technological innovation and trade policies. The latter will have to carefully take into account the bioeconomy's potential to develop a range of more extensive and complex value chains and the opportunities offered by intraregional trade.

### 2.1.2. International agrifood trade

The agrifood trade within the global context, is being reconfigured according to three primary structural trends.

The **first** is an increasingly multipolar world or fragmented globalization, in which multilateral agreements play a diminishing role. These trends were evident at the World Trade Organization's (WTO) Eleventh Ministerial Conference, where countries could not make progress on any substantive trade topic. This was especially evident in agriculture-related issues, which may foreshadow a possible deadlock in agricultural negotiations in the future. One positive outcome would be for some countries to prioritize the signing of bilateral agreements and to possibly join together to establish regional blocs.

Trade preferences, and consequently trade flows, will be affected by this new institutional architecture, which will have greater capacity and flexibility to foster agreements between less dominant players, but will require the formulation of complex,

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<sup>8</sup> IMF (International Monetary Fund, United States of America). World Economic and Financial Surveys. World Economic Outlook Database (online). Washington, D.C., United States of America. Consulted on 15 Apr. 2018. Available at: <http://www.imf.org/external/pubs/ft/weo/2018/01/weodata/index.aspx>.

flexible and proactive strategies for global insertion. This poses a challenge, particularly for those countries in the Americas that have been less successful in integrating themselves into the global economy. On the other hand, new trends in regional policy could facilitate a resurgence of trade agreements within the Americas.

The **second** trend is the emergence of global value chains as a dominant feature of global agrifood systems. This will coincide with an increase in the sale of intermediate goods and, in particular, in intra-firm trade at the world level. The development of these value chains has come with greater foreign investment that reinforces the need for regulatory state policies, on the one hand, and on the other, is an important factor in facilitating intraregional trade. Both elements are linked to the development of regionally funded companies.

Finally, the **third** trend is the growing dominance of a few countries, including some in the Americas that have become the major net exporters of food. This trend is particularly important because of the region's expanding role in the global supply and sale of food, accounting for 15% of global food exports in 2016,<sup>9</sup> and its growing contribution to the reduction of global food insecurity. It is extremely important for Latin America to play a more active role in developing this new global trade architecture to better integrate itself into global trade. The Caribbean represents a special case with respect to this trend. Given that this sub-region is a net food importer, particularly to satisfy the demands of its main economic activity, tourism - trade trends and its own insertion into the global market require a specialized approach that allows it to strengthen the capacity of local production to supply both the local population as well as the privileged market of the tourism sector.

### **2.1.3. Impact of digitization, automation in the job market and the use of biotechnology**

There has been a rapid and irreversible rise in new labor-saving technologies, which is having a profound effect on the organization of production and the generation of employment. These effects are also starting to be felt in agricultural production, particularly through the so-called agriculture 4.0 (which relies on digitization, robotics, complex biotechnology techniques, big data, etc.). These technologies, which are becoming increasingly common in developed countries, are closely linked to the agriculture sector and are the basis for achieving “sustainable intensification” in agriculture as a means of increasing production through more efficient use of inputs, while reducing carbon emissions.

These technologies will also significantly affect the agrarian structure and rural employment, which could increase inequality in rural areas if the entire community is not provided with the requisite public resources to allow them access to these technologies.

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<sup>9</sup> WTO (World Trade Organization, Switzerland). 2018. Time series on international trade (online). Geneva, Switzerland. Consulted on 5 May 2018. Available at: <http://stat.wto.org/StatisticalProgram/WSDDBStatProgramHome.aspx?Language=E>.



Although there is limited information available on the impact of Industry 4.0 technologies on agricultural production, it is already clear that they will generate huge economies of scale and will improve our capacity to minimize climate change-related risks. This will facilitate and drive increased concentration, capitalization and complexity in agricultural enterprises. Insofar as the impact of these technologies on employment is concerned, it is apparent that routine jobs will quickly be replaced by others that focus primarily on the ability to make decisions based on information available in digital format. Although the final net effect on the reduction of employment in rural areas is difficult to predict, the types of skills required, and the levels of remuneration will be significantly affected.

Growing technological infusion will be accompanied by increased presence and involvement of the private sector, which not only produces and sells a significant amount of the technology for agroindustrial production, but also generates some of the expertise needed for its development and production.

On the other hand, the new technology is boosting the creation of jobs that require greater technical knowledge and therefore attract higher salaries. This will provide an incentive for young people to remain in the rural environment. One's ability to take advantage of the opportunities offered by new types of employment will depend on the level of training completed, and therefore it is essential that the State provide training opportunities in the use of Industry 4.0 technologies.

With respect to the use of biotechnology and biosecurity in agriculture, with the former being defined as “any technological application that uses biological systems, living organisms, or derivatives thereof, to make or modify products or processes for specific use,”<sup>10</sup> these have become the driving force for innovation, development and productivity in the agriculture and agrifood sectors worldwide, and particularly in the Western hemisphere. The application of diverse biotechnological techniques and the biosecurity regulatory frameworks that govern them has contributed to significant progress in increasing production, crop resistance to pests and diseases, and in improving weed management, drought tolerance, the quality of products and processes, traceability, etc.<sup>11</sup>

Notwithstanding the technological and regulatory advances in these sciences, information on biotechnology and biosecurity is still inadequate. This has caused us to lose out on opportunities to more effectively apply these technologies to resolve problems in areas such as crop adaption to salinity or drought stress conditions, effective response to new diseases,

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<sup>10</sup> United Nations, 1992. Convention on Biological Diversity (online). In United Nations Conference on Environment and Development (1992, Rio de Janeiro, Brazil. Consulted on 29 May 2018. Available at <https://www.cbd.int/doc/legal/cbd-en.pdf>

<sup>11</sup> ISAAA (International Service for the Acquisition of Agri-biotech Applications, United States of America). 2016. Global Status of Commercialized Biotech/GM Crops: 2016 (Online). Ithaca, United States of America. Consulted on 11 June 2018. Available at <http://www.isaaa.org/resources/publications/briefs/52/download/isaaa-brief-52-2016.pdf>. (ISAAA Brief No. 52 - 2016).

reduction of agrochemical levels in the environment, soil and water recovery (bioremediation), the development of more energy-efficient products and processes, etc.

#### 2.1.4. Impact of climate change

Global warming and its impact on climate has become a major challenge for mankind. Recent projections suggest that, without decisive action at the global level to reduce greenhouse gas (GHG) emissions, by 2050 the Earth's average temperature could increase by 2.5°C. This increase in temperature could in turn produce significant changes in rainfall regimes, more extreme events and an increase in the intensity and frequency of storms and hurricane winds. At the recent XXI International Climate Change Conference (COP21), countries agreed to work to reduce GHG emissions and thus limit the temperature increase to 1.5°C. Achieving this goal will depend on individual actions in all countries, and in particular in the larger contributors to GHG emissions. While it is difficult to predict if a sufficient majority of countries will abide by the commitments undertaken at COP21, progress will depend primarily on the efforts and leadership that the European Union (EU) is able to offer, the discipline of China and India and the collaboration of developing countries. Thus, the role of Latin America and its relationship with the European Union in this regard will be extremely important.

The impact of increased global warming on climate conditions (particularly the frequency of extreme events: rainfall, hurricanes, etc.), on natural resource sustainability, human and domestic animal diseases, and on the destruction of agricultural infrastructure and production is already evident, and is expected to worsen significantly. The impact will affect different parts of the hemisphere in different ways, and will be greater in the poorer regions and in subsistence agriculture. The effects will be particularly negative in the mid-latitude subtropical region of South America, the Caribbean and Central America and in some areas of Mexico, which are expected to experience droughts and more sporadic rainfall patterns. The Caribbean could become more vulnerable to storms and hurricanes. These climate changes would negatively impact agriculture's productive capacity and the well-being of the population in many rural areas around the continent. Building greater resilience to these conditions is one of the primary challenges.

Furthermore, according to estimates of GHG emission inventories based on guidelines proposed by the Intergovernmental Panel on Climate Change (IPCC), agriculture, and in particular the livestock industry, contributes significantly to GHG emissions. Several important observations must be made in this regard. The **first** is that a series of recent studies<sup>12</sup> suggested that the level of emissions is primarily a factor of the type of ecosystem and the technologies used in production. These estimates indicate that extensive agriculture, which involves direct seeding and low use of agrochemicals, such as what is practiced in the temperate zones of the Americas, results in a much lower global emissions balance.

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<sup>12</sup> Viglizzo, E; Florencia, R. 2017. Secuestro de carbono en tierras rurales: ¿un eslabón perdido en los inventarios? (Carbon Sequestration in Rural Areas: a Missing Link in Inventories?). Buenos Aires, Argentina, GPS/SRA/CONICET.

This is more so in permanent pasture livestock systems, in which carbon sequestration through the roots of the plants used in these productive practices compensates for emissions. This information suggests that emissions from agriculture are less than estimated, and with the correct use of technology, can be further reduced.

On the other hand, the **second** observation is that deforestation and the burning of forests that is still practiced in many countries in the Americas are the primary source of agricultural GHG emissions. For this reason, agricultural production has a duty to make adjustments in its production systems, by eliminating deforestation and burning, and in so doing, contribute to lowering GHG emissions.

Similarly, agricultural practices should be adapted to the new temperature conditions and rainfall patterns. The Caribbean, the Andean sub-region, the Central American Dry Corridor and central Brazil are sub-regions that will bear much of the brunt of climate change, and therefore will require complex early warning systems and increased capacity to respond to emergencies triggered by extreme climate events.

On the other hand, a greater level of adaptation and resilience to the negative impact of climate change is needed. This will call for private and public sector investment in irrigation, precision and controlled environment agriculture, agricultural insurance, etc., requiring public and private sector collaboration.

The **third** observation relates to the occurrence, frequency and distribution of pests and diseases affecting crops and livestock. Seasonal pests and diseases are a well-known feature in many places in the Americas, where farmers take measures to reduce the impact of outbreaks. However, climate change has affected the distribution of pests and diseases, subjecting producers to unfamiliar risks, without having the knowledge or tools that would allow them to protect their crops and animals.

Technology should be applied to make it possible to predict the distribution and future occurrence of pests and diseases, and to develop interventions that would prepare farmers and provide them with the strategies needed to maintain productivity and profitability in their operations.

The **fourth** observation refers to the possible impact of climate change on soil and water. Rising temperatures may result in increased evapotranspiration in plants and decreased water infiltration, effects which reduce the water available for production and domestic purposes, on the one hand, and also accelerate soil deterioration, on the other. The World Meteorological Organization (WMO) reports that 2015, 2016 and 2017 have been the warmest years on record.<sup>13</sup>

Declining rainfall levels lead to reduced water volumes and depleted aquifers and springs, raising the cost of water and food insecurity by diminishing the production capacity of crops and livestock and reducing forest and soil cover. The increase in the

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<sup>13</sup>WMO (The World Meteorological Organization, Switzerland), 2017. Statement on the Status of the Global Climate. Geneva, Switzerland.

number and frequency of extreme events and erratic rainfall may trigger erosion and land slippage on hillsides, as well as increased run-off and less water infiltration, leading to multiple repercussions: land slippage and flooding, reduced water quality, contamination, sedimentation, damage to water systems, increased food insecurity and damage to human health.

## **2.2. Primary trends in world and regional agriculture**

### **2.2.1. Demographic trends and growth of poverty and inequality in rural areas**

The annual population growth rate has dropped to 1.6%, which places the region in an intermediate position with respect to the rest of the world. It is forecast that this rate will continue to decline, but will remain positive, at least until 2050. However, the population will age further (UN estimates project that by 2030 the portion of the LAC population over 60 is expected to surpass the number of persons entering the work force, i.e. young people between 15 and 24 years of age). This will be a factor in rural areas, in particular, due to rural-urban migration. Urbanization will increase, with large cities playing a less dominant role (UN estimates project that by 2050, 86% of LAC's population will reside in urban areas). Intermediary cities will become progressively more important, accommodating an increasing share of the population and level of economic activity, given that they help to bridge the rural and urban areas.

Poverty reduction in recent decades appears to have stabilized to 2009 levels and in the future, the highest levels of poverty will be concentrated in urban areas, particularly on the outskirts of large cities where inequality has increased. Public policies implemented over the last two decades must be carefully assessed and based on lessons learned, efforts must be redoubled to efficiently tackle poverty and inequality within the region and especially in the rural areas. The role and development of family farming, institutional conditions for rural employment and the expansion of social protection programs into rural areas are actions that will be particularly important in increasing and consolidating the well-being of the overall population in the rural territories.

Moreover, LAC's rural population has been particularly affected by migration, due in part to high unemployment, violence, low agricultural productivity, natural resource degradation and high exposure to natural disasters. However, historically, migration has been less in those rural areas with lower rates of poverty and food insecurity. More recently, this phenomenon has increased through globalization (the appeal of modern, big-city life) and climate change. Over the last ten years, economic, social and environmental pressures have caused the rural population of LAC to decline at a rate of 0.18% annually, while the urban population has grown by 1.54% annually.<sup>14</sup> In addition to decapitalization and an aging population, migration has led to the disintegration of the family in rural areas and a loss of cultural identity, among other things.

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<sup>14</sup> IICA (CAESPA) based on World Bank data

### 2.2.2. Trends in consumption habits, malnutrition and food security

The globalization process and increases in per capita income that have led to greater consumption and a wider range of available foods are changing eating habits. There are four primary trends in this regard. The **first** is a decline in world and regional food insecurity, which coincided with the period of strong economic growth and the implementation of specific public policies over the last two decades. According to FAO, this trend was interrupted in 2015, and in the last two years, 40 million additional people have re-entered poverty. It is hard to predict what the global trend will be in coming years, but the projected low economic growth at the global and regional levels, and the progressive deterioration of the global economic and policy framework to foster the overall well-being of the population, suggests a less than favorable outcome. Thus, the region's implementation of public policies on food security to counteract this global situation will be extremely important.

The **second trend** is the surge in the consumption of proteins, particularly from animal sources, in countries undergoing rapid growth in income and urbanization. Estimates indicate that in order to feed a larger, wealthier, more urban global population with diets that are higher in animal protein, global food production must increase by at least 70 %<sup>15</sup>; and, in the case of the developing world, by as much as 100%. Water-intensive production of meats and cereals should increase by at least 135% and 43%, respectively. This increase will place additional pressure on agricultural natural resources, and if a series of good agricultural practices are not applied, will potentially make agriculture a greater contributor to global warming.

The **third trend** is the adoption of eating habits, in which processed foods account for the majority of total consumption. This food trend appears to be linked to higher levels of obesity and malnutrition observed across the world and throughout the region. It must be underscored here that obesity is a particularly serious problem in the hemisphere.

Finally, the **fourth trend**, which is expressed more strongly in high-income brackets, and particularly in more developed countries, is greater consumption of fresh fruits with special safety and quality attributes. Organic produce and agro-ecological foods, for example, are generating new markets and in turn new production opportunities.

This complex and multidimensional situation demonstrates the importance of evaluating how food systems are evolving at the world and regional levels and implementing the requisite public policies to direct these changes, so as to ensure better options that provide adequate nutrition.

### 2.2.3. Trends in the availability of agricultural natural resources and changes in agrarian structures

The region has been blessed with a wealth of agricultural natural resources (land, water, biodiversity). The inevitable pressure from greater use of these resources will

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<sup>15</sup> FAO (Food and Agriculture Organization of the United Nations, Italy). 2009. How to feed the world in 2050. Rome, Italy.

increase over time, making it necessary to formulate regulatory and environmental protection policies to ensure economic, efficient and sustainable use and to prevent degradation.

The efficient and sustainable use of agricultural natural resources and the contribution of agriculture to economic development, to the elimination of malnutrition and to the achievement of food and nutritional security bear some relation to the type of agrarian structure. In a survey of eleven countries where up-to-date information was available, five countries (Paraguay, Argentina, Uruguay, Chile and Venezuela), in descending order, had a high concentration of agricultural land ownership, and had seen a decline in the number of holdings and an increase in their average size. In contrast, in Brazil, Peru, Mexico, Costa Rica, Nicaragua and El Salvador, the situation was reversed, showing increasingly fragmented land use and an increase in smallholdings.

These processes are linked to technological change and to public policies implemented in the past, and have important consequences for economic development, the structure of agricultural production, income distribution and poverty in the agriculture sector. Understanding and bolstering these processes would appear to be a major priority, especially given its impact on the development and role of family farming as a source of production and income in the rural areas.

#### **2.2.4. Trends in technological development and innovation**

During the last two decades, the region, especially some countries and sub-regions, and certain production chains within them, has experienced rapid technological development due to scientific advances made in biology, information technology, communications, and in organization and management.

The impact of these technologies on production, in terms of volume, increased productivity, and consequently lower food costs, is evident, according to production, consumption and price statistics. Between 2005 and 2014, primary agricultural production in LAC grew at an annual rate of 2.7%, of which more than 50% (1.4 percentage points)<sup>16</sup> could be attributed to these factors. However, notwithstanding the positive effects, it has also been argued that these technologies have led to economic, social and biological changes that should be monitored and regulated by the State on an ongoing basis. For example, there have been changes in the production structure, concentrated agroindustrial development, changes in eating patterns, including malnutrition and increased obesity, as well as biosecurity and ecological threats.

In the future, technological innovation will become more deeply entrenched in the agroindustrial sector and will spread rapidly to other countries, regions and products, which will create extraordinary production opportunities and greater and more complex structural challenges that will impact the rural areas and the economy in general. Over the next few years, the following technologies will increase and will transform agroindustrial production

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<sup>16</sup> IICA (CAESPA), estimates based on data from Fuglie, K; Rada, N. (October, 2017).

and its relationship to the rest of the economy: a) sustainable intensification, b) systems for genetic improvement of plants and animals, c) crop sensors linked to mobile devices, d) the use of biometrics in livestock farming, e) precision agriculture, f) laser technologies for land leveling in irrigation systems and g) the use of big data.

## **2.3. Institutional and public policy trends in the region**

### **2.3.1. Trends in regional integration**

Over the last two decades, LAC has been actively engaged in regional integration processes, at both the political and economic levels, the former to a much greater extent. The Union of South American Nations (UNASUR) and the Community of Latin American and Caribbean States (CELAC) are examples of integration processes with goals, interests and achievements that are primarily political. Like the North American Free Trade Agreement (NAFTA), the Southern Common Market (MERCOSUR), the Summit of the Americas, the Free Trade Area of the Americas (FTAA), the Caribbean Community (CARICOM), the Organization of Eastern Caribbean States (OECS), and the Central American Integration System (SICA), which all preceded it, the Pacific Alliance is among those initiatives that have focused on economic considerations and have progressed sporadically and to varying degrees.

In a multipolar global context and given the dim prospects for a dynamic international trade environment, regional agreements are particularly important and should be considered a major public policy priority. Recent political statements suggest that some regional agreements that facilitate aspects of economic integration may be strengthened to allow the region to better respond to the aforementioned fragmented globalization. This may include placing greater emphasis on developing complementary value chains and on coordinating efforts for trade negotiation within the region and with other regions.

### **2.3.2. Institutional dimensions and the role of the state**

Over the last two decades, the governments of certain countries within the region have played a decisive role in strengthening social inclusion programs that focus not only on education and health as traditional and essential public goods, but also place increasing emphasis on civil rights and social protection programs. With respect to rural populations, these programs are now starting to include conditional payments, which is an element that could be expanded to better align social protection with programs to stimulate production.

In the agroindustry sector, this increased involvement has primarily manifested itself in two ways. Firstly, it has expanded the concept of territorial development to include increasing State presence in rural areas, thus coordinating the efforts of different government agencies. These strategies have included: a) increasing efforts to eliminate food insecurity, b) greater focus on family farming when defining differentiated state policies to specifically target this social group and c) providing increased support through extension services, credit and inclusion in social protection programs. Secondly, major attempts have

been made to increase the participation of small-scale farming in value chains and to regulate the distribution of the economic surplus within some of them.

The expansion of these programs and policies was a political response, at least in part, to growing demands from societies that have become more politicized and conscious of both the enormous inequalities that exist, and also of constitutional rights. From an economic perspective, the new programs were made possible through increased public revenue, bolstered by high international prices for agricultural products and strong economic growth rates in most countries of the region. In the future, given the lower economic growth rates that are projected for the coming years, the survival of these programs will depend on the political will of governments and the level of influence of the social sectors involved.

As far as public policies for agriculture are concerned, countries have adopted their respective policy instruments, which in most cases have emanated exclusively from government, specifically from the Ministry of Agriculture. However, in other instances and at particular moments in time, countries have formulated agricultural public policies relying on the input of the executive and legislative powers as well as various interested stakeholders, which has lent a sense of State policy-legitimacy to these agreements. A case in point is the development each five years of a public policy on agriculture in the United States. One of the most important public policies that has been under discussion in 2018 in the Congress of that country is the instrument commonly known as the Farm Bill, which stands to have a major impact on the support offered to producers of specific basic products and on policies related to soil conservation and environmental management, risk management, sanitary and phytosanitary protection, food safety, energy, research, rural development and nutrition for the United States population and the world in general. The policies proposed in this legislation will have a long-lasting impact on agricultural policy direction, not only for the United States but also for most of its trading partners.

### **2.3.3. Trends in civil society**

Over the last two decades, the prevailing conditions and political orientations in various countries of the region have facilitated the development of opportunities for civil society movements, including those representing regional interests and in particular, indigenous peoples, and their increased involvement in building social power and defining public policies. This has been particularly important in programs aimed at poverty reduction and improved food security, territorial defense, food sovereignty and environmental protection. The process of defining these distinct civil society opportunities to better coordinate and rationalize their demands has been a difficult one, given the legal, institutional and political complexities. Despite these difficulties, there is a growing social and political need to better organize these social currents and the way in which they interface with local governments.

### **2.3.4. The private sector and agricultural investment**



The agriculture sector has proven itself to be a highly profitable industry with a socioeconomic impact that surpasses all other sectors. Private capital could play a significant role by injecting capital into areas such as infrastructure, climate-smart agriculture, financing and research and development, among other needs of the sector and the rural environment. For example, the average rate of return on investment in agricultural research and development is more than 14%.<sup>17</sup>

In the specific case of LAC, its extensive natural resource base and biodiversity, as well as the projected growing demand for food and other biological products has caused agriculture in the region to spark the interest of many private investors. More than half of the increase in agricultural production in recent years can be attributed to these investments and to product improvements. Other than investments in the production of primary products and agricultural fibers, today LAC boasts successful cases of private investment in the production of bioplastics, nutraceuticals, biofuels, functional foods, bioinputs, *inter alia*, albeit just a few. Most LAC agriculture is performing well below its true potential, due in part to limited public and private investment.

Agriculture in LAC has a leading role to play in ensuring world food security and improving the well-being of its rural population. Achieving this will depend, in great measure, on the extent to which we are able to garner increased private investment in agriculture (Some studies suggest the need for a 50% increase in the current level).<sup>18</sup> United Nations estimates indicate that eliminating poverty and hunger in the world will require a USD 140 billion per year investment in agriculture<sup>19</sup> and rural development, of which USD 50 billion should be from private sector sources (mainly direct investments in farm facilities and processing).

## 2.4. Opportunities and challenges for agriculture in the region

The international environment, as it relates to the Americas, has undergone rapid and profound changes over the last two decades, as has the region itself. The region is therefore faced with new opportunities and challenges that should be addressed in development strategies and in the implementation of public programs and policies. The first opportunity that is evident when considering trends in the region is the potential benefits to be gained from the important role of agricultural production in the economies of most countries in the Americas, as well as favorable conditions for increased growth and development through technological innovation and the relatively favorable international demand. Agricultural

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<sup>17</sup> IDB (Inter-American Development Bank, United States of America). 2018. Agro-Industrial Revolution: From Farms to the World Market (online). Washington, D.C., United States of America. Consulted on 29 May 2018. Available at: <https://bit.ly/2yhw1OA>

<sup>18</sup> Panda Agriculture & Water Fund. 2014. China anuncia al mundo que invertirá en agricultura (China announces to the world that it will invest in agriculture) (expanded) (online). Barcelona, Spain. Consulted on 29 May. 2018. Available in Spanish at [https://www.finect.com/grupos/panda\\_agriculture\\_water\\_fund/articulos/china\\_anuncia\\_al\\_mundo\\_que\\_invertira\\_en\\_agricultura\\_ampliacion](https://www.finect.com/grupos/panda_agriculture_water_fund/articulos/china_anuncia_al_mundo_que_invertira_en_agricultura_ampliacion). Original letter in English by Ding Xuedong published in the Financial Times of 17 June 2014.

<sup>19</sup> World Bank. 2018. Future of food: maximizing finance for development in agricultural value chains (online). Washington, D. C., United States of America. Consulted on 29 May 2018. Available at <https://openknowledge.worldbank.org/bitstream/handle/10986/29686/125295-WP-PUBLIC-futureoffoodpaperweb.pdf?sequence=1&isAllowed=y>.

production could be the cornerstone of sustainable development and an essential tool in reducing poverty and achieving greater equality throughout the hemisphere. This will call for a profound cultural change in which the urban and industrial sectors embrace the idea that successes in agroindustrial production belong to the country as a whole, and similarly, the benefits of success should contribute to the welfare of all.

On the other hand, strengthening agroindustrial production in the region is not only beneficial and necessary for the region and for its development and prosperity, but also for the world, because the region must realize its potential for sustainable food production in order to achieve global food security.

However, in defining strategies and policies to fully exploit these opportunities and to create a competitive and inclusive agriculture sector, the considerable heterogeneity of regional agriculture must not be overlooked. It encompasses modern, competitive and export-oriented sectors that coexist with sectors that are dominated by small-scale farmers, often operating in less productive ecosystems with insufficient access to production inputs and the basic livelihood needed for general well-being. In Central America, for example, of the 2.4 million families involved in family farming, 68% are illiterate, 63% are poor, close to 50% have no access to electricity and more than 33% do not own land.<sup>20</sup> This kind of farming is the source of economic subsistence and food for a significant percentage of the population, including the most disadvantaged in the society. Yet, even under these conditions, they account for a considerable share of total food production in the region.

These production and structural conditions in rural areas will require immediate attention in order that the region may realize its productive potential and help to ensure a decent standard of living for the entire rural community.

Some of the most significant opportunities and challenges that have arisen are as follows:

- The weakening of mechanisms for global governance, and specifically multilateral trade regulations, has created new and considerable vulnerability in the region. In this context, regional integration mechanisms have become particularly important because they increase the possibilities for intraregional trade and strengthen the potential role of the region in international negotiation forums. This is even more critical in international forums that discuss positions and make decisions on substantive issues related to agriculture, the environment, global food security and agricultural trade.
- Therefore, participating fully in perfecting the institutional architecture of multilateral and regional trade is a necessity. This would better facilitate the insertion of the region in international markets and its increased presence in international trade, despite the less favorable conditions that are forecast for the global economy. It will require better

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<sup>20</sup> ECLAC (Economic Commission for Latin America and the Caribbean, Chile); FAO (Food and Agriculture Organization of the United Nations, Italy); IICA (Inter-American Institute for Cooperation on Agriculture, Costa Rica). 2013. *The Outlook for Agriculture and Rural Development in the Americas: A Perspective on Latin America and the Caribbean 2014*. San Jose, Costa Rica, IICA.

integration of primary production into global value chains, ensuring that they are inclusive, and making a special effort to develop regional value chains that assist in expanding intraregional trade.

- The rural sector and agricultural production play an essential role in the economy and in trade in almost all the countries of the region. In fact, in countries that are less dependent on agriculture and rural production, growth in the agriculture sector is at least twice as effective in reducing poverty as growth in other sectors of the economy.<sup>21</sup> The vital importance of rural areas presents an opportunity to increase the contribution of agriculture to national economic development. This would be possible through better use of the region's wealth of agricultural natural resources and technological advances over the last two decades. Precision agriculture, robotics and information sciences, among others, enable greater agricultural productivity and international competitiveness, as well as the development of a sustainable agriculture industry that is more resilient to climate change. This will require the development of competitive and transparent markets that ensure broader and equal access to information, and effectively distribute the economic surpluses generated by these technologies among all economic stakeholders in the production process.
- There is a need to consolidate and build on advances in the well-being of rural inhabitants that were gained during the decades of global economic expansion. This will require the generation of information and formulation of public policies that take into account the status of renewable natural resources, rapid changes in the agrarian structure, the emergence of diverse actors in the society who participate in agricultural production as service providers, the growing importance of intermediary cities, changes in the rural population pyramid (in which the aging of the active population is a predominant feature) and the evolution and transformation of family farming. These situations have subnational, national, regional and global dimensions and the interpretation of medium-term trends will be essential. One particularly important issue will be the total integration of the rural population into the production system. This calls for special emphasis on small-scale agriculture, in order to create production and trade insertion conditions that are conducive to economic growth. On the other hand, rural workers should be afforded decent working conditions and new opportunities that are not restricted to agricultural production. In fact, there is a need to develop a broader vision with respect to the land, which takes into account internal migration processes and non-agriculture employment opportunities, especially for young people.
- The development of global and regional food systems, their relationship to agricultural value chains and their impact on economic development and employment in rural areas are becoming increasingly pressing issues. Furthermore, agroindustrial systems have a major effect on eating habits and by extension on food security and nutrition at the national level and in rural areas. There is a need to design and formulate public policies that channel this development toward food systems that provide adequate nutrition,

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<sup>21</sup> World Bank. 2008. World Development Report: Agriculture for Development. Washington, D.C. United States of America.

requiring more effective alignment of social policies with policies related to health, education and development of the production apparatus.

- Climate change is a global challenge that calls for a global response, which should include: a) production transformation to reduce GHG emissions, b) technological developments and changes in production systems to build resilience and better adapt to new climate conditions, and c) the development of systems for early warning, risk management and post-crisis recovery.
- Globalization, growing agricultural trade (especially in perishable goods), and more recently the impact of climate change, have given new relevance to food health and safety. First of all, the movement of persons, domestic animals and unprocessed foods has made us more vulnerable to pests and the transmission of diseases. The treatment of transboundary diseases should be of high priority, and international organizations should play a key role in these efforts. Moreover, growing trade and increased sophistication in demand will require strict adherence to quality- and safety-related health standards for exports as well as for products consumed in local markets. Given the importance of the region as a global food provider, building the institutional capacity for development, application and compliance with these standards constitutes a major challenge.
- The United States and Canada face challenges with respect to the import and export markets for their products. The movement of food products can enable the entry of pests and diseases that could affect primary production. Moreover, the policies of their trading partners should be based on rules that enable greater predictability and less uncertainty and reduce transaction costs. The countries of the Americas should adopt principles that facilitate trade, in order to protect health and satisfy consumer demands, while promoting agricultural profitability.
- Another major challenge is the development and strengthening of agricultural institutions that are equipped to implement strategies and policies to consolidate and build on advances in poverty eradication, food and nutritional security and gender inequality in the coming decade. The latter requires that actions focus on increasing the economic and legal independence of women and improving their access to production goods and social security. It is also critical that institutions representing and acting for the benefit of gender equality be recognized, consistent with Goal 5 of the 2030 Agenda for Sustainable Development that seeks to *achieve gender equality and empower all women and girls*.
- Similarly, concerns in relation to indigenous communities must be addressed. An important step in this direction would be the development of mechanisms for dialogue between national and regional governments and sectors that represent indigenous communities, with a view to allowing them to participate more effectively in designing and implementing new public policies that take their situation into account and contribute to greater political and economic integration.

## **2.5. Specificities of, and primary challenges in, the hemisphere's subregions**

### **2.5.1. Introduction**

The Americas is an enormous area that includes major subregions with significant geographic and economic differences. It is for this reason that IICA, in defining its Strategic Plan for technical cooperation, has identified five subregions: the Northern, Central American, Caribbean, Andean and Southern subregions.

They each have their own peculiarities, both general and with respect to agricultural production and to the primary challenges and opportunities that they face that merit attention. Two of these areas – the English-speaking Caribbean and, to a certain extent, Central America – exhibit greater internal homogeneity and must contend with particularly complex economic and agricultural development-related challenges that are specific to their situations.

Thus, it seems appropriate for this MTP to describe the specific issues within these two subregions separately, in recognizing the need to define technical cooperation strategies that are specific to each of them.

### **2.5.2. The Caribbean**

Although geographically small in size, the Caribbean is an extremely complex and diverse subregion. It encompasses eleven island nations and three continental countries: Belize, which is part of Central America, and Guyana and Suriname, which are South American countries. The countries vary in size, ranging from Guyana, the largest at 196,850 km<sup>2</sup> to some of the smaller islands that are less than 1000 km<sup>2</sup> in area. The region boasts an extensive subregional institutional framework, represented by regional organizations such as the Caribbean Community (CARICOM), the Organization of Eastern Caribbean States (OECS) and the Caribbean Agricultural Research and Development Institute (CARDI), among others.

The economy is dominated by tourism, although Trinidad and Tobago is a major petroleum producer, and agriculture accounts for the majority of economic activity in Guyana, Dominica and Belize. However, most Caribbean countries have relatively open economies, importing more than 80% of the food that they consume. A significant proportion of these imports supply the consumption needs of the tourism sector. Another problem linked to food importation and to new eating habits, is the rising rate of obesity in most countries of the region.

Agricultural production benefits the economy of most of these countries through the generation of employment. However, insufficient rural employment, especially for young people, is one of the primary problems in the region. For it to develop its production

potential, the region must undertake the necessary transformations that will make it attractive for investment to enable greater technological innovation and vertical integration with processing activities. Developing this strategy will require a recognition that the agricultural structure is dominated by extremely small operations and an aging population. Additionally, logistical limitations make it very difficult to activate vertical integration processes, even those that involve trade within the region and with other countries in the Americas.

The economic diversity of the Caribbean, the fact that most of its countries are islands, and that all of them have small economies, endows the subregion with distinct characteristics, challenges and opportunities that are unlike those in the subregions of the Americas, which also require strategies and approaches to agricultural development suited to their specific situations.

The importance of tourism, a sector that accounts for more than 20% of the gross domestic product (GDP) in two thirds of the countries, represents an opportunity for agriculture that could supply the food demands of this sector. Achieving this via an agriculture sector that is based mainly on small family holdings offers a challenge, but also an opportunity, for local agricultural production. Thus, it may be feasible to consider the development of technology, health and safety, the transportation infrastructure and agricultural trade, both within the Caribbean and between the region and nearby Central and South American countries, as a possible strategy.

Greater vulnerability to the impact of climate change poses another challenge for this subregion, and particularly to the increasing intensity and frequency of natural disasters. Estimates indicate that Caribbean islands are 34% more vulnerable than other countries in the hemisphere, from an economic and environmental standpoint. The problem does not solely affect agricultural production and the sustainability of natural agricultural resources, but also the physical infrastructure and living conditions of the rural population.

Developing a strategy to tackle these daunting challenges is a matter of urgency. It will require a thorough understanding of the differences and similarities between Caribbean countries, and the opportunities that they can exploit to achieve greater economic integration with other nations in the hemisphere.

We cannot fail to mention our special commitment to Haiti, a country that must contend with greater challenges than the other countries in the hemisphere, given its environmental vulnerability, high levels of poverty among its population, high economic dependence and institutional fragility. These elements pose a daunting challenge for technical cooperation and merit the development of a special work agenda that is specific to that country.

### **2.5.3. Central America**

The six countries of Central America and the Dominican Republic have several geographic, cultural and economic characteristics in common that makes them distinct. They have relatively small economies that are well integrated with each other, open to the rest of the world, and which enjoy significant levels of international trade, primarily with NAFTA countries.

Agriculture, and in most of these countries, tourism, are sectors of vital importance to the economy. Agricultural production, in particular, is still the mainstay in rural areas from an economic point of view and as a generator of employment, and it can play an important role in providing opportunities for development in rural areas and at the national level.

Family farming is the backbone of agriculture in this subregion, in some countries representing more than 55% of the total value of agricultural production and generating more than 70% of the jobs in the sector (Honduras and Panama).<sup>22</sup>

In the specific case of the six Central American countries, the proximity of their national markets to each other, as well as their road networks, electronic communication, and financial operations are achievements that should be further exploited for the development of agriculture and rural areas. Intra-regional trade in processed agrifood products has increased considerably and has coincided with the “Central Americanization” of national companies and the growing presence of transnationals. In 2016, more than 18% of Central American agrifood exports were destined for markets within the region, particularly processed foods such as food preparations, baked goods, sauces, etc. (representing, along with Asia, the fastest growing market over the last ten years).<sup>23</sup> The economic and trade complementarity between countries like El Salvador and Nicaragua, which have considerable agrifood trade deficits, is evident. For the latter, meat exports to other countries within the region are also important. In addition to these opportunities, Central America and the Dominican Republic have also signed a Free Trade Agreement with the United States (CAFTA-DR) and an Economic Partnership Agreement with the European Union, which has offered them the chance to expand their exports of agricultural products.

One of the most significant challenges that the region faces is addressing its dependence on external markets for the supply of basic products, given that imports have grown considerably in the last 20 years, particularly grains, milk products, oils and processed foods. The subregion is very vulnerable to climate change and agriculture is one of the sectors that has been most affected. This vulnerability is further heightened in an agricultural context, with a large proportion of smallholdings that are located on degraded land and without access to water for irrigation. Deforestation is also a major concern in all countries of the region, except Costa Rica. As a result of these conditions, small-scale agriculture in the region is plagued by low productivity and is a contributing factor to rural-urban drift and migration to the United States. To tackle this issue, it is advisable to secure

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<sup>22</sup> ECLAC (Economic Commission for Latin America and the Caribbean, Chile); FAO (Food and Agriculture Organization of the United Nations, Italy); IICA (Inter-American Institute for Cooperation on Agriculture, Costa Rica). 2013. The Outlook for Agriculture and Rural Development in the Americas: A Perspective on Latin America and the Caribbean 2014. San Jose, Costa Rica, IICA.

<sup>23</sup> IICA (CAESPA), based on Trade Map data (2018).

investments that contribute to improving opportunities available in agriculture and guaranteeing rural well-being.

One of Central America's greatest challenges, especially when promoting regional integration, is to facilitate agricultural trade. Infrastructure (roads, ports, borders, etc.) and equipment problems, coupled with a lack of coordination between the institutions that govern agricultural trade, result in long transportation times, unnecessary bureaucracy and delays at the border that make up a large percentage of the price of agricultural goods traded between countries in the region. For example, it is estimated that logistical costs may account for as much as 40% of the end price, fuel costs for between 40 and 60% of total transportation costs, and transportation delays for up to 20% of the time spent in border crossing.<sup>24</sup>

Within this framework of diverse opportunities and difficulties, there are two areas within the subregion with special situations that merit preferential treatment: a) the Dry Corridor that is particularly susceptible to climate change-related events and b) the Northern Triangle, which is an extremely poor and violent region, from which a significant number of the aforementioned migration processes emerge.

The subregion has a strong institutional framework – SICA – which has specialized bodies, such as the Central American Agricultural Council (CAC) and the Central American Commission for Environment and Development (CCAD). The CAC Secretariat, which is currently headquartered at IICA in San Jose, Costa Rica, developed the Central American Agricultural Policy in 2007, providing important guidelines and commitments, some of which have already been achieved. CCAD, on the other hand, has enabled countries to advance in defining agreements and commitments in relation to environmental protection to combat the effects of climate change. Achievements in the trade environment through the actions of the Secretariat for Central American Economic Integration (SIECA), and in health through the International Regional Organization for Plant and Animal Health (OIRSA) are also worthy of mention.

Private regional institutions also play an important role, with the support of a considerable number of associations and regional programs such as the dairy, meat, sugar and coffee sectors.

The combination of these characteristics that are peculiar to the region, as well as the prevailing high levels of poverty in most countries of the region call for the application of differentiated strategies and concerted efforts to further develop the agriculture sector and to increase its contribution to national development. This will require a common vision for regional agriculture that allows for greater economic and trade complementarity among countries in the subregion, by exploiting their comparative advantages, such as their open markets, through the signing of trade agreements.

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<sup>24</sup> World Bank. 2013. Logistics in Central America: the Path to Competitiveness. Washington D.C., United States of America.



### **III. STRATEGIC OBJECTIVES**

On 25 September 2015, the United Nations (UN) adopted 17 Sustainable Development Goals (SDGs) as a unifying concept for the efforts that must be undertaken by the international community, both as a whole and individually by each country, to achieve development and well-being for everyone. Most countries around the world have endorsed and adopted all 17 SDGs.

The SDGs are the unifying and guiding concept for actions aimed at achieving greater sustainable development. Several goals are directly related to rural areas and agroforestry production; for instance, goals 1 and 2 are tied to food security and poverty, while goals 12 and 13 address sustainable production and climate change. As a result, these goals represent central pillars with which national strategies and objectives for agricultural development must be strictly aligned.

Furthermore, the trends and challenges identified in the previous section reflect, on the one hand, the growing challenges facing the region and, on the other hand, progress achieved and the enormous opportunities to further drive agricultural development and its contributions to the economic growth and development of nations. A careful analysis of the vast number of problems and opportunities identified, complemented by the contributions and suggestions made by IICA's member countries during various consultation processes, allows for identifying four general themes or issues. These topics are proposed as four strategic objectives that could organize and systematize the countries' development strategies and, consequently, IICA's technical cooperation actions. These strategic objectives are aligned with SDGs 1, 2, 3, 5, 8, 9, 10, 12, 13, 15 and 17.

By aligning its strategic objectives with the SDGs, IICA identifies itself as part of a global partnership committed to sustainable development in all its dimensions.

#### **3.1. Increase the contributions of the agriculture sector to economic growth and sustainable development**

In most countries of the Americas, agricultural production is a central pillar of the economy, contributing not only to the gross domestic product (GDP) and employment, but also to exports, which are decisive in the operation of the international market.

However, a quick analysis indicates that the sector's leadership is not acknowledged in the implementation of public policies or in the allocation of investments. This failure to prioritize the sector provides a great opportunity to reverse the situation and improve production, productivity, diversification of agroindustrial products, and market linkages with greater value-added. This, in turn, would allow for contributing to the region's economic growth and food security as well as taking better advantage of opportunities available to agricultural products in the international market.

The growing use of agricultural products, particularly biomass, to create alternative products such as fuel, plastic and medicinal products, provides agriculture with great opportunities to contribute not only to economic development, but also to improving employment and income options in rural areas. This, in turn, will increase economic and social inclusion while reducing rural poverty.

At the same time, in a world with increasingly limited natural resources and concerned about the effects of climate change, the region's agriculture sector offers valuable alternatives to increase food production with lower carbon emissions. The achievement of more efficient, competitive and sustainable agricultural production would result in greater economic growth and social equality in the region.

### **3.2. Contribute to the well-being of all rural dwellers**

Economic growth in Latin America and the Caribbean (LAC) over the past two decades has been modest: close to 3% per year.<sup>25</sup> This growth, in turn, has been unevenly distributed among the countries in the region, and shows a great level of disparity between rural and urban areas within those countries. Rural areas generally have less access to public services (such as health and education) and social programs, than urban areas. For instance, while virtually 100% of urban homes in LAC have access to electricity, 99% have access to basic potable water services and 90% to basic sanitary services, the percentages for rural areas are significantly lower (93%, 86% and 68%, respectively).<sup>26</sup> Furthermore, due to their very nature, rural areas experience a lower level of connectivity from a physical and telecommunications perspective; limited access to markets and exchanges with other local and extra-local stakeholders; irregular conditions in terms of possession of and access to production resources (land, water and others); and restricted access to funding, technologies and innovation. These disadvantages account for lower relative well-being in rural areas as well as the persistence of rural poverty, which affects a significant portion of the rural population.

Well-being in the rural areas is closely linked to agriculture, not only due to the income and economic surplus that this activity generates, but also due to its impact on food and nutritional security as well as its importance in social and cultural dynamics. For this reason, in order to increase the well-being of rural dwellers, agriculture must be viewed as a critical tool for achieving greater well-being in rural areas, reversing the exclusion and expulsion of vulnerable populations from the rural areas, and reducing the incidence and consequences of rural poverty. This will ultimately generate greater equality, participation and democracy.

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<sup>25</sup> Estimates by CAESPA (IICA) based on data from the World Bank (WDI).

<sup>26</sup> Estimates by CAESPA (IICA) based on data from the World Bank (WDI).

### **3.3. Improve international and regional trade for countries in the region**

The LAC region has solidified its conviction that trade represents a fundamental means of fostering the socioeconomic development of countries in an increasingly globalized world.

As a result, over the past two decades, most countries have achieved progress in the pursuit of trade agreements, both within the multilateral framework of the World Trade Organization (WTO) as well as through regional trade agreements like NAFTA, the TPP, the TTIP<sup>27</sup> and the Pacific Alliance. Recently, there has been growing interest in bilateral trade agreements as well as greater acknowledgement of the advantages that can be achieved through cautious and equitable liberalization processes between parties. As a result of the proliferation of trade agreements, LAC currently participates in more than 70 free trade agreements (out of a total of close to 270 agreements at the global level), through which the region markets more than 66% of its total exports.<sup>28</sup>

To continue moving forward in this area and boost the economic benefits of liberalization processes, LAC countries must improve their market insertion at the international level, not only by developing more competitive and sustainable production, but also by strengthening their ability to manage signed agreements and to meet sanitary and technical standards.

Furthermore, in light of the common challenges that exist, countries in the Americas must also move forward with their regional integration processes, which is key to driving regional trade, generating value-added chains with greater geographical coverage, and increasing productivity by taking advantage of natural capital, economic complementation and profits afforded by geographical proximity. Cooperation with regional integration agencies, the promotion and development of agroindustrial international trade, the examination of sanitary issues with trans-border implications, and capacity building to meet sanitary and technical standards are key elements that will allow for achieving the abovementioned objective.

### **3.4. Increase the resilience of rural areas and agrifood systems to extreme events**

Climate change and global macroeconomic instability have contributed to a notable increase in the incidence and severity of extreme events that affect agricultural production and the well-being of rural populations in the region. Every year, a significant group of rural producers and dwellers face catastrophes related to climate change, as well as crises

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<sup>27</sup> North America Free Trade Agreement; Trans-Pacific Partnership and the Transatlantic Trade and Investment Partnership between the United States and the European Union.

<sup>28</sup> IDB (Inter-American Development Bank, United States of America). 2016. BID lanza primer curso gratuito en línea sobre las nuevas tendencias en los tratados comerciales en América Latina y el Caribe (IDB launches first free online course on new trends in trade agreements in Latin America and the Caribbean) (online). Washington, D. C., United States of America. Consulted on 5 May 2018. Available at <https://www.iadb.org/es/noticias/comunicados-de-prensa/2016-04-19/curso-nuevas-tendencias-en-los-tratados-comerciales%2C11445.html>.

associated with social and primarily economic issues. These phenomena may take place abruptly (like hurricanes or plummeting prices for agricultural products) or build up slowly, as is the case with flood and drought cycles or responses to successive downward trends in prices. These emergencies represent a risk that is acquiring greater relevance in rural areas of the hemisphere; they are particularly severe in more vulnerable areas where these types of events are more extreme.

On the other hand, climate change has far-reaching effects on agriculture and rural life. It negatively impacts production, deteriorates natural agricultural resources, destroys physical infrastructure, and threatens food security, especially for poorer sectors of the society. As a result of these phenomena, 38% and 50% of soils in the Caribbean and Mesoamerica, respectively, exhibit high or very high levels of degradation; in South America, 18% of soils are degraded.<sup>29</sup> In total, more than 306 million hectares in LAC have been affected by soil degradation caused by humans.<sup>30</sup>

Consequently, efforts aimed at increasing the resilience of rural areas in the face of climate change, improving the sustainable management of natural resources, and strengthening adequate risk management are gaining greater relevance in State as well as global agendas. Resilience is represented in several ways in the SDGs, which recognize the urgent need to modify social behaviors in order to achieve a more balanced use of natural resources, as well as the need for concrete, coordinated actions to improve adaptability and response to extreme events.

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<sup>29</sup> UNEP (United Nations Environment Programme). 2016. GEO-6 Regional Assessment for Latin America and the Caribbean. Nairobi, Kenya.

<sup>30</sup> UNEP (United Nations Environment Programme). 2002. Global Environment Outlook 3. Fact sheet Latin America and the Caribbean. Nairobi, Kenya.

## IV. IICA'S TECHNICAL COOPERATION MODEL<sup>31</sup>

### 4.1. Introduction: guiding principles and conceptual framework

Over the years, IICA has strengthened its physical presence through its offices in the member countries, a key factor for implementing the Medium-term Plan (MTP). It has also bolstered its institutional capabilities to provide its primary service: technical cooperation.

IICA is therefore renowned and valued for three important institutional assets:

- a) an extensive and well-developed institutional infrastructure with offices in the 34 member countries, which brings the Institute closer to governments and enables it to have a good understanding of each country's particular difficulties, strengths and weaknesses, as well as the opportunities available to generate actions that would contribute to rural development and well-being;
- b) a deft and effective administrative system that solidifies and boosts the Institute's confidence in its administration of internal funds as well as external resources contributed by the member countries, international organizations and third countries;
- c) broad and/or close participation in or engagement with a large number of subregional cooperation mechanisms and institutions such as the Southern Agricultural Council (CAS), the Regional Agricultural Technology Fund (FONTAGRO), the Central American Integration System (SICA), the Central American Agricultural Council (CAC), the Caribbean Agricultural Research and Development Institute (CARDI), and the Tropical Agricultural Research and Higher Education Center (CATIE), by means of cooperation agreements; this facilitates close, joint work with member countries and existing mechanisms and institutions.

In this new phase of its institutional history, IICA reaffirms that its primary duty is the provision of technical cooperation to assist its member countries in overcoming the main obstacles that hinder development. This technical cooperation will build upon the Institute's strengths, the boosting of its own technical capacity, and, most importantly, its ability to manage knowledge.

To this end, during the 2018-2022 period, the administration will develop a clear institutional policy for the Institute's development and strengthening, in order to assume the role of knowledge manager. As part of this role, the Institute's primary duty will be to identify the needs and demands of its member countries with respect to technical cooperation, as well as to provide the most adequate responses to those demands through the leadership and coordination of its technical personnel, as well as with the participation of external professionals. In other words, IICA will become the institution "that knows who knows" about specific topics within its area of competence. To this end, the Institute will:

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<sup>31</sup> IICA's technical teams assisted in drafting portions of this chapter.

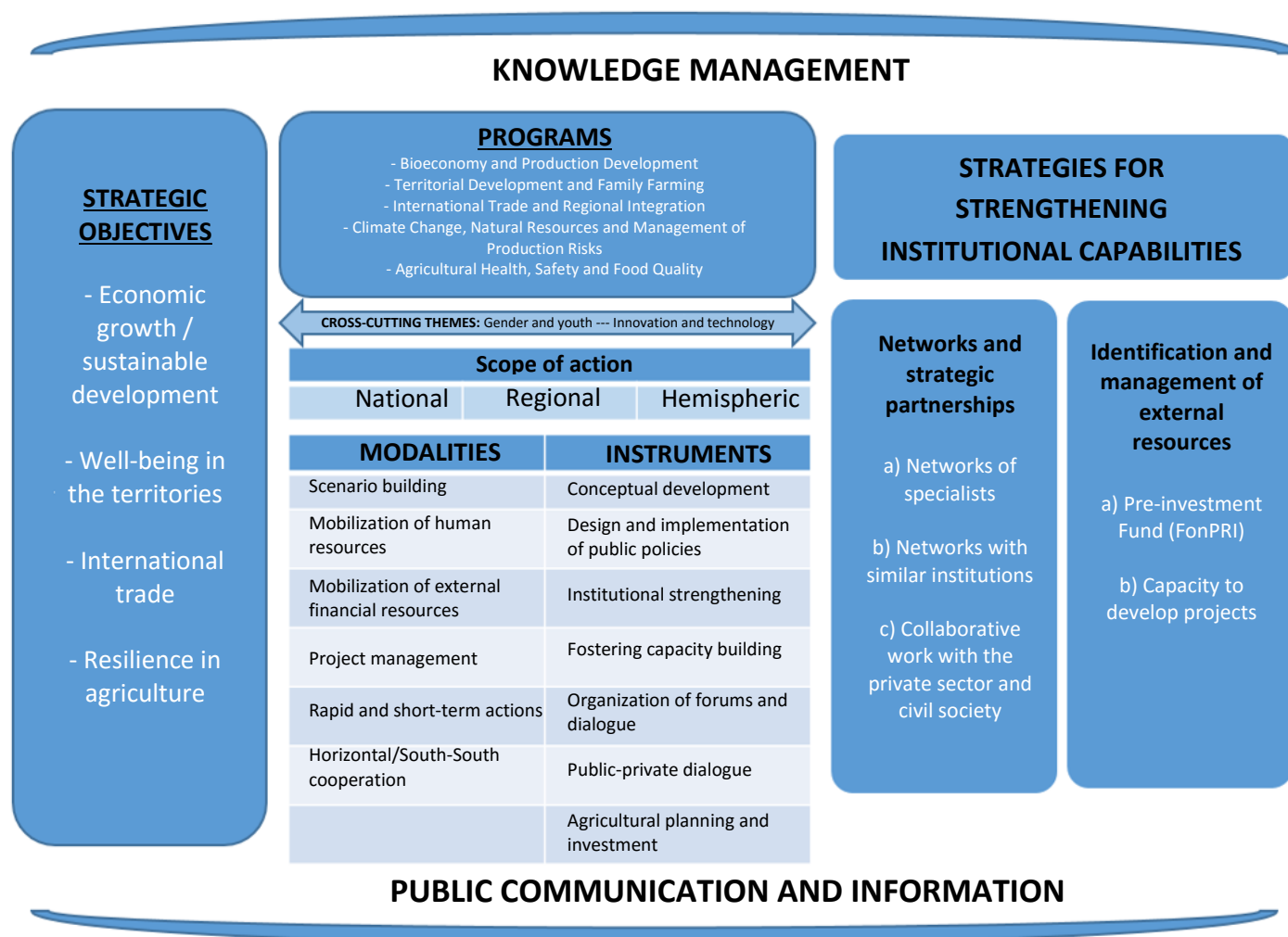
- a) create networks of professionals and specialists who can collaborate with the Institute in the key thematic areas of the five selected Programs described later in this document; and
- b) establish strategic partnerships with other institutions. The primary purpose of these actions will be to increase and improve the efficiency and effectiveness of the technical cooperation that IICA provides to its member countries, as well as the cooperation actions undertaken with regional cooperation and integration mechanisms and institutions.

The following conceptual and operational principles will complement the general conceptualization of IICA's technical cooperation:

- a) a clear identification and agreement with each country and subregion regarding its objectives and strategies as well as the need for support from the Institute to identify and implement possible solutions with a comprehensive, prospective and long-term vision;
- b) special emphasis on actions that contribute to regional integration. These actions will be planned and carried out in collaboration with international organizations and institutional mechanisms that have specific responsibilities in regional collaboration and integration actions;
- c) technical cooperation will be organized as a coordinated effort that mobilizes the technical and operational resources of the institution as a whole;
- d) emphasis on knowledge available in the region, and, incidentally, in the world, about the topics on which IICA focuses its work, that can contribute to resolving the problems identified;
- e) focus of the Institute's efforts on the management of processes that allow for providing the support required by countries in a quick, efficient and effective manner;
- f) actions prepared and coordinated by the institution as a whole, but implemented in a decentralized manner by the offices in the member countries;
- g) special efforts aimed at establishing strategic partnerships and collaboration programs with other national and international entities as well as the private sector;
- h) a resolute boost in and promotion of planning, development and implementation processes for public and private investment projects in agriculture based on evidence and evaluation, which allow for increasing the overall competitiveness of the sector and subsectors, as well as increasing income and well-being in rural areas, by focusing on poverty reduction in particular.
- i) emphasis on horizontal technical cooperation actions in which IICA will act as a coordinating entity; and
- j) organization of networks and agreements with professionals at the highest technical level who can assist in executing IICA's technical cooperation actions.

The following diagram presents the conceptual framework of IICA's technical cooperation model.

**Diagram 1. Conceptual framework of IICA's technical cooperation model**



## 4.2. Hemispheric action programs to support the four strategic objectives

The Institute's programs are defined and aligned with the four selected strategic objectives. Although the programs have preferential alignment with some strategic objectives, this alignment is neither one-directional nor restrictive. All five programs, whether individually or in collaboration with other programs, will include actions related to more than one strategic objective. To increase flexibility and succeed in developing joint, cross-cutting actions, the designated technical personnel may carry out work in more than one program, thus emphasizing the interdisciplinary style that will be implemented. In this

way, all five programs will operate in a coordinated manner, with an interdisciplinary approach.

The thematic definitions of the programs seek to capture and establish the main substantive themes that are considered necessary from a conceptual standpoint in order to conduct work in and contribute to the achievement of the selected strategic objectives, which are expressed as action guidelines and components. However, several programs may have certain topics and methodologies in common. For instance, the analytical concept of “production chains” or “value-added chains” is an element of critical importance to all programs.

The programs will be the main institutional mechanism through which IICA will coordinate and integrate its technical cooperation actions and knowledge management, which will be carried out in a programmed and decentralized manner by the different units of the Institute.

The offices in the member countries will serve as implementation units for technical cooperation at the national level, acting as *bridges* or platforms for knowledge sharing between regions, countries and thematic areas, in coordination with the technical programs.

Technical cooperation will be founded on and supported by a knowledge management dynamic, and its primary objective will be to prepare adequate responses to problems and objectives identified together with the countries and detailed in the IICA Country Agendas. The wide range of substantive topics included in the five programs makes it necessary to strengthen work linkages with ministries of agriculture as well as broaden interaction with other ministries and public institutions with specific competence in the work areas identified in the aforementioned agendas.

The action plans of the programs will explicitly acknowledge the differences and special features of the various countries and subregions of the hemisphere. Therefore, the prioritization of topics and strategies to respond to the opportunities and challenges identified will be adapted based on these subregional specificities.

#### **4.2.1. Program 1: Bioeconomy and Production Development**

Program 1 is clearly aligned with Strategic Objective 1, which seeks to increase agriculture’s contributions to economic growth and sustainable development. However, it is also closely related to Strategic Objectives 2, 3 and 4. Due to its alignment with multiple strategic objectives, this program is of a significant cross-cutting nature.

#### **Conceptual and informational elements that guide and contextualize the organization and key thematic areas of the Program**

The modernization and growth of agroindustrial production, achieved by many countries in the region over the past two decades, have placed agroindustry at the center of discussions regarding strategies for economic development. This discussion has been



underpinned by two important realities. First, due to its notable wealth of natural agricultural resources, the region plays a central role in food production at the global level. Latin America and the Caribbean (LAC) possesses more than one fourth of the world's arable land and one third of its fresh water resources.<sup>32</sup> The second reality is the growing need for food at both the global and regional level, driven by the rapid growth of income in many emerging economies (in 2050, the global population will reach 9.7 billion people, 75% of whom will live in urban areas).<sup>33</sup> This scenario, which favors agriculture and its potential to effectively contribute to the economic growth and development of countries in the region, provides the region with a new opportunity to place the hemisphere's agroindustry at the center of strategies and public policies implemented by the countries in the region.

On the other hand, technological innovations generated over the past few years have paved the way for agroindustrial development that incorporates more complex production processes and includes non-food products such as fuel and plastic. This growing complexity of agroindustrial production is complemented by greater vertical integration as well as the creation of national, regional and global value chains that are incorporated into global trade. All of these elements make it necessary to apply analytical approaches that integrate and facilitate the promotion and orientation of this new agroindustrial development, which provides new opportunities for economic growth and the creation of employment opportunities.

In this regard, bioeconomy,<sup>34</sup> understood as a group of sectors that utilize biological resources, processes and/or intelligence to produce goods and services, represents an analytical approach that is particularly relevant for the analysis of agroindustrial production. Bioeconomy allows for coherently addressing the complex challenge of generating new sustainable sources of economic and social growth through agricultural production, with the aim of contributing to the achievement of a majority of the Sustainable Development Goals (SDGs) recently adopted as part of the 2030 Agenda for Sustainable Development.

Bioeconomy emphasizes the interrelations that exist between different production chains, by examining the variety of products that can be derived from agricultural raw materials (biomass). It focuses its attention on synergies and ways to optimize interrelations between chains, the system's circularity, and the total value that it generates. This notion underscores the fact that production chains are becoming increasingly intertwined and are losing their specificity. Moreover, bioeconomy also highlights opportunities to improve overall productivity, by emphasizing the potential to recycle products as well as circularity and cascade approaches, which, during the processing phase, play a key role in identifying

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<sup>32</sup> IDB (Inter-American Development Bank, United States of America); Global Harvest Initiative. 2014. *The Next Global Breadbasket: How Latin America Can Feed the World*. Washington, D. C., United States of America.

<sup>33</sup> ECLAC (Economic Commission for Latin America and the Caribbean, Chile); FAO (Food and Agriculture Organization of the United Nations, Italy); IICA (Inter-American Institute for Cooperation on Agriculture, Costa Rica). 2017. *The Outlook for Agriculture and Rural Development in the Americas: A Perspective on Latin America and the Caribbean 2017-2018*. San Jose, Costa Rica, IICA.

<sup>34</sup> Although the international community has not agreed on a formal definition, the First Global Bioeconomy Summit (Berlin, Germany, November 2015) and FAO have concurred that "bioeconomy is the production and utilization of biological resources, processes and principles, to provide products and services in all sectors of the economy."

and developing opportunities to acquire value in territories. As a result, bioeconomy has strategic value in production development because it increases efficiency in the use of natural resources and generates innovation options as well as new businesses.<sup>35</sup>

### **Main opportunities and challenges**

The Americas is strategically positioned to develop and benefit from a bio-based economy. Its broad and diverse natural resources as well as its significant scientific, technological and industrial capabilities, represent essential components for the development of bioeconomy. These strengths have already begun to manifest themselves in various experiences related to the development of sustainable agricultural production, the use of biotechnology, the production of bioenergies and agribusinesses based on biodiversity, as well as in the significant progress achieved in developing markets for ecosystem services. These experiences highlight the opportunities that exist to expand agroindustrial production, while demonstrating the prodigious undertaking that each opportunity entails.

#### ***Generate equitable and sustainable growth: specificities in each country and subregion***

The Americas plays a strategic role in global efforts aimed at striking a necessary balance between production and food and energy consumption. At the same time, the region faces its own challenge: eradicating hunger and poverty, the levels of which are still high in the region, particularly in rural areas. Rural poverty has diminished considerably in LAC, dropping from 60% in 2005 to 46% in 2014; however, it is still greater than poverty at the national level (28%) and much greater than urban poverty (24%).<sup>36</sup> Furthermore, although hunger levels in LAC are low compared to other parts of the world, the region experienced a significant setback due to an increase in the number of malnourished people, which reached 42.5 million people in 2016 (2.4 million more people than in 2015). Additionally, obesity levels also increased in the LAC region, affecting 25% of the adult population.<sup>37</sup>

Agriculture and biomass production are essential components of the strategy aimed at reducing the aforementioned phenomena. They also represent new sources of opportunities for equitable growth, through a more complex and integrated agricultural production that generates an increase in the amount of economic and employment opportunities.

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<sup>35</sup> A cascading use of biomass occurs when biomass is utilized to produce a by-product (derived from or produced using biological resources or processes), and this product is used at least once more either for materials or energy. The cascading use of biomass is described as single stage when the final product is used to produce energy; it is described as multi-stage when the initial product is used at least once as an input for another product before being used to produce energy (Essel, R; Breitmayer, E; Carus, M; Fehrenbach, H; von Geibler, J; Bienge, K; Baur, F. 2014. Discussion paper: Defining cascading use of biomass (online). Hürth, Germany, nova-Institut GmbH. Consulted on 15 Apr. 2018. Available at [https://biomassekaskaden.de/wp-content/uploads/2014/04/14-03-14\\_Cascading\\_use\\_Discussionpaper.pdf](https://biomassekaskaden.de/wp-content/uploads/2014/04/14-03-14_Cascading_use_Discussionpaper.pdf)).

<sup>36</sup> Estimates by IICA (CAESPA), based on data from ECLAC (CEPALSTAT).

<sup>37</sup> FAO (Food and Agriculture Organization of the United Nations, Italy). 2017. The State of Food Security and Nutrition in the World. Rome, Italy.

However, the biological resources that are used to produce bioeconomy products are not homogeneous in terms of their functionalities, energy density and the ease with which they can be transported. The scientific and technical capacities of the different countries of the region are not uniform either. As a result, it is not possible to define a single strategy to develop bioeconomy in the Americas. Instead, each country – or, in many cases, the various regions within the country itself – must build its own pathway to development based on the challenges it faces, the type of natural resources available, its scientific and technological capabilities, the level of maturity of its institutions, etc. This diversity does not mean, however, that there are no commonalities on the basis of which countries could develop common outlooks and share experiences and common approaches to develop regional bioeconomy.<sup>38</sup> Policies and regulatory frameworks, scientific and technological foundations, human resources and participation modalities are areas that should be prioritized in transitioning toward production development based on bioeconomy.

***Take advantage of opportunities to make new investments and develop agribusinesses***

Bioeconomy provides valuable opportunities to develop new businesses associated with traditional agricultural activities, as well as new synergies to drive economic competitiveness and increase the sustainability of production. This is particularly important given the combination of social pressure and policies geared toward finding productive alternatives that are consistent with the environmental objectives established by the international community in international forums, such as the 2030 Agenda for Sustainable Development, the Conference of the Parties (COP), etc.

The transition toward production development based on bioeconomy also opens up the possibility of abandoning the dichotomy between agriculture and industry, which has dominated debates in our region for decades. Bioeconomy represents a strategy for production development that includes a wide range of new, modern and traditional sectors and subsectors characterized by different scales of production, which share productive processes and biological resources as central components of their production activities and services. This will result in a profound transformation of inter-sectoral relations, as well as in the emergence of new production activities and agroindustrial businesses.

Furthermore, bioeconomy is a useful analytical lens for guiding investment processes that contribute to economic growth and development, making the most of the comparative advantages of countries in the region within a framework of environmental sustainability and greater social equity. The incorporation of the concept of circular economy, as well as the use of renewable biological entities to generate and transform energy, makes it possible to anticipate significantly higher efficiency in the use of natural resources as well as a reduction in the environmental impact of these processes.<sup>39</sup> Recognition of this potential is growing: currently, more than 40 countries around the world, including members of the Organization for Economic Cooperation and Development (OECD), have defined formal

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<sup>38</sup> See ECLAC (Economic Commission for Latin America and the Caribbean, Chile). 2018. Regional Seminar on Bioeconomy in Latin America and the Caribbean 2018. Santiago, Chile. Consulted on 5 May 2018. Available at <https://www.cepal.org/es/eventos/seminario-regional-bioeconomia-america-latina-caribe-2018>.

<sup>39</sup> A circular economy is based on the search for a sustainable economy; its central pillar is the three 'R's rule: reduce, reuse and recycle, in the same way as nature.

strategies to develop bioeconomy, and have moved forward in designing specific policies and investment programs for their consolidation.<sup>40</sup>

***Prepare institutions and develop institutional capacities for a more complex economic and technological environment***

Political and institutional dimensions play a critical role in transitioning from a conventional perspective on production development to one based on bioeconomy. A different knowledge base is just one of the elements needed to carry out this transition; broader changes in economic and social organization, as well as in the behavior of individual stakeholders (focus of investments, production decisions and consumers' choices) are also necessary. Many of these behaviors are strongly influenced by policies and regulations that help to generate and contain new processes as well as manage related transaction costs. Overall, the common denominator of the emerging system is the growing complexity of the new economic/technological environment compared to existing systems.

Given these particular features, a bioeconomic approach requires a combination of policies that integrates the different dimensions: from those relating to the production of raw materials and land-use planning, to industrial policies and others aimed at fostering or regulating consumption (fair trade, sustainability, certifications for “green” or organic products, etc.). This combination of policies must also take into account the requirements and special characteristics of new value chains and market niches of bioeconomy. Within this context, policies and public regulations play a critical role in triggering the necessary responses.

A successful transition toward bioeconomy also requires a strong effort to develop human resources and better mechanisms for social participation. Processes based on the use and reuse of biomass require not only a new technological foundation and, consequently, a reorganization of scientific capabilities for research and development (R&D), but also the strengthening of producers' capability to manage new processes, which, for the most part, are more knowledge-intensive than conventional approaches. The focus of sustainable agriculture is a good example of these trends, in which technological innovation depends both on the level of sophistication of capabilities in the field of biological sciences, and on human resources in the production sector (farmers and extension services) who are able to understand and manage the intrinsic dynamics of biological processes.

**Guidelines for the Program's action plan**

The Program will aim to support the implementation of a production development approach based on bioeconomy, by generating knowledge and relevant information to support decision making. The Program will prioritize the provision of support to assist countries in designing specific strategies, policies, investments and regulations that allow for taking full advantage of existing potential, within a framework of inclusion and

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<sup>40</sup> Discussions held at the recent 2018 Global Bioeconomy Summit (Berlin, Germany, 19-20 April), both during the plenary sessions as well as during the special session on LAC's bioeconomy, which highlighted several of these aspects and can shed light on the magnitude of opportunities and transformations ahead. (See <http://gbs2018.com/home/>).

sustainability. Given its cross-cutting nature, the Program will work closely with the programs on Territorial Development and Family Farming, International Trade and Regional Integration, and Climate Change, Natural Resources and Management of Production Risks, particularly in matters related to the management of production chains, the driving of technological innovation, and agribusiness.

***Promote an approach, policies and innovations that facilitate bioeconomy-based development***

The objective of this guideline is to expand knowledge regarding what bioeconomy is and what it offers as a production development approach, as well as to develop relevant information on the concept of bioeconomy and the opportunities it provides at the country level within the region.

This components of this line of action will seek to:

- Promote and support the establishment of politically relevant opportunities for discussion at the national and international levels, to foster a better understanding of the opportunities and policies required to develop the production sectors included in a bioeconomy.
- Establish, together with other national and international stakeholders, a virtual information, dissemination and training platform on bioeconomy in LAC, the opportunities it affords, and the actions required for its implementation in each country or specific circumstance.
- Support the effective participation of countries in international forums on this topic to promote knowledge-sharing, identification of best practices, and mobilization of relevant resources for production development and regional integration, including specific strategies to incorporate family farming into bioeconomy.
- Establish, together with the countries of the region and other international organizations, an indicator system to support decision making regarding policies and investments, and facilitate subsequent monitoring and follow-up.

***Foster production development based on bioeconomy production chains***

The objective of this guideline is to promote institutional mechanisms, policies, and investments required to implement a bioeconomy-based production development strategy, drawn from experiences at the international level and within the region itself.

This line of action will include the following components:

- Support the design and implementation of strategies, institutions, policies, programs and initiatives to develop specific bioeconomy production chains, through the provision of information and/or technical assistance.
- Provide support, in collaboration with the Program for Territorial Development and Family Farming, to ensure that production development strategies and policies include instruments and actions that facilitate the effective incorporation of family farming into the production sectors of the bioeconomy.
- Drive regional standardization and harmonization of regulations on bioeconomy in areas such as intellectual property, biosafety, standards for products created using biomass, and the promotion of national and international markets for those products.
- Support, in coordination with the Program on International Trade and Regional Integration, policies aimed at developing domestic and international markets for new bioeconomy products, with the aim of increasing economic complementation, improving the ability to negotiate with third countries on market access and technology transfer, as well as strengthening possible synergies that exist between the countries of the region.
- Support the design and implementation of investment projects aimed at developing bioeconomy production chains.
- Promote the analysis and implementation of actions aimed at developing the logistics and infrastructure needed to develop a bioeconomy.

#### **4.2.2. Program 2: Territorial Development and Family Farming**

This program primarily contributes to Strategic Objective 2, which seeks to increase the well-being of rural dwellers. However, the Program's content is also strongly aligned with Strategic Objectives 1, 3 and 4.

#### **Conceptual and informational elements that guide and contextualize the organization and key thematic areas of the Program**

Territorial development is understood to mean the productive and institutional transformation process of rural areas that stimulates economic growth, the well-being of all rural dwellers, and socioeconomic inclusion; and generates the conditions needed to reduce poverty and inequality as well as empower rural stakeholders. As a result, this process is multidimensional, multisectoral and intersectoral. This definition refers to a specific spatial area - the rural area - where different types of stakeholders engage in socioeconomic relationships. This program's actions will prioritize and explicitly address, in a non-exclusive manner, challenges related to family farming, indigenous and traditional peoples, and rural workers.

Family farming is understood to be a socio-productive category that refers to a way of producing in which family labor is directly involved in the production and management of the productive unit. As a result of its multifunctional nature, given that it represents a significant source of food production in our societies and that it optimizes family labor in rural areas, family farming plays a key role in energizing local economies as well as promoting environmental management in the territories. It is estimated that, in some LAC countries, family farming accounts for up to 60% of total agricultural production, and generates 75% of jobs in this sector. At the regional level, the 17 million plots of land owned by family farmers cover a population of close to 60 million people.<sup>41</sup>

Socioeconomic inclusion involves reverting the exclusion of farmer groups with lower capitalization and of the most disadvantaged stakeholders in rural areas: wage earners, women, youth, and indigenous and traditional communities. Considering the fact that this exclusion process manifests itself through various interdependent dimensions (social, economic, cultural and political), actions aimed at fostering inclusion must integrate all of these dimensions and, in turn, propose innovative alternatives.

From this perspective, strengthening social capital as well as the leading role played by social stakeholders is critical to achieving inclusive dynamics and rural well-being for all dwellers. Although rural organization in the region has taken many different forms throughout history, many of these modalities have been voiceless and have lacked opportunities to influence or participate in political and economic decisions. In other words, they have faced difficulties in exerting influence over and driving decisions in different platforms for defining policies. In this regard, it is of the utmost importance for the members of these organizations to improve their knowledge and understanding of their rights and obligations, in order to increase and strengthen their ability to influence political processes for territorial development, and, most importantly, their leading role in the social management of the areas they inhabit.

### **Main opportunities and challenges**

To increase the well-being of the rural population, it is necessary to build upon the following opportunities and challenges:

#### ***Drive an inclusive development model in which rurality plays a central role***

- Promote a territorial development model that is consistent with the SDGs and capable of influencing the country's economic growth and social equity.
- Revalue the rural world, making it more attractive and profitable for its inhabitants, as part of an interdependence system with intermediary cities. This revaluation is justifiable given the rural milieu's important contributions to economic growth, employment, food production, ecosystem services, population size, the population's

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<sup>41</sup> ECLAC (Economic Commission for Latin America and the Caribbean, Chile); FAO (Food and Agriculture Organization of the United Nations, Italy); IICA (Inter-American Institute for Cooperation on Agriculture, Costa Rica). 2013. The Outlook for Agriculture and Rural Development in the Americas: A Perspective on Latin America 2014. San Jose, Costa Rica, IICA.

land occupation and its potential for settlement, governability and governance, culture preservation and identity.

- The continuous rural depopulation process as well as migration toward urban areas have reached significant dimensions in many countries of the region. As a result, it is necessary to propose and drive actions aimed at boosting the efficiency and profitability of agricultural activities carried out in rural areas. In this regard, both the incorporation of technologies, as well as increases in productivity, could improve market insertion at the local level and in production chains associated with external markets.
- Furthermore, rurality across the entire region will undergo significant economic and social changes driven by trade liberalization, technology and the expansion of communication. These processes will impact the agricultural structure and will create opportunities to develop new lines of production and abandon others. These transformation processes must be complemented by programs to support this transition.
- In this regard, it is necessary to have access to pertinent, up-to-date information in order to analyze decisive factors that influence poverty and inequality in the rural sector, as well as opportunities for productive insertion that are available to all economic stakeholders. A fundamental element required to design strategies and select public interventions that contribute more effectively to achieving territorial development is detailed knowledge regarding each specific situation in which IICA provides technical cooperation, for instance, with respect to different social stakeholders and their relative importance, the results and impacts of public policies implemented, social inclusion trends, among other aspects.
- Additionally, in order to define action programs, it is critical to acknowledge the role and contributions of different types of rural companies (especially those owned by farmer families) to food production and other agroindustrial products. To be feasible, these programs must build upon the specific characteristics of each area, particularly the availability of resources (manpower, land, financial capital, knowledge, natural and physical resources, networks and social capital); they must also foster cooperation between different sectors of society. This is a fundamental requirement in order to bring about and develop more effective, sustainable production that guarantees adequate income levels and regional food and nutritional security.
- The countries of the hemisphere must improve and enhance their extension systems, particularly efforts and resources geared toward family farming. In this regard, there are at least three gaps that must be filled in order to achieve progress in enhancing extension services: a) effectively coordinate extension systems with research institutes, the university system and private-sector contributions for the promotion of innovation processes; b) optimize the leadership and management of human talent associated with extension systems, given that, although there is clarity regarding the skills needed to carry out this activity, they have not been adequately incorporated into the various



links in the production chain of these services; and c) improve the management systems of extension services.

- The promotion, creation and modeling of agricultural and non-agricultural ventures is one way to work toward improving the living and working conditions of the rural population, especially youth. It is also necessary to identify and set in motion different initiatives by rural youth that respond to existing demands in society, in order to contribute to resolving socioeconomic and environmental problems as well as understanding the characteristics and distinguishing features of young persons involved in family farming.

***Promote adequate provision of social services and programs***

- To achieve well-being in the rural areas, it is critical to assist socioeconomic stakeholders in overcoming the lack of access to productive assets, social programs, and support services.
- The lack of access to productive assets and the absence of these services limit the ability of communities to participate in relevant production activities. It is critical to generate strategies that expand and strengthen services that lend competitiveness to agroindustrial production in the rural areas. Services related to the provision of technology (seeds, research, extension, etc.), rural education, strengthening of rural associations, information, energy, road infrastructure in the rural areas, communications, digitalization, financing and marketing are especially important.
- The overall weakness of social protection programs available to most rural dwellers establishes unacceptable differences with urban dwellers. Recent experiences in several countries across the region have demonstrated the success of these types of programs in diminishing poverty and inequality. These programs increased the well-being of poorer populations and had a positive impact on capacity-building efforts to facilitate the productive reinsertion of these populations. Promoting the effective implementation of these policies is critical to improving the living conditions of excluded rural dwellers and to begin creating a favorable scenario to develop the capabilities needed for greater inclusion in the productive system. These social programs have proven to be more effective in improving the well-being of rural populations than assistance provided through price control for products.
- Separating these rural development policies from all other economic policy measures and public investments often hinders and neutralizes the positive effects of the latter.

**Guidelines for the Program's action plan**

The action plan will focus on the implementation of actions aimed at boosting the well-being of all rural dwellers. The Program will work closely with the program on Bioeconomy and Production Development to strengthen production chains; with the program on International Trade and Regional Integration to conduct market analyses; and

with the program on Climate Change, Natural Resources and Management of Production Risks to foster climate change adaptation and mitigation.

***Generate knowledge and support the design of policies and programs for territorial development***

This line of action will include the following components:

- Assist in generating information and analyses that allow for participating in and explicitly influencing the design, implementation and evaluation of policies aimed at increasing the well-being of the entire rural population, in collaboration with national and international institutions.
- Participate in generating information on and documenting successful experiences as well as assist in designing and implementing policies and actions aimed at strengthening the settlement of rural populations, especially groups that are more vulnerable to expulsion processes, such as undercapitalized family farmers, youth, women, indigenous and traditional communities, and rural workers.
- Promote the participation of social stakeholders, partnerships and public-private coordination, as well as drive the joint implementation of actions of common interest.
- Assist in systematizing and identifying forms of organization in rural areas.
- Drive policies and programs aimed at consolidating a regional agrifood system that contributes to the food security of territories. This is particularly important in the case of populations that live in distant, disconnected areas, such as indigenous communities.
- Develop methodologies for the collaborative leadership and social management of local stakeholders in order to materialize the vision for the future of their territories, by means of a strategic development plan that acknowledges the value of private (national and international) investments and public-private actions.
- Contribute to the design and implementation of policies and programs that contribute to technological innovation, greater competitiveness, and access to national and regional family farming markets.
- Foster and coordinate the development of policies and institutional mechanisms that facilitate the participation of family farming in national and regional production chains.

***Promote the provision of productive assets and public services to rural areas***

This line of action will include the following components:

- Boost the provision of services and productive assets to rural areas, particularly education, infrastructure, capacity-building opportunities, and technological, commercial, financial and health services.
- Contribute to generating institutional capabilities and opportunities for political discussion to promote rural and agricultural issues, as well as linkages between rural development policies and all other public policies.
- Assist in establishing linkages between territorial development, sectoral policies and social protection policies aimed at reducing rural poverty and improving social security.
- Promote extension services to increase the contributions of the rural sector to agricultural competitiveness, sustainable production of food and raw materials, and the preservation of natural resources.

#### **4.2.3. Program 3: International Trade and Regional Integration**

This program is mainly aligned with the achievement of Strategic Objective 3. However, it also contributes to the achievement of Strategic Objectives 2 and 1.

#### **Conceptual and informational elements that guide and contextualize the organization and key thematic areas of the Program**

In an interconnected world with increasing specialization in production that capitalizes on the comparative advantages of each economy, trade is one of the main avenues to socioeconomic development in these countries. This is particularly true in the case of agricultural production, where the natural agricultural resources and climate conditions specific to each country impose the need for a certain degree of production specialization.

In recent years, the level of agrifood trade in the region has increased considerably, and it has become a major player in international markets. Over the last 10 years (2007 – 2016), LAC agrifood exports grew at an average annual rate of 5.2%, outpacing the growth rate of agrifood imports by more than one percentage point, thereby increasing the region's agrifood trade surplus. This dynamic growth has meant that LAC's agricultural exports now account for 14% of global agricultural exports (ten years ago the figure was 12.3%).<sup>42</sup>

Moreover, growing diversification in agricultural production to include products with greater value added and non-food products (bioeconomy) has enhanced the region's production and export potential, its range of trade partners and by extension, its need to define strategies for international insertion. This is an area to which some countries in LAC have already dedicated considerable effort, such as in the Central (American) subregion,

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<sup>42</sup> IICA (CAESPA), based on United Nations data (COMTRADE, 2018) and WTO (2018).

where the proportion of processed agricultural products as a part of total agrifood exports has increased substantially in recent years (22% in 2001 vs 37% in 2016).<sup>43</sup>

The key role of agreements in the area of trade must be highlighted. To date, the countries have signed free trade agreements with the United States, Panama, Colombia, Peru and Chile, in addition to CAFTA-DR (Central America- United States and the Dominican Republic) and NAFTA (Canada, United States, Mexico). Honduras, Panama, Colombia, Peru, Costa Rica and Chile have free trade agreements with Canada.

The United States, Canada and Mexico are modernizing their free trade agreement to facilitate improved access of goods from these countries and to increase trade flows within the region.

IICA (CAESPA) data indicates that during the 2014-2016 period, 22.1% of LAC agrifood exports were destined for the United States and Canada. Nonetheless, the market share of LAC exports to those countries and to the European Union (EU) was reduced due to the increased sales and growing dominance of the Asian countries.

Despite some progress, the hemisphere's achievements in global agrifood trade have been comparatively modest. LAC's share of intraregional trade has remained relatively constant at approximately 14%, even during the 2002 – 2004 and 2014 – 2016 periods, when its value increased by more than USD 20 billion. With respect to the agrifood trade with the United States and Canada, on the one hand, and the rest of the hemisphere, on the other, market share fell from 26% to 22% over this same period,<sup>44</sup> as trade with Asia, primarily China, increased.

Although intraregional agricultural trade in LAC did not increase overall, there were differences noted at the subregional level. In fact, when compared to the 2002-2004 period, LAC is a more important market for agricultural exports from Mexico and the Caribbean and Central subregions today, although it is less important for exports from the Andean and Southern subregions. Furthermore, some subregions significantly increased their intra-subregional trade over the last decade, most notably the Caribbean subregion, where exports to countries within the subregion grew from 13.6% in the 2002–2004 period to 19.3% during 2014–2016. The Central subregion also increased its intra-subregional trade, although by just over 2 percentage points within a decade (from 18.3% to 20.6 %).<sup>45</sup>

Of all the regions in the world, with the exception of Oceania, the LAC region has the lowest level of intraregional agricultural trade.<sup>46</sup> Therefore, opportunities abound for strengthening intraregional trade, given the low level of agricultural trade between the countries of the Pacific Alliance, the Southern Common Market (MERCOSUR) and the other LAC countries.<sup>47</sup>

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<sup>43</sup> IICA (CAESPA), based on Trade Map data (2018).

<sup>44</sup> IICA (CAESPA), based on United Nations data, Comtrade (January 2018).

<sup>45</sup> IICA (CAESPA), based on Trade Map data.

<sup>46</sup> IICA (CAESPA), based on ITC data (Trade Map).

<sup>47</sup> IICA (CAESPA), based on United Nations data, Comtrade (January 2018).

Improving presence in international trade is a long-term effort that requires information, analysis and a clearly defined strategy based on a country's comparative advantages. Free trade and regional integration agreements have been the primary means through which countries have tried to improve their trade insertion. More effective administration of these agreements to allow countries to better exploit their potential benefits is a top priority for the region.

Although the hemisphere has worked diligently to promote the development of free trade agreements, many of their economies are still relatively closed, particularly in the agriculture sector. With the exception of countries such as the United States, Canada, Chile, Colombia, Costa Rica and Mexico, the number of trade agreements signed with the rest of the world is limited.

Furthermore, concerns have been voiced at the international level about the manner in which international trade and the multilateral systems are developing in and of themselves. These challenges have created political conditions that could prompt a return to a more protectionist stance, which may prove detrimental for the region.

Regional integration has also been a top priority for the region's governments and has led to the creation of several institutional frameworks geared towards achieving greater economic and political integration among countries in the region. Despite these efforts, the gains, at least on the trade side, have been few, as evidenced by the low level of intraregional trade. In the agroindustrial sector, technical restrictions, problems related to trade facilitation and the lack of harmonization in health standards are major hurdles that must be addressed to enable more successful regional trade. Although some progress has been made, particularly in the Central and Caribbean subregions, achievements in agricultural trade integration have been limited. By way of example, the level of intraregional trade as a percentage of LAC's total agrifood exports has remained the same for the last 10 years (14.9%).

On the other hand, for it to increase its presence in international trade, as well as regional integration in the economic and trade aspects of the agriculture sector, a series of interrelated actions are needed, including the development of internationally competitive agricultural enterprises, the promotion of international trade, the creation of transparent and efficient domestic markets and the development of an efficient transportation, port and communications infrastructure.

These attributes, which are required for greater competitiveness and improved market access, will reduce transaction costs. They will also enable rapid and timely movement of products and food from areas of high production to low production areas, thereby benefitting both producers and consumers. Moreover, they will facilitate more efficient allocation of available resources at the world and regional levels.

In a world grappling with great uncertainty and faced with the possibility of a weakening multilateral trade system, countries must of necessity devise intelligent strategies to allow them to reap the benefits of open trade and economic complementarity, by redoubling their efforts to increase trade in agroindustrial products.

## **Main opportunities and challenges**

### ***Achieve extensive and effective international insertion***

Although countries in the hemisphere have made significant advances in international insertion in recent years through their presence in multilateral organizations like the World Trade Organization (WTO), much remains to be done in the area of regional agreements and the signing of bilateral agreements.

Some of the tasks they face are to:

- Overcome the lack of transparency, stability and security in international agricultural markets. A stronger rule-based trade system must be developed, one that is transparent, more secure, stable and predictable and that creates an environment in which agriculture and food safety in the Americas are less exposed to risk.
- Take full advantage of the region's comparative advantages in agroindustrial production, given its wealth of natural agricultural resources and its production efficiency. To do so, it must increase its presence in the international market, and adjust production to satisfy the requirements of the market, such as the quantity, time, health, safety and quality of the products exported.
- Increase the benefits gained from the signing of trade agreements, for which they will need to:
  - Improve the countries' capacity to administer existing trade and integration agreements.
  - Promote the reduction of tariff and non-tariff barriers and the bureaucratic hurdles that restrict efficiency and trade profits, as well as the movement of goods in the international logistics chain.
  - Increase the region's contribution to world food security.

### ***Deepen the regional integration processes***

- Harness the potential of intraregional agricultural trade, by improving the capacity to identify opportunities and prospective niche markets and promoting the development of regional value chains.
- The region has several institutions and mechanisms tasked with promoting and implementing specific aspects of regional integration, such as technological innovation, and in a broader sense, economic-, trade- and policy-related aspects. However, for the most part, the achievements of these mechanisms and institutions

have been less than expected. In the current international context, it is important to renew efforts to make significant progress in the areas of cooperation and regional integration.

### **Guidelines for the Program's action plan**

The Program will focus on providing support to member countries to improve their international market presence in agroindustrial products and to deepen regional integration as a route to increased economic development and well-being. Regional integration concerns are particularly important in Central America, where they have a long and dynamic history, and in the Caribbean, with respect to its integration with Latin America. The Program will work closely with the Agricultural Health, Safety and Food Quality Program as well with the Bioeconomy and Production Development Program, in the area of production chains and their role in international trade.

#### ***Promote agrifood trade***

This line of action will include the following components:

- Support countries in defining strategies geared towards increasing their participation in international trade and their effective use of the trade agreements that they have signed.
- Support the effective participation of countries in international forums that relate to the topic and that promote information exchange, the identification of best practices and the mobilization of resources relevant to agriculture and regional integration.
- Collaborate with the Agricultural Health, Safety and Food Quality Program in driving regional standardization and harmonization of agricultural regulations relating to health and food safety, inputs, varieties of products and requirements, licenses and permits that affect trade in agricultural goods and the development of agricultural enterprises.
- Support the establishment of multilateral rules that address the specific needs of agricultural producers and actors at every stage of the agroindustrial production chain.
- Promote the adoption of agricultural trade facilitation measures that facilitate improvements, such as simpler transactions, harmonized procedures, and reduced inspection costs and dispatch times at customs.
- Support capacity development to administer trade agreements and improve market access.

#### ***Support regional integration processes and the articulation of trade policy***

This line of action will include the following components:

- Collaborate with the Bioeconomy and Production Development Program in helping countries to take better advantage of economic complementarity, improve their negotiating abilities with respect to third countries and build an economic climate that is more favorable to the development of agricultural enterprises and value chains.
- Support mechanisms that facilitate improved coordination and cooperation among countries in the region.
- Promote policies for the development of domestic markets that satisfy the needs of local consumers and facilitate regional integration and, in so doing, generate multiplier effects that translate into increased income for actors throughout the agricultural chain.
- Drive the development of regional agricultural value chains and their link to global chains, as a way to improve the competitiveness of the region in relation to third markets.
- Foster the creation of specialized technical discussion forums, at the regional and subregional levels, that support the insertion of agriculture into processes of regional integration, and continue to lend support to regional and subregional policy forums.

*Act as a reference point for information on trade agreements*

This line of action will include the following components:

- Complement the efforts of other international organizations by maintaining a record of trade liberalization and/or economic complementarity agreements that countries in the American hemisphere have signed and that are still in effect, with the support of regional integration organizations. This record will be limited to agreements that relate to trade in agroindustrial products.

**4.2.4. Program 4: Climate Change, Natural Resources and Management of Production Risks**

This program will be directly aligned with Strategic Objective 4, which aims to build the resilience of rural areas to extreme events. It is aligned to a lesser extent, with Strategic Objectives 1, 2 and 3.

**Conceptual and informational elements that guide and contextualize the organization and key thematic areas of the Program**

Global warming is a symptom of climate change, which produces changes in weather patterns and is reflected in extreme weather phenomena that affect agricultural production and other human activities, such as the provision of health services, energy, etc. It is also a factor that leads to increasing environmental, economic and political instability, and by extension, to uncertainty and crisis situations for a country's people, government and institutions.



Although climate change impacts everyone, the problems facing rural populations and local and national authorities are particularly complex, difficult and constantly changing. In many cases, they overwhelm management and mitigation capacities. The symptoms of climate change, both the extreme and immediate ones, as well as those with medium and long-term impact, may trigger disorganized or compulsory migration; economic, food, social and political crises; and more importantly, ecosystem failures and the degradation of natural resources. For example, it is estimated that in 2050, 17 million people in LAC will leave their countries due to the effects of climate change (agricultural desolation, lack of fresh water, rising sea levels). These migrants, who are referred to as “climate migrants,” will amount to 143 million people worldwide.<sup>48</sup>

Projections on the evolution and impact of climate change indicate that rural areas will be continuously and repeatedly exposed to its environmental, economic and sociopolitical repercussions, although to differing degrees, depending on their geographic or orographic location. Consequently, this makes it imperative to take action that contributes to boosting the **adaptation** and **resilience** capacity of production systems to climate change, including capacities for the management of agricultural risks that result from these phenomena. On the other hand, agriculture itself has been a factor in climate change, by producing greenhouse gas emissions. Therefore, it must be part of the solution through actions that contribute to mitigating its impact on climate change and the environment.

### **Main opportunities and challenges**

No region of the hemisphere is exempt from the risks or the direct or indirect effects of climate change and its economic, social and political consequences, but the Caribbean, and Central America to a lesser extent, are particularly vulnerable, and therefore the Program will pay special attention to their needs.

#### ***Increase the availability of institutional capacities and human resources***

Increased human capacity and institutional mechanisms must be developed in the public sector to enable production, accessing, sharing and processing of information and the required multidimensional and multisectoral analyses to translate this into policy recommendations and concrete actions. These policies must take into account several issues, including adaptation, resilience and mitigation in agricultural production systems. Early warning, information management, health monitoring, food safety and risk management systems must be established in rural areas to enhance the resilience of these communities. Significant investment and training programs will be needed in order to correct deficiencies.

#### ***Increase the development of agricultural best practices and the programs and policies required for their application***

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<sup>48</sup> Kumari Rigaud, K; de Sherbinin, A; Jones, B; Bergmann, J; Clement, V; Ober, K; Schewe, J; Adamo, S; McCusker, B; Heuser, S; Midgley, A. 2018. Groundswell: preparing for internal climate migration. Washington, D. C., World Bank.

The region provides many examples of successful best practice experiences in rural agricultural production and agroindustry, which it should build on to achieve and strengthen sustainability and comprehensive resilience (environmental, economic and socio-political) in these sectors. The sustainability of natural resources is of particular importance, including their ecosystem functions on which agroindustrial activities are based. This challenge will require the definition and implementation of policy measures, plans, programs and actions that ensure sustainability, resilience and mitigation to assist in honoring commitments assumed at the Conference of the Parties (COP) of the United Nations Framework Convention on Climate Change (UNFCCC).

### ***Establish public-private sector agreements***

It is somewhat difficult to finalize agreements between public and private institutions that lead to effective action in the management of agricultural production and environmental risks. There are countries that have developed their capacity to properly manage crisis situations, through continuous investment in financial, technical and policy resources that has allowed them to respond effectively to the multiple risk profiles that they face. However, overall, the weaknesses in the region's institutions are an established fact, particularly its private social actors who should be equipped to respond effectively, in collaboration with the public sector, to risks linked to agricultural production and the protection of ecosystems. This weakness is evident at all stages of risk management, be it prevention, preparation, mitigation, response, recovery or rehabilitation. This includes the capacity to effectively and efficiently coordinate and align public, private and international assistance before, during and after the crisis. The challenge is to develop institutions, in areas where they do not exist, and strengthen them in places where they already do, and to foster strong public-private collaboration that ensures the effectiveness of these types of interventions at all levels.

### **Guidelines for the Program's action plan**

The Program will concentrate on aspects linked to the sustainability of natural resources, particularly soil and water, and to the management of risks associated with the dynamics of agroproduction and the rural environment. Actions will be geared towards achieving sustainable management of production resources, increased resilience capacity and the development of platforms to enable efficient and effective management of the risk of external shocks. The Program, which is quite broad in scope, will work closely with the Territorial Development and Family Farming Program, and will also interface with the Bioeconomy and Production Development Program and the Agricultural Health, Safety and Food Quality Program.

### ***Contribute to capacity-building for the development of conceptual frameworks and the implementation of policies***

This line of action will include the following components:

- Support the adjustment of conceptual frameworks and methodologies that relate to issues in the Program, based on efficient knowledge management and by capitalizing on successful experiences.
- Assist in the development of analytical and conceptual proposals for strengthening institutional frameworks, both at the national and regional levels, and the internal capacity to support these processes.
- Promote the development of capacities in integrated risk management, including how to prevent and prepare for the presence of pests and diseases and the occurrence of extreme climate events, in order to reduce uncertainty and vulnerability to these adversities. These activities will be developed in collaboration with the Agricultural Health, Safety and Food Quality Program.

***Promote technical-policy dialogue and the implementation of technical cooperation***

This line of action will include the following components:

- Participate in, promote and coordinate forums to debate, define and establish policy agreements between governments and the private and civil sectors, and within these sectors, those organizations responsible for the management of natural resources and production risks.
- Promote the creation of environments that enable discussion and interdisciplinary work that integrates analytical information, the development of technological innovations and knowledge management on natural resource- and risk management-related topics.
- Encourage the sustainable management of soil and water, recovery and regeneration of the agricultural ecosystem, renewable materials, residue management, conservation and use of biodiversity for non-food purposes and ecosystem services. These activities will be undertaken in collaboration with the Bioeconomy and Production Development Program.
- Foster the application of agricultural best practices that contribute to mitigating and adapting to the impact of climate change.

**4.2.5. Program 5: Agricultural Health, Safety and Food Quality**

This program will contribute to the achievement of the four selected strategic objectives. The breadth of its responsibilities as it relates to the strategic objectives gives it a cross-cutting character, and therefore it will need to work closely with the other four programs, particularly with the Program on International Trade and Regional Integration, on topics related to health and the safety and quality of food for national, regional and international markets, as well as cross-border diseases; with the Bioeconomy and Production Development Program and Territorial Development and Family Farming

Program, in relation to health surveillance in national production systems, and with the Program on Climate Change, Natural Resources and Production Risk Management, on the interrelationship between climate change and health and sanitary issues.

### **Conceptual and informational elements that guide and contextualize the organization and key thematic areas of the Program**

Agriculture in the Americas has already established itself as a supplier of food for the world and as a source of growth and development for the region's countries. It will become substantially more important in the future with the world's growing demand for foods due to population growth, globalization and the integration of regions, borders and markets. Pests and diseases have a direct, significant impact on the efficiency of production systems and, therefore, on the food supply. They can also jeopardize consumer health when food safety is compromised at any link in the food chain, and this in turn affects trade. At the same time, the quality and use of biological, chemical and other types of inputs, together with production processes and industrialization,<sup>49</sup> determine final product quality. This in turn has a significant bearing on marketing and exports and will be an issue of the greatest magnitude in the future of the region's agriculture.

Exporting countries that wish to industrialize commodities and produce foodstuffs need to develop policies that address food quality and safety. The markets have asserted a growing body of technical rules and standards, so that technical barriers to trade are becoming an issue of greater importance. Consumers play an increasingly important role in the development of standards and regulations that reflect their concerns and demands regarding the nutritional, safety and quality conditions of their food.

Most of the region's countries have made great strides in creating and strengthening public services responsible for agricultural health and food safety and for regulating and overseeing quality systems. These services create and implement policies and standards designed to prevent the entry and spread of pests and diseases, to control those that affect food production and safety and to set and enforce standards for quality and incorporate added value. They also safeguard the health and phytosanitary conditions and the quality features of agricultural products and foods they export, bearing in mind the standards of the receiving country as well as international standards. National agricultural health and food safety (AHFS) systems serve a gamut of public and private stakeholders involved and interacting in value chains, so it is crucial to make sure they work in a coordinated, cooperative manner.

Regional integration bodies are being consolidated as mechanisms for coordination and cooperation on AHFS, linked ever more closely to coordination of strategies on matters of shared interest, building consensus positions at the international level and establishing regional guidelines and rules. Scientific advances, burgeoning world trade, expansion of the food industry, new patterns of consumption and the rise of emergency situations all lend

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<sup>49</sup> IICA (Inter-American Institute for Cooperation on Agriculture, Costa Rica); EMBRAPA (Brazilian Agricultural Research Corporation). 2018. Lechos biológicos en la agricultura: una tecnología viable para reducir los riesgos de contaminación por el uso de plaguicidas. San Jose, Costa Rica, IICA.

great complexity to the problems that national AHFS and food quality systems need to tackle, particularly the role and function of public services that make up these systems.

International agreements forged under the WTO umbrella have brought progress in setting scientific and evidence-based standards, and this has had powerful repercussions on issues of animal and plant health and food safety, as well as the adoption of technical rules, voluntary standards and procedures for conformity assessment, and all this has helped ward off the development of unnecessary barriers to trade. Under these new conditions, the countries need to play an active role in international bodies to defend their own interests, and have an impact on the processes of developing international standards. The official services are responsible for implementing these international standards in each country.

The widely recognized interdependence between agriculture and the environment is also receiving more attention. As a result, there can be no further delay in building closer ties between AHFS services and the institutional systems responsible for promoting sustainable, socially responsible production, and taking a more integrated view of these dimensions of agricultural development.

## **Main opportunities and challenges**

### ***Strengthen and modernize capacities for food health, safety and quality***

The international environment has changed, and health, phytosanitary and food quality concerns now need to be fully incorporated into agrifood value chains; this means that public institutions must exercise leadership and great skill to prevent and respond to national and cross-border challenges. Public systems, both in the countries and regionally, need to undergo institutional development and modernization that will equip them for the changing, ever more challenging environment and enable them to seize new opportunities in national and international markets. Public-private interaction is crucial for designing, implementing and financing policies regarding AHFS and quality. This calls for a culture that will foster cooperation and joint work programs that exploit and maximize existing capacities and investments. AHFS services need more robust programs for certification, trials and accreditation in order to discharge their duties and make their processes more efficient.

### ***Foster the effective implementation of international standards***

Fair, transparent and scientific evidence-based rules are the foundation for national and international markets to function well. The countries of the region should be able to help shape the processes of developing these standards if they wish to safeguard their own trade and production interests by participating effectively in the development of international standards. The broad diversity of health and phytosanitary requirements applied by importing countries to protect their markets, sometimes outside the bounds of scientific evidence, stand as a challenge to international trade and food security. If the countries wish to facilitate trade, they must harmonize AHFS requirements and quality standards, using the standards agreed to in international organizations as a basis. A greater difficulty is for the

exporting countries themselves to implement these standards, which place a heavy demand on AHFS services to provide technical and institutional capabilities that are not always available, and require effective coordination with the private sector.

***Adopt best practices and improve the response to emergency situations***

In this environment of greater demand and stricter requirements, the countries need to step up their investments and incorporate more knowledge into their agrifood production systems, both to boost productivity and to take a more integrated view of health problems (the “one health” approach). This calls for widespread adoption of practices to guarantee food safety and quality, covering all the different types of agriculture. Shifting agricultural environments due to climate change continue to pose technical challenges to AHFS services. Pests and diseases are causing more frequent and severe damage and triggering emergency situations and the emergence of new problems, that have a profound impact on production, the economy and development. Addressing these problems requires more investment and strengthened technical and institutional capabilities.

**Guidelines for the Program’s action plan**

The Program will have a plan of action focused on promoting an agriculture sector that is productive, competitive and sustainable, and that ensures a safe food supply through local, regional and world markets by generating, improving and applying policies for agricultural health and food safety and quality. This program will work in close cooperation with the International Trade and Regional Integration Program on matters associated with international trade and markets, and with the Territorial Development and Family Farming Program and the Climate Change, Natural Resources and Production Risk Management Program on health, safety and quality in agricultural production.

***Drive institutional strengthening of AHFS systems***

This line of action will include the following components:

- Promote the use of the PVS tool (Performance, Vision and Strategy) and strengthen the organizational systems that facilitate its implementation, impact assessment, transparency and confidentiality. The success of this tool derives from the implementation of specific strategies defined by each country.
- Continue to lend support to regional work on AHFS issues to strengthen and modernize existing institutional frameworks, such as the Standing Veterinary Committee of the Southern Cone (CVP), the Regional Plant Protection Committee of the Southern Cone (COSAVE) and the CAC, and to identify opportunities and needs for coordination that can lead to the development of new projects, mechanisms and cooperative arrangements.

- Promote private sector involvement in processes of developing regulations, technical programs and consultations on standards, as well as in the design, implementation and evaluation of national, regional and global programs and agreements.

***Harmonize, modernize and implement health, safety and quality standards***

This line of action will include the following components:

- Promote the harmonization, modernization and implementation of sanitary and phytosanitary measures under the WTO agreements on the Application of Sanitary and Phytosanitary Measures, Trade Facilitation and Technical Barriers to Trade (TBT), in cooperation with the International Trade and Regional Integration Program.
- Bolster decision-making skills, build technical capacities and encourage active, effective participation of the countries in the different international forums.
- Strengthen national committees and other groups working to facilitate the harmonization of standards through information exchange, horizontal cooperation and strategic partnerships.
- Support capacity building for the effective implementation of international standards (Codex Alimentarius, health codes of the World Organization for Animal Health (OIE), International Standards for Phytosanitary Measures (ISPMs) and the technical regulations in the WTO agreement.

***Develop skills for adopting good practices and for dealing with emerging issues and sanitary, phytosanitary and food safety emergencies, with an emphasis on cross-border cases***

This line of action will include the following components:

- Consolidate knowledge and promote the implementation of good agricultural practices (GAP) and good livestock practices (GLP), whether producing for export or for national consumption.
- Foster a better understanding of the nature of private standards so as to help government agencies and the private sector develop and properly apply these standards.
- Support the development of training programs, both face-to-face and online, to promote a robust culture of food safety and quality in the Americas.
- Enhance regional and national capabilities in the area of surveillance systems, risk management, and preparedness for and response to sanitary and phytosanitary emergencies, including early warning, in conjunction with the Climate Change, Natural Resources and Production Risk Management Program.

- Continue to develop and implement interventions targeting specific pests and diseases, should the need arise and requests be made, in order to tackle antimicrobial resistance (AMR) and continue to promote the development of surveillance plans for this problem.
- Build capacity for designing and evaluating sanitary and phytosanitary programs, including financial analysis.
- Encourage information exchange and technical support for developing policies on the use of tools that assist in making the agriculture sector more productive and competitive.

### **4.3. Cross-cutting issues that contribute to the five hemisphere-wide programs**

The five hemispheric programs described above were designed around the main areas of action that will contribute to meeting the four strategic objectives.

These areas of action are somewhat specialized; in addition, two cross-cutting issues have been identified as essential components in the work undertaken by all five programs.

#### **4.3.1. Gender and youth**

Gender equality and the integration of youth into agricultural and rural processes are critical issues for the countries of the hemisphere, and are extremely relevant to IICA's work.

In the Americas, young people, who are defined as those between 15 and 29 years of age, are a very heterogeneous group of approximately 237 million people, which is close to 24% of the total population. Women, on the other hand, account for more than half of the population, amounting to 500 million people. Almost one fifth of the individuals in both groups live in the hemisphere's rural areas.

Achieving gender equality, which is identified as a top priority in the SDGs, is an objective adopted by the countries and by international organizations as a critical issue for attention.

Similarly, it is an accepted fact that the future of agriculture will hinge on the involvement and active participation of young people in all aspects and areas of rural society and the production, trade and consumption of agricultural products.

Apart from the differences between these two population groups, they share many of the same problems, such as: a) the general failure of economic, social and development processes to include them sufficiently, given their low empowerment, less access to



resources (credit, land, training, information, technology, etc.), and to education and quality employment; b) poor organizational levels; c) infrequent participation in decision-making spaces and d) their invisibility in statistics and specific analyses, particularly in the case of the youth. All of this, combined with other factors, has led to greater inequality and inequity among these groups in comparison to others in the population.

Improving these conditions has become a challenge for all the countries and their supporters, through policies, programs and initiatives that seek to close the existing gaps. The greatest challenge is to enable youth and women to exploit their potential and to be afforded the opportunity to contribute to development processes in a more meaningful way, and to enjoy a better quality of life for themselves, their families and communities.

Consequently, women and youth are leading actors that play a special role in agricultural and rural development in the Americas. Therefore, IICA's technical cooperation should avoid any and all forms of discrimination, while guaranteeing the full participation of women and youth, providing them with equal opportunities and empowering them in all roles and aspects of the Institution's work, in keeping with the SDG provisions.

#### **4.3.2. Innovation and technology**

Innovation has a profound, widespread impact not only on production and production efficiency in agriculture, in general, but is also a mechanism that enables transformation and change in the society, institutions and businesses in the agricultural and rural environment.

Innovation is defined as the application of new knowledge to production or organizational processes. It occurs when there is a social appropriation of knowledge, ideas, practices and technologies, in other words, when they elicit useful changes and benefits for production or organizational activities.

Innovation is a key process in these activities and when it is appropriated by the society, it produces benefits such as growth and economic development, with poverty reduction being just one example. Innovation systems are generally spaces in which all actors interact with each other and which facilitate the flow of knowledge from each individual within a specific socioeconomic context, such as agriculture.

The application of new knowledge and ideas to elicit positive change and satisfy needs should take place in different spheres, including in research and extension services. It also calls for a policy and regulatory framework that is conducive to innovation.

Biotechnology and agro-ecology, and more recently, robotics and communications, provide some examples of fields that are transforming agricultural production, creating extraordinary opportunities to increase production and productivity and posing new challenges as they reshape agrarian structure and the nature of rural employment.

Our ability to seize these opportunities will be subject to the scientific and technical capacities of each country, the level of private sector development, public and private investment and the governments' implementation of scientific, technical and production policies.

Consequently, innovation and technology are cross-cutting issues that affect the activities of IICA's technical cooperation programs, which will therefore seek to adopt an innovative approach, by using science and technology as tools for the transformation and improvement of agriculture in the hemisphere.

#### **4.3.3. How the cross-cutting issues will function**

IICA will be responsible for ensuring the effective operation of these cross-cutting issues and their inclusion in the five programs. It will organize a working group for each of these areas, with specific responsibility for developing strategic components for both issues, incorporating them into the plans of action of all five programs.

#### **4.4. Main modalities and technical cooperation instruments**

Each of the five programs outlined in section 4.2 will have a plan of action that includes technical cooperation actions to be conducted through particular modalities or types of intervention, using a selection of technical instruments.

##### **4.4.1. Main modalities of technical cooperation**

The Institute's technical cooperation will focus on the modalities described below, which are directly linked to program actions aligned and designed to contribute to achieving the four selected strategic objectives.

##### **Building scenarios and support for the creation of development strategies and the identification of technical cooperation needs in the member countries**

IICA will work to build regional and international scenarios that will shed light on opportunities and challenges arising from the international context, and to support the member countries in designing their own agricultural, agroindustrial and rural development strategies. It will therefore continue to support the conception of medium- and long-term visions and to cooperate with the countries as they identify their technical cooperation needs.

Once the ministries of agriculture and the governments of the member countries have these scenarios, they will be able to anticipate events, respond to emergencies, fine-tune their strategies and develop long-term State visions. This will also facilitate informed dialogue between agricultural sector leaders and public and private sector actors.

This process can be achieved by combining two well-coordinated tasks. The first is a forward-looking analysis of international prices and trade and investment flows in the different regions of the hemisphere. The second is also a prospective analysis, but at the national and regional levels, as a starting point for each country and subregion to decide what orientation it will give to its agriculture based on how committed it is to the sector's development and how much the sector contributes to the country's national development objectives.

IICA will do this by conducting on-going global scenario analysis and will respond to requests from the countries to shape national and subregional agricultural development strategies. The Institute will reinforce its in-house capacities by combining its own effort with strategic partnerships involving international specialized centers as well as national-level think tanks focus groups to perform forward-looking, strategic analysis of issues involving agriculture and rural development, as well as public policies having the greatest impact on the activities of the sector.

### **Technical and operational support for mobilizing human and knowledge resources to implement program actions in support of strategic objectives**

The Institute will provide the member countries with technical and operational support to identify and implement strategies, activities and projects for achieving the four selected strategic objectives. Its work will focus on mobilizing human and knowledge resources available in the region, and perhaps even in the world, that will be useful and beneficial for the conduct of these initiatives.

IICA will promote the creation of thematic networks for technical cooperation relevant to the proposed programs; these networks will mobilize the capabilities of its own human resources located at Headquarters and in the offices throughout the Americas and also draw in external specialists, based on their knowledge and experience in the particular areas, to come alongside the implementation of technical cooperation actions and projects.

The Institute will use this modality, first, to participate in conducting technical cooperation projects and support the governments in implementing public policies, especially oriented toward creating public goods. Second, it will manage knowledge in the areas targeted by its programs, share experiences and allow its staff to play a more effective role.

IICA will also support the identification and implementation of projects and actions by lending technical support to initiatives that promote regional integration in the broadest sense, especially in cooperation with the mechanisms and bodies for regional integration.

### **Mobilization of external financial resources to support technical cooperation actions in the member countries and regions**

The Institute will support the mobilization of financial resources available from international organizations, cooperation agencies in the region's countries, third countries

from outside the region, and the private sector, which can contribute, preferably but not exclusively, to the technical cooperation activities described above.

IICA will make a special effort to develop the institutional capacities necessary for this activity and will provide its own pre-investment financial resources for engaging in such work.

### **Management of resources provided by the member countries for their development projects**

The Institute will focus special attention on mobilizing and managing financial resources that can help the ministries of agriculture work more closely with other ministries.

IICA has been using this instrument for many years in response to requests from the countries, and in some cases, at the request of international financial agencies that provide loans and grants. The Institute's work has been valued for its transparent and efficient management.

IICA asserts that this instrument would be applied in the framework of this MTP in consideration of two provisos: a) that the service provision contract explicitly stipulate the responsibilities of the Institute and the national counterpart for technical, administrative, legal and risk management issues; and b) that the amount of resources IICA receives as a special contribution to cover the costs of its services be sufficient to defray all the direct and indirect costs of its participation.

### **Responding to requests through rapid response and short-term actions to address immediate problems and/ or emergencies in the countries**

The Institute will lend support to the countries through short-term, rapid response actions of a technical, administrative and managerial nature that help solve short-term problems and/or emergency situations in the member countries. Such actions will focus on meeting specific requests or seizing opportunities that may arise in one or several countries, not considered at the time the working programs were approved and actions scheduled in the framework of this MTP.

Rapid response actions may also be used for pre-investment purposes. Although IICA's support actions to the member countries take shape through the country-level plan of action, the countries commonly encounter needs and opportunities requiring investment by the State, which the Institute can help address if it moves quickly to write projects and plans for the government to finance.

### **Horizontal cooperation among the countries, particularly South-South cooperation**

IICA will attach particular importance to developing a technical cooperation modality consisting of horizontal cooperation activities in which the member countries can cooperate

to meet their strategic objectives. The Institute will serve as a mobilizer and coordinator of these actions and can place its extensive network of units at their service.

#### **4.4.2 Main technical cooperation instruments**

The technical cooperation instruments are the operational elements through which IICA provides its technical cooperation services within the framework of each of the aforementioned modalities.

##### **Development and adaptation of concepts and methodologies for their specific application to technical cooperation actions**

An important activity that IICA will carry out will be the development and adaptation of concepts, methodologies, standards and other analytical and regulatory elements required for specific technical cooperation activities. Efforts will focus on adapting knowledge available at the global level to facilitate its application in concrete situations.

##### **Support in the design and application of public policies**

The Institute will assist the member countries in selecting, designing and implementing public policies.

IICA will contribute to this objective by conducting analyses and facilitating dialogue with sectoral and non-sectoral entities responsible for policies that affect the agriculture sector, as well as the achievement of its objectives. The analyses will focus on specific cases of policy measures that sectoral authorities believe should be reviewed. The Institute will facilitate dialogue and consensus building through the channels that have been agreed upon by the institutions involved and, where applicable, with the participation of producers' organizations or other groups affected by the measures in question.

Without prejudice to work conducted at the national level, IICA will also support analysis, dialogue and consensus building among countries whose policies need to be standardized. Standardization processes should focus primarily on areas related to health, technical and competence standards, and international trade.

##### **Support for the institutional strengthening of the public sector**

Public-sector institutions related to agriculture and the rural sector must be modernized in order to face the challenges imposed by new international and national realities, improve their efficiency and effectiveness, and contribute to increasing the governability and governance of agrifood systems and rural areas.

The strengthening of institutions related to agriculture and rural well-being is critical to achieving adequate development and effective implementation of public policies and investment projects. IICA acknowledges the fact that institutional capacity building involves much more than human capabilities. It also involves making changes and improvements to the legal framework, processes and equipment, operating resources, external liaison methods and other aspects.

The Institute will provide support to public sectoral institutions that express their willingness to improve their capacity for action, and that commit to this objective, with the aim of driving agricultural and rural development.

### **Fostering of capacity building**

IICA will support capacity building for the most relevant agricultural stakeholders and institutions in the Member States, in order to improve the private sector's participation in the design and implementation of public policies and institutional frameworks that contribute to development.

The Institute will contribute to building the capacities of entities in the private business sector, of civil society organizations and, especially, of entities that represent family farming or other economic and social stakeholders in rural areas.

### **Organization of technical-political forums and dialogue**

IICA will foster and organize forums for technical-political dialogue in the work areas of the strategic objectives.

Technical-political forums and dialogue will provide opportunities to reflect on and develop proposals on global and regional scenarios, as well as on the main opportunities and challenges of agricultural and rural development. Participants will examine the status of, and topics addressed, in the main international forums, such as the Group of 20 (G20) and the COP. These forums and platforms for dialogue will be conducted in collaboration with other agencies such as the WTO, OIE, the United Nations Food and Agriculture Organization (FAO), the Economic Commission for Latin America and the Caribbean (ECLAC) and the International Fund for Agricultural Development (IFAD).

This cooperation and analysis will make it possible to obtain and process information regarding changes to international policies and standards that affect agrifood production and trade.

### **Coordination, promotion and support for public/private dialogue and collaboration**

Given the fact that the policies with the greatest influence over agricultural performance, rural well-being, conservation and sustainable use of natural resources go beyond the traditional duties and work areas of ministries of agriculture, IICA will foster

intersectoral coordination and actions between these ministries and other public institutions (public-public consensus building) in matters addressed by the four selected strategic objectives.

Similarly, the Institute will promote coordination between the different public and private stakeholders in productive-commercial chains (public-private consensus building) in order to overcome obstacles to competitiveness, as well as between private stakeholders (private-private consensus building), in order to improve competitive access to global value chains.

On the other hand, the evolution of relationships within society has resulted in public entities transferring more of their responsibilities to civil society organizations, particularly private-sector organizations related to agriculture and agroindustry.

Furthermore, the abovementioned public-private cooperation actions will seek to accomplish two objectives: first, to gradually release the State from duties that could be performed by other stakeholders, and secondly, to create a new generation of public goods of limited scope that could be offered by non-public entities.

## **Planning for development and investment in agriculture**

As a productive sector, agriculture has the potential and opportunity to increase its own competitiveness as well as to contribute to increasing income and well-being in rural territories (particularly by reducing poverty). To achieve this, it is necessary, first of all, to increase the resources allocated to the sector. According to estimates by the United Nations, if the world decided to eradicate poverty and hunger, it would require additional financing in agriculture and rural development of USD 140 billion per year.<sup>50</sup>

However, increasing investment in agriculture per se is not sufficient; it is also critical to improve the planning processes for all interventions geared toward the sector. In order to increase efficiency and impact, and thus make a greater contribution to solving problems in the countries and taking advantage of agriculture's potential, governments, international cooperation and private companies must make a greater and more effective use of **evidence** (facts translated into analyzed and systematized data and information) as a tool for developing and implementing interventions and investments.

## **4.5. Strategies for strengthening institutional capabilities**

### **4.5.1. Organization of networks and strategic partnerships**

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<sup>50</sup> World Bank. 2018. Future of food: maximizing finance for development in agricultural value chains (online). Washington, D. C., United States of America. Consulted on 31 May 2018. Available at <https://openknowledge.worldbank.org/bitstream/handle/10986/29686/125295-WP-PUBLIC-futureoffoodpaperweb.pdf?sequence=1&isAllowed=y>.

The growing technological modernization of agricultural production, the creation and increasing importance of value chains and of more complex agroindustrial processes, as well as the urbanization and resulting complexity of social and economic frameworks in rural areas, make it increasingly difficult to interpret reality and to design the public policies required to foster the development and well-being of the rural population.

This complexity also affects the way in which international technical cooperation is developed and implemented. The most suitable responses to this reality can only be developed through collaborative work undertaken by many people with different experiences and areas of specialization, who, together, can analyze, interpret and design effective responses to the problems identified. In other words, these persons must work together to manage the knowledge available in order to provide concrete responses to specific situations.

It is not possible for an institution of IICA's size to possess staff teams of the necessary dimension or with sufficiently diverse knowledge to successfully overcome the challenge of achieving effective and successful technical cooperation. Consequently, the Institute's main strategy will be to serve as an efficient organizer and manager of the capabilities available in order to provide concrete responses to the technical cooperation needs expressed by the member countries.

Three main mechanisms will be utilized to implement this new institutional strategy:

- a) **Organization of networks of specialists** of the highest professional qualifications both within and outside the region that will be linked to each of the five programs. These networks of specialists will be available to assist the program directors in carrying out activities, including their selective incorporation into the interdisciplinary teams that will be created to respond to technical cooperation requests from the member countries.
- b) **Establishment of strategic partnerships with similar institutions.** The objectives of these strategic partnerships will be: a) to generate complementary activities with institutions specializing in research and the creation of knowledge, such as CGIAR centers and universities; b) to foster thematic complementation with organizations that specialize in thematic areas that differ from IICA's, such as ECLAC; and c) to carry out joint activities with organizations whose duties and objectives are similar to IICA's, such as FAO, to contribute to increasing the critical mass.
- c) **Collaborative work with private-sector institutions and civil society organizations** that allows for utilizing the knowledge and organizational capacity of this institutional framework to develop a more efficient and inclusive agriculture.

#### **4.5.2. Identification and management of external resources**

Chapter II presents an analysis of the difficult international context that the region will face over the next decade. It also identifies a series of opportunities and challenges that



must be addressed in order to guarantee economic growth and greater well-being in rural areas.

The mobilization of significant human and financial resources will be necessary in order to succeed in this regard. A part of these resources (particularly human resources) is available in the region and will serve as the basis for expanding IICA's operating capabilities and fostering South-South cooperation. However, given the magnitude of the problems that must be overcome and the situation of poorer countries in the region, it is critical to mobilize additional resources, especially financial resources, available around the world.

To this end, the Institute will work together with its member countries to build bridges between different stakeholders within the international community and will assist the countries in identifying opportunities and developing proposals and projects that facilitate and accelerate the attraction of financial and technical resources. There is a great deal of valuable knowledge within IICA's member and observer countries, as well as within a broad number of international organizations that contribute to development in the region. It is important to disseminate numerous valuable experiences within and outside of the region that are still invisible, despite the advances in communication technologies.

IICA will begin this new phase by promoting an innovative, bold notion of technical cooperation, founded on the idea that the technical cooperation that the Institute provides relies on the identification, mobilization and management of human and financial resources that are useful in providing this cooperation. In this regard, the "IICA knows who knows" slogan, which makes reference to human resources with the necessary technical know-how, can be broadened to include knowledge of the places and institutions that possess financial resources that can be mobilized to provide technical cooperation in the Americas.

To successfully mobilize and manage external resources of this magnitude, a series of specific capabilities and an institutional organization that is aligned with this task are necessary.

The main capabilities required are detailed below:

- a) Detailed and precise knowledge of the group of countries and institutions that could serve as potential sources of human resources, knowledge and financial resources for technical cooperation in the region.
- b) Development of personal and institutional relations, as well as of the organization's capacity to gain access to relevant institutions/organizations and to negotiate access to those resources.
- c) Institutional capacity to develop and present well-substantiated project proposals, monitor the technical cooperation activities that are agreed upon, and deliver the necessary presentations/accountability reports.

- d) Achieve special coordination with the private sector, both nationally and internationally, that is interested in the rural world.

During the implementation of this MTP, IICA will make a special effort to build up the necessary institutional capabilities and channel them toward the technical cooperation that it will offer to its member countries.

In order to support the process of securing external resources, the Institute will create an institutional pre-investment fund for the management of external funding opportunities (FonPRI). The fund will serve as a financial support instrument; as a window that is permanently open, which will contribute to securing new external resources aimed at strengthening the Institute's technical cooperation; and as a pre-investment mechanism for externally funded projects.

#### **4.6. Management of technical cooperation to achieve the selected strategic objectives**

The Americas is a unique region in the world due to its vast diversity in terms of its geographic and physical characteristics, development models, types of agriculture and cultural roots. The Member States' plurality of characteristics, in addition to the permanent dynamism of global changes and their varying impacts on countries, create a complex, variable context for technical cooperation activities.

In dealing with the varying needs and action capabilities of the member countries, IICA's physical presence in its 34 Member States, where it possesses technical and administrative capabilities, is one of its greatest institutional strengths. The installed capacities in each of the countries enables the Institute to possess knowledge of and to work closely with governments; as a result, it is able to offer differentiated technical cooperation interventions in terms of the prioritization of demands, as well as the instruments utilized to address them.

The Institute will make a concerted effort to become a technical cooperation platform based on knowledge management and, in particular, on the sharing of experiences and lessons learned between regions and countries (horizontal cooperation and South-South cooperation).

The 2018-2022 MTP proposes a renewed management style for technical cooperation that incorporates the following three conceptual and operational elements:

##### **4.6.1. Differentiated technical cooperation to respond to the concrete needs and demands of countries and regions**

IICA will strengthen its institutional capacity to support the member countries in their efforts to achieve their development objectives related to agriculture and rural well-being. Within that framework, the work carried out at the country, regional, multi-country and

hemispheric levels will be based on the concrete needs and demands prioritized by the countries themselves and by the regional integration mechanisms. These needs and demands will be identified by the Institute's technical teams, which will work and communicate closely with public, private and academic counterparts in the Member States.

### **National level**

At the national level, the IICA offices play a key role in the preparation of work agendas and in the continuous updating of their scope and content. Each office's experience, given the strong heterogeneity of visions and development models, constitutes a valuable element for fostering interaction between countries and regions.

In close consultation with the main public, private and academic counterparts, each office will develop a national technical cooperation agenda that reflects, in a prospective manner, the needs and priorities of the corresponding Member State. Together with other units at Headquarters, the Technical Cooperation Division will provide the offices in the member countries with the technical support they require in order to prepare their corresponding national agendas.

The national agendas will summarize the programs' work priorities, identified jointly and aimed at achieving the strategic objectives aligned with the SDGs. These agendas will be the operational manifestation of the main technical cooperation actions that were agreed upon by the member countries and IICA, and will serve as the strategic framework for actions carried out at the country level.

In order to carry out the agreed-upon technical cooperation actions, IICA will organize the technical teams responsible for their execution. The teams will comprise personnel from the corresponding IICA programs and/or offices, and will receive support from members of the networks of professionals.

### **Regional and multi-country levels**

Shared interests among countries serve as the basis for developing exchange and cooperation activities between them. This shared interest may occur in a single geographic region or within a group of related countries that do not necessarily form part of the same region (multi-country level). Actions aimed at supporting collaborative and regional integration activities and processes will be planned, agreed upon and carried out in close coordination with the secretariats of the regional cooperation and integration mechanisms. Special effort will be made to acknowledge the specificities of each situation and of the participating countries or regions, and to adapt the technical cooperation actions accordingly.

In recent years, the hemisphere has achieved progress in establishing a new generation of regional agreements and cooperation efforts in different areas relating to regional integration in LAC. Some examples are the Union of South American Nations (UNASUR), the Community of Latin American and Caribbean States (CELAC), and the Pacific Alliance, which complement traditional mechanisms such as the Organization of American

States (OAS), MERCOSUR, SICA, the Caribbean Forum (CARIFORUM) and the Andean Community (CAN), as well as other technical collaboration mechanisms, including cooperative programs for research and technology transfer (PROCI), the Forum of the Americas on Agricultural Research and Technology Development (FORAGRO), etc.

These broad and diverse regional cooperation and integration mechanisms represent extraordinary social and political capital to consolidate a regional and hemispheric vision and establish more solid links with the rest of the world. IICA will provide assistance to the member countries and their regional institutions, and will support, in its specific areas of competence, the development of bilateral trade programs and horizontal cooperation agendas between the countries.

#### **4.6.2. Shared responsibility**

The management of technical cooperation is a corporate responsibility shared by all IICA units involved in the execution of technical cooperation programs, projects and activities. It includes units directly involved in the provision of technical cooperation actions; those responsible for their coordination, monitoring and evaluation; as well as the units that provide administrative and financial support.

In this regard, Headquarters will play a key role in providing guidance and strategic coordination for technical aspects as well as in facilitating administrative processes and mechanisms to guarantee the provision of timely technical cooperation of excellence in the regions and countries.

#### **4.6.3. Operational decentralization**

Through decentralized administrative and financial management, the offices in the member countries manage and implement technical cooperation projects and actions in close coordination with national public, private and academic counterparts.

IICA will gradually delegate duties and assign operational responsibilities to all units in the organization and, particularly, to the offices in the member countries, in order to achieve the expected results in close collaboration with national counterparts and with permanent support from Headquarters.

This principle implies the review and modernization of institutional standards and procedures, which will give way to more flexible and efficient processes in areas related to coordination, technical support, programming, financial management, human talent management, and monitoring and evaluation.

#### **4.6.4. Public communication and information**

An active public communication policy that includes, as a guiding principle, the dissemination of information in real time using attractive formats for use by mass media, will be critical to enabling IICA to play a renewed leading role, while taking advantage of

the opportunities afforded by a growing recognition of agriculture's central role in the global agenda.

In this regard, guided by the management objectives of the administration, the Social and Institutional Communication Unit will aim to support the full realization of the potential afforded by the hemispheric programs on which the Institute's actions will focus. To this end, it will support the Institute's growing public exposure as well as its stances, activities and undertakings by increasing the publication of articles by Institute authorities and press releases, boosting engagement with influential reporters, and working to position IICA as a strategic resource for its member countries.

To achieve these objectives, it will be necessary to disseminate relevant content about concrete actions carried out by the Institute to promote rural and agricultural development, as well as their interaction with politics, science, technology, civil society and the private sector. This, in turn, will allow for increasing IICA's influence, prestige and visibility; expanding knowledge about the Institute; and boosting its technical authority.

## V. PLANNING, PROGRAMMING, MONITORING AND EVALUATION

IICA will continue to develop and streamline processes focusing on continuous improvement, rationality, accountability and transparency, which facilitate the provision of technical cooperation of excellence with measurable and verifiable results. Experience gained throughout the years and important advances in information and communication technologies and in institutional management will enable the modernization of the organization and of internal processes. The aim is to enhance the efficiency and effectiveness of the cooperation services that the Institute provides to countries, to ensure that the results obtained will contribute to achieving the strategic objectives of this Medium-term Plan (MTP).

During the 2018-2022 period, IICA will employ **a results-based, integrated management of technical cooperation**, in response to the demands and needs of Member States at the national, multinational and hemispheric levels. In keeping with this approach, the Institute's management system will be grounded in six interrelated and integrated processes: planning, programming, monitoring, evaluation, accountability and institutional learning, as summarized in the following diagram:

**Diagram 2. Process cycle for integrated management of institutional cooperation.**



This stems from a series of concepts related to technical cooperation, which includes identifying the problem, the steps needed to achieve the desired changes (change theory<sup>51</sup>) and the expertise required to properly manage projects, based on results.

## **5.1. Planning**

During the planning phase, the Institute's short and medium term actions will be broadly defined, at both the strategic and operational levels, in keeping with the guidelines set out in this MTP.

The planning process is also an integral part of the institutional processes that are used to develop IICA's country strategies and its regional or multi-country actions, based on the wider strategic objectives that guide the Institute's actions.

Programs and technical cooperation projects of a programmatic nature will be the means of aligning strategic planning with operational planning, including the programming of results and the allocation of budgets to technical cooperation actions.

## **5.2. Programming**

This MTP will be implemented based on a four-level programming process. The first will be biennial programming, in which resources from the Regular Fund resources are assigned in order to operationalize the MTP and to meet its objectives. The second level will involve the allocation of IICA resources and external resources to the joint projects defined in collaboration with Member States, donors and other partners. The third level will be annual programming which will specify the expected results, products, indicators and the budget for the respective calendar period in the various areas of IICA's activities: hemispheric, regional and national. Finally, the fourth level will define the work of each of the Institutes' employees, relating their key responsibilities and activities to the different cooperation instruments and resources allocated to them.

The four-year MTP will provide the strategic framework and roadmap for this administration. IICA will provide its governing bodies with a biennial program budget that provides details on the Institute's operations and investments through its Regular Fund and human talent, and will be the basis for the development of the Annual Action Plan.

## **5.3. Monitoring**

Monitoring activities will collect information on the progress made in physical completion and financial execution of action plans, through indicators or goals defined during the programming phase.

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<sup>51</sup> This approach allows for the design, execution, monitoring and evaluation of interventions for each of IICA's programs. It provides the roadmap for a series of logical actions to produce the desired changes.

Institutional monitoring, both technical and financial, will be an automated process based on approved plans, and will involve strict, real time tracking of the progress of all projects or technical cooperation actions, as well all management units. It will seek to collect information, detect any situation that may require timely adjustment and guarantee the efficient and effective use of resources.

It will also inform the process of preparation of reports, provision of accountability to member countries, recommendations for corrective action, the provision of feedback for planning purposes, the identification of lessons learned and good practices, and the generation of information for the Institute's governing bodies - (the Inter-American Board of Agriculture [IABA], Executive Committee), the Special Advisory Commission on Management Issues (SACMI), the Permanent Council of the Organization of American States (OAS) - and for the strategic partners who require it. Also, and no less importantly, it will facilitate individual and organizational learning, as well as the external recognition of the Institute.

## 5.4. Evaluation

This is defined as “the systematic assessment and independent appraisal of a program, project, or institutional action that is to be carried out, or is in the process of implementation, or is already completed with results” (*IICA's Institutional Evaluation Policy*). This permanent, ongoing process, will verify if planned products and services are producing the desired effect, which is a key component of budgetary allocation. The results achieved will be compared to the programmed or planned results. Any deviation from the plan can therefore be identified and corrective measures applied to ensure the satisfactory achievement of the programmed objectives.

Evaluation a) provides feedback for strategic processes, b) guides operating processes, c) highlights results, d) generates confidence and e) enriches the culture of organizational learning and knowledge of technical cooperation.<sup>52</sup>

This task will also evaluate the level of success of the MTP itself, the programs and units (primarily the offices in the member countries), as well as the technical cooperation instruments defined in the Plan. It will call for the development of a series of instruments for use in the evaluation process, as well as criteria that should be taken into account in formulating programs, projects and actions, in order that the outcomes may be evaluated.

## 5.5. Accountability

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<sup>52</sup> For further information on the objectives, principles, criteria and responsibilities of the Institution during this stage see: IICA (Inter-American Institute for Cooperation on Agriculture, Costa Rica). 2016. IICA's Institutional Evaluation Policy. San Jose, Costa Rica.



This process will ensure that the technical results obtained, both qualitatively and quantitatively, as well as expenditure in the corresponding budgetary exercise are made transparent. All IICA offices in the Member States provide accountability to the Ministry of Agriculture, as the leading authority, and also to partners, donors, cooperating entities, academia and civil society, demonstrating the Institution's results in the country, thereby enabling actions to be made transparent, obstacles hindering the achievement of specific goals to be identified and the necessary adjustments in strategies to be proposed.

Additionally, the Institute is accountable to its governing bodies on an ongoing basis and submits a report to the OAS Permanent Council.

## **5.6. Institutional learning**

The purpose of this phase is to capitalize on experience and provide feedback for the institutional planning process and for knowledge management.

Evaluation of the results and achievements of the Institute's actions, allows for the identification of lessons learned and good practices, and provides material for dialogue, reflection and feedback for management processes, the adjustment of strategies and focusing of programs and actions, all of which will improve institutional performance.

## **VI. CORPORATE SERVICES**

During the lifetime of this medium term plan (MTP), IICA will strive to develop a more dynamic, efficient and modern approach to management that contributes to and complements the strategic and operational management of technical cooperation activities, ensuring the economic viability of the Institute and creating the best possible internal conditions needed to establish partnerships aimed at continuously improving the technical cooperation that IICA provides.

Given the challenges and circumstances arising out of the global economic and financial climate and based on the quotas provided by Member States, adherence to a policy of strict, rational, austere and transparent use of available resources is imperative. The Institute will emphasize the use of resources on technical cooperation, using a more decentralized approach, in order to improve the operational efficiency of its management process.

To enhance its operational efficiency, IICA will adopt a process culture, which will include systematizing these processes and promoting improvements in the services offered by the administrative units. Processes should clearly define the scope of each administrative unit to avoid any duplication of roles and to enable improved precision and timeliness of information, establishing the responsibilities that correspond to each area. The administrative units will therefore be able to make a positive contribution to the work of technical units.

Organizations with a process-oriented culture add value by way of information services for internal and external clients. This approach seeks to ensure that all actions are geared towards client satisfaction and significantly improving efficiency.

Within the context of this value-adding management system, the new organizational paradigm will be based on process demands, allowing the Institution to implement the requisite structural and infrastructural changes.

### **6.1. Principles of administrative management**

Administrative management will be grounded in the following principles:

- a) Transparency and accountability,
- b) Decentralization and operational flexibility,
- c) Budgetary administration,
- d) Efficient and effective support of technical cooperation activities,
- e) Timely information,
- f) A process culture,
- g) A results-based approach.

As far as **transparency** is concerned, the previously described planning, monitoring and evaluation processes will be instrumental in ensuring continuous improvement, the effectiveness of the results achieved, the transparency of our accountability process and the achievement of the Institute's objectives.

**Operational decentralization** should take place at all levels of IICA, mainly in relation to the offices in the member countries. The planning and programming systems will be strengthened to facilitate this process of decentralization, while ensuring that the Institute's actions are in keeping with its vision.

**Budgetary management** will be a key component. There will be strict compliance with the implementation of IICA's established rules and procedures. However, these may be updated, where necessary.

Additionally, budgetary rules will include special clauses that speak to externally funded projects and activities, in order to develop mechanisms that provide **operational flexibility**, enabling effective and efficient acquisition and management of external resources.

The main objective of administrative management will be to **support the technical cooperation** efforts of IICA, providing the requisite resources in a timely manner, to ensure that the Institute is recognized for the **efficiency and effectiveness** of the technical cooperation given to Member States. In pursuit of this objective, budget management will involve the transparent allocation of resources to each operating unit at the start of the budget year, and the use of these resources will be closely monitored throughout the year.

**Timely information** is essential to the decision-making process. IICA places great importance on the ability to access reliable, precise and complete information in a timely manner. Information and communication technologies play a key role as mechanisms that facilitate access to information at the right time and place, and which assist in decision-making in technical cooperation matters.

The Institute will continue to automate its processes and integrate its decision-making systems. It will also provide information that fosters timely and relevant decision-making, to which it may add further value by transforming it into institutional knowledge.

IICA will continue its efforts at digital migration and transformation to allow for complete automation of institutional processes. This will help to reduce the use of paper, accelerate decision-making and will provide tools that are conducive to Internet-based collaboration, allowing employees and their counterparts to interact, work together and share information in real time.

The Institute will continuously strive to ensure that all its administrative processes support and contribute to obtaining effective **results** in technical cooperation actions.

## **6.2. Financial architecture**

The main sources of funding for IICA are the annual quota contributions of its Member States, as well as any adjustments approved by the governing bodies to maintain a minimum level of purchasing power, in an effort to ensure that the Institute has the requisite resources to strengthen cooperation services.

In order to bolster its finances and to boost the quality and coverage of its technical cooperation services, IICA will work diligently to:

- a) Encourage Member States to remain up-to-date in their quota payments, in keeping with the quota scale approved by the Inter-American Board of Agriculture (IABA).
- b) Identify projects of special interest to the Member States, to secure funding through special contributions from the countries, while promoting a relative increase in contributions.
- c) Review the existing Indirect Cost Recovery (ICR) policy, to enable externally funded programs and projects to adopt other mechanisms that cover all indirect costs incurred by IICA in managing them.
- d) Identify new sources of funding that will bolster the contributions of member countries, in keeping with the strategic objectives of this MTP, through participation in consortia bidding processes, sale of services, and by administering programs and projects, among other initiatives, while respecting the Institute's mandates and its status as an international organization.
- e) Make an intensive effort to identify and establish open and transparent institutional relationships with bilateral and multilateral donors.

## **6.3. Human talent**

The successful implementation of this strategy calls for a new approach to human talent management, emphasizing decentralization, and the consequent generation and modernization of management policies and procedures by the General Directorate, in accordance with the Institute's new strategy.

A participatory and horizontal leadership style will be promoted, that fosters development and strengthens the skills of employees in a collaborative, harmonious, respectful and efficient environment. This stems from the premise that effective management of human talent is the shared responsibility of all individuals in the Institute in a human resource management role.

Within the framework of a process culture and collaborative work environment, the Institute's objectives will be realized through the work of multidisciplinary networks and teams that act effectively and efficiently, multiplying efforts and making maximum use of internal capacities.

The new technical cooperation model that is based on a knowledge management approach will require the establishment of professional networks of a higher technical level

that, in collaboration with IICA employees, can assist in implementing technical cooperation actions. The Institute will therefore make a concerted effort to identify high-level professionals that are available and interested in contributing to IICA's activities.

## ACRONYMS

AHFS	Agricultural health and food safety
ALBA	Bolivarian Alliance for the Peoples of our America
AMR	Antimicrobial resistance
CAC	Central American Agricultural Council
CAFTA-DR	Free Trade Agreement between the United States, Central America and the Dominican Republic
CAN	Andean Community
CARDI	Caribbean Agricultural Research and Development Institute
CARICOM	Caribbean Community
CARIFORUM	Caribbean Forum
CAS	Southern Agricultural Council
CATIE	Tropical Agricultural Research and Higher Education Center
CCAD	Central American Commission for Environment and Development
CELAC	Community of Latin American and Caribbean States
COP	Conference of the Parties of the United Nations Framework Convention on Climate Change
COP21	XXI International Climate Change Conference
COSAVE	Regional Plant Protection Committee of the Southern Cone
CVP	Standing Veterinary Committee of the Southern Cone
ECLAC	Economic Commission for Latin America and the Caribbean
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FonPRI	Institutional Pre-investment Fund for the Management of External Funding Opportunities
FONTAGRO	Regional Agricultural Technology Fund
FORAGRO	Forum of the Americas on Agricultural Research and Technology Development
FTAA	Free Trade Area of the Americas
G20	Group of 20
GAP	Good agricultural practices
GDP	Gross domestic product
GHG	Greenhouse gas
GLP	Good livestock practices
IABA	Inter-American Board of Agriculture
ICR	Indirect cost recovery
IFAD	International Fund for Agricultural Development
IICA	Inter-American Institute for Cooperation on Agriculture
IPCC	Intergovernmental Panel on Climate Change
ISPM	International Standards for Phytosanitary Measures
LAC	Latin America and the Caribbean
MERCOSUR	Southern Common Market
MTP	Medium-term Plan (IICA)
NAFTA	North American Free Trade Agreement
OAS	Organization of American States

OECD	Organization for Economic Cooperation and Development
OECS	Organization of Eastern Caribbean States
OIE	World Organisation for Animal Health
PROCI	Cooperative program for research and technology transfer
PVS	Performance, Vision and Strategy
R&D	Research and development
SACMI	Special Advisory Commission on Management Issues
SDG	Sustainable Development Goals
SICA	Central American Integration System
SIECA	Secretariat for Central American Economic Integration
SP	Strategic Plan (IICA)
TBT	Technical Barriers to Trade
TPP	Trans-Pacific Partnership
TTIP	Transatlantic Trade and Investment Partnership
UN	United Nations
UNASUR	Union of South American Nations
UNFCCC	United Nations Framework Convention on Climate Change
USDA	United States Department of Agriculture
WMO	World Meteorological Organization
WTO	World Trade Organization