



Competitiveness and sustainability
of **agricultural chains** for food
security and economic development



FLAGSHIP PROJECT

Competitiveness and sustainability of agricultural chains

for food security and economic development



PROGRESS MADE IN **2016**

➤ Results, our commitment

Under the flagship project “*Competitiveness and sustainability of agricultural chains for food security and economic development*”, the Inter-American Institute for Cooperation on Agriculture (IICA) is working to improve the sustainable and competitive performance of agricultural chains by focusing on policy management, institution building, the development of public-private capabilities, and support for technological, business, institutional and commercial innovation processes.

“Results, our commitment” is our motto, and in keeping with that pledge we have prepared this document detailing the progress made with the implementation of the project in 2016.

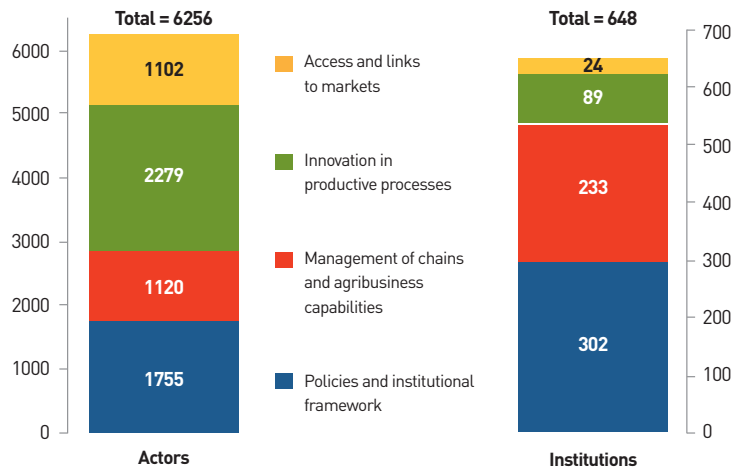


29 Participating countries
46 Agricultural chains or sectors
14 priority agricultural chains with an integrated approach
32 chains or sectors with specific actions

10 countries prioritized	9 countries with specific actions	4 partner countries with specific actions	6 partner countries
Argentina Costa Rica El Salvador Honduras Panama Paraguay Peru Trinidad & Tobago Uruguay Venezuela	Antigua & Barbuda Bahamas Bolivia Dominica Grenada Jamaica Nicaragua San Vicente St. Lucia	Chile Colombia Ecuador Guatemala	Brazil Canada Dominican Rep. Mexico Spain United States

6256
Actors trained

648
Institutional entities strengthened*



* Due to the diversity of activities implemented under the various components, the name of a given entity or institution may be mentioned more than once.



> IICA technical cooperation outputs

237



94

Training processes



22

Studies and reports



13

Methodologies and instruments

30

Proposed policies, strategies and projects



11

Technological options for innovation

52

Information sharing, horizontal cooperation and knowledge management processes

15

Consensus building processes and strategic partnerships

➤ Significant outputs of the FP



At the hemispheric level

[Good practices and lessons learned in agricultural policy follow-up, monitoring and evaluation \(in Spanish\)](#)

[Commodity systems assessment methodology for value chain problem and project identification: A first step in food loss reduction \(CSAM\)](#)

[Commercialization strategies that facilitate market access for agricultural producers](#)

[The Marrakesh Decision and food security: contribution of the Inter-American Institute for Cooperation on Agriculture \(IICA\)](#)

["Trends and Policy Innovations for Agriculture in Light of the 2030 Sustainable Development Agenda"](#)

[Forum: "Commercialization strategies that facilitate market access for cocoa producers" \(Spanish only\)](#)



At the national level

[The Trinidad & Tobago Dairy Goat Manual: Breeds, Milking, Herd Health, Records](#)

[Eight technical fact sheets on forage for dairy goats in Trinidad and Tobago \(Forage fact sheets\)](#)

[Sheep: manual of good practices \(Paraguay\) \(in Spanish\)](#)

[Technical guide for the dissemination of sustainable floriculture production technologies \(Paraguay\) \(in Spanish\)](#)

[Methodology for the territorial identification of technological innovations for improving agribusiness competitiveness and sustainability \(Panama\) \(in Spanish\)](#)

[Guide to methodological elements for the identification of business ideas in small producers' organizations \(Costa Rica\) \(In Spanish\)](#)

[Development strategy of the fruit sector of El Salvador \(in Spanish\)](#)



➤ Policies and institutional framework

The project generated national and international public goods designed to enhance the countries' capabilities for policy management, institution building and effective participation in international forums:

14 Agricultural Chains	7 chains prioritized: cacao (Costa Rica and Peru), meat (Uruguay), floriculture and sheep (Paraguay), fruit (El Salvador) and horticulture (Argentina) and specific actions in chains or sectors: dairy (Central America), pig (Costa Rica), cacao and brown sugar paste (Colombia), rice and corn (Mexico), and forestry in Paraguay.
18 Countries	Bahamas, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, the United States and Uruguay.
64 Technical Cooperation Outputs	29 information sharing, horizontal cooperation and knowledge management processes; 3 consensus building processes and strategic partnerships; 13 capacity building events; 14 studies and methodologies; and 5 proposed policies, plans and regulations
1755	Actors
302	Institutional Entities

The specific actions involved a considerable number of countries (Bahamas, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, the United States and Uruguay), and the results have implications for IICA's 34 member countries.

The issues addressed include:

- Trade and international agricultural negotiations
- Financing and financial inclusion within agricultural chains
- Formalization of, and adding of value to, agribusinesses
- Management of public policies for agriculture
- Information for the management of chains
- International and regional AHFS regulations
- Policies for the competitiveness of chains
- Agricultural health and food safety.

Information sharing, horizontal cooperation and knowledge management:

8

Information sharing events in Argentina, Paraguay, Uruguay, Peru, Colombia, Costa Rica, El Salvador and the United States on the situation, outlook and proposals for improving financing and financial inclusion in agricultural chains in Latin America, involving **150** actors and **50** institutions.

6

Entities for sharing information about and presenting international sanitary and phytosanitary and CODEX standards and Good Agricultural Practices (GAP) agreed upon (Paraguay).

4

Central American dialogue mechanisms for discussing dairy terms used in the Central American Technical Regulations (RTCA) and the Food Safety Modernization Act (FSMA) and biosafety, with the participation of more than **100** actors and **5** institutions.

4

Bulletins on the latest developments and progress made in international forums, and agricultural health and food safety commitments assumed at the multilateral and regional levels.

3

International forums where **100** actors were appraised of the FSMA regulations, 556 participants from all over the Americas shared information about the results of the Nairobi Ministerial Conference and **163** actors learned about the services offered by the IICA-WTO Reference Center for LAC.

1

Observatory of the Agriculture and Forestry Sector (Paraguay) with information about **12** chains, which received more than **780,000** hits.

1

Dialogue on trends and innovations in the design of agricultural policies linked to the **2030** sustainable development agenda, with the participation of **12** policy experts.

1

Bulletin on the Tenth Ministerial Conference of the WTO: Principal Agricultural Results and Possible Implications for the Americas.

1

IICA-WTO Reference Center for Latin America, which fielded more than 460 technical consultations about trade and agricultural trade regulations from **163** actors and more than **26** institutions.

Capacity building:

6

Training events on various aspects of the agricultural negotiations and trade policies, value chains and the role of information in agricultural markets, with the participation of **167** actors and more than **7** institutions represented.

4

Events for training in, and the exchange of, good practices in the design of agricultural policy monitoring and evaluation systems, with the participation of **64** technical officers from **17** institutions in Paraguay, Uruguay, Bolivia, Brazil, Chile, Peru, and Costa Rica.

2

Training events on administrative processes for the formalization of, and adding of value to, agribusinesses in Honduras, with **66** actors and **48** institutions and organizations represented.

1

Training event on capabilities for responding to animal health emergencies in the beef cattle chain in Uruguay, with the participation of **15** actors and **5** institutions.

Consensus building and strategic partnerships:

2

Strategic partnerships forged with the International Regional Organization for Animal and Plant Health (OIRSA) and the Pan American Health Organization (PAHO).

1

IICA-WTO strategic partnership, within the framework of which specialists took part in 6 meetings of the Committee on Agriculture (of which IICA is an observer member), **1** plan was drawn up for joint technical cooperation work on agricultural trade and the international negotiations, and **1** report was prepared on IICA's contribution to food security.

Studies and methodologies:

7

Studies on the situation and outlook for the financing of agricultural chains in Latin America (Horticulture-Argentina, Fruit-Paraguay, Beef Cattle-Uruguay, Coffee-Peru, Cacao-Colombia-Costa Rica, Fruit-El Salvador), with the participation of **150** actors and **50** institutions represented.

5

Reports on the process of applying the Performance, Vision and Strategy (PVS) methodology to gauge the capacity to respond to animal health emergencies in Uruguay, and plant health and food safety emergencies in Ecuador, Chile, and Argentina. **171** stakeholders were involved in the process.

1

Book: Good practices and lessons learned in follow-up, monitoring and evaluation of agricultural policies (in Spanish: "Buenas prácticas y lecciones aprendidas en el seguimiento, el monitoreo y la evaluación de políticas para la agricultura") based on the experiences in six countries of the region (Mexico, Brazil, Colombia, Chile, Canada, and the United States).

1

Documentation of the administrative processes involved in the formalization of, and adding of value to, agribusinesses in Honduras, with the participation of 18 sector institutions.

Proposed policies, strategies and plans:

1

Central American Technical Regulations (RTCA) on dairy terms.

1

Integrated action plan to enhance the competitiveness of the cacao chain in Costa Rica.

1

Plan to support the competitiveness of the pig chain in Costa Rica (a priority established in the policies for the agriculture sector and rural development for 2015-2018).

1

Implementation under way of the proposal agreed upon for Paraguay and the region on international SPS standards, Codex and GLP to be presented in international forums.

1

Plan to enhance capabilities for the design and management of policies for the competitiveness of chains in Peru, with emphasis on coffee and cacao.



➤ Management of chains and agribusiness capabilities

17 Agricultural chains	14 prioritized chains and specific actions in chains or sectors: coffee and cacao chains in Honduras and beef cattle chain in Venezuela
18 Countries	Antigua and Barbuda, Argentina, Chile, Costa Rica, Dominica, El Salvador, Grenada, Honduras, Jamaica, Mexico, Panama, Paraguay, Peru, St. Vincent, St. Lucia, Trinidad and Tobago, Uruguay and Venezuela
61 Technical Cooperation Outputs	9 processes for consensus building and coordination of chains; 6 processes for information sharing, horizontal cooperation and knowledge management; 6 studies, methodologies, manuals and guides; 6 proposed strategies and plans; 34 capacity building events
1120	Actors
233	Institutional Entities

Consensus building and coordination in chains:

9 Agricultural chains in **7** countries enhanced their management capabilities through various processes aimed at the creation and strengthening of agricultural chains committees and mechanisms for collaboration, and the design of strategic and business plans, among other instruments.



Paraguay

2 Chain committees or boards, strengthened and operating since 2015 under the terms of a Ministerial Resolution, formulated strategic plans for the floriculture and sheep chains during 2016.



Trinidad and Tobago

1 Committee for the dairy goat chain strengthened, under whose direction plans were drawn up for the industry's development.



El Salvador

1 Process for the formation of FECOFRUT, a national federation aimed at the interconnection and integration of the fruit chain.

1 Business plan for the fruit chain drawn up by 13 associations of producers working together.



Panama

2 Work is under way on the formal establishment of the committee for the cacao chain, and the coffee chain committee was strengthened.



Venezuela

1 Strategic planning process for the competitive and institutional development of the poultry chain.



Jamaica

1 Business plan of the sweet potato chain drawn up under the direction of the Jamaica Sweet Potato Commission (JSPC).



Argentina

1 Strengthening process under way, paving the way for the creation of an interinstitutional mechanism to support the horticulture chain of the Green Belt in Corrientes province.

Information sharing, horizontal cooperation and knowledge management:

1

Platform for Promotion, Knowledge Management and Commercial Forecasting in South American Agribusinesses, 4 information sharing processes carried out through two videoconferences on subjects related to new scenarios in agrifood trade in South America in which 250 people in 12 countries participated, and 1 seminar and 1 international workshop of the Platform held in Argentina with the participation of 80 people from 12 countries.

1

Technical visit — 13 representatives of the central government, local governments and businesspeople involved in the coffee and cacao agritourism routes in Honduras visited Mexico to learn about successful experiences with the development and implementation of routes, and to garner useful information about the consolidation of the regulations governing the operation of the agritourism routes in Honduras.

Studies, methodologies, manuals and guides:

1	Methodology for the management of agricultural chains with a multidimensional approach in competitiveness, environmental sustainability, inclusion and equity, and the institutional framework.
3	Manuals of the Hemispheric Program to Strengthen Institutional Capabilities in Associative and Agribusiness Management, dealing with aspects of associative, agribusiness and commercial management.
1	Study on the institutional framework and best practices for promoting associative undertakings in agricultural chains.
1	Practical guide to the use of business plans by organizations of small-scale producers in Costa Rica (in Spanish).

Proposals, strategies and plans:

6	Strategic plan for the competitive development and institutional strengthening of Venezuela's poultry chain.	Standard for the Coffee Route in Honduras that includes requirements that specialty cafeterias and farms that offer coffee tours must meet if they wish to form part of the Route.
	Business plan of the National Federation for the linking and integration of El Salvador's fruit chain.	The 2016-2021 Strategic Plan for the Floriculture Chain of Paraguay was drawn up under the aegis of the Floriculture Chain Committee.
	Development plan of the Trinidad and Tobago's Dairy Goat Chain Committee.	Strategic plan of Paraguay's sheep chain formulated within the framework of the Sheep Chain Committee.

Capacity building:

13 Events designed to strengthen agribusiness and/or commercial capabilities - 1 in Argentina, 1 in Costa Rica, 1 in El Salvador and 10 in Panama.

1 Leadership training event for young leaders of the cashew chain in Honduras.

1 Integrated training event on leadership, extension and area-based management of chains, for actors in the horticulture chain and the institutional support framework in Argentina.

9 Events related to the strengthening of associative capabilities - 7 in the Caribbean for producers' organizations, 1 in Uruguay for stock-raising cooperatives, and 1 in Argentina to develop and enhance the expertise of facilitators and managers of associative processes of family farmers and small-scale producers.

2 Training processes focusing on value added in agricultural products - a 10-week hemispheric online course entitled "Formulation of business plans for the development of agricultural products with value added", and an onsite event in Honduras.

5 Events to strengthen capabilities related to the state of the art and the management of chains - 1 each in Chile, Ecuador and Honduras, and 2 in Venezuela.

3 Events to enhance the capacity to design and manage projects and business plans - 1 for agritourism in Honduras, 1 for the coffee and cacao chains in Peru, and 1 for the generation of production ideas in Costa Rica.



> Innovation

27 Agricultural Chains	14 priority agricultural chains plus onsite training actions in 11 chains or additional sectors: beef cattle, goat and pig chains in Venezuela, pig, beef cattle and sheep chains in Peru, poultry, pig and horse chains in the Southern Cone, and poultry chain in Uruguay; and studies of the water footprint in two other chains (coffee in Costa Rica and horticulture in Panama)
13 Countries	Argentina, Colombia, Costa Rica, Ecuador, El Salvador, Honduras, Jamaica, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay and Venezuela
72 Technical Cooperation Outputs	11 options for technological innovation, 13 methodologies, studies and proposals, 3 processes related to the sharing of information and experiences and knowledge management, 1 consensus building process, and 44 capacity building events
2279	Actors
89	Institutional Entities

Actions were carried out both at the multinational and hemispheric levels, and in the countries prioritized by the project (Argentina, Costa Rica, El Salvador, Honduras, Jamaica, Panama, Paraguay, Peru, Trinidad and Tobago, Uruguay, and Venezuela), with emphasis on the priority chains in each one.

The topics addressed in the different processes include:

Implementation of innovations:

Participatory development of a prototype of clear cashew nectar in Honduras, as a strategy for adding value to the false fruit.

Breeds, milking, herd health and records to improve productivity and quality in the dairy goat chain in Trinidad and Tobago.

[Forage for dairy goats in Trinidad and Tobago.](#)

Application of composting and use of bioinputs in floriculture in Paraguay.

Technological options for innovation in the cacao and coffee chains in Panama.

Good postharvest practices to promote the quality of cacao in Costa Rica.

[Appropriate technologies for producers and technical personnel in Paraguay's sheep chain \(in Spanish\).](#)

Recommended practices for the commercial production of sweet potato in Jamaica.

Methodologies, studies and proposals:

[Commodity systems assessment methodology for value chain problem and project identification: A first step in food loss reduction \(CSAM\).](#)

[Methodology for the Territorial Identification of Technological Innovations for Improving Agribusiness Competitiveness and Sustainability in Panama \(in Spanish\).](#)

[Technical guidelines for the dissemination of sustainable floriculture production technologies \(in Spanish\).](#)

Plans for training in appropriate technologies for issues prioritized by Paraguay's floriculture and sheep chain committees.

Assessment of Good Manufacturing Practices in cashew nut processors in Honduras and training plan on the subject.

Two technical notes on the analysis of the water footprint in the coffee chain in Costa Rica and the horticulture chain in Panama.

Identification of priority processes for the improvement of animal health programs in Paraguay and Venezuela, through the application of the guide developed in 2015.

Epidemiological sampling to gauge the health situation in Paraguay's sheep chain.

Strategy for the coordination of research processes to improve cacao health and safety in Peru, with agreement reached via a network.

Capacity building and the sharing of experiences:

- At the national level

3 Processes in **Peru** focusing on coffee and cacao:

- biotechnology techniques
- multi-stratum technologies
- rust in coffee

2 Areas of training in **Uruguay**:

- Implementation of the Incident Command System for diseases in the chains
- Animal health and food safety: antimicrobial resistance and assessment of chemical and biological hazards

2 Areas of training for technical personnel in **Jamaica**:

- Production and certification of sweet potato seed
- Sweet potato meristem culture

1 Process in **Argentina**:

- Good agricultural practices in 5 localities with emphasis on the horticulture chain

2 Training processes in **Paraguay**:

- Integrated Productive Farms, with emphasis on the sheep chain
- Good production practices in the floriculture chain for public and private technical assistance agents

3 Training programs in **Venezuela**:

- Implementation of good poultry practices
- Quality assurance throughout the poultry chain
- Utilization of renewable energies and energy efficiency for the poultry chain

2 Processes in **Costa Rica**:

- Application of good agricultural practices in cacao and other chains
- Sharing and analysis of water footprint experiences by coffee producers

1 Process in **El Salvador**:

- Postharvest technologies, with emphasis on good practices for actors in fruit chains

- At the multinational or hemispheric level

Improvement of animal health programs in Paraguay and Venezuela through the application of the guide developed in 2015.	Identification of critical points in the use of energy and energy efficiency measures in food chains.
Economic evaluation of sanitary programs in the South American countries.	<u>Carbon footprint and implications in soil use in agricultural chains (in Spanish).</u>
<u>Antimicrobial resistance in agriculture in Uruguay and Venezuela (in Spanish).</u>	<u>Innovations to address the question of cadmium in cacao (in Spanish).</u>



➤ Market access

11 Agricultural Chains	9 prioritized chains: cacao (Costa Rica, Peru, Panama), horticulture (Argentina), dairy goat products (Trinidad and Tobago), fruit (El Salvador), cashew (Honduras), coffee (Panama, Peru) and specific actions in chains or sectors: cacao chain in El Salvador and banana chain in Panama.
13 Countries	Argentina, Brazil, Colombia, Costa Rica, Dominican Republic, El Salvador, Ecuador, Guatemala, Honduras, Panama, Peru, Trinidad and Tobago and the United States.
40 Technical Cooperation Outputs	14 processes related to the exchange of information, horizontal cooperation and knowledge management; 2 consensus building processes and partnerships; 3 studies, methodologies, manuals and guides; 18 proposed strategies and plans; 3 capacity building events.
1102	Actors
24	Institutional Entities

Actions were carried out in 7 of the countries prioritized by the project (Argentina, Costa Rica, El Salvador, Honduras, Panama, Peru, and Trinidad and Tobago) and support was provided by six partner countries (Brazil, Colombia, the Dominican Republic, Ecuador, Guatemala and the United States) that participated in specific deliverables.

Information sharing, horizontal cooperation and knowledge management:

1 Forum “Marketing strategies to connect cacao producers with the market,” with the participation of 30 actors from the cacao chains of 8 countries. The activity made it possible to identify conditioning factors and factors of success for the implementation of commercial chains of differentiated products, short marketing circuits, and productive chains.

1 Fair and 1 Business matchmaking event in which producers’ organizations of Panama’s cacao and banana chains identified commercial options with other links in the chain.

1 Horizontal cooperation process with the participation of experts of the University of Santiago de Chile. An assessment was carried out and recommendations presented for strengthening the marketing channels of the Green Belt in Corrientes, Argentina.

8 National, regional and hemispheric information-sharing events on compliance with the requirements related to good agricultural practices, sanitary and phytosanitary standards, veterinary drug residues and food safety regulations, which enhanced the expertise of more than 700 actors in 20 countries.

- 23rd Conference of the Regional Commission for the Americas of the World Organization for Animal Health (OIE)
- 9th Meeting of the Western Hemisphere Working Group on Fruit Flies
- Annual meeting of the North American Plant Protection Organization (NAPPO)
- Regional workshop on the economic evaluation of brucellosis and tuberculosis programs for the six member countries of the Southern Cone Standing Veterinary Committee
- Ninth Meeting of the Capacity Development Committee (CDC) of the International Plant Protection Convention (IPPC)
- 20th meeting of the Codex Coordinating Committee for Latin America and the Caribbean (FAO/WHO)
- Seventh International Seminar on Good Agricultural Practices for MERCOSUR, Argentina
- Second Seminar on Good Agricultural Practices (GAP), Argentina

1 [Technical visit to Brazil to learn firsthand about the commercial and organizational development of the "Chain of the Horticulture Belt of the City of Brasilia,"](#) which made it possible to identify innovative instruments and key actions with potential for replication by the institutions that support the horticulture chain of the province of Corrientes in Argentina.

1 Agribusiness forum during the Caribbean Week of Agriculture, held in the Cayman Islands, to promote exports of agricultural and processed products, including the identification of new market opportunities linking agriculture and tourism, having identified the investment needed in the processing infrastructure in most of the countries.

Consensus building and partnerships:

1 Chain benefitted from the launch of the Committee for the Promotion of Special Coffees at the EXPOALIMENTARIA fair in Peru.

1 Partnership for the establishment of the Caribbean Culinary Association during the Caribbean Week of Agriculture (CWA), held in the Cayman Islands, with a view to enlisting the support of culinary professionals to influence what the hospitality industry purchases from producers and food processors.

Studies, methodologies, manuals and guides:

1 Document, “Marketing strategies to connect agricultural producers with markets” (in Spanish), aimed at facilitating institutional and commercial innovation processes designed to foster stronger links and greater participation by producers in markets, by means of three marketing strategies: short marketing circuits, productive linkages, and the linking of differentiated products for commercial purposes.

2 Agroenlaces on “Marketing strategies for small and medium-scale agriculture” - [Part 1](#) and [Part 2](#) (in Spanish).

1 Market study for the marketing of cashew by-products, with emphasis on clear cashew nectar to support the chain prioritized in Honduras.

1 Technical document on “Opportunities for commercial improvement in the fruit and vegetable chain of the Green Belt of Corrientes” (Argentina, in Spanish).

Proposals, strategies, and plans:

1	Marketing strategy “One People, One Product” (OVOP) to guide the process in the pilot communities in Costa Rica.
1	D-Hope project proposal for marketing by communities in Costa Rica.
15	Value added project proposals for the Huétar Norte and Huétar Sur regions of Costa Rica. The proposals include regional centers for the promotion of value added in both regions.
1	Road map for the implementation of the Agro Exports Route was agreed with the Agribusiness Coordinating Unit of the Specialized Technical Agency assigned to the Ministry of Foreign Trade and Tourism, in charge of promoting Peru’s exports, tourism and image (PROMPERU).

Capacity building processes:

1 Online agro-ecotourism course prepared by SAGARPA-IICA, through which 55 people in 10 countries enhanced their expertise for linking producers with the tourism sector for commercial purposes, through a strategy involving short marketing circuits and the diversification of income through the development of agritourism services.

1 Process for strengthening aspects of market and product development, with emphasis on strategies for the promotion and development of labels for dairy goat chain producers in Trinidad and Tobago.

1 Process carried out in El Salvador to update producers on plant health and legal requirements involved in exporting to the United States.

> Examples of significant progress made in the countries

Argentina



Strengthening of the institutional and technical capabilities of 7 institutions and 237 technical officers and development agents involved in supporting the horticulture chain of Corrientes Province, aimed at improving its competitiveness and sustainability.

During the year, the main milestones achieved in supporting the chain included:

- Publication and dissemination of the baseline of the fruit and vegetable chain of the Green Belt in Corrientes
- Development of proposals for strengthening horticulture marketing channels
- A technical exchange visit to Brasilia to learn about innovative horticulture marketing channels and instruments
- Training events and activities on leadership, extension, and chain management; facilitation of associative processes in the horticulture chain and family farming; commercial innovation in family farming; good agricultural practices; formulation of business plans aimed at adding value
- Preparation of a document on financing in the horticulture chain
- Creation of a Guide to training in GAP that will be used in the province's agricultural and agro-technical schools in 2017, as well as materials for the identification of the teacher training on the subject that is needed.

Paraguay



Improvement of the productivity, inclusion, competitiveness and sustainability of the floriculture and sheep chains in Paraguay through the establishment of two national chain committees for multi-institutional management and coordination, with the participation of at least 12 public and private institutions*. The results include:

Consensus building and linking of actors:

- Institutionalization of two chain committees for the construction of policies, linking of public, private and academic actors; management of services; carrying out of studies and coordination of training activities and technological innovations.
- Establishment of two strategic plans that define the elements of the competitiveness program to be implemented by each chain in the medium term. These have been published and distributed by the official channel (Ministry of Agriculture and Livestock).
- Issuing of ministerial resolution establishing the legal framework for the floriculture chain; work on the legal framework for the sheep chain is ongoing.

* SENACSA, DEAg, VMG, VMA, IPTA, CAH, BNF, FCCV, FCCA, APCO, SENAIVE, DEA and several private firms.

Institution building

- Training of 150 professionals who work for public and private institutions in subjects related to health and production technologies.
- Publication and distribution of five training materials and manuals of good practices for 500 producers.
- Establishment of a partnership with the National Quality and Animal Health Service (SENACSA), Deputy Ministry of Livestock (VMG) and the Association of Sheep Farmers and Breeders (APCO), followed by the design and implementation of a sheep health program divided into two modules. SENACSA contributed USD 21,000 and 226 technical officers were trained to take charge of replicating the knowledge with producers.

Management and use of knowledge

- Updating and dissemination of the observatory's technical information on various agricultural products, fielding online and onsite consultations.
- Preparation and distribution of document on financial products of the floriculture chain and, based on this, the management of specific floriculture products.
- Implementation of a census of floriculture producers, with the process being used to train 100 students of the Agrarian Sciences Faculty of the University of Asunción.

Trinidad and Tobago



Sixty (60) members of the TTGSS and other stakeholders were able to increase their productivity and the quality of goat milk and other value added products in order to increase access to markets through a series of capacity building activities and instruments for providing strategic guidance for the development of the dairy industry.

These interventions include the following:

- Establishment of a **Dairy Stakeholder's Committee** to guide industry development
- Preparation of a **business plan and marketing strategy** for the dairy goat sector
- **Husbandry management practices:** A classroom theoretical session on sanitation management, followed by practical sessions on a member's farm, where demonstrations of feed mixing were performed; breed selection; castration; and hoof trimming and dehorning under the supervision of a veterinarian.
- Preparation of a **manual on dairy goat production**, to supplement the capacity development training of the farmers
- Preparation of eight **fact sheets** on forages
- **Animal Health and Nutrition:** facilitated by members of the TTGSS Executive and a Ministry of Agriculture veterinarian.
- **Housing management and construction:** A practical session in floor design and construction at a member's farm.
- **Business Management:** Facilitated by resource persons (a chartered accountant, a business consultant, and a lecturer from the Arthur Lok Jack Graduate School of Business). Focus on business management and financial record keeping and entrepreneurship
- **Marketing:** Focus on product development and standards for packaging and labelling products.

Panama



Strengthening of the institutional and technical capabilities of development agents involved in the coffee and cacao chains, aimed at improving their competitiveness and sustainability:

- Progress made in signing up the members of the cacao and coffee agricultural chain committees, mechanisms that will facilitate general governance and the consistency of the development policies for both products. Both committees are expected to begin operating formally early in 2017.
- Creation of the cacao and coffee innovation consortia to promote horizontal cooperation and the transfer of information about technological innovations among the actors in both chains.
- Definition of 6 reference farms for coffee and 6 for cacao. The best technological options were identified and the cost-benefit study carried out.
- Strengthening of the technical capabilities of the extension agents of the Ministry of Agricultural Development (MIDA) and the Agricultural Research Institute of Panama (IDIAP).
- Strengthening of the productive and commercial capabilities of the Bocas del Toro Multiple Services Cacao Cooperative (COOCABO), the most important cacao producers' organization in the country with 1400 members in the province of Bocas del Toro, using the methodology of field schools. The MIDA, MICI and IDIAP supported and participated in these actions.
- Strengthening of COOCABO's capacity to integrate into the market through participation in business matchmaking meetings held within the framework of a congress on exporting organized in August 2016 by the MICI and the Panamanian Exporters Association (APEX). Preliminary agreements established with two chocolate manufacturers.
- Preparation of the Country Positioning document on fine aromatic cacao.

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