

Hemispheric Agricultural Health, Safety and Agrifood Quality Program



Inter-American Institute for Cooperation on Agriculture

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Executive Summary

The COVID-19 pandemic increased attention to the need to operate with the “One Health” approach, and to form a vision of these dimensions of agricultural development, agrifood systems and public-private interaction, to promote leadership and a culture of collaboration through joint work.

From this conceptual perspective, the Agricultural Health, Safety and Agrifood Quality Program:

Drives the technical and institutional strengthening of agricultural health and food safety systems (AHFS). It incorporates the “One Health” concept and promotes the use of digital tools, developing new methodologies and improving existing ones to attain higher levels of efficiency in the management of these systems.

Harmonizes, updates and implements science-based health, safety and quality regulations. To do so it fosters the harmonization, updating and implementation of sanitary and phytosanitary measures as part of agreements on the application of sanitary and phytosanitary measures, the easing of trade and technical barriers to trade, and by reinforcing technical skills for decision-making and institutional capacities for their application.

Develops capacities to adopt best practices and address emergent issues, with a view to strengthening national and regional capacities for the prevention, preparation, management and provision of responses to emergent issues and sanitary and phytosanitary emergencies. For this, it fosters the use of new technologies and knowledge management, and the design of effective zoonosis prevention and control programs to reduce their impact on public health.

Technical cooperation in the program is based on five pillars: animal health, plant health, food safety, the Agreement on the application of Sanitary and Phytosanitary Measures, international standards, and the “One Health” concept.

Thus, the program focuses on promoting agrifood systems with an agricultural sector that is productive, competitive and sustainable, providing safe foods to domestic, regional

and global markets, through the generation, improvement and application of agricultural health, food safety and agrifood quality policies.

In this context, the program's priority work areas are: the digitalization of AHFS, science as the basis for decision-making, and the "One Health" concept. The digitalization of AHFS includes sanitary intelligence, the use of digital technologies to promote a culture of safety and prevent pests and diseases, and electronic certification.

To execute technical cooperation actions in the countries, the program has a hemispheric team of 50 specialists, outstanding national and international personnel in the areas of animal health, plant health and agrifood safety and quality, strengthened through collaborative work over public and private institution networks in the countries, and regional and international organizations.

Sobre la Cooperación Técnica del IICA

El Instituto Interamericano de Cooperación para la Agricultura (IICA) se destaca como el organismo internacional especializado en agricultura del Sistema Interamericano, respaldando decididamente los esfuerzos de sus Estados Miembros en la consecución de su desarrollo agrícola y el bienestar rural.

La esencia de su labor se centra en la provisión de Cooperación Técnica (CT) a los Estados Miembros. Esta Cooperación Técnica, en particular, engloba una serie de acciones estratégicas diseñadas para abordar de manera contextualizada e innovadora los desafíos primordiales que se plantean en el ámbito del desarrollo agropecuario y rural en las Américas. Nuestra cooperación, destacada por su excelencia y capacidad de añadir valor, busca instaurar transformaciones de relevancia a través de un enfoque de responsabilidad compartida y colaborativa con aliados estratégicos, donde el IICA se desempeña como catalizador y articulador.

En este contexto, las diversas acciones ofrecidas por el IICA abarcan una amplia gama de productos y servicios, que incluyen el intercambio de conocimientos, saberes y experiencias; el fortalecimiento de capacidades técnicas e institucionales; la asesoría en procesos estratégicos y la formulación de políticas públicas; la coordinación y el apoyo técnico a instancias multi-institucionales; el desarrollo, la facilitación y la implementación de herramientas y metodologías; y la gestión y administración de proyectos vinculados al sector agrícola, entre otras acciones relevantes para la ejecución de la cooperación.

Un rasgo distintivo de nuestras soluciones radica en su capacidad de adaptación a las necesidades específicas de los países y en la consideración de situaciones y contextos particulares, además de abarcar diversas escalas de acción, desde lo territorial y local hasta lo nacional, regional y hemisférico o global. Asimismo, nuestras soluciones innovadoras se orientan hacia la superación de enfoques tradicionales, capitalizando y potenciando las sinergias ambientales, la productividad de los factores, la competitividad y el desarrollo sólido y sostenible.

Los retos primordiales que caracterizan al desarrollo rural en la región trascienden las fronteras nacionales y se ven afectados por crisis de envergadura regional y global. Por

esta razón, la visión renovada de la Cooperación Técnica del IICA responde a las diversas oportunidades, desafíos y compromisos que enfrenta el hemisferio, y contribuye decididamente a la creación de bienes públicos supranacionales, alineándose con firmeza con la agenda 2030 y la consecución de los Objetivos de Desarrollo Sostenible (ODS).

La relevancia de nuestras soluciones se manifiesta a través de colaboraciones con otras organizaciones que operan en el ámbito de la Cooperación Técnica, incluyendo entidades públicas nacionales e internacionales, así como el sector privado. El IICA actúa como un articulador clave en este ecosistema, donde todos los integrantes asumen una responsabilidad compartida ante esta noble tarea.

Bajo esta perspectiva, el propósito fundamental de la Cooperación Técnica del IICA es cumplir con nuestra misión, tal como se establece en nuestro convenio constitutivo: "estimular, promover y apoyar los esfuerzos de los Estados Miembros para lograr su desarrollo agrícola y el bienestar rural". La Dirección de Cooperación Técnica (DCT), liderada por la Dirección General, es la entidad responsable de la formulación conceptual y la implementación de las acciones de Cooperación Técnica del IICA, establecidas en los planes de mediano plazo del IICA, que son revisados cada cuatro años con la participación de los Ministerios de Agricultura de todos los países miembros.

Conforme al Plan de Mediano Plazo (PMP) vigente (2022-2026), la Cooperación Técnica se enfoca principalmente en tres acciones estratégicas fundamentales:

- Apoyar el fortalecimiento y la transformación de los sistemas agroalimentarios.
- Contribuir con herramientas e insumos para la formulación de una nueva generación de políticas públicas.
- Respaldar los esfuerzos de acción colectiva de los países miembros en las áreas vinculadas a su mandato institucional.

La Cooperación Técnica institucional se organiza en torno a 7 Programas de Acción Hemisférica que reflejan de manera adecuada los temas emergentes en los nuevos escenarios y las prioridades globales. Los programas actuales del IICA abarcan:

- Innovación y Bioeconomía.

- Desarrollo Territorial y Agricultura Familiar.
- Comercio Internacional e Integración Regional.
- Acción Climática y Sostenibilidad Agropecuarias.
- Sanidad Agropecuaria, Inocuidad y Calidad de los Agroalimentos.
- Digitalización Agroalimentaria.
- Equidad de Género y Juventudes.

En consonancia con estas acciones, se establecen tres instancias innovadoras y de articulación interprogramática: el Centro de Servicios a la Gestión del Conocimiento y la Cooperación Horizontal, el Observatorio de Políticas Públicas para los Sistemas Agroalimentarios (OPSAa), y la Escuela de Líderes para la Transformación de los Sistemas Agroalimentarios (ELTSA). Las tres, se integran de manera transversal a las líneas programáticas del PMP.

Finalmente, se han establecido iniciativas interdisciplinarias de Cooperación Técnica destinadas a abordar demandas estratégicas en torno a temáticas específicas, que trascienden los límites de los programas individuales y contribuyen a la conexión entre países, regiones y áreas disciplinarias. Entre las iniciativas actuales de gran relevancia se incluyen el programa Suelos Vivos de las Américas, la Coalición de Acción para la Salud de los Suelos y la Misión de Innovación Agrícola para el Clima.

Mediante la implementación de estas instancias en la estructura de la Dirección de Cooperación Técnica y junto con la sólida red de 34 representaciones nacionales y diversos mecanismos regionales y subregionales de Cooperación Técnica, perseguimos la consolidación de una visión que caracteriza al IICA como un Instituto que, desde la perspectiva regional, proyecta su influencia hacia el mundo y ofrece a los países miembros una Cooperación Técnica de excelencia e impacto, que brinda soluciones tangibles en beneficio de la agricultura en las América

Acronyms

LAC	Latin America and the Caribbean
CAC	Central American Agriculture Council
CAHFSA	Caribbean Agricultural Health and Food Safety Agency
CAN	Andean Community
IPPC	International Plant Protection Convention
COSAVE	Southern Cone Plant Health Committee
CVP	Southern Cone Permanent Veterinary Committee
DVS	Development, vision and strategy
F&M	Foot and Mouth Disease
FAO	Food and Agriculture Organization of the United Nations
FDA	US Food and Drug Administration
FSMA	US Food Safety Modernization Act
HACCP	Hazard analysis and critical control points
MRL	Maximum Residue Limit
SPS	Sanitary and Phytosanitary Measures
IABA	Inter-American Board of Agriculture
HPAIV	Highly Pathogenic Avian Influenza Virus
WTO	World Trade Organization
WHO	World Health Organization
WOAH	World Organisation for Animal Health
ASF	African Swine Fever
AMR	Antimicrobial Resistance
AHFS	Agricultural Health and Food Safety System
STDF	Standards and Trade Development Facility



1. Introduction

In 1979, the Inter-American Board of Agriculture (IABA) passed Resolution 94 and approved the Hemispheric Agricultural Health, Safety and Agrifood Quality Program to provide technical assistance to the countries of the Americas in addressing animal diseases and plant pests that threaten agricultural production. It later incorporated food safety, and more recently agrifood quality, into its work sphere.

Since its establishment, the Program has acquired considerable experience and expertise in areas that are critically relevant for our member countries. In addition to capacities within the Institute, we have a broad network of public- and private-sector collaborators who support the implementation of projects for training in technical skills. Thus, knowledge management is an internal and external process. This network can shift and change focus according to short-, medium- and long-term needs.

The structure and capacity for interaction in networks linked to the program are a strength through which a platform for the integration of knowledge and actions to address challenges in AHFS can be implemented to meet the demands of the sector and the needs of the member countries expressed through IICA Delegations.

IICA's strengths in agricultural health, food safety and quality fit into three categories: modernization, sanitary and phytosanitary measures, and training in technical capacities. Cooperation to modernize and strengthen sanitary and phytosanitary services and food safety systems are widely sought-after issues from a technical, methodological and financial perspective.

As part of a process of innovation in technical cooperation, IICA has concentrated its efforts on developing assessment instruments, known as performance, vision and strategy (PVS) tools to strengthen and modernize national services and to serve as a model for Member States to adapt their services and systems to address globalization challenges (IICA 2015). In recent years, the methodology has been updated so that the characterization stage can be done online, considerably reducing implementation costs.

IICA occupies the privileged position of official observer in international forums such as the Sanitary and Phytosanitary Measures (SPS) Commission of the World Trade Organization (WTO), the Commission on Phytosanitary Measures (CPM), the General Session of Delegates of the World Organisation for Animal Health (WOAH) and the Codex Alimentarius Commission, among others. Through these forums, IICA has been recognized as an ideal collaborator and partner to identify strategic partnerships and opportunities for technical cooperation. Current partnerships include IICA's highly valued role in the Standards and Trade Development Facility (STDF), its active participation to implement elements of the Sanitary and Phytosanitary Declaration of the MC12, and the monitoring of the Resolution and the organization of strategic discussions with representatives from countries to update them on the progress of the process.

The program offers a wide range of training opportunities to meet the specific needs of the countries and sectors, harnessing human talent within and outside the Institute. In terms of food safety, IICA has shown the capacity to support countries when they work to comply with the US Food Safety Modernization Act (FSMA). Since 2014, the Institute has established a broad network of professionals trained throughout the Americas to provide their support to all member countries in this technical area.

Regarding animal health, IICA has traditionally supported highly focused interventions to address the challenges of specific diseases that farmers face in the Americas (foot and mouth disease (F&M), brucellosis, tuberculosis, highly pathogenic avian influenza virus

(HPAIV), African Swine Fever (ASF), etc.) In recent years, we have expanded our activities to reflect greater training demands to prepare for emergencies, especially in terms of best practices in emergency management of the Food and Agriculture Organization of the United Nations (FAO) (FAO 2011).

In terms of plant health, IICA has a long history of strengthening phytosanitary capacities in the Americas, from interventions for specific pests (Fusarium, in banana trees, locusts, fruit flies, etc.) to technical skills training in surveillance, evaluation and risk management of pests, among many others. IICA is a leading regional organization in plant health, including the recent establishment of the Online Regional School for Phytosanitary Inspection in South America and the execution of the Great Caribbean Safeguarding Initiative (GCSI), to build capacities in over 20 countries to safeguard borders from the incursion of pests. Based on these historic strengths, we use technologies and practices to strengthen surveillance systems, improve risk management, develop early warning and emergency response systems, establish phytosanitary intelligence systems and evaluate phytosanitary programs from an economic perspective, and create new mechanisms and strategic partnerships.

The primary achievements of the program in 2022 can be summarized as follows:

- Over 100 delegates of the Americas per meeting participated actively in talks and strategic sessions with official delegates to foster the implementation of science-based standards and the regulatory harmonization of the Sanitary and Phytosanitary Measures Committees of the WTO, CODEX and the WOH: (12 strategic meetings to discuss proposed standards, 8 CODEX colloquiums, over 100 people per meeting). The participation of 24 countries was financed in the CODEX general session.
- Over 5000 people were trained in animal health economics, African Swine Fever, phytosanitary inspection, pesticides, safety and quality of food companies, dairy sector guidelines, emergency response, US Food Safety Modernization Act.
- IICA was recognized by the US Food and Drug Administration (FDA) as a strategic partner in Latin America and the Caribbean (LAC) to support capacity building in the implementation of the FSMA (Available at <https://www.fda.gov/international-programs/global-perspective/inter-american-institute-cooperation-agriculture-essential-fda-partner>)

- The AHFS program advanced in the creation of harmonized regional standards in three technical areas related to pesticides: a) maximum residue limits (MRLs); b) registration of chemical pesticides for agricultural use and c) biopesticides, jointly with the Secretariat of the Central American Agricultural Council and with the Andean Community.
- The AHFS program supported capacity building in five countries (Costa Rica, Panama, Colombia, Peru, Ecuador) to design magnitude studies on pesticide residues. These studies are part of the agreement with the Minor Use Foundation and produce scientific information to set maximum residue limits in the Codex Alimentarius for minor crops.
- In the area of antimicrobial resistance (AMR), methodologies were developed in epidemiological AMR surveillance systems in eight countries, which permitted an analysis of laboratory data to execute science-based actions to prevent and mitigate antimicrobial resistance. The detail of the actions carried out in each country is as follows:
 - Costa Rica: Surveillance of AMR in agriculture.
 - Honduras, El Salvador and Nicaragua: AMR surveillance pilot plan for poultry.
 - Mexico, Brazil and Chile: analysis of laboratory data.
 - Trinidad and Tobago: laboratory certification.

2. Food Production Scenario

The COVID-19 pandemic and the conflict between Russia and Ukraine are two important global events that have major implications for agriculture and food.

The agriculture and food sector has shown great resilience in comparison with other sectors of the economy, but the combined effect of income loss and food price inflation have made it much harder for many people to access a healthy diet (IICA blog, 2020).

Moreover, the conflict between Russia and Ukraine has shown visible impacts on agroindustrial trade (price increases), the energy market, certain inputs required for food production (fertilizers) and international trade logistics.

Similar to the trends observed in crop production, a large proportion of the projected 14% growth in livestock and fisheries will come from improvements in productivity. However, it is also expected that herd increases will contribute significantly to the growth in livestock production in emerging economies and low-income countries. Improvements in livestock production in emerging economies and low-income countries. Improvements in livestock sector productivity will be attained above all by using more forage-intensive systems, with improved genetics and better herd management practices. Estimated production increases will depend on the sanitary situation attainable, among other factors. Moreover, the projected intensification of production is a factor that could potentially increase health and safety risks in some chains or products. In this regard, modernizing and strengthening official agricultural health and food safety services has become an important element to visibilize expected increases in production and productivity.

These elements are essential from production to consumption to guarantee that foods are safe and healthy. This means implementing good agricultural practices, adopting traceability systems, promoting quality standards and educating consumers on safe food handling practices. Fostering a food safety culture protects people's health and prevents the spread of foodborne diseases, thus contributing to improving public health and responsible food production.

The protection of public health and the easing of agrifood trade requires fair and transparent science-based rules. The creation and adoption of recognized international standards backed by global organizations (such as the WOA, the International Plant Protection Convention (IPPC) and the Codex Alimentarius Commission) help to establish a shared, reliable framework that facilitates safe and fair trade. The effective implementation of these international standards constitutes a fundamental structural support for the "One Health" approach. These standards provide a solid framework to guide actions in agricultural health and food safety. Their monitoring guarantees the quality and safety of agrifood products and helps prevent and control the spread of pests and zoonotic diseases.

3. The importance of agricultural health, food safety and quality

Agricultural health and food safety are fundamental aspects to maintain and improve health status and protect public health. There is great demand for quality food and related services throughout the food chain, and systems must meet the established requirements to be fit for purpose.

Recent challenges for AHFS services in the countries include:

- Climate variability and modifications in agricultural productive systems, which are associated with the emergence and re-emergence of national and regional sanitary and phytosanitary problems.
- Loss of foods of animal and plant origin due to diseases. Although specific data is unavailable, experts (Rushton et al. 2018) estimate that the burden of industrial animal diseases such as foot and mouth disease is high, from a 20 percent reduction in global food production of animal origin in high-income countries to losses no lower than 50 percent in developing countries. In terms of plant production, the IPPC Secretariat estimates that up to 40 percent of agricultural crops and \$220 billion are lost each year to plant pests.
- 61 percent of pathogenic agents that cause diseases in humans originate in domestic or wild animals. 75 percent of emerging human pathogens are of animal origin, known as zoonosis (diseases transmitted from animals to humans and vice versa) (PAHO 2023).
- African Swine Fever is one example of a disease of animal origin which, although it represents no threat to human health, has devastating effects on pork production and a negative impact on countries' economies. This is one of the main causes of crisis in the global pork industry in recent years. Pork meat is one of the main sources of animal protein. It represents more than 35 percent of global meat consumption, hence ASF is a severe problem for global food security (PAHO, 2019). ASF must be addressed with coordinated efforts in LAC, as its recent emergence in the region represents a threat to food security throughout the hemisphere and the livelihoods of small- and medium-sized farmers.

- The phytosanitary emergency caused by *Fusarium oxysporum* TR4 constitutes a severe threat to the global banana sector, particularly in LAC. Banana production and trade are the basis of the economies of some countries and, as in the rest of the world, it is the most consumed fruit, especially in low-income sectors. The recent appearance of *Fusarium* in the region highlights the need for prevention and mitigation, which is essential to protect a production sector that has a significant incidence in the food security of the hemisphere and the world.
- Antimicrobial Resistance represents a threat to animal health, food safety and security, livelihoods, economies and the environment. AMR is one of the ten main threats to public health that humanity faces (WHO 2020a). The indirect effects of AMR include the increase of treatment and healthcare costs. The sanitary consequences and economic costs of AMR are estimated at ten million human deaths annually and a decrease of between 2 and 3.5 percent in world GDP, or 100 trillion dollars by 2050. But the true cost of this problem is hard to predict (FAO 2016).

WHO food safety data and figures in 2020 (WHO, 2020b):

- Unsanitary foods containing bacteria, viruses, parasites and harmful chemical substances cause over 200 diseases, from diarrhea to cancer.
- An established 600 million people fall ill each year (almost one in ten of the world population) from consuming contaminated foods, and 420,000 die as a result, with the consequent loss of 33 million disability-adjusted life years.
- Every year \$110 billion is lost in productivity and medical costs as a result of unsanitary foods in low- and middle-income countries.
- Children under five bear 40 percent of the burden attributable to foodborne illnesses, which cause 125,000 deaths annually in this age group.
- 550 million people fall ill and 230,000 die each year due to diarrheal diseases, which are most commonly associated with the consumption of contaminated foods.

Most countries in the Americas have invested heavily in developing and strengthening official services working with agricultural health and food safety and responsible for regulating and verifying compliance and fostering quality systems. Policies are thus established and implemented to prevent the entry and spread of pests and diseases and to store food safely. Efforts are also made to guarantee sanitary and phytosanitary

conditions, and the quality of agricultural products and foods that are exported, while considering the regulations of the destination country and international standards. In keeping with multilateral agreements, international standards in plant health, animal health and food safety must be based on scientific evidence. Ideally, international standards, such as those established by the WOA, IPPC and the Codex Alimentarius, help countries in the Americas to carry out sanitary and safe production practices and contribute with safe trade and its facilitation in accordance with harmonized standards. This reality demands an active participation from countries in international forums so that they can influence the establishment of science-based standards.

Increasing advances in technology can be applied to the prevention, management and elimination of pests and diseases, hence strategy and systems must be updated. In this regard, it is necessary to rethink the strategy oriented at strengthening official AHFS services by incorporating new tools and scenarios that add precision in risk assessments, provide early detection and facilitate the more efficient use of public and private resources. The incorporation of technological tools in AHFS systems is part of the agriculture digitalization process that is growing rapidly all over the world and is becoming an urgent need, particularly in LAC. The incorporation of technical capacities in new disciplines for official AHFS services also poses a challenge.

IICA has a renewed Medium-term Plan that incorporates networks as a working tool and seeks to contribute with knowledge management and by carrying out joint, coordinated and synergic actions to support the efforts of member countries to address challenges in animal health, plant health and agrifood safety and quality.

4. The Agricultural Health, Safety and Agrifood Quality Program (AHFS)

What we do	Action lines	Pillars	Work areas
<p>We support the development, improvement and application of policies in agricultural health, food safety and quality, providing safe foods in domestic, regional and global markets.</p>	<ol style="list-style-type: none"> Foster institutional technical strengthening of AHFS systems. Harmonize, update and implement science-based standards in health, safety and quality. Develop capacities to adopt good practices and address emerging issues and health emergencies. 	<ul style="list-style-type: none"> Animal health Plant health Food safety One Health SPS Agreement and international standards 	<ul style="list-style-type: none"> Development of tools and methodologies. Science as the basis for decision-making. Participation in multilateral forums. Strengthening technical capacities.

1.1. Fostering AHFS technical and institutional strengthening

The program promotes the development and application of tools to characterize and improve the performance of official services, economic assessments, including the PVS tool, and reinforcing organizational systems that facilitate implementation, and impact evaluation and transparency of national services. The success of the PVS tool is based on the implementation of specific strategies defined by each of the countries, and the program supports the formulation and implementation of such strategies in national and regional spheres.

It also continues to support work in strengthening and modernizing regional institutions, such as the Southern Cone Permanent Veterinary Community (CVP), the Southern Cone Plant Health Committee (COSAVE), the Andean Community (CAN), the Caribbean Agricultural Health and Food Safety Agency (CAHFSA) and the Central American Agriculture Council (CAC).

Furthermore, the program identifies opportunities to generate new projects, mechanisms and collaboration schemes. Beyond the domestic level, regional integration mechanisms coordinate and facilitate cooperation and are increasingly linked with coordinated strategies in shared areas of interest and the development of consensus-based positions in international spheres.

Equally, the program promotes private sector participation in the processes of regulating, designing, implementing and evaluating national and regional technical programs. It also implements initiatives to build capacities and strengthen key skills in leadership and project management to ensure that countries have the human talent they need to thrive in the future, through access to and use of digital skills and knowledge management, thereby improving system efficiency and effectiveness.

1.2. Harmonize, update and implement science-based health and safety standards.

Sanitary and phytosanitary measures based on scientific evidence are necessary for the good functioning of national and international markets. The countries of the Americas must participate actively in processes of development, approval and adoption of standards, to reap the benefits that the multilateral trade system offers and to boost trade and production interests.

The broad diversity of sanitary and phytosanitary requirements applied by importing countries to protect their sanitary and phytosanitary assets, sometimes outside the boundaries of scientific evidence, poses a challenge for trade partners and the promotion of trade without distortions. Furthermore, obligations imposed by the WTO's new Trade Facilitation Agreement demand new approaches that streamline the process at border control points, while maintaining safe trade, and complying with SPS requisites imposed by importing countries. This combination of demands can place considerable tension on limited technical and institutional resources.

The program promotes the harmonization, updating and implementation of sanitary and phytosanitary measures in the context of WTO agreements on the application of sanitary and phytosanitary measures (SPS), facilitation of trade and technical barriers to trade. Negotiating skills and science-based decision-making are strengthened while fostering countries' effective participation in international forums of strategic importance (WOAH, IPPC, Codex Alimentarius, WTO). National SPS and Codex Alimentarius committees play a key role in harmonizing regulations and standards through the exchange of information, horizontal cooperation and strategic partnerships.

The work of various external partners contributes to strengthening the capacity to effectively implement international standards and technical regulations, thus supporting compliance with the necessary requisites to access international markets.

1.3. Develop capacities to adopt best practices and address emerging issues.

It is necessary to apply practices that guarantee agricultural health and the safety and quality of agricultural products, so it is important to consider the great diversity of production systems throughout the Americas. To boost private sector investments, dialog must be facilitated with stakeholders, promoting cooperation between public and private sectors. Cost-effective training programs must continue to be created and implemented, using technology to consolidate a solid culture of food safety and quality in the Americas.

1.4. Operationalizing the "One Health" approach

The approach mobilizes multiple sectors, disciplines and communities at different levels of society to work together for wellbeing and to face the threats to health and ecosystems, while addressing the collective need for clean water, energy and air, and safe

and nutritious foods. For this, it is important to adopt measures on climate change and contribute to sustainable development. Intersectoral coordination (agriculture, environment and public health) and cooperation between public and private international organizations and at supranational, national and domestic level are critical to put the “One Health” approach into practice.

The main challenges of the “One Health” approach include the need to develop solid strategic partnerships that incorporate the private sector as a key stakeholder and guarantee institutional coordination and governance of the approach at internal and intergovernmental level. Furthermore, it is vital to take the practical approach of “One Health” to communities, by involving producers, local governments and other stakeholders. It is also important to effectively co-create public policies that include all the relevant spheres and take into account the participation of key stakeholders within a transdisciplinary approach, enabling their proper articulation through three main actions:

- The operationalization of the “One Health” approach, carrying out actions in territorial, national and regional spheres of the Americas, promoting interinstitutional integration and coordination, and the generation of inter-institutional policies with budgets and actions that define supranational levels (such as transboundary diseases) at national and domestic level in the countries: public (intersectoral) issues, the role of differentiated-type private stakeholders (producers, exporters and other producers, other actors in the chain and communities). It is important to incorporate scientific knowledge with the “One Health” policy-making process.
- The creation of “One Health” pilot plans, directing them at rural communities in keeping with the healthy territories movement, through the implementation of the universal right to health, social justice, gender equality, solidarity, inclusion and sustainable development.
- The development of case studies with successful experiences of the “One Health” approach that serve as a model, guidelines describing success factors and challenges, and guides to inspire the practical application of this in the countries of the hemisphere according to their needs and particularities.

5. Challenges and opportunities to strengthen AHFS systems

The strengthening of agricultural health and agrifood safety and quality systems at national level identifies the following challenges and opportunities:

Challenges and opportunities	Concept	Primary working lines
Modern national AHFS services	<p>Modern animal health, plant health and food safety services are capable of meeting their mandates of protecting consumers, production systems and the environment.</p> <p>Modern services are capable of harnessing external market opportunities while complying with SPS requisites.</p>	<ul style="list-style-type: none"> • Strengthening technical capacity. • Improving response to sanitary and phytosanitary emergencies. • AHFS actions under a “One Health” approach. • Collaborative work between the public and private sector. • Development of human capital. • Improving capacity to access markets for agricultural products. • Modernization of processes of AHFS services.
The SPS agreement and international standards	<p>Countries can meet their obligations and benefit from their rights, in keeping with the WTO SPS Agreement.</p> <p>International animal health, plant health and food safety standards reflect and take into account the preferences and</p>	<ul style="list-style-type: none"> • National SPS committees and standards committees are established and operational. • Strengthening of knowledge and capacities to comply with the SPS Agreement. • Contribution to strengthening countries’ capacity to comply with market access requisites and develop equivalence of measures.

	perspectives of countries and sectors.	<ul style="list-style-type: none"> Promote countries' participation in the process of establishing standards, led by the WOH, IPPC and the Codex Alimentarius.
Best agricultural practices and safety and quality management and guarantee systems.	Agricultural producers have access to the knowledge, techniques and tools they need to maximize the sustainability and resilience of their productive systems and improve their economic development and rural wellbeing.	<ul style="list-style-type: none"> Improve capacity to prevent and respond to outbreaks of pests, diseases and food poisoning. Promotion of access to and use of suitable tools for safety and quality. Promotion and implementation of best agricultural practices and best manufacturing practices, Hazard Analysis Critical Control Point (HACCP), and others. Support for third-party certification and accreditation programs. Promotion of a safety culture throughout the productive chain.
Incorporation of innovation and technological tools for more intelligent AHFS systems.	Adaptation of AHFS systems to technological development and new strategies.	<ul style="list-style-type: none"> Development of educational material on digital platforms. Support for the development of tools adapted to local conditions. Support for use of smart tools that contribute to monitoring and preventing emergencies.
Networking	Collaborative work over networks of specialists from IICA and countries' public and private institutions and regional and international organizations.	<ul style="list-style-type: none"> Strengthening of structure and capacity of AHFS networks.

<p>Adoption and implementation of “One Health” approach.</p>	<p>Adoption of the “One Health” approach through practical implementation.</p>	<ul style="list-style-type: none"> • Development of instruments oriented at the implementation of the “One Health” approach to drive the generation of inter-institutional policies. • Development of “One Health” pilot plans for rural communities. • Identification of successful experiences of the “One Health” approach.



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