



UNREVIEWED TRANSLATION

\

EL SALVADOR

**NATIONAL ACTION PLAN
FOR BUILDING TRADE CAPACITY**



OPPORTUNITY CAFTA

VOLUME II: PROJECT PROFILES

NOVEMBER 2008

NATIONAL ACTION PLAN FOR BUILDING TRADE CAPACITY
PROJECT PROFILES DESCRIBING THE MAJORITY OF SPECIFIC NEEDS

Introduction

Within the context of the Central America-Dominican Republic-United States Free Trade Agreement (CAFTA-DR), El Salvador's National Action Plan for Building Trade Capacity has been prepared and will eventually be updated in 2007 for purposes of establishing definitions, priorities, and national coordination related to the needs for building trade capacity. The Action Plan was designed to serve as a tool for the management and mobilization of assistance in capacity-building from both public and private sources in order to support: i) implementation of the agreement; and ii) the transition and changes necessary to take advantage of the benefits of the CAFTA-DR.

While the National Action Plan covers the vast majority of identified needs, this document, part two of the National Action Plan, focuses on those tasks requiring a response from the donor community during the phase of implementation and transition to free trade. These needs are those required over the medium and long terms, depending on the nature of the assistance. El Salvador has made a great effort not only to keep the list of needs up-to-date, but also to maintain this second part of the National Action Plan as a dynamic instrument that describes, completes, and satisfies those areas in which the country needs to prepare itself for implementation of the Central America-Dominican Republic-United States Free Trade Agreement in accordance with the approval of the CAFTA by the National Assembly (Congress).

UNREVIEWED TRANSLATION

-3-

This second part of the National Action Plan establishes Programs aimed at addressing the needs as well as programs that are already receiving some sort of support. Within each program emphasis has been placed on justifying the need for cooperation actions and most specific elements describing them.

This document was updated in the month of November 2008.

TABLE OF CONTENTS

CONTENTS		Page No.
I.	TECHNICAL BARRIERS TO TRADE	6
	1. Technical assistance for building SPS capacity as a response to rejections of food products by U.S. customs	6
	2. Technical assistance for the management and elimination of obstacles and barriers to trade	12
	3. Fund to support the eradication and control of tuberculosis and brucellosis through the replacement and restocking of cattle in El Salvador	16
	4. Program to prevent, control, and eradicate bovine brucellosis and tuberculosis in the Republic of El Salvador	20
	5. Outfitting of a pig slaughterhouse in El Salvador	27
II.	RURAL AND AGRICULTURAL DIVERSIFICATION	33
	1. Development of fruit products with market potential	33
	2. Production of low-irrigation, high value-added produce	42
	3. Establishment of irrigation systems to support diversification of domestic agricultural production	48
	4. Delivery of seed and fertilizer to small Salvadoran producers	57
	5. Establishment of the Borlaug Institute's Agricultural Center in El Salvador	65
III.	STRENGTHENING THE COMPETITIVENESS OF SMES	79
	1. Business Development Center (northern El Salvador)	79
	2. Development and implementation of a technology platform for the strengthening of MSMEs for the creation of businesses and the development of suppliers	82

IV. IMPROVING COMPETITIVENESS	88
1. Support for the internationalization of SMEs	93
2. Preparation for the entry into effect of the Consumer Product Safety Modernization Act (H.R. 4040)	107
3. Strengthening curricula and building capacity in the academic sector on quality and productivity issues	111
4. Strengthening El Salvador's quality and productivity infrastructure	114

I. TECHNICAL BARRIERS TO TRADE

**PROJECT 1: TECHNICAL ASSISTANCE FOR BUILDING SPS CAPACITY AS A
RESPONSE TO REJECTIONS OF FOOD PRODUCTS BY U.S. CUSTOMS.**

1. Country: El Salvador

2. Contact information for requesting country:

José Roberto Huezo

Director of Enterprise Competitiveness (DCE)

Ministry of the Economy of El Salvador (MINEC)

Alameda Juan Pablo II, Calle Guadalupe, Edificio C-1, 2^a Planta, Centro de Gobierno, San Salvador, El Salvador, Central America

Telephone: (503) 2231-5839 Fax (503) 2231-5841

E-mail: rhuezo@minec.gob.sv

3. Requested cooperation:

Technical assistance and research visits

4. Relationship between the cooperation project and national objectives:

In accordance with the authority of the Department of Enterprise Competitiveness (DCE), we can indicate the following issues related to this project:

To design and implement the strategies, instruments, mechanisms, and projects necessary to support the development of domestic production and enterprise capacity, for both the domestic and foreign markets;

To engage in sector intelligence research and determine the competitive potential of products in export markets, primarily those markets with free trade agreements, while in turn identifying the potential for developing production chains with other sectors of the domestic economy;

To design and develop mechanisms for coordinating and integrating efforts with public and private domestic and foreign entities, leading to the competitive development of the production of Salvadoran goods and services for local and foreign markets;

To monitor and measure the impact of the projects and improvement efforts on national and enterprise competitiveness; particularly, for the various instruments and mechanisms of the Salvadoran Micro, Small, and Medium-sized Enterprise (MSME) support system; and to identify and propose mechanisms for the continuous improvement of the services thereof.

5. Priority: 2

6. Related to the requested cooperation:

Background

The Department of Enterprise Competitiveness (DCE) was created by means of Executive Resolution No. 1510, dated December 22, 2004, published in Official Gazette No. 34, volume

No. 366 dated February 17, 2005 and contains two sub-departments: Competitive Intelligence and Production Chains, and its objective is to research and analyze supply and demand conditions for Salvadoran products and services, as well as the critical elements of competitiveness, which, once achieved, will allow better use of trade opportunities. To disseminate the results to the public and private sectors and promote actions for the use of existing support instruments to strengthen production chains and enhance the sectors' competitiveness.

Cooperation objectives

General objectives:

To strengthen the quality of information to provide direct support to the sectors and trade groups through the Department of Enterprise Competitiveness Project Management Unit. This will allow them to go beyond identifying opportunities in the technical barriers to trade, and to work on actions that increase sector competitiveness.

Specific objectives:

To obtain knowledge of the basic guidelines related to the regulations under the jurisdiction of the FDA and USDA for proper creation of food and beverage labels for Salvadoran products to be exported to the United States.

To be able to transfer the knowledge acquired to the business sector and be more qualified to give advice to companies requiring it, which would help to continue to reduce the percentage of

Salvadoran products rejected by the FDA for improper product labeling and make the food sector more competitive.

To provide advice on USDA regulations to companies in the food sector that wish to export their products to the United States.

To propose measures (recommendations) to the applicable agencies to stimulate SME export capacity.

To establish potential contacts with FDA and USDA representatives.

To promote the development of human resources and improvements in the Salvadoran business sector's activity and competitiveness through training, information, and technical consulting activities.

To be able to make a comparison with these visits to the United States and detect weaknesses in the domestic agrofoods sector for the U.S. market, with respect to the rejection of its products, and to take actions to support the strengthening of exports.

Terms of reference

The Department of Enterprise Competitiveness Project Management Unit of the Ministry of the Economy produces the monthly report on “Salvadoran Products Exported and Rejected by the

FDA.” The most common grounds for rejections highlighted for the 2006-2007 period, in order of importance, are as follows:

Labeling

Decomposed food

Lack of approval for a new drug

Unsafe coloring

Unhealthy manufacturing practices

Bacteria

In May 2005, the USAID – PROSAIA Project organized the first seminar on food labeling for exporting Salvadoran food products to the United States. This training program was conducted by Elizabeth J. Campbell, a specialist with AAC Consulting. Before joining AAC, Ms. Campbell had a successful 35-year career with the FDA, where she worked as Director of the Office of Food Labeling. She played a key role in writing the Nutrition Labeling and Education Act (NLEA) in the 1990s, and was later responsible for implementing these regulations.

Representatives of various companies and institutions, both public and private, participated in the seminar. The participation of representatives of the various institutions laid the groundwork for the formation of the Labeling Committee, which was a direct recommendation of a report by the Project Management Unit with respect to the FDA rejections. The idea was to create a permanent group of local advisors for the analysis of food labels for products to be exported to the U.S. market.

In view of the foregoing, there was a perceived need in El Salvador to create a Labeling Committee, which took place on June 31 [sic], 2005 in order to respond to training needs and to share information with Salvadoran business people interested in having their food labels reviewed for compliance with U.S. regulations. This Labeling Committee is led by MINEC.

Currently, seven representatives from seven different institutions make up the Committee and have accepted the responsibility of repeating the original seminar to share the knowledge acquired on food labeling in El Salvador. Thus, the Committee has organized and given five seminars on food labeling for exports to the United States.

This entails the need for the DCE to meet its commitments to provide Salvadoran entrepreneurs with a mechanism generating opportunities for improvement in order to fulfill the need for the country to have a more competitive business sector in the United States market.

Expected results

- a. To assist the seven members of the Labeling Committee in the seminars on “Good Manufacturing Practices for Diet and Nutritional Supplements” in the United States, given by the consulting firm “EAS Consulting Group,” which is specialized in U.S. FDA regulatory matters.
- b. To take the seven members of the Labeling Committee on a visit of the FDA to see an onsite inspection for the review and rejection of products arriving at U.S. Customs.

- c. To provide the seven members of the Labeling Committee with training on the labeling of products under USDA jurisdiction, since they currently only know about foods processed with the FDA.
- d. To provide the seven members of the Labeling Committee with training on the regulations and labeling of alcoholic beverages by the U.S. regulatory agency responsible for these products.

**PROJECT 2: TECHNICAL ASSISTANCE FOR THE MANAGEMENT AND
ELIMINATION OF OBSTACLES AND BARRIERS TO TRADE**

1. Country: El Salvador

2. Contact information for requesting country:

José Roberto Huezo

Director of Enterprise Competitiveness (DCE)

Ministry of the Economy of El Salvador (MINEC).

Alameda Juan Pablo II, Calle Guadalupe, Edificio C-1, 2^a Planta, Centro de Gobierno, San Salvador, El Salvador, Central America.

Telephone: (503) 2231-5839 Fax (503) 2231-5841

E-mail: rhuezo@minec.gob.sv

3. Requested cooperation:

Technical assistance and research visits

4. Relationship between the cooperation project and national objectives:

In accordance with the authority of the Department of Enterprise Competitiveness (DCE), we can indicate the following issues related to this project:

To design and implement the strategies, instruments, mechanisms, and projects necessary to support the development of domestic production and enterprise capacity, for both the domestic and foreign markets;

To engage in sector intelligence research and determine the competitive potential of products in export markets, primarily those markets with free trade agreements, while in turn identifying the potential for developing production chains with other sectors of the domestic economy;

To design and develop mechanisms for coordinating and integrating efforts with public and private domestic and foreign entities, leading to the competitive development of the production of Salvadoran goods and services for the local and foreign markets;

To monitor and measure the impact of the projects and improvement efforts on national and enterprise competitiveness; particularly, for the various instruments and mechanisms of the Salvadoran Micro, Small, and Medium-sized Enterprise (MSME) support system; and to identify and propose mechanisms for the continuous improvement of the services thereof.

5. Priority: 2

6. Related to the requested cooperation:

Background

The Department of Enterprise Competitiveness (DCE) was created by means of Executive Resolution No. 1510, dated December 22, 2004, published in Official Gazette No. 34, volume No. 366 dated February 17, 2005 and contains two sub-departments: Competitive Intelligence and Production Chains, and its objective is to research and analyze supply and demand conditions for Salvadoran products and services, as well as the critical elements of competitiveness, which, once achieved, will allow better use of trade opportunities. To disseminate the results to the public and private sectors and promote actions for the use of existing support instruments to strengthen production chains and increase the sectors' competitiveness.

Cooperation objectives

General objectives:

To obtain technical assistance for designing an organizational structure for a Preclearance Office in El Salvador, allowing the optimum development of human resources, in order to meet the requirements of the various U.S. regulatory agencies, while maintaining the needs of the domestic productive sector and help orient it in accordance with the CAFTA.

Specific objectives:

To obtain knowledge of the requirements it must meet and the steps to be taken to create a Preclearance Office, so that export products undergo inspection in El Salvador before reaching the U.S. market.

To approve the inspection processes of the various U.S. government regulatory agencies with those of our country.

To consolidate the Preclearance Office for export products, which would directly favor the U.S. market, ensuring the delivery of safe products to U.S. consumers.

Brief description of the project

In accordance with the increased responsibilities and the expanded functions arising from the execution of the Free Trade Agreement with the United States, the Salvadoran government must strengthen its organizational structure by redesigning mechanisms to facilitate the competitiveness of the export sector, in order to address new challenges posed by the process of globalization and thus achieve minimal rejections of Salvadoran products exported to the U.S. market.

Expected results

- a. Technical assistance to establish an organizational structure that meets the needs for implementing a Preclearance Office in El Salvador to benefit the export sector.
- b. Visits to the various Preclearance Offices in the region to obtain direct information about their implementation.

- c. Visits to the various U.S. regulatory agencies in order to confirm their requirements relating to imported products.
- d. Obtaining technical assistance from the various U.S. regulatory agencies to provide training for the various certifications required for the different subsectors.

**PROJECT 3: FUND TO SUPPORT THE ERADICATION AND CONTROL OF
TUBERCULOSIS AND BRUCELLOSIS THROUGH THE REPLACEMENT AND
RESTOCKING OF CATTLE IN EL SALVADOR**

1. Name of country requesting cooperation: El Salvador

2. Contact in the requesting country:

Name: Mr. Adolfo Ríos Robredo

Ministry of Agriculture and Livestock

Tel. (503) 2241-1763

Fax (503) 2288-5220

E-mail: arios@mag.gob.sv

3. Requested cooperation:

Financing to compensate producers for the replacement of their livestock

4. Explanation of how cooperation relates to national objectives.

The Safe Country Government Plan (Plan de Gobierno País Seguro) for the 2004–2009 period, includes among its areas of action, 11 Agricultural Development: Expansion of the Value Chain, which seeks to increase the country's productivity and competitiveness and facilitate connectivity to promote its integration with global productive and trade processes, interrelating these processes with measures based in the domestic productive sectors, with special emphasis on MSMEs, the agricultural sector, and Salvadorans living abroad.

The actions for the 2004-2009 agricultural and agroindustrial development agreement for employment establish public policies focused on creating conditions allowing national economic growth based on the development of high productivity, that is, improved performance of production factors.

5. Priority: 1

6. Background on the requested cooperation.

Background

One of the goals the institution has maintained within its strategic plans for the livestock sector is to contribute to increasing zoosanitary levels of domestic livestock, as well as to increasing production, while protecting livestock from diseases affecting them and developing various national programs aimed at renewal and reproduction, while in turn providing services for the development of animal feed, contributing to the sector's obtaining an acceptable average production, allowing the gradual reduction of dependence on imports in order to ensure the country's food security.

With the entry into force of the CAFTA, the livestock sector needs to invest in the various phases of production. These factors have favored the development of more and better efforts in the Ministry of Agriculture and Livestock to benefit the population by providing it with quality products, giving rise to the need for a comprehensive, effective program to support the productive sector, aimed at the replacement and restocking of cattle in El Salvador with the quantity and quality of productive units, as well as those replacement units necessary to maintain its production levels, making producers more profitable and competitive with respect to market opportunities, which, at the same time, will contribute significantly to the population's food security.

Cooperation objectives:

General objectives:

To have a compensation fund providing financial alternatives to the livestock production sector so it can increase the quantity and quality of productive units through an ongoing, gradual program of replacement and restocking of their herds, leading producers to benefit from the potential of their herds by achieving a highly productive genetic improvement, while protecting and preserving the environment.

Specific objectives:

- a. To create a compensation fund for the replacement and restocking of cattle herds.
- b. To strengthen the Program to Prevent, Control, and Eradicate Tuberculosis and Brucellosis.

Brief description of the project:

- To establish a compensation fund that promotes alliance-building for the acquisition of new, top-quality productive units. This will allow for the creation of a continuous restocking policy ensuring the population a supply of quality dairy and meat products.
- The Ministry of Agriculture and Livestock, financial institutions, and livestock organizations will be involved in the administration of the compensation fund. The livestock organizations must be legally organized and established. This aims to create an incentive to eradicate the abovementioned diseases, while increasing the number of productive units, ensuring the health and progressively, the food independence of the population, while protecting and preserving the environment.
- El Salvador will reduce its dependence on food imports by having a Fund for Compensation, Restocking, and Renewal that ensures the importing of healthy cattle that will translate into increased domestic production as well as further acceleration of growth in the sector.
- Increasing activities of the sampling, prevention, vaccination, identification, and eradication program for cattle infected with tuberculosis and brucellosis by means of the application of current laws and regulations, in order to strengthen the zoonosanitary status of the presence of these diseases through control and eradication with continuous monitoring, control, and eradication, allowing El Salvador in the medium term, to become a country that aims to ensure health by preventing the risk of transmission of these diseases to humans.

The project will be undertaken over a five-year period, with national coverage, in the primary dairy production areas.

Expected results:

- The gradual replacement of 29,000 head of cattle, benefiting producers with a component of the Compensation Fund of **33%** of the value of new heifers, with up to **5** heifers per rancher.
- Ranchers with better production and quality control will be allowed to minimize their costs.

Total amount of project: \$12,000,000.00

COMPONENT	AMOUNT (in US\$)
Compensation fund	12,000,000
TOTAL	12,000,000

**PROJECT 4: PROGRAM TO PREVENT, CONTROL, AND ERADICATE BOVINE
BRUCELLOSIS AND TUBERCULOSIS IN THE REPUBLIC OF EL SALVADOR**

1. **Name of country requesting cooperation:** El Salvador

2. **Contact in the requesting country:**

Name: Mr. Adolfo Ríos Robredo

Ministry of Agriculture and Livestock

Tel. (503) 2241-1763

Fax (503) 2288-5220

E-mail: arios@mag.gob.sv

3. **Requested Cooperation:**

Financing for technical assistance, training, and equipment.

4. Explanation of how cooperation relates to national objectives.

The Safe Country Government Plan (Plan de Gobierno País Seguro) for the 2004–2009 period includes among its areas of action, 11 Agricultural Development: Expansion of the Value Chain, which seeks to increase the country's productivity and competitiveness and facilitate connectivity to promote its integration with global productive and trade processes, interrelating these processes with measures based in the domestic productive sectors, with special emphasis on MSMEs, the agricultural sector, and Salvadorans living abroad.

The actions for the 2004-2009 agricultural and agroindustrial development agreement for employment establish public policies focused on creating conditions allowing national economic growth based on the development of high productivity, that is, improved performance of production factors.

5. Priority: 1

6. Background on the requested cooperation.

Background

The Ministry of Agriculture and Livestock is working with national ranchers associations, targeting efforts to obtain more and higher quality production while increasing competitiveness and strengthening the health of national herds, in order to contribute to the country's socioeconomic development and food security, while seeking to supply the domestic market with quality dairy products.

Since its creation, one of the missions of the Department of Plant and Animal Health (DGSVA) and the Strategic Plan for the Sector has been to contribute to increasing milk production, first by protecting livestock from diseases affecting them, while developing various national programs, maintaining programs aimed at reproduction, and increasing dairy cattle productivity by supporting the development of animal feed that can be provided during the dry season, allowing acceptable average production, while also providing machinery service (grinders, hammermills, and mixers).

With the entry into force of the CAFTA, the livestock sector needs to invest in the various phases of dairy production, from genetic enhancement to cold-storage networks and hygienic milking, etc. These factors have favored the development of better efforts in the Ministry of Agriculture and Livestock to benefit the population by providing it with quality dairy products, giving rise to the need for a comprehensive, effective program to support the productive sector, aimed at the restocking of dairy cattle in El Salvador with the quantity of productive units, as well as those replacement units necessary, to maintain its production levels, making producers more profitable and competitive while at the same time contributing significantly to the population's food security.

The dairy sector is sensitive in Central America, as it is in the United States, and in both cases receives a significant level of tariff protection. Throughout the negotiation process, the private sector in Central America and its counterpart in the United States held intensive negotiations resulting in a technical proposal that was presented to the various governments.

The final result that the governments agreed to enjoys the approval of the private sectors, and is summarized below:

i) Access granted by El Salvador:

- Period of tariff reduction: 20 years
- Grace period for reduction: 10 years, during which time there is no reduction.
- Initial quota level: 1,070 MT.
- Quota growth: 5% annually.

ii) Access granted to El Salvador by the United States:

The United States grants El Salvador a reciprocal quota of 1,070 MT that will grow 5% annually.

The quota granted by the United States for cheeses is more than double El Salvador's current exports in this category.

The application of the special agricultural safeguard is bilateral, as follows:

- Application period: 20 years
- Mechanism: for years 11 to 20: the trigger for the safeguard is when imports reach the quota volume for that year plus 30%.

There are three reasons to control and/or eradicate these diseases:

- ✓ They can be transmitted to humans, primarily those working in contact with infected animals (veterinarians, rural workers, and meat processing plant personnel).
- ✓ They limit international trade in meat and dairy products, having a negative impact on the profitability of farms.

- ✓ These diseases cause significant economic losses in meat and dairy production.

Cooperation objectives:

General objectives:

To have a reliable Epidemiological Monitoring system in order to rapidly detect any change in the health status of the cattle population, declaring herds to be free of disease, and contributing to highly productive genetic enhancement, while protecting and preserving the environment.

Specific objectives:

- a. To strengthen the Program to Prevent, Control, and Eradicate Tuberculosis and Brucellosis,
- b. To certify herds and areas as free of bovine tuberculosis and brucellosis through diagnostics and monitoring,
- c. To train professional staff, ranchers, and technicians in courses and seminars on comprehensive cattle handling techniques,
- d. To have a health communication, education, and information campaign for ranchers, processors, and business people.

Brief description of the project:

The project includes the following components:

- **Program to sample, vaccinate, and identify cattle infected with Tuberculosis and Brucellosis.**

This component will be undertaken nationally by the Animal Health program of the Department of Plant and Animal Health/Ministry of Agriculture and Livestock (DGSVA/MAG). Initial

activities to be undertaken include a sampling of tuberculosis and brucellosis, as well as the subsequent application of the vaccine to prevent brucellosis in healthy cattle. A census will also be taken to identify the number of head of cattle in order to complement to traceability program, which, beginning in 2008, will be a requirement for exports to free trade agreement member markets.

- **Prevention of transmission of zoonotic diseases.**

Strengthening the zoosanitary status of the presence of tuberculosis and brucellosis through control and eradication with continuous monitoring, control, and eradication, allowing El Salvador in the medium term, to become a country that aims to ensure health by preventing the risk of transmission of these diseases to humans through the consumption of raw milk in the country, ensuring better food quality for the rural population.

- **Training ranchers in the proper handling of cattle herds.**

This component aims to provide ongoing training on proper handling and current legislation relating to cattle for the livestock sector. It will also implement a media information campaign targeting ranchers and the general public.

It will also leverage the improved grass seed program promoted by this Ministry by having more productive cattle, and accelerating the genetic enhancement program, through the establishment and efficient use of the sperm banks created nationally.

For this program to be successful, it is vitally important to create a fund allowing producers the capacity to replace and restock any identified dairy and beef cattle. This fund will be strengthened as producer associations gain interest in participating in the program, in order to

ensure the replacement and restocking of dairy and beef cattle through alliances with financial institutions that promote and create incentives for channeling resources toward producers in the interest of improving their production capacity and quality.

For the reasons described above, existing credit lines must be strengthened to progressively increase the national herd by means of preferential interest rates and terms that are consistent with the cattle ranching business.

The project will be undertaken over a five-year period and will have national coverage in the primary dairy farming areas.

Expected results:

- Declaration and certification of herds and/or areas as free of bovine Brucellosis and Tuberculosis as a result of the epidemiological monitoring program that will vaccinate 116,000 head of cattle.
- Having 65,000 ranchers trained in new production and quality control systems, allowing them to minimize costs, and providing significant levels of safety, through knowledge about the handling of products and byproducts of bovine origin.

Total amount of project: \$5,473,413.00

COMPONENT	TOTAL
Program to sample, vaccinate, and identify cattle infected with Tuberculosis and Brucellosis	2,601,360
Prevention of the transmission of zoonotic diseases	2,308,560
Training ranchers in proper cattle handling	563,493
TOTAL	5,473,413

PROJECT 5: OUTFITTING OF A PIG SLAUGHTERHOUSE IN EL SALVADOR

1. Name of country requesting cooperation: El Salvador

2. Contact in the requesting country:

Name: Ms. Karla Hernández

Ministry of Agriculture and Livestock

Tel. (503) 2241-1761

Fax (503) 2288-9988

E-mail: khernandez@mag.gob.sv; kalena.hm@gmail.com

3. Requested Cooperation:

Equipment, technical assistance, and training for the exploitation and slaughter of pork products.

4. Explanation of how cooperation relates to national objectives.

The Safe Country Government Plan (Plan de Gobierno País Seguro) for the 2004–2009 period includes among its areas of action, 11 Agricultural Development: Expansion of the Value Chain, which seeks to increase the country's productivity and competitiveness and facilitate connectivity to promote its integration with global productive and trade processes, interrelating these processes with measures based in the domestic productive sectors, with special emphasis on MSMEs, the agricultural sector, and Salvadorans living abroad.

The actions for the 2004-2009 agricultural and agroindustrial development agreement for employment establish public policies focused on creating conditions allowing national economic growth based on the development of high productivity, that is, improved performance of production factors.

5. Priority: 1

6. Background on the requested cooperation.

Background

High-quality hogs are currently raised on modern farms, but due to the lack of slaughterhouses meeting international standards, the quality of the meat produced using better technology is lost.

The lack of proper facilities for the slaughter of pigs in El Salvador represents a serious health risk for animals and humans directly or by means of [sic].

The implementation of a modern, comprehensive slaughterhouse is complementary to the efforts of pig farmers, adding one more link to the pork production chain.

Aware of this problem, in 2004 the Government of El Salvador conducted the competitiveness study for pork products. The programs proposed as a result of this research included the development of production chains, technical assistance, benchmarking with productive and reproductive information, a distinguishing brand/mark for Salvadoran pork producers, the

creation of a business networking forum, mechanisms for financing the actions defined to benefit the subsector, and the industrial self-financing program for the pork production sector.

In early 2006, with the support of the Central American Bank for Economic Integration (CABEI), which financed a technical cooperation project for the feasibility study and design for the construction of a pig slaughterhouse in El Salvador, this study was entrusted to the Spanish consulting firm Equinoccio S.L.

From the socioeconomic point of view, implementation of the project involves benefits that outweigh the negative impacts, and Salvadoran companies benefit substantially from the installation of a pig slaughterhouse.

The entry into effect of the CAFTA-DR has strengthened political relations between the participating countries. The CAFTA-DR has generated great expectations for improving market access for exports from the United States and Central America. But it has also created fear of reduced protection, resulting in more imports, depressing prices on domestic markets, and hurting the profitability of agricultural and livestock producers.

The quotas or tariff-rate quotas are an important part of the commitments under the CAFTA-DR. Their objective is to allow an opening or minimal access for products whose tariffs are generally high, but that due to their sensitivity, have long tariff reduction periods or will be exempt from reduction.

In the case of pork, all countries grant a quota, and in almost all cases, it is higher than the total amount of imports, e.g. in El Salvador it is 134.0%. Its ratio to U.S. imports is even greater. Therefore, a significant impact on domestic markets is expected in this area.

Despite the fact that the tariff reduction period for pork is long, 15 years with a six-year grace period, the volumes of the quotas are large enough that the timeframe for elimination of tariffs is almost irrelevant.

Pork imports are used for the manufacture of sausages and not for direct consumption as meat. Nevertheless, in the marketing of pork, producers are accustomed to selling pigs as pork sides, while processors prefer to purchase only the cuts needed to make their products, usually remnants or inexpensive cuts. For this reason, in order to reduce the negative impacts that could arise with the establishment of quotas under the CAFTA-DR and to reduce possible conflicts between pork producers and processors due to their respective preferences, it is necessary to strengthen the infrastructure for pork slaughter.

Cooperation objectives:

General objectives:

To improve the technological processes and ensure the quality and safety of products of animal origin, thereby increasing revenues for producers while providing consumers with safer meat.

Specific objectives:

- ✓ Equipment for a pig slaughterhouse in the western region of El Salvador.

- ✓ Technical assistance and training on the management of the pig slaughterhouse.

Brief description of the project:

The project includes the outfitting of a slaughterhouse, which will include receiving and waiting areas for animals, providing humane treatment to the animals; as well as initial handling to obtain high-quality meats; a modern, mechanized slaughter area, although not necessarily automated, built of rust-resistant materials (galvanized steel, aluminum, stainless steel); a cold-storage network, ensuring the quality of the meat, and a butchering room, to provide added value to the slaughtered pigs, as well as all auxiliary facilities for operation of the slaughterhouse (water well, boilers, emergency power supply, water purification plant, etc).

Moreover, it should consider all measures for biosafety, the environment, and laws related to the slaughterhouse area, including a wastewater treatment system, both for the results of the slaughter and the plant's drainage system, proper waste management, and protective barriers, among others.

The Government of El Salvador will establish a joint public-private enterprise with the Asociación Salvadoreña de Porcinocultores (Salvadoran Association of Pork Producers) to operate the slaughterhouse, the total cost of which is US\$5.0 million. This joint public-private enterprise will make the infrastructure investments, valued at US\$1.9 million, necessary for the installation of the equipment, and will also make financial resources available for operation of the slaughterhouse, estimated at US\$700,000, which, at this stage, will be offering fulltime work

for approximately 50 people, and indirectly to approximately 7,000 people working in the pork production sector.

The project will be developed over a period of one year, located in the country's western region, home to the country's largest number of pig farms.

Expected results:

- a. An equipped pig slaughterhouse,
- b. The population will have access to a protein source whose quality is guaranteed,
- c. Veterinary controls established in the new slaughterhouse will directly protect public health,
- d. Reduced contamination, improving environmental quality,
- e. Reduced risk of meat-borne infection and intoxication,
- f. Higher and better quality meat production,
- g. Opportunity to export pork products and byproducts, and
- h. It will improve prevention and fight animal diseases.

Estimated cost of cooperation for equipment: \$2,400,000.00

COMPONENT	AMOUNT (\$)
Equipment, installation, and training for implementation	2,400,000.00
TOTAL	2,400,000.00

II. RURAL AND AGRICULTURAL DIVERSIFICATION

PROJECT 1: DEVELOPMENT OF FRUIT PRODUCTS WITH MARKET POTENTIAL

1. Name of country requesting cooperation: El Salvador

2. Contact in the requesting country:

Name: Mr. Louis Agustín Calderón

Ministry of Agriculture and Livestock

Tel. (503) 2241-1779

Fax (503) 2228-1889

E-mail: lcalderon@mag.gob.sv

3. Requested Cooperation:

Technical assistance, training, and provision of inputs for fruit production.

4. Explanation of how cooperation relates to national objectives.

Faced with the new challenges posed by the vision of the “*Safe Country: 2004-2009 Government Plan,*” within its area of action 11 :*Agricultural Development: Expansion of the Value Chain*”

and the presidential commitment set forth in the document “*El Salvador: Actions for Agricultural and Agroindustrial Development 2004-2009, Agreement for Employment,*” the

Salvadoran government has a fruit development project in successful execution, which has

proven to be an ongoing source of job creation, especially in rural areas that are focal points of poverty and extreme poverty, using qualified labor, which is better paid than jobs in traditional production categories.

This project is framed within area of action 11 Agricultural Development: Expansion of the Value Chain. The strategic objective in this area seeks “to have workers in the sector obtain better incomes, providing conditions so that rural areas enjoy a higher level of participation in national productive activity, creating jobs and wealth. The instruments for achieving this shall include advanced technology, providing the sector with levels of productivity equivalent to global best practices.”

5. Priority: 1

6. Background on the requested cooperation.

Background

Tropical fruits have great market potential both domestically and internationally, and for this reason are one of the best competitive bets for the national agricultural sector. Domestically, the apparent demand for fruits is 316,000 ton/year, with 69% covered by imports.¹ Internationally, the demand for fruit is growing and recent studies show that tropical fruits have great opportunities in the ethnic markets in the United States.²

¹ The El Salvador National Fruit Program (MAG-FRUTALES). 2004a. Market Bulletin: Fruit supply in El Salvador. Inter-American Institute for Cooperation on Agriculture, Santa Tecla, El Salvador.

² The El Salvador National Fruit Program (MAG-FRUTALES). 2006. Market Opportunities for Fresh and Processed Fruits in El Salvador. Inter-American Institute for Cooperation on Agriculture, Santa Tecla, El Salvador.

For these reasons, the Government of El Salvador is strongly committed to the development of a competitive fruit sector in order to meet not only domestic demand, but also to successfully penetrate regional and international markets. To make this mission a reality, fruit producers who have already made investments must be strengthened by providing them with technical support on the various links of the agrobusiness chains for fruit (primary production, agroindustry, and sales). The planting of new areas must also be promoted to contribute to increasing the supply in order to take advantage of existing formal market opportunities such as supermarkets, hotels, restaurants, and international demand.

Producers have serious technological, financial, and business management limitations for producing under the safety and quality conditions demanded by the markets. This is the case of the providers of fruit to the companies that export to the United States, placing this market at risk due to the underlying risk of detecting shipments that do not meet safety requirements and must be rejected. In short, the following limitations are identified for the competitiveness of the fruit sector, primarily framed within technical factors, market access, and financing.

Considering that in the framework of the CAFTA-DR, the fruit category does not constitute a conflict of interest among countries, it is not included among the initial quotas for negotiated products. Therefore, it should be noted that there could be potential for including fruit production resulting from this program as a contribution to be included in the free trade agreement.

It should be considered that to the extent jobs are created in the country, the level of migration could be reduced.

Cooperation objectives:

General objectives:

To strengthen the development of competitive fruit chains to promote the development of profitable agribusinesses and contribute to creating opportunities for jobs and income among rural populations.

Specific objectives:

- a. To provide technical assistance for primary production to present or future commercial fruit plantations in order to ensure a competitive fruit supply tailored to the markets.
- b. To provide consulting on aspects of quality assurance, plant design, and development of processed fruit products for micro and small enterprises.
- c. To provide specialized technical assistance to producers and entrepreneurs in order to achieve competitive access to domestic and international markets.
- d. To implement a training program at various levels to train human resources in fruit production.
- e. To promote local innovation through the application of jointly financed incentives for the strengthening of fruit production enterprises.
- f. To strengthen the institutional framework for fruit production through coordination among the various stakeholders in the fruit production chains.

Brief description of the project:

Components

A) Fruit production with implementation of Good Agricultural Practices (GAP).

This component will provide technical assistance that will lead to the production of annual crop management plans. This plan will be based on the implementation of Good Agricultural Practices (GAP) in order to guarantee the safety of the fruits produced. The technical assistance will be provided directly on the plantations periodically, every two weeks during critical periods, monthly during plantation maintenance, and will be complemented by technical assistance in the Ministry of Agriculture (MAG) offices, or by phone or Internet.

This component includes technical assistance for plant nurseries for the production of plant material that meets genetic and phytosanitary requirements.

It includes technical assistance services for the adaptation of small producers' facilities so they comply with GAP, developing strategic/applied research on issues limiting fruit production (e.g.: pest and disease-resistant avocado stocks adapted to limiting soil conditions, phytoplasma disease management, and the introduction of germplasm).

B) Strengthening the national fruit agroindustry

Technical assistance services will be provided to fruit processors, with an emphasis on Good Manufacturing Processes (GMP) and Sanitation Standardized Operating Procedures (SSOP) in order to guarantee the safety of these products, as well as training on food legislation, including current domestic laws and international safety standards required by the target markets for processed fruit products. It also includes assistance for the development of fruit-based products, based primarily on domestic and international consumer market trends.

It includes technical assistance services to support the development of new products and for the implementation of GMP, such as the determination of the shelf life of the processed fruit-based products the companies have developed, laboratory services, and the determination of nutritional values, among other issues.

C) Sales and marketing of fruit in domestic and international markets

An ongoing technical advisory program will be implemented (providing current information on fruit volumes and prices, promoting quality, health, and safety standards for this category, etc.) for the organization and facilitation of the fruit trade, for both domestic and international markets, using a methodology including training on basic and specialized sales and marketing issues, commercial validation of products in selected markets, and onsite marketing or trading of fresh and processed products.

Alliances between various producer-providers and buyers will be promoted, culminating in the execution of trade agreements to meet market demand. The goal is to facilitate business in order to supply the market with quality fresh and processed fruits, in the quantity and with the regularity demanded by the market.

It also includes support for the design of labels, product catalogs and trademarks, specific market surveys, and the commercial validation of products.

D) Incentives for the production of fruits with market potential

This component will support the establishment of new perennial and semi-perennial fruit plantations and will include species such as: coconut palms, sapodilla, avocado, mamey, pineapple, Spanish plum, papaya, plants of the Musaceae family (banana, plantain), and others with market potential. In the case of small producers of basic grains, systems of association with perennial fruits could be promoted. As direct support for production, producers will be provided support in the nursery, agricultural production, and agroindustry phases, up to a maximum of 50 percent of the investment for beneficiaries of this program.

Execution strategy.

With the goal of taking advantage of the MAG's trained human resources and projects, a technical assistance model will be implemented, supported by the various institutions involved in fruit production, to be coordinated by the MAG's Office of Project Coordination (OCP).

Technical assistance will be provided to producers on GAP for production, harvesting, and post-harvest issues.

To strengthen the processing links for fruit products, micro or small enterprises with the capacity to develop their potential to implement quality assurance programs will be identified and selected. They will be advised directly by specialists on the design of agroindustrial plants and the development of processed fruit products. So the enterprises implement future quality assurance systems, their operators will also receive onsite training in GMP and SSOP.

The producers' business organization will be promoted to build capacity in negotiation, volume consolidation, supply organization, and adding value to fruit products, to culminate in the development of marketing plans defining the marketing strategy to be implemented. Using existing market studies and surveys as a base, fruit producers or entrepreneurs will be advised on aspects of fresh and processed fruit sales in order to take advantage of domestic and international market opportunities; and linkages will be established among producers, suppliers, and buyers through support and monitoring of the execution of seven trade agreements to serve market demand for fresh and processed fruit.

Special emphasis will be placed on the application of incentives to strengthen fruit businesses. To do this, based on pre-established criteria, support will be provided to fruit entrepreneurs and/or producers through cofinancing for the acquisition of plants for up to a maximum of 50% of the total cost of the investment.

For the execution of the various components, efforts will be coordinated with the various entities related to the fruit market, such as COEXPORT, EXPORTA, FOEX, MINEC Competitive Intelligence, among others. This coordination will aim to provide comprehensive service to the project's various clients.

Expected results:

- a. Establishment of up to 5,000 new *manzanas* of fruit plantings (1 hectare is equivalent to 1.43 *manzanas* or 1 *manzana* is equivalent to 0.7 hectare), with quality technical assistance based on Good Agricultural Practices (GAP) and quality genetic material.

UNREVIEWED TRANSLATION

- b. Technical assistance to beneficiaries of previous programs, up to 5,000 fruit producers.
- c. Advisory services to 50 micro or small enterprises on quality, health, and safety standards in manufacturing.
- d. Advisory services on the establishment and operations of at least five plants and the development of processed fruit products.
- e. Promoting at least seven trade agreements entered into between buyers and suppliers to improve access to domestic and international markets.
- f. Training of 1,000 to 1,200 technicians, operators, producers, and/or entrepreneurs in field production, agroindustry, and sales.

Estimated costs: US\$10,000,000.00 for a five-year execution period, broken down as follows:

Year one	\$2,500,000.00
Year two	\$2,000,000.00
Year three	\$2,000,000.00
Year four	\$2,000,000.00
Year five	\$1,500,000.00.

Costs are broken down as follows:

<u>Component</u>	<u>Targets</u>	<u>Cost (Thousands of \$)</u>
Fruit production with implementation of GAP.	Assistance for 10,000 <i>manzanas</i> . 5,000 agrobusiness people served, including producers of plants with quality genetic material (nurseries) and beneficiaries of the previous stages of the MAG-FRUTALES project(5,000 <i>manzanas</i>)	2,500.0

UNREVIEWED TRANSLATION

42

<u>Component</u>	<u>Targets</u>	<u>Cost (Thousands of \$)</u>
Strengthening the domestic fruit agroindustry	Advisory services to 50 micro or small enterprises on quality, health, and safety in manufacturing; and the establishment and operation of five agroindustrial plants	3,000.0
Fruit sales and marketing	Advisory services to 500 micro or small enterprises on marketing and sales; and entry into seven trade agreements between buyers and suppliers.	1,000.0
Incentives for fruit production, agroindustry, and sales	Support for in-kind incentives including plant production and acquisition, application of GAP and GMP, improvements in agroindustrial plants, and sales of fresh and processed fruits.	3,500.0
		10,000.0

PROJECT 2: PRODUCTION OF LOW-IRRIGATION, HIGH-VALUE PRODUCE.

1. Name of country requesting cooperation: El Salvador

2. Contact in the requesting country:

Name: Mr. Louis Agustín Calderón

Ministry of Agriculture and Livestock

Tel. (503) 2241-1779

Fax (503) 2228-1889

E-mail: lcalderon@mag.gob.sv

3. Requested Cooperation:

Technical assistance, infrastructure and equipment, supply of inputs, and training

4. Explanation of how cooperation relates to national objectives.

The Safe Country Government Plan for 2004–2009 establishes as one of its strategic actions **Agricultural Development: Expansion of the Value Chain**, recognizing the need to restructure the agricultural and livestock sector and recover its levels of profitability, by strengthening current activities and seeking out new technologies and products with potential. To do so, among other activities, agricultural diversification is being promoted to include more profitable crops, both by facilitating access to information on new crops, opportunities, and market niches, and by adding value in production processes. This is the context for the establishment of the **PRESIDENTIAL PROGRAM “Discovering Productive Potential: The Path to Growth,”** which aims to promote productive reform in El Salvador, through the identification of productive activities with potential for success in local or international markets.

5. Priority: 1

6. Background on the requested cooperation.

Background

For many years, small-scale agriculture in El Salvador has been characterized as an activity deeply focused on the production of basic grains and highly dependent on the winter for crop growth, therefore resulting in low levels of profitability that have not permitted the accumulation of capital that would ensure commercial production levels on each area’s small production units.

The production of vegetables or produce and of other nontraditional products is one of the activities that offers the greatest opportunities for domestic growth for various reasons: a) unmet

demand in domestic markets; b) high job creation due to intensive use of labor and two annual growing seasons; c) potential to significantly increase current technological and productivity levels; d) vast opportunities to develop high value-added products; e) possibilities for expansion into areas with irrigation potential; g) high return on investment.

The advantages of produce production can be developed by promoting irrigation systems and modernization in the use of agricultural techniques to take advantage of the agro-ecological advantages existing in some of the country's regions. The promotion of irrigation technologies for the production of produce with a high potential demand in local markets would allow the nation's small and medium-sized agricultural producers to be able to plan their production based on market needs, thus ensuring a continuous presence of significant high-quality production volumes, improving the nutrition of the producers and the general population, and substantially reducing the volumes of imported produce from neighboring countries, primarily Guatemala and Honduras.

It will also contribute to the diversification of the productive structure with a perspective aimed at modernizing traditional techniques and patterns of managing these crops, similar to those executed by the rural development and modernization projects PRODERNOR, PRODAP II, and PREMODER coordinated by OCP-MAG and by the USAID FINTRAC project.

Cooperation objectives:

General objectives: To promote the use of irrigation technologies to increase commercial production of produce in order to improve the supply of agricultural products with a high

demand in domestic markets and encourage production of others with greater value-added and commercial opportunities in local markets.

Specific objectives by component:

COMPONENTS

Infrastructure and irrigation equipment. This component will seek to intensify the use of water for irrigation purposes, in order to increase produce production and improve continuity in the markets. To do so, drip and micro-spray irrigation systems will be provided, including the equipment and accessories necessary for the extraction, collection, storage, and/or distribution of water. It includes: installation of irrigation modules, water extraction pumps, pipes, and accessories for the piping and distribution of water, tanks for collection and storage, well construction, and infrastructure for the production of seedlings, among other things.

Supply of agricultural inputs. This will seek to encourage the modernization of agricultural plots through the introduction of quality inputs and the use of agricultural materials and machinery that improve productive processes. It includes the purchase of small production and/or harvesting machinery, rototillers, enhanced seeds, basins, fertilizers for irrigation, fertilizer, insecticides, pesticides, and any other consumable input or material required for the implementation of modern production techniques.

Sales. This will contribute to improving domestic producers share in local markets (farmers' markets), seeking to ensure better revenues and generate value-added, and high-quality products for consumers. It includes: (i) the construction of small infrastructure encouraging the

incorporation of added value, such as small stockpiles, washing and sorting plants, packaging centers, etc.; (ii) the purchase of light machinery for processing or packaging produce: plastic wrap machines, conveyors, etc.; (iii) advertising services and promotional material for producer events: radio spots, mobile loudspeaker advertising, print materials, promotional articles, etc.

Technical assistance and training. This seeks to develop skills in crop management, proper use and maintenance of irrigation systems, harvesting of healthy, high-quality products, and building knowledge for proper business and commercial management.

It considers technical assistance on low-irrigation produce crops, as well as training in crop management, good agricultural practices, food security, good manufacturing practices, post-harvest management, processing, sales, and business management. For this latter aspect, modular training plans will be designed based on the needs of the beneficiary groups. It also includes expenses for internships on innovative experiences in the country.

Project execution strategy

With the goal of taking advantage of the MAG's trained human resources and projects, a technical assistance model will be implemented, supported by the various institutions involved in low-irrigation produce, to be coordinated by the MAG's Office of Project Coordination (OCP).

It is established in order to execute the project is the best way possible, and in this regard, it will be undertaken in various phases or annual stages, which will contribute to the best possible project execution:

Stage one: In this phase, the activities will be the identification of producers with areas of available water; the training of identified producers on the installation and maintenance of irrigation equipment, crop management, management of good agricultural practices, among others, crop selection to be determined based on the conditions in the area, adequacy of the soil for the crop, distribution of seeds for vegetables, identification of areas for greenhouse construction for the production of seedlings.

Stage two: Distribution, installation of irrigation systems, materials and inputs for plots, establishment of plots, construction of infrastructure for post-harvest management, provision of machinery for vegetable processing and promotion of products on local markets and nationally, training in sales, post-harvest management, agroindustry, etc.

The development of the abovementioned stages will last one year from project approval and the respective disbursement of funds, during which time produce crops will be established over an area of 350 *manzanas* (1 hectare is equivalent to 1.43 *manzanas* or 1 *manzana* is equivalent to 0.7 hectare) with the involvement of 500 producers, successively for each of the four years of the project, fulfilling the expected results of 1,400 *manzanas* and 2,000 producers.

Expected results:

- 1,400 new *manzanas* operating with irrigation systems in family or associated plots.
- At least 2,000 farmers trained in agroindustrial processing, sales, business management, and agronomy.

- 12 producer events are strengthened, ensuring a better and greater supply in the markets.

Total amount of project: US\$5,140,000.00.

The disbursement schedule for the investment will be as follows:

Year 1: US\$1,400,000.00

Year 2: US\$1,300,000.00

Year 3: US\$1,250,000.00

Year 4: US\$1,190,000.00

No.	Component	Amounts
1	Infrastructure and irrigation equipment	2,500,000.00
2	Supply of agricultural inputs	2,000,000.00
3	Sales	240,000.00
4	Technical assistance and training	200,000.00
5	Operating expenses	200,000.00
	Total	5,140,000.00

**PROJECT 3: ESTABLISHMENT OF IRRIGATION SYSTEMS TO SUPPORT
DIVERSIFICATION OF DOMESTIC AGRICULTURAL PRODUCTION**

1. Country: El Salvador

2. Contact in the requesting country:

Name: Mr. Guillermo Mayorga, Engineer

Ministry of Agriculture and Livestock

Tel. (503) 2241-1715 and 14

Fax (503) 2228-3262

E-mail: gmayorga@mag.gob.sv

3. Requested cooperation:

Infrastructure, equipment, and technical assistance.

4. Explanation of how cooperation relates to national objectives.

Within the framework of the Safe Country Government Plan for 2004–2009, its areas of action include 11 Agricultural Development: Expansion of the Value Chain. The execution of the project is vitally important both socially and economically; socially, because it will contribute to food security and national job creation, and economically, because it will contribute to improving the use of water and soil resources, increasing fruit and vegetable production, and the incomes of participating producers and their family groups, and to improving the country's economy by reducing the deficit and the trade balance in these areas.

5. Priority: 1

6. Background on the requested cooperation.

Background

Since the 1970s, investments have been made in El Salvador in low-irrigation agriculture, with the execution of major irrigation works aimed at agricultural diversification, increasing

productivity, and the replacement of fruit and vegetable imports, financed with various external loans, primarily from the Inter-American Development Bank (IDB), allowing the establishment of the Zapotitán, Atiocoyo, and Lempa – Acahuapa irrigation districts.

With respect to small and medium-sized irrigation works, between 1980 and 1986 the Small Irrigation Work Program (OPOR) was executed, financed by AID, and subsequently, in the 1990s, the national irrigation program was implemented with funds from the Central American Bank for Economic Integration (CABEI).

In addition to these works, several feasibility studies were performed for projects that remain to be implemented for large, medium, and small areas, all aimed at increasing productivity and producer revenues, while reducing fruit and vegetable imports.

Finally, beginning in 2000, the Government of El Salvador, through the MAG, has been promoting a series of actions aimed at achieving higher levels of technological innovation in order to increase productivity and production under conditions of quality and safety, and better levels of competitiveness for farmers, as in the case of the Agro-business Restructuring Program (PRA), highlighting the resources aimed at restoring and improving the irrigation districts and infrastructure for private irrigation systems, financed with IDB and Salvadoran government funds. Moreover, projects benefiting from nonreimbursable financial cooperation from the governments of Taiwan and Japan, and the soon expected cooperation of Korea, target small irrigation systems on small and medium-sized plots for fruit and vegetable producers.

Nevertheless, to date little progress has been made if we compare the potential crop area with irrigation of 274,000 ha, proposed in the Master Development and Land Use Plan for water resources, with the approximately 35,000 hectares currently irrigated.

This shows that there is 87.2% of agricultural land with potential for irrigation that is productive only in the winter, resulting in farmers only entering the market when prices are at their low point due to the large supply of products.

Moreover, it is estimated that the demand for agricultural products, resulting from population growth, has increased over the last two decades and that production has not increased at the same rate. At the same time, agricultural product imports have increased, producing a deficit in the balance of trade in fruits and vegetables of nearly US\$50.0 million, according to figures from the General Office of Agricultural Statistics (DGEA).

This leads to the conclusion that there is still a need to expand the low-irrigation agricultural area in order to contribute to replacing agricultural product imports through increased production, which is feasible if larger areas are provided with micro, small, and medium-sized irrigation systems using pressurized spray, micro spray, and drip irrigation throughout the country.

Cooperation objectives:

General objectives

To improve rates of crop productivity and profitability, and to reduce agricultural product imports through the incorporation of irrigation technology that optimizes use of water and soil resources, and mechanisms for the sale and marketing of the products.

Specific objectives

- a. To improve existing private irrigation infrastructure and create new small and medium-sized private irrigation infrastructure nationwide in areas with irrigation potential, in order to contribute to improving the productivity of established irrigation systems and those fit to be established.
- b. To restructure producers with high-profitability crops (fruits and vegetables) through training and technical assistance on the use of water resources for irrigation purposes and on processes involving the various links on the agricultural production chain.
- c. To strengthen the MAG's Irrigation and Drainage Division with equipment and training of its technical staff, in order to improve quality and expand coverage of irrigation technology transfer and management.
- d. To improve the income of producers and their families, and provide permanent job opportunities in the area of the project.

Brief description of the project:

The project considers execution of the following components:

- i) Technical assistance.

The technical assistance aims to restructure producers so they achieve higher levels of productivity, competitiveness, and profitability.

The component considers technical assistance for producers' farms, stressing the adoption of various low-irrigation techniques and support with the management of their crops under low-irrigation conditions.

For performance of this component, there will be significant participation by MAG institutions competent in this field, such as the National Center for Agricultural and Forestry Technology (CENTA), to improve the modernization of crops allowing high profitability. Moreover, consulting firms will be hired to define a significant part of the technical assistance, especially with respect to new crops using irrigation technology.

ii) Training.

Training services will be aimed at improving the competitiveness of producers benefiting from the project on issues related to the operation of irrigation systems, efficient water use, modern, innovative technologies for crop production, among others, seeking to optimize the use of water resources to boost productivity and production.

There are also plans, first, to work to strengthen alliance-building among producers for marketing and procurement of inputs, in order to establish a presence and a name on the market. Secondly, this component seeks to provide training on the area of post-harvest management of products in order to improve productivity and exploitation of the products under competitive

conditions and in compliance with market demands. Thirdly, it will provide support for greater effectiveness in marketing processes, through training on business processes and organization in business management committees so they can achieve the highest possible return on their investment.

This interest is based on leveraging economies of scale and strengthening agrobusiness management, support in the management of product processing and transformation processes to properly position the products on the market.

Technical training events for technicians at the various MAG institutions who may be involved in product execution have also been considered. This aims to improve the technical capacity of the staff so it can provide more effective and valuable assistance to producers.

The beneficiary irrigation associations will be all the associations in the nation, excluding the irrigation districts and the associations that were restructured under the Agro-business Restructuring Program (PRA). They will also include individual producers with access to water resources who tend to produce non-traditional, high-yield crops.

iii) Infrastructure and equipment

First, resources will be devoted to rebuilding or improving those systems that were built by other projects and that, for various reasons, are not in use; and secondly, will consider the development of new irrigation systems where conditions so permit.

This component considers the provision of the equipment, accessories, and infrastructure necessary for the implementation of various irrigation systems, and complementary works, including: single-phase pumps for the extraction of water for irrigation, pipes and accessories for water distribution to the crops, tanks for collecting and storing irrigation water, adaptation of infrastructure to collect, distribute, and control the flow of existing water, among other issues.

It is important to note that the equipment and the types of irrigation applicable to each project will be determined or defined in their feasibility studies and designs.

iv) Institutional strengthening.

This component seeks to provide the Irrigation and Drainage Division with the elements necessary for it to comply with the commitments established in the Irrigation and Drainage Act, with a greater capacity for action, according to the principles of efficiency, effectiveness, and economy, for irrigation water users nationwide.

The strengthening will be aimed at procurement of equipment for measuring flows, communications, topographical measurements with global positioning systems, cartographic measurement software, vehicles, among others. It is also vitally important to increase the operating capacity of the technical staff devoted to irrigation through training in different areas on low-irrigation agriculture.

As a whole, the project (with all its components) can be executed in two phases, over a period of approximately ten years, with a five-year period for each phase. Phase one would be focused on

restoring and/or rebuilding private irrigation infrastructure operating below acceptable efficiency levels and those that, while non-operational, show sufficient technical-economic viability to be refurbished. Phase two would establish new small and medium-sized private irrigation systems based on priorities established for agricultural diversification in the country's territories with irrigation potential.

Expected results:

For the technical assistance component:

- 2500 producers receive technical assistance on low-irrigation agriculture;
- 15 demonstration plots are established and meeting their goals;
- 10 study tours are undertaken to similar projects.

For training:

- 50 groups of producers are associated for input procurement, production, and product marketing;
- 2,500 producers and 50 MAG professionals receive training;
- 2,500 producers are trained in post-harvest management, product processing, and transformation;
- 2,500 producers receive advice and support on marketing their products.

For infrastructure and equipment:

- 10,000 *manzanas* (8,400 hectares) with irrigation infrastructure improved and/or built;
- 10,000 *manzanas* (8,400 hectares) incorporate low-irrigation crops;

UNREVIEWED TRANSLATION

- At least 250 micro-irrigation systems are installed on small plots.

For institutional strengthening:

- 50 MAG professionals involved in project execution are trained;
- Irrigation Division in MAG's Department of Forestry Management, River Basins, and Irrigation is equipped.

Estimated costs:

The project's total estimated cost is \$25.0 million, with \$10.0 million for phase one and \$15.0 million for phase two.

Category/ Components	Gov't. of El Salvador Counterpart	External financing	Total	%
I. Administration and monitoring	250,000	1,250,000.00	1,500,000	6.0
II. Direct costs per component.	2,500,000	20,500,000.00	23,000,00	92.0
2.1 Infrastructure and irrigation works	1,400,000	10,600,000	12,000,000	48.0
2.2 Training and technical assistance	1,300,000	9,900,000	11,000,000	44.0
III. Contingencies	25,000	225,000	250,000	1.0
IV. Scaling	25,000	225,000	250,000	1.0
Totals	3,000,000	22,000,000	25,000,000	100

PROJECT 4: DELIVERY OF SEED AND FERTILIZER TO SMALL SALVADORAN PRODUCERS

1. Country: El Salvador

2. Contact in the requesting country:

Name: Rigoberto Soto, Engineer

Ministry of Agriculture and Livestock

Tel. (503) 2241-1822

Fax (503) 2288-9660

E-mail: rsoto@mag.gob.sv

3. Requested Cooperation:

Provision of inputs for basic grain production.

4. Explanation of how cooperation relates to national objectives.

The project will support the actions established in the Safe Country Government Plan for 2004–2009, whose strategic actions include Agricultural Development: Expansion of the Value Chain, indicating the need to increase levels of productivity and profitability, strengthening current activities and seeking out new technologies, including those aimed at developing basic grain production, and the development of agricultural diversification in search of more profitable alternative crops.

In this context, the **Presidential Program “Discovering Productive Potential: The Path to Growth”** has been instituted, aiming to promote the productive transformation of Salvadoran agriculture.

5. Priority: 1

6. Background on the requested cooperation.

Background and rationale

In El Salvador, grain production represents a fundamental activity for ensuring food security for rural and urban families, as the heart of the rural economy and one of the most sensitive sectors included in the trade liberalization program under the CAFTA-DR as a result of the asymmetries existing among the parties in technology, infrastructure, and financial services.

Nevertheless, the CAFTA-DR provides opportunities that could be used efficiently, as is the case of the tariff-rate quotas for the majority of the sensitive products, allowing periods of tariff reductions of 15 to 20 years, and often long grace periods. Basic grains are among the products with quotas; the specific case of beans managed to consolidate the unilateral preferences contained in the Caribbean Basin Initiative (CBI) for this good and also includes a safeguard that is triggered once imports exceed 60 MT. This is considered one of the categories called upon to take advantage of the opportunities posed by the CAFTA-DR. White corn maintains reduction quotas with partial exclusion. For rice it is clear the agreement will have a major impact throughout the production chain, but it will have a fairly long tariff reduction process, greater than that for corn and beans (18 years), in addition to a safeguard triggered at 10% out-of-quota.

It is important to note that this year El Salvador has completed allocation of CAFTA quotas for rough rice, processed white rice, yellow corn, white corn, pork, beef, and dairy products.

Among the tariff-rate quotas made available under the agreement, there are specific volumes subject to performance requirements that have favored the establishment of agreements between producers and industrial interests, which have obtained solid results in the first year since the agreement took effect.

In order to ensure consumption of domestic production, the government is promoting measures to support the sector, which have given rise to the establishment of a private fund to support the competitiveness and restructuring of agricultural producers. The activities financed by this fund include enhanced seed programs, provision of fertilizer, and improvement of irrigation systems.³

Training of the workforce is important to make the changes sustainable, especially in the use of technologies that enhance profitability and provide greater growth opportunities.

This contributes not only to the reduction of production costs, but also to higher profit margins that will ensure continuity of agricultural investments in small and medium-sized domestic producers.

Nevertheless, much remains to be done to achieve the productive restructuring of agriculture. In this regard, major investments need to be made for which support is being sought from friendly governments.

Cooperation objectives:

³ Source: MINEC-COEXPORT

a) General objectives:

To support producers in promoting the proper use of enhanced seed, fertilizers, and inputs in order to ensure and increase basic grain production, and improve the supply of these products on domestic markets.

b) Specific objectives:

- a. To encourage a process of technological innovation on agricultural land by promoting the use of enhanced seed and fertilizers that contribute to improving productive processes.
- b. To increase basic grain production areas and productivity in order to supply the domestic market with these products.

Brief description of the project:

The project is a complement to the enhanced seed exchange program executed by CENTA, which has been operating continuously in recent years as a support mechanism for the most vulnerable sectors of the national economy.

Its execution period will be one year with coverage extending over a good part of Salvadoran territory, particularly in areas where both producers and soil have limitations.

It will benefit nearly 200,523 small basic grain farmers: 177,600 corn farmers, 2,096 rice farmers, 9,651 bean farmers, and 11,176 sorghum farmers; by directly providing agricultural inputs and technical assistance, while reducing their production costs by providing seed and fertilizer; and indirectly benefiting a group of 679,773 rural residents.

The project includes three components:

- Donation of enhanced corn, bean, rice, and sorghum seed, which will increase production areas.
- Donation of fertilizer (ammonium sulfate), which will lead to increased basic grain productivity.
- Technical assistance and training for 200,523 small basic grain farmers.

Execution strategy:

At the operational level and as executing agency, the Agrobusiness Office will establish the necessary working relations with the various MAG agencies and projects, nongovernmental organizations, and other private institutions maintaining an operational presence in the project's area of influence, in order to strengthen strategic alliances with all stakeholders and join forces to identify, select, and monitor beneficiaries in order to improve results.

The technical assistance and training will be aimed at small basic grain producers in cooperative associations or other types of community organizations located in various parts of El Salvador. It will include issues related to technological innovation, production costs, and the use of Good Agricultural Practices to preserve the environment, using environmentally friendly technologies and soil conservation works, considering that much of the basic grain production is located in hillside areas.

Expected results:

UNREVIEWED TRANSLATION

- a. Reduction of production costs by about 5%.
- b. Increased business driven by demand for inputs and sales of products in the beneficiary areas of influence.
- c. Use of Good Agricultural Practices and soil conservation works on 200, 523 Mz.

The following results are expected for each crop:

Corn:

Beneficiaries	177,600 producers
Land area	177,600 Mz
Production	8,045,280 qq
Direct jobs (1.13)/mz.	200,688
Indirect jobs	602,064

Rice:

Increased CENTA A-6, A-7, and A-8 rice productivity on 2096 *manzanas*, for the same number of small producers.

Beneficiaries	2096 producers
Land area	2096 Mz
Production	232,446.4 qq of rough rice
Direct jobs (1.13)/mz.	2369 direct jobs
Indirect jobs	7106

Beans:

Increased CENTA San Andrés bean productivity on 9651 *manzanas*, for the same number of small producers.

Beneficiaries	9651 producers
Land area	9651 Mz
Production	112,916.7 qq
Direct jobs (1.13)/mz.	10,906 direct jobs

UNREVIEWED TRANSLATION

64

Indirect jobs	32,717
---------------	--------

Sorghum:

Increased sorghum productivity on 11,176 *manzanas*, for the same number of small producers

Beneficiaries	11,176 producers
Land area	11,176Mz
Production	272,694.4 qq
Direct jobs (1.13)/mz.	12,628 direct jobs
Indirect jobs	37,884

The project will be executed over a one-year period with national coverage.

Estimated costs by category:

CORN:

COMPONENTS	BENEFICIARIES	AREA	TOTAL COST (US\$)
Seed donation	177,600	177,600	3,822,218.40
Fertilizer donation	177,600	177,600	2,257,775.50
Technical assistance and training	177,600	177,600	75,000.00
TOTAL			6,154,993.90

CENTA A-6, CENTA A-7, CENTA A-8 RICE:

COMPONENTS	BENEFICIARIES	AREA	TOTAL COST (US\$)
Rice seed	2,096	2,096	125,885.75
Fertilizer	2,096	2,096	26,645.80
Technical assistance and training	2,096	2,096	75,000.00
TOTAL			227,531.55

BEANS:

UNREVIEWED TRANSLATION

65

COMPONENTS	BENEFICIARIES	AREA	TOTAL COST (US\$)
Bean seed	9,651	9,651	630,650.02
Fertilizer	9,651	9,651	122,690.26
Technical assistance and training	9,651	9,651	75,000.00
TOTAL			828,340.28

SORGHUM RCV, S-2:

COMPONENTS	BENEFICIARIES	AREA	TOTAL COST (US\$)
Sorghum seed	11,176	11,176	116,111.00
Fertilizer	11,176	11,176	142,077.19
Technical assistance and training	11,176	11,176	75,000.00
TOTAL			333,188.19

Total project cost

COMPONENTS	INVESTMENT US\$
Ammonium sulfate (90kg bags)	2,549,188.44
Seed	4,694,865.18
Technical assistance and training	300,000.00
TOTAL	7,544,053.92

**PROJECT 5: ESTABLISHMENT OF THE BORLAUG INSTITUTE'S
AGRICULTURAL CENTER IN EL SALVADOR**

- 1. Country: El Salvador**

- 2. Contact in the requesting country:**

Ministry of Agriculture and Livestock, through the “Roberto Quiñónez” National School of Agriculture

3. Background and rationale

a) Background

The Government of El Salvador has taken steps to secure the support of Texas A&M University’s Agriculture Program, which is the largest in the United States. Its staff has more than 300 years of experience in international development. Many of these programs have been undertaken in Central American countries. Several recent projects have focused on improving agricultural production and food processing techniques, in the development and expansion of the production chain. Texas A&M has worked with groups of small producers and agricultural cooperatives on the development of new products, the transition toward organic agricultural practices, the promotion of fair trade certification, the application of phytosanitary programs, the promotion of rural enterprises, and agrobusiness development. Examples of activities currently underway in Central America include agrobusiness training programs in Nicaragua and Guatemala and food processing and new product development programs in El Salvador and Guatemala. Other recent projects in the region have included impact assessment programs for food quality systems on U.S.-Mexico trade, programs that have built NGOs’ capacity to assist small producers in Nicaragua and Honduras after Hurricane Mitch, HACCP and food safety training programs, courses on pesticide use, Integrated Pest Management, and other environmental issues. Texas A&M is directing agricultural development projects in Guatemala, Indonesia, Rwanda, Ethiopia, Iraq, and other countries. Through these activities, Texas A&M is

expanding its teaching, research, and outreach mission worldwide in order to improve the quality of life of global citizens.

Through the Borlaug Center in El Salvador, Texas A&M experts can provide valuable technical assistance in the areas of production, harvesting, and processing of agricultural products. Texas A&M's Department of Soil and Crop Sciences is devoted to discovering new scientific knowledge and developing technologies to support high-yield production systems that protect the environment. The Department ensures that extending these technological developments to users and the society in general is done in an effective and timely manner. The department promotes the effective use, administration, and management of natural resources such as soil, plants, and water, and promotes practical programs and research on grain production and processing.

b) Rationale

El Salvador is the country with the highest population density in the Americas. Salvadoran agriculture must feed a growing population of approximately 5.8 million. With the aid of current technology, El Salvador's agricultural land is rapidly reaching its productive capacity. Through the Borlaug Center, new biotechnologies may offer new ways of increase productivity of present and future agrobusinesses. By implementing biotechnology programs, the Borlaug Center will be able to provide a solution to many problems affecting agricultural production in El Salvador and the Central American region. For example, the Borlaug Institute could conduct research on plant genotypes that could reduce the use of water and agrochemical products. The Borlaug Institute could also conduct biosafety programs that include training and certification in food safety.

4. CONTRIBUTION TO STRATEGIC LINES OF DEVELOPMENT.

The project is framed within Action Area 11: Agricultural Development, of the Safe Country Government Plan for 2004–2009. In this context, the sector's development policy is focused on increasing productivity and profitability of the sector's activities by providing technical assistance and knowledge to producers.

5. OBJECTIVES

a. General objective

To contribute to the development of national agriculture through the establishment of an Institute of Agriculture in El Salvador, to provide scientific knowledge, advanced technology, and assistance to El Salvador's agricultural sector.

b. Specific objectives.

Initially, the Borlaug Institute will aim to meet the following objectives:

1. To improve grain production techniques by providing technical assistance and practical training on proven, improved methods of grain production in order to increase yields and reduce production costs;
2. To improve grain processing systems in El Salvador by providing technical training on grain processing and food safety, and improving local feed centers and operations for cattle and poultry; and
3. To promote the development of agrobusiness through a business development program for grain producers that helps them determine existing market demand for their products; trains

them so they can participate in sustainable economic activities, and provides them with technology adapted to their productive capacity.

6. DESCRIPTION

6.1 Components.

- a) Establishment of the Borlaug Center in El Salvador.

The Borlaug Center will be established as an entity independent of current research institutions and local universities. It is expected to establish strong collaborative relations with all organizations and will not limit itself only to one. One key objective will be to establish a convenient location for the Borlaug Center. Its implementation at the National School of Agriculture (Escuela Nacional de Agricultura [ENA]) has been proposed, with the use of some government facilities that are available in the northern part of the country. Eventually, this center will have support staff, professionals providing agricultural outreach services, training coordinators, biotechnology researchers, and outreach educators. It will develop and distribute a variety of outreach resources, including publications, diagnostic instruments, courses, analytical services, and bulletins related to market trends and biotechnology.

The Borlaug Center will cultivate relations with existing biotechnology and agriculture laboratories in El Salvador. The Borlaug Center will coordinate research activities and will create active links between research and outreach programs. It will also cultivate connections with agricultural agencies and outreach services to develop a comprehensive, structured training program within agricultural outreach programs (both basic and advanced) in order to meet

community needs. An agricultural marketing and trade office will be created to provide assistance in marketing, safety certification, nutritional labeling, and access to marketing data. A diagnostic laboratory for veterinary medicine will be established for the analysis, discovery, and treatment of diseases in the cattle sector. The Borlaug Center will promote international sanitary and phytosanitary standards (SOS) to improve community health and trade effectiveness.

Principles of the operation:

Advanced science. Agricultural science in El Salvador has fallen behind in recent years. There is a need to bring knowledge of science and technology up to date and improve agricultural practices in the region. Producers and industrial interests must also be ensured access to the latest technology, which Texas A&M currently has. The general fall in the image of agriculture in Latin America is also being felt in El Salvador. Students and professionals avoid this field because of the perception that it is technology for the poor. Nevertheless, El Salvador offers relatively high professional salaries for non-agricultural sectors, and its high population density suggests that only a highly skilled sector can compete and meet the needs of the nation. Scientific progress is good for the economy, but it will also help prepare students and leaders to develop a vision for a prosperous future in Salvadoran agriculture.

Complementary actions. Each initiative or investment approved by the Borlaug Center must complement a prior initiative or investment so that progress is cumulative. The contributions of each scientist should be planned in order to complement the contributions of the technicians who have provided prior assistance. Multiple visits by the same scientist should be planned, when possible. The Borlaug Center's progress should be actively evaluated and monitored between

visits by technical consultants prior to investing further time, effort, and financial resources. Institutional and programmatic changes should be planned in accordance with prior investments.

Integrated enterprise leadership. Each Borlaug Center initiative requiring an investment of work or funds should have a defined relationship with a commercial enterprise. This may include relations with international markets, domestic or regional consumers, specific business contacts, or another clearly commercial relationship. The members of the Advisory Board in the agrobusiness sector will have the special responsibility for establishing and verifying the commercial application of any activity. The decision to accept an activity to be conducted by the Borlaug Center should reflect the contribution that this activity will make to supporting the interests related to the commercial purposes of agriculture.

6.2 Targets (initial stage)

1. Establishment and operation of the Borlaug Center in El Salvador.
2. Development plan for the Borlaug Center for 15 years.
3. Activity plan for training and outreach programs developed for the communities to be served by the Borlaug Center.
4. Implementation of Borlaug Center programs in accordance with their objectives and programs developed.

6.3 Project location

The center will be established at the National School of Agriculture in the Municipality of Ciudad Arce, Department of La Libertad, and it will have national coverage and operations.

6.4 Duration

The term of the project will be one year.

6.5 Execution strategy

In coordination with the Borlaug Center, the creation of a \$25-million trust is considered to establish a permanent presence in El Salvador in order to conduct agricultural research, outreach programs, and promote rural development. These \$25 million will be placed in the control of and will be managed by the Borlaug Institute at Texas A&M, a nonprofit entity whose mission is to ensure the continuity of the legacy of Dr. Norman Borlaug through programs undertaken nationally and internationally. All funds in the trust will be used for activities related to the programs in El Salvador.

An initial fund of \$5 million will allow the Borlaug Center in El Salvador to initiate operations and begin to execute programs in the country. As donations approach the target of \$25 million, the programs offered by the Borlaug Center will also increase. Texas A&M employees will work at the Borlaug Center in El Salvador and they will collaborate with Texas A&M faculty and researchers when necessary.

The Borlaug Center will work in collaboration with students, faculty, and researchers at interested universities. The Borlaug Center is expected to develop solid relationships with all of the country's agricultural schools and institutions. In addition to its ongoing outreach and agricultural research activities, the Borlaug Center will seek external funding to carry out

additional activities that are aligned with its objectives. These funds for programs may come from foreign donors (USAID, USDA, IDB, etc.) or from private enterprises. These programs will complement the resources from the trust provided by the Government of El Salvador and will ensure the continued existence and sustainability of the Borlaug Center and of the resources necessary for Texas A&M to achieve the specific targets of the agricultural development programs.

The Borlaug Center will be managed by an Executive Director (program leader). This Executive Director will be an employee of Texas A&M and will be hired in accordance with the regulations and policies of the Borlaug Institute. This Executive Director will be supervised by the office of the Director of the Borlaug Institute.

An Advisory Group will be formed to oversee the Borlaug Center's programs and to provide local leadership. This group will include representatives of the Government of El Salvador, the Borlaug Institute administration, CONAGRO, and other interested Salvadoran entities. The Advisory Board will provide support and assistance to the Executive Director and will meet at least once annually to review the progress of the Borlaug Center and provide input to ensure the continuity of the Borlaug Center's operations.

The activities undertaken by external resources, such as foreign scientists visiting the country, or using financial resources provided by donors, often fail to have a lasting impact because the permanent local human and institutional resources have not been transformed. Every activity undertaken by the Borlaug Center must prove that it will increase the capacity of Salvadorans, or

increase the efficiency of Salvadoran institutions through direct, clear relations. Moreover, every Borlaug Center activity must include a plan for how it will continue with local resources. There must be a local counterpart for each local activity undertaken as part of each activity receiving external support. There must be an expert learning from each external expert; there must be a Salvadoran scientist for each visiting scientist.

Multinational application. The multinational application of each Borlaug Center activity must be defined. The resources developed in the Borlaug Center must be applicable in Central America and other parts of the world. The cultural dimensions or limitations of the activities must be identified in the planning stage. Efforts must be made to limit the impacts of different cultures, particularly unjust cultural impacts and language barriers. Potential conflicts between communities that may result from the activities must be identified early and resolved. One clear objective is to create new markets for Salvadoran producers, and promoting a global context is essential for reaching this goal.

The Borlaug Center's Focus Areas

Grain research: The Government of El Salvador and the Texas A&M University System have cooperated for many years on small grain research projects through the Sorghum and Millet Collaborative Research Support Program, financed by the United States Agency for International Development (USAID). Significant targets have been reached in increasing the quality and yield of sorghum crops. These advances have been directed by Dr. Lloyd Rooney of Texas A&M University and his Salvadoran colleagues. One initial effort of the Borlaug Center will be to reach similar goals in:

- (1) Technology for high-quality sorghum flour production for the domestic and export markets.
- (2) Improved quality and productivity of sorghum for the poultry feed market.
- (3) Transformation of high biomass sorghum for the biofuel market.
- (4) Improved quality and yield of rice for domestic and international markets.

These technologies are ideal for cooperation programs between El Salvador and Texas due to the research platform available based on prior work and the legacy of Dr. Borlaug, and the importance of these products in the two regions for consumers, producers, and their respective rural economies. Advanced biotechnology and plant processing methods will be used to achieve these goals.

Livestock: Programs to improve the livestock and poultry sector.

Agrobusiness and trade: Programs to support the development of agrobusiness related to basic grains (rice, beans, corn, and sorghum), livestock and poultry feed, and vegetable products.

Additional focus areas: The Borlaug Center will also promote research and outreach programs to:

- Develop a better understanding of the mechanisms regulating the development of rice, bean, corn, sorghum, and other grain seeds, and their relationship to ultimate product quality.
- Apply molecular genetics techniques with emphasis on molecular markers, to complement and advance reproduction programs, and understand the crops' genetic architecture.

- Outreach – To provide economically and environmentally logical recommendations for small rice, bean, corn, sorghum, and other grain producers in El Salvador and neighboring Central American countries.

Texas A&M's existing relations with the agricultural and trade sectors in El Salvador, combined with the abovementioned institutional capacities, will allow the Borlaug Center to contribute to improving Salvadoran agricultural production, by providing advanced knowledge, cutting-edge technology, and assistance to the Salvadoran agricultural, academic, and business sectors.

7. BENEFICIARIES

Producers in the agricultural and livestock sectors.

8. EXPECTED BENEFITS AND IMPACTS

Every Borlaug Center activity must have a defined, planned impact on rural income, employment, quality of life, or the economic or social viability of the rural community. Perhaps equally important are the poor urban communities that may be favorably impacted by agricultural innovation, especially by agricultural product processing activities. The Advisory Board will verify the future impacts on communities and will decide whether urban communities should be considered as well as rural communities. The core activities must always demonstrate a defined impact on low-income families.

9. PROJECT SUSTAINABILITY

The creation of a Trust by this project will guarantee the capital necessary for the operation of the Borlaug Center in El Salvador. Through the services rendered by the center, new national and

regional institutional capacities will be created that will have a lasting impact on scientific development in these countries.

10. ESTIMATED COSTS.

The cost of the project (initial phase) is estimated at \$5.0 million for the Trust's seed capital for the creation of the institute.

11. FINANCING

External financing from friendly governments.

12. WORK PLAN

The initial phase will include the design of the Borlaug Center, as well as the planning of initial activities and determination of the impact obtained from the training programs, agrobusiness promotion, biotechnology, and agricultural outreach. The design will include, but will not be limited to, the identification and selection of the Advisory Board and the definition of the operating principles of the Borlaug Center. Initial activities will be designed to include the development of three to five agricultural technology, research, and agrobusiness projects.

Steps:

(1) Establish the Borlaug Institute Agricultural Center in El Salvador and its operating procedures. Form the Advisory Board with members from El Salvador and Texas to provide support and direction to the Borlaug Center. Recruit and hire the Executive Director of the Borlaug Center.

- (2) Perform an evaluation of national and regional opportunities related to the production and processing of agricultural products.
- (3) Select three to five agricultural technology, research, and agrobusiness programs.
- (4) Select Texas A&M experts to provide technical assistance to prepare a comprehensive action plan for the agricultural technology, research, and agrobusiness programs.
- (5) Coordinate the technical assistance for programs and establish medium and long-term targets.
- (6) Prepare the work plan for the first year for the agricultural and community outreach programs.
- (7) Prepare 5, 10, and 15-year development plans for the Borlaug Center.

Expected outcomes:

- (1) A 15-year development plan for the Borlaug Center.
- (2) Implementation of Borlaug Center programs in accordance with its objectives. The Borlaug Center staff will work with local companies, communities, and research institutions to provide practical solutions to the challenges facing agroindustry.
- (3) Plan of activities for training and outreach programs developed for the communities served by the Borlaug Center.

III. STRENGTHENING THE COMPETITIVENESS OF MSMES

PROJECT 1: BUSINESS DEVELOPMENT CENTER IN NORTHERN EL SALVADOR

1. Country: El Salvador

2. Contact information for requesting country

Ms. Haydee de Trigueros

Director of the National Commission for Micro and Small Enterprises (CONAMYPE)

Telephone: (503) 25212242

Fax: (503) 25212240

Email: htrigueros@conamype.gob.sv

3. Requested cooperation:

Financial

4. Priority: 2

5. Beneficiaries:

Micro and small enterprises in general, with emphasis on agroindustrial activities with development potential.

6. Related to the requested cooperation.

Background:

The project is warranted due to the fact that significant shortcomings have been detected in services to business people, who lack access to information on the full range of possibilities for business and financial development, thus limiting the intended impact of a general government policy on services for the sector.

Moreover, the northern part of the country is one of the areas that **has benefited least** from integrated projects like the proposed operation. It should also be considered that as part of the Salvadoran government's plans, this area will be subject to an intervention and a focus of development projects, which will bring national interests and those of external cooperation agencies together, increasing the potential for development advances.

Objectives

Seven hundred and fifty companies coordinated with financial and nonfinancial services. Companies that have received support under the following instruments: 300 FAT; 250 BONOS, and 200 with consulting on entering the formal business sector.

General objectives:

To facilitate access by Salvadoran SMEs to a broader range of quality business development services, as a key instrument for improving competitiveness and better integration into the economy, as well as taking advantage of the opportunities posed under free trade agreements.

Specific objectives:

To build business management, productive, and market capacity for SMEs by improving, diversifying, and expanding territorial coverage of specialized technical assistance services and support for entering the formal business sector. It will also support startup companies.

Components:

The project includes business development services, with the tools currently used in CONAMYPE,⁴ where it has considerable successful experience. These tools will be accompanied by the direct connection of financial institutions so they can provide financing that may be required by the companies served by CONAMYPE in the regional office located in northern El Salvador.

Activities and required amounts

The project's development entails a range of activities at the start. They can be divided into activities to bring the Business Development Centers online and a second phase related to their operational framework (see attached details).

Expected results:

Upon project completion, the following is expected:

- a. To have increased the supply, availability, and local coverage of business development services and of public and private institutions that support them.
- b. Increase productivity and profitability.
- c. Improved business skills.

⁴ Support instruments: FAT, BONOS, CTE, MIPYMES Virtual School, entrepreneurs, others.

**PROJECT 2: DEVELOPMENT AND IMPLEMENTATION OF A TECHNOLOGY
PLATFORM FOR THE STRENGTHENING OF MSMES FOR THE CREATION OF
BUSINESSES AND THE DEVELOPMENT OF SUPPLIERS**

1. Country: El Salvador

2. Contact information for requesting country:

José Roberto Huezo

Director of Enterprise Competitiveness (DCE)

Ministry of the Economy of El Salvador (MINEC).

Alameda Juan Pablo II, Calle Guadalupe, Edificio C-1, 2ª Planta, Centro de Gobierno, San Salvador, El Salvador, Central America.

Telephone: (503) 2231-5839 Fax (503) 2231-5841

E-mail: rhuezo@minec.gob.sv

3. Requested cooperation:

Technical and financial assistance for building regional competitive capacity to promote the involvement of small and medium-sized enterprises in trade through the development of production chains in the sectors with the greatest potential in El Salvador

4. Relationship between the cooperation project and national objectives:

The production chain program is framed within the industrial policy, launched by the President of the Republic in September 2005, and the program, El Salvador, Generating Wealth from the Base: Policies and Strategies for Sustainable Competitiveness of MSMEs, led by the Ministry of the Economy since October 2007. In the Development of Strategic Branches, the following is considered among the activities to be promoted by the Ministry:

- Promoting inter- and intra-sector alliance-building and production chains, and factors creating economies of scale and positioning in strategic markets;
- Preparation and dissemination of sector studies on the value chain;⁵
- Production chains and value chains.⁶

This entails the need to fulfill the commitments assumed in the Industrial Policy and the MSME Policy through the Production Chain Program, thereby seeking a coordinated response to the country's need for a value chain development strategy.

5. Priority: 2

6. Relationship between the cooperation project and national objectives:

Background

The Department of Enterprise Competitiveness (DCE) was created by Executive Order No. 1510, dated December 22, 2004, published in Official Gazette No. 34, Volume No. 366, dated

⁵ Source: Proposed Industrial Policy, Ministry of the Economy (2005).

⁶ Source: El Salvador, Generating Wealth from the Base: Policies and Strategies for Sustainable Competitiveness of MSMEs (2007).

February 17, 2005, and currently has two sub-departments: Competitive Intelligence and Production Chains, and has the objective of researching and analyzing supply and demand conditions for Salvadoran products and services, as well as the critical elements of competitiveness, which once achieved will allow for better exploitation of trade opportunities; disseminating the results to the public and private sectors and promoting actions for the exploitation of existing support instruments for production chains and for enhancing sector competitiveness.

Cooperation objectives

General objectives:

To strengthen the competitiveness of MSMEs by systematizing actions that effectively link demand in domestic and international markets with the supply of products and services from production chains.

Specific objectives:

1. To strengthen the marketing management of production chains through the application of market intelligence (competitive and prospective), allowing access to national, regional, and international markets.
2. To develop an effective system for linking businesses with a demand for products and services with the existing supply and developing production chains.
3. To administer the coordination and monitoring system for the support instruments with the Strategic Allies of the Interagency Coordination Platform in order to obtain effective support in developing the supply of demanded products.

Brief description of the project

- An exploratory mission to identify models of successful business portals that allow linkages between businesses.
- To determine the scope and limitation of the business technology platform to be implemented.
- Hiring of one systems development expert for development of the portal.
- Field information survey for the creation of the supplier base.
- Training and transfer of system management to the various industry organizations.
- Holding of business conferences between domestic and international demand and producers and entrepreneurs in the value chains.
- Development and implementation of the business technology platform for the integration of suppliers for the administration, coordination of conferences, and the linkage of supply and demand.
- Creation and printing of coordination, promotion, and results documents (database of buyers and suppliers) from the conference for monitoring and executing transactions.
- Designation of a permanent person responsible for planning, organizing, and efficiently and effectively controlling these flows, in and among the chain's components.
- Launch of the portal for the commercial integration of SMEs.

Expected results

- To have a technology platform in the form a set of services aimed at Salvadoran SMEs, in order to provide them with a free public access portal facilitating the process of doing business between companies representing different links on production chains, and thus facilitating the competitiveness and complementary integration thereof.
- To maintain a permanent, updated electronic information and service platform so companies can be connected with each other and with all the other stakeholders in the production chain, as well as with clients.
- To have a methodology for supplier development portal administration for the production chains' various sectors.
- To have a catalog of products and companies providing a vision of supply and demand in El Salvador.
- To have a directory of products linked to the incorporation of ICT in business processes with its respective list of organizations that are currently engaged in dissemination and awareness efforts on the use of information technology.
- To hold at least one business conference bringing together domestic and international demand and the producers or business people in the value chains.

7. Estimated costs

Category	Amounts requested	Counterpart costs (in kind)
Training	\$15,000.00	
Travel	\$16,000.00	
Field information survey	\$35,000.00	
Documents	\$5,000.00	\$4,000.00
Equipment (3 laptops)	\$6,800.00	
Process facilitation equipment (software)	\$120,000.00	\$3,000.00

UNREVIEWED TRANSLATION

87

Consultant contract	\$70,000.00	
Launch event	\$5,000.00	
Hardware to strengthen technology infrastructure (Servers, switches, and other)	\$12,000.00	\$250,000.00
Salaries as a percentage of staff time or counterpart officials.		\$80,000.00
Total:	\$284,800.00	\$337,000.00

IV. IMPROVING COMPETITIVENESS

COOPERATION REQUIREMENTS IN THE TRANSITION TO FREE TRADE

In a continuing effort to increase the competitiveness of Salvadoran enterprises, the Government of El Salvador has identified a series of areas requiring special attention in the pursuit of the objectives of the National System to Improve Competitiveness and the National Competitive Export Development System. The following points apply to all Salvadoran enterprises, but particularly to MSMEs, in their transition to free trade:

Promoting and strengthening quality and productivity:

- Analyze and strengthen the institutions responsible for standardization, certification, accreditation, and the legal framework related to quality and standards.
- Design and implement ongoing programs to train trainers in specific certification areas.
- Program to raise awareness and promote productivity and quality issues.
- Implement a program of standardized courses for total quality management and quality improvement tools.
- Implement certification programs for specialized skills (private, public sector, and academic employees).
- Provide resources aimed at the certification of manufacturing facilities on specific identified issues (ISO, HACCP, WRAP, and others are examples of what could be considered fundamental for achieving a competitive advantage).
- Process optimization, solid design, and quality assurance.

- Implement support mechanisms for cofinancing and facilitating technology transfer to optimize productivity.
- Create or strengthen existing funds for cofinancing activities related to quality.
- Create and promote a support network (universities, government institutions, and establish alliances with public and private Salvadoran institutions) and all related activities among participating institutions.
- Establish strategic alliances with the American Society for Quality.
- Facilitate the capacity for local certification (or identified certifications) in representation of authorized international specialists.
- Assist in the strengthening of food safety programs, HACCP programs, and Good Manufacturing Practices (GMP) programs.

Promoting and strengthening technological innovation:

- Raise awareness with respect to the importance of science, technology, innovation, and research for economic development.
- Train the public and private sectors on technology innovation.
- Develop a program to strengthen education and training on technical and innovation issues to optimize the private sector's manufacturing capacity.
- Design and implement a scholarship window for studies in technical, engineering, sciences, and any other field related to innovation, science, technology, research, and development.
- Implement a mechanism to facilitate institutional capacity to support the academic and private sector (MSMEs) commitment and university alliances.

- Establish a mechanism to facilitate the connections between MSMEs and potential providers of technological and financial resources.
- Establish a network of educational and technical support institutions.

Developing and strengthening information technology (IT)

- Create an Institute of Information Systems.
- Design a national IT policy.
- Studies to identify current conditions and potential for development in the IT sector.
- Training and certification program for software designers.
- Programs to promote the use and application of IT in SMEs.
- Increase and accelerate the e-government strategy.
- Incubator projects and/or venture capital funds to facilitate startups in the IT sector.

Promoting exports and competitive intelligence

- Strengthening competitive intelligence activities in selected academic, public, and private sectors.
- Facilitate the creation of a network of trade offices in the United States to strengthen current export promotion efforts (e.g. PROEXPORT Colombia, ICEX Spain, and AUSTRADE Australia).
- Build information management capacities in Trade Point El Salvador (TPES) to create a specialized database for trade information and market intelligence.

- Technical assistance to adopt CENTREX in the Ministry of the Economy and create a service office for processing of import activities.
- A permanent 5-year strengthening and special training program for Trade Point El Salvador and trade specialists and private sector technicians in order to understand how U.S. Customs works, and the FDA import requirements for Salvadoran goods that are interested in being exported.
- Training for the public and private sectors on policies, strategies, and logistics for goods targeting the U.S. market.
- Training in the United States and El Salvador on intelligence techniques, methods, and resources, including three to four seminars per year.
- Support training programs and scholarships on issues related to international trade, targeting exporting SMEs.
- Training and evaluation of financial institutions (including microfinance) on export project evaluation.
- Training for public and private sector trade specialists (in at least 15 sectors) on U.S. business culture.
- Strengthen the institutional framework and capacity for improving export promotion programs.
- Expert assistance to facilitate an ongoing mechanism to cultivate better contacts with the purchasing offices of select U.S. retailers.
- Provide financial resources and technical assistance to increase SME export capacity.
- Explore potential business development opportunities with U.S. businesses.

- Assist in market research and the development of new products with export potential.
- Technical assistance to collaborate in market penetration efforts, providing the means to overcome nontariff barriers for imports, and meet market requirements.
- Provide a mechanism to obtain expert assistance to support trade activity.
- Strengthen export capacity of micro, small, and medium-sized enterprises.
- Facilitate and support alliance-building (long-term) between the Ministry of the Economy and related agencies, and the federal and state export promotion organizations and entities in the U.S. government.
- Strengthen and promote export activities for exporters and businesses in El Salvador.
- Promote strategic alliances with educational and training institutions to facilitate capacity-building for select academic and private institutions, as well as SME exporters on matters related to trade.
- Strengthen institutional export promotion programs for SMEs.
- Strengthen institutional investment promotion programs for SMEs.
- Programs to facilitate SME exports to the U.S. market.

Improving the business environment

- Implement a property registry to facilitate SME access to financial resources.
- Strengthen the Consumer Protection Agency.
- Improve the legal framework for facilitating and promoting e-commerce.
- Improve the legal framework for facilitating and promoting venture capital funds.

- Strengthen the institutional and regulatory framework in the telecommunications and energy sectors.

Strengthening human resources

- Create a scholarship fund so Salvadoran students can study in U.S. universities in various programs (engineering, science, and any other discipline) related to innovation, science, technology, research, and development.
- Training programs for general and specialized English language courses in all industries and business sectors.

Below are the project profiles for this area:

PROJECT 1: SUPPORT FOR THE INTERNATIONALIZATION OF SMES

1. Country: El Salvador

2. Contact information for requesting country:

Blanca Imelda Jaco de Magaña

Vice Minister of Trade and Industry

Ministry of the Economy

Telephone: (503) 2231-5625 Fax (503) 2221-5889

E-mail: vrivas@minec.gob.sv

3. Requested cooperation:

Technical and economic assistance.

4. Relationship between the cooperation project and national objectives:

The government's strategy assigns a core role to ensuring that the benefits of trade are accessible to SMEs, both directly through access to export markets, and indirectly, by developing strategic relationships with large exporters. Some of the instruments for achieving these goals already exist, including programs to facilitate access to market intelligence (Trade Point), developing and implementing export plans (FAT and FOEX), and providing training and business development services to SMEs (BONOMYPE and FAT).

It is expected that other policy instruments will be created within the context of this project, including support for the SME exporter consortium, development programs for suppliers, and financing mechanisms such as those mentioned above targeting SMEs, in order to promote the adoption of technology and quality and productivity processes.

5. Priority: 1

6. Related to the requested cooperation:

Background

Currently, the trade agreements entered into by El Salvador, especially the CAFTA-DR, open the doors to international markets for Salvadoran products, but these countries have a series of requirements or technical barriers that Salvadoran companies, especially SMEs, are challenged

to overcome. To overcome them, the companies must review their production and marketing processes in order to incorporate quality and productivity standards allowing them access to international markets. While it is true that the trade agreements pose opportunities for exports, they may also represent challenges for domestic companies, when facing international competition that displaces domestic production with domestic consumption.

Products from these countries are known to meet better quality standards than our own, putting El Salvador at a disadvantage, especially in terms of products from SMEs, who face the challenge of producing at the same quality levels as their competition, requiring them, among other things, to review their production processes, product quality, productivity, and also diversify their products. For example, the Consumer Product Safety Modernization Act, enacted by the U.S. Congress on January 3, 2008 (H.R. 4040), is one of a number of challenges to overcome so our companies can take advantage of trade opportunities under the CAFTA-DR.

To take advantage of free trade opportunities, SMEs must be strengthened by introducing into their processes quality standards and rules, innovation and/or technology adoption, new and better practices for improving their production systems, new product development, and production chains allowing them to maintain their local market share and enter foreign markets.

The Government of El Salvador, through various institutions such as the Ministry of the Economy, the Multi-Sector Investment Bank, and ESPORTAI, with the support of international cooperation organizations, is promoting a series of support instruments to improve the competitiveness of SMEs, such as reimbursable financing through the Productive Development

Fund (FONDEPRO), nonreimbursable cofinancing through FOEX-FONDEPRO, FAT, and BONOMYPE, export promotion (EXPORTA), investment promotion (PROESA), competitive intelligence, etc.

These initiatives have been joined by organizations such as the IDB and USAID, who are supporting actions aimed at facilitating trade, for example, by simplifying export and import procedures and support for the certification of Salvadoran ports under the U.S. Container Security Initiative. In this context, USAID contributed with an export promotion program aimed at promoting the capacity of SMEs, and its emphasis has been on providing business development services (technical assistance and training) to promote exports, as well as nonreimbursable cofinancing through the FOEX.

At the same time, on the issue of innovation and technology, eager for a better understanding of the sectors' positions and to focus on their needs, the Ministry of the Economy, through the Department of Quality and Technology, conducted studies focused on the country's strategic economic activities, based on five potential sectors (food and beverage, agro-food, pharmaceuticals, metalworking, fisheries and aquaculture) that currently represent major opportunities for positioning El Salvador in international markets.

These studies provide a series of recommendations and suggestions on the issue of innovation and technological development, specifically in those presented for the food and beverage, agro-food, pharmaceuticals, and fisheries and aquaculture sectors, and they demonstrate the major need for and lack of a Center for the Development of Quality and Transfer of Technology.

The technology development and quality processes in El Salvador lack information and management centers to coordinate and facilitate the linkage of SMEs with technology-related activities. Since innovation and technology development are vital components for competitiveness in a nation's economy, the creation of this center will allow the channeling, coordination, and management of efforts related to such development. It is important to note that the Center will coordinate efforts to support small and medium-sized enterprises. This Center will integrate all national initiatives in the areas of technology, quality, and productivity, and will also serve as a facilitating entity among the public, private, and academic sectors.

In this regard the Ministry of the Economy, with the technical and financial support of the Japanese cooperation agency, and in a strategic alliance with the Ministry of Education and the Central American Institute of Technology, is in the process of building facilities that will house this Center. It is estimated that the outfitting and implementation will be completed with the support of the TCB donors.

Cooperation objectives

- To increase the level of competitiveness of El Salvador's small and medium-sized enterprises (SMEs) through technology innovation, the adoption of quality standards, rules on the improvement of enterprises' productive systems, and new product development, among other things, in order to facilitate the country's economic growth.

- To build the capacities of the institutions strategically linked to SMEs on issues of innovation and the adoption of technology and quality improvement, so they can take advantage of free trade opportunities.
- To implement the first Center for the Development of Quality and Transfer of Technology in El Salvador.
- To promote the development of production chains among SMEs and large corporations to expand the market for their products.
- To develop policies aimed at improving innovation and quality in the country, as well as the implementation of the respective national systems.

Brief description of the project

- The project consists in undertaking activities that promote existing government efforts to strengthen and implement policies in the areas of technology, quality, and the strengthening of the institutions involved in these areas. It will also gradually adapt existing institutions to the needs of the private sector in order to address increases in demand for testing, calibration, and quality certification services.
- It will also provide the furniture, equipment, and expert services for the implementation of the Center for the Development of Quality and Transfer of Technology in El Salvador so that SMEs have an instrument facilitating their linkage with quality and technology development activities, allowing them to channel, coordinate, and manage efforts related to their growth. This center will integrate all national initiatives in the areas of quality and technology development, and will also serve as a facilitating entity among the public, private, and academic sectors.

The center will provide the management necessary for the demanded services in at least five relevant sectors of the economy, identified as valid priorities for promoting national competitiveness, through innovation and improvement of products and services, and the improvement of the processes linked to manufacturing under global quality standards.

- At the same time, cofinancing will be provided to SMEs to facilitate technology transfer, supplier development, support for quality certification, and the development of production chains, all focused on promoting an increase in the rate of adoption of innovations, technology, and quality improvement. Activities will also be undertaken aimed at helping SMEs overcome obstacles that prevent them from effectively participating in supply chains and providing them with new growth opportunities as producers of goods and services.
- Likewise, the organization of SME consortiums will also be promoted, since international experience has shown that SMEs organized in consortiums can benefit from economies of scale and a scope that allows them to overcome “barrier to entry for exports” in a more cost-effective manner. In an export consortium, SMEs can share promotion, export market research, and other logistics expenses (for example: shipping and customs clearance, translations, and legal counsel), thus avoiding the cost of creating individual export departments. At more mature and advanced stages, export consortiums can evolve into alliances that develop common brands or that organize the sale of member company

products.⁷ Public support through export consortiums is also a more effective way to use limited resources than providing individual assistance to companies.

The project components are as follows:

Component 1: Support for policies to improve quality and technology development.

This component will develop and implement quality and technology policies, including the promotion and dissemination of activities to inform companies of the availability of instruments that support the improvement of innovation and quality and thus achieve effective coordination of existing government and private sector efforts in the areas of innovation, quality, and export promotion.

It will also strengthen the areas of accreditation, metrology, standardization, and technical regulations.

Component 2: Strengthening of quality and technology development infrastructure.

This component aims to procure the necessary furniture and equipment as well as hire the experts to start operations of the Center for the Development of Quality and Transfer of Technology in El Salvador.

Component 3: Cofinancing of SMEs to promote quality, innovation, technology services, production chains, and export consortiums.

⁷ Sales consortiums can act as export agents by securing credit for their members and collecting payments on their behalf, or they can purchase products from member companies for direct resale.

This component aims to continue providing nonreimbursable cofinancing to SMES through the Productive Development Fund (FOEX-FONDEPRO) to support efforts to develop quality activities, innovation, and technology adoption, increasing linkages with other companies, that is, developing production chains, and promoting the formation of export consortiums in order to build their capacity. It will also support technology and quality service providers in the development and updating of the services provided. This component will unify the various SME support mechanisms to facilitate their dissemination and scope, providing the flexibility necessary to respond to market demands. It will promote the development of the following actions in the area of innovation and technology:

- For the incorporation of new technologies in Salvadoran SMEs, individually or in cooperative associations, in order to increase their competitiveness and access to international markets;
- Activities promoting the development of new products or services;
- To initiate nonexistent local production of products and services;
- To improve existing products and services;
- To promote the diversification of products and services that may be new to the company but that are already being produced in the country, to improve productivity and competitiveness;
- The incorporation of new productive processes that increase a company's efficiency and productivity;
- To establish new businesses for innovative products or services that have not yet been introduced into the country;
- Expansion of technology services available in the country;

- Technological diagnostics and feasibility studies for the creation or expansion of technology service providers, such as public and private technology institutes, universities, or laboratories, as well as business associations and private enterprises capable of providing technology services to SMEs;
- Activities involved in the current establishment or expansion of technology service providers.

To promote quality improvements in products, services, and management systems of SMEs and to facilitate certification of compliance with internationally recognized quality standards, cofinancing will be provided for activities aimed at obtaining international certification for products or systems, such as ISO 9001, ISO 14001, HACCP, among others, as well as other quality certifications (voluntary or required) based on domestic and foreign market demands.

It will also support the accreditation of existing testing and calibration laboratories and qualified consultants for quality certification in order to fill the clear gaps between private sector needs for laboratory and quality consulting services and the existing supply of such services in order to increase the quality of products, services, and management systems for SMEs.

In the area of production chains, horizontal and vertical linkages between SMEs and large corporations will be promoted in order to overcome obstacles that prevent SMEs from benefiting directly or indirectly from the growth opportunities available in local and international markets, primarily those emerging under CAFTA. It will also strengthen the formation of consortiums of Salvadoran SME exporters, by supporting companies in the identification of potential partners. It will assist them in the preparation of business plans and incorporation, and will support

participation in trade shows, export market research, the development of joint marketing materials, and other activities to establish agents and distributors in new markets. This support will be solely for consortiums made up of three or more SMEs which have no relationship between them.⁸

AREAS TO BE FINANCED	BENEFICIARY COMPANIES	ACTIVITIES
Innovation activities: <ul style="list-style-type: none"> • Establishment of new innovative businesses 	Small or medium-sized enterprises or groups thereof. Large corporations whose involvement contributes to the fund's objectives.	Services, materials, use of new capital goods and everything directly related to the proposed project.
	Companies less than 12 months old, entrepreneurs who will incorporate if the project is approved.	Market studies, business plans, and other specialized technical assistance. Cost of registering the company, intellectual/industrial property, product packaging.
	Small or medium-sized enterprises or groups thereof. Large corporations whose involvement contributes to the fund's objectives.	Consulting and technical assistance for the development of proposals.
	Companies less than 12 months old, entrepreneurs who will incorporate if the project is approved.	Consulting and technical assistance for the development of proposals.
Technology services: <ul style="list-style-type: none"> • Technological analyses and feasibility studies or technology service 	Public or private technology institutes, universities, or laboratories, business associations, private companies, or other technology service providers (existing or new).	Consulting services and feasibility studies.

⁸ The members, for example, will have to be legally independent entities and may not hold stock in each other.

UNREVIEWED TRANSLATION

providers for expansion. <ul style="list-style-type: none"> • Creation of technology service providers. • Expansion of technology service providers. 	New public or private technology institutes, universities, or laboratories, business associations, private companies, or other technology service providers.	Specialized equipment, related training, initial operating costs for new technology services providers.
	Public or private technology institutes, universities, or laboratories, business associations, private companies, or other technology service providers.	Specialized equipment and related training required for the expansion of technology services providers.
Quality services: <ul style="list-style-type: none"> • Quality certification. • Quality services (laboratory, accreditation, training of consultants on quality). 	Small or medium-sized enterprises or groups thereof. Large corporations whose involvement contributes to the fund's objectives.	Technical assistance (consultants) to prepare and implement diagnostics and action plans to earn internationally recognized certification; costs of audits and certification.
	Public or private laboratories serving productive sectors; consultants and auditors for international certification processes.	Costs associated with accreditation for testing and calibration laboratories. Cost of training/capacity-building programs for quality consultants and auditors.
Development of production chains: <ul style="list-style-type: none"> • Supplier development. • Export consortiums. 	Small or medium-sized enterprises. Large corporations to participate in partnering.	Gap analysis and action plans for SMEs to meet standards established by major potential clients; technical consulting services for implementing action plans.
	Small or medium-sized enterprises. Large corporations whose involvement contributes to the fund's objectives.	Expenses for incorporation, business plans and their implementation, feasibility studies, initial operating costs, and promotional activities.

Expected results

It is expected that more companies require the technology support, quality, and other services than the Ministry of the Economy and governmental institutions are making available to SMEs, and that the demand for the services will increase with national awareness of the importance of

quality and technology as a source of competitiveness and the value of the public standardization, metrology, and accreditation services as a mechanism for leveraging private investments.

In this regard, with this project, the Ministry of the Economy will expand the financial support to create incentives for SMEs in the areas of innovation, quality, and production chains. It will also strengthen public and private institutions offering these services.

The project aims to strengthen the country's small and medium-sized enterprises (SMEs), specifically with cofinancing in the following areas:

- Introduction to innovative processes;
- Adoption of quality certification processes;
- Improvement of technology services for public and private institutions;
- Introduction of SMEs in the supplier development program;
- Creation of export consortiums.

Close collaboration between the public and private sectors is essential for the development of an effective, efficient national quality and technology system, and therefore support will be provided to public and private institutions devoted to providing quality and technology services.

Beneficiary population

The project's main beneficiaries are SMEs and their strategic partners. Other beneficiaries include public and private institutions providing technology or quality services to the private sector—ranging from universities and public research and development (R&D) centers to testing laboratories and quality certification consultants—and the units of the Ministry of the Economy responsible for implementing the country's policies in the areas of quality and innovation.

7. Estimated investment and financing structure.

COMPONENT/ACTIVITIES	SOURCE OF FINANCING		TOTAL
	TCB COOP. \$	GOV. OF EL SALVADOR (in kind) \$	
Component 1: Support for policies improving quality and technology development. <ul style="list-style-type: none"> • Consulting projects • Internships • Training • Dissemination events 	\$500,000	\$50,000	\$550,000
Component 2: Strengthening the quality and technology development infrastructure <ul style="list-style-type: none"> • Specialized consulting projects • Training • Internships • Procurement of furniture and equipment 	\$500,000	\$50,000	\$550,000
Component 3: Cofinancing for SMEs to promote quality, innovation, technology services, production chains, and export consortiums. <ul style="list-style-type: none"> • Matching grant 	\$2,000,000	\$200,000	\$2,200,000
TOTAL	\$3,000,000	\$300,000	\$3,300,000

**PROJECT: 2 PREPARATION FOR THE ENTRY INTO EFFECT OF THE CONSUMER
PRODUCT SAFETY MODERNIZATION ACT OF JANUARY 3, 2008 (H.R. 4040)**

1. Country: El Salvador

2. Contact information for requesting country:

Herbert Rico Jerez

Quality and Productivity Manager

Ministry of the Economy

Telephone: (503) 2231-5636 Fax (503) 2281-1156

E-mail: hrico@minec.gob.sv

3. Requested cooperation:

Technical and economic assistance.

4. Relationship between the cooperation project and national objectives:

The quality infrastructure of the Republic of El Salvador must be strengthened to play a proactive role in compliance with local quality requirements for products exported to international markets, to consolidate a quality infrastructure that increases administrative, technical, regulatory, oversight, and verification capacities, as well as to adapt the regulatory framework for Salvadoran products covered under regulations proposed by the Consumer Product Safety Modernization Act, enacted by the United States Congress on January 3, 2008, (H.R. 4040).

This type of project shares the objectives of the industrial policy launched in 2005 by the Salvadoran President with the Ministry of the Economy for technical capacity-building and improvement of the competitiveness of domestic industry and as a development strategy for small and medium-sized enterprises.

The objectives proposed under item 6, Quality, of the industrial policy are:

- To develop the industrial quality infrastructure;
- To create a national culture of productivity and quality;
- To improve the support infrastructure for good practices in quality and productivity;
- To position the issues of quality and productivity as a national priority.

5. Priority: 1

6. Related to the requested cooperation:

Background

El Salvador lacks an adequate infrastructure providing some testing and trial services to businesses, mainly exporters who must perform these tests abroad, increasing the cost of shipments and market response times. There have even been cases of rejections of containers at ports of delivery. This problem is the result of the following causes, among others: inadequate technological equipment and instruments, outdated and inappropriate methodologies and protocols used by laboratories, and weak quality management systems.

Public and private laboratories providing quality services in testing and trials must be strengthened in order to ensure reliability in test results, as well as to increase the number of services offered. Moreover, laboratories must have human resources, instruments, and equipment using appropriate technology, as well as internationally accepted procedures and standards (up-to-date protocols) recommended by the bodies that oversee standardization in the performance of testing and quality systems, such as the ILAC (International Laboratory Accreditation Cooperation) and the IAC (International Accreditation Cooperation).

The Ministry of the Economy is working on the drafting of a new quality and productivity law establishing a new legal framework so the quality infrastructure is modern and aligned with regional and international systems in its administrative and regulatory practices.

Cooperation objectives

General objective:

To strengthen the installed capacity of laboratories defined as “pilots,” in order to be used as training centers for testing and trials.

Specific objectives:

- a. To strengthen the technical and management capacity of those trial and testing laboratories that are ISO-17025:2004 accredited, allowing them to also meet the requirements arising from the entry into effect of the Consumer Product Safety Modernization Act (H.R. 4040) enacted by the United States Congress on January 3, 2008.

- b. To equip a “pilot” laboratory, including specialized software and world-class reference material (protocols).
- c. To train laboratory technicians in modern analytical and compliance assessment procedures and methodologies for food products.
- d. To perform training and evaluations of laboratory technicians in “peer” laboratories.

Brief description of the project

This project will contribute to enhancing the competitiveness of Salvadoran companies, through more and better coverage of available quality testing and trial services, reducing the cost of these services, as well as the training of public and private laboratory technicians in the use of modern product compliance assessment procedures and methodologies in the food and agroindustry sectors, and will also contribute to the outfitting of a “pilot” testing and trial laboratory with competitive instruments and equipment for performing compliance assessments on products suitable for human and animal consumption.

It also expects to improve the quality and competitiveness of the products and services offered by domestic companies to local and international markets.

Expected results

- a. Twelve public-private laboratory technicians will be trained in the cooperating country in the use of modern compliance assessment procedures and methodologies for products and processes in the food and agroindustry sectors.
- b. Layout and handling of modern testing and trial equipment.

- c. A “pilot” testing and trial laboratory, equipped with competitive instruments and equipment for performing compliance assessments on products suitable for human and animal consumption. The trained technicians will participate in the layout of the local laboratory.
- d. Procurement of specialized software for technical analysis in testing and trials.
- e. Procurement of standardized reference materials (protocols and guides, among others).
- f. Strengthening of the quality infrastructure in laboratories that are competitive and have adequate coverage upon entry into effect of the Consumer Product Safety Modernization Act of January 3, 2008 (H.R. 4040).

**PROJECT 3: STRENGTHENING CURRICULA AND BUILDING CAPACITY IN THE
ACADEMIC SECTOR ON QUALITY AND PRODUCTIVITY ISSUES.**

1. Country: El Salvador

2. Contact information for requesting country:

Herbert Rico Jerez

Quality and Productivity Manager

Ministry of the Economy

Telephones: (503) 2231-5636 Fax (503) 2281-1156

E-mail: hrico@minec.gob.sv

3. Requested cooperation:

Technical and financial assistance

4. Relationship between the cooperation project and national objectives:

To promote the country's productive development through the training of professionals with a mastery of quality and productivity issues so these concepts are implemented in El Salvador's productive sectors, as related to item 6 (quality) of the industrial policy.

5. Priority:2

6. Related to the requested cooperation

Background

The academic sector is made up of El Salvador's institutions of higher education (universities and institutes of technology), responsible for the training and strengthening of the competencies of the professionals who will serve the country's public and private sectors. These institutions offer a variety of technical and engineering programs, which, for the most part, have not updated their curricula in keeping with the sectors' demands. Courses related to quality management, productivity enhancement, science and technology, among others, urgently need to be added to strengthen the skills of future professionals, so they can provide strategic solutions for the development of national industry.

This Ministry has made efforts to make these institutions aware of the technical and human capital needs posed by the employers of the professionals trained in these institutions, that is, the nation's productive sectors.

Cooperation objectives

General objectives:

To substantially improve the competencies on issues of quality and productivity of the professors who teach classes at El Salvador's institutions of higher education, particularly in engineering programs and others of a technical nature.

Specific objectives:

- a. To define academic curricula in the areas of quality and productivity.
- b. To train professors at the institutions of higher education on issues of quality and productivity.
- c. To develop teaching materials appropriate for training in quality and productivity.

Brief description of the project

The participating entities will be institutions of higher education (IES) duly registered with the Ministry of Education (public and private), particularly those offering technical or engineering programs related to the following sectors:

- Food and beverage
- Agroindustry
- Metalworking
- Aquaculture and fisheries
- Pharmaceuticals

To achieve the proposed objectives, activities will be undertaken such as:

1. Consulting: to include in the first week a visit to some companies and institutions of higher education, to become familiar with relevant curricula, to make adjustments to the materials, as necessary, and then to perform the training.
2. Information and awareness activities to spread the use of the defined curricula, led by the primary stakeholders (Ministry of Education, Ministry of the Economy, institutions of higher education, and the business sector).
3. Performance of the activities/commitments made by those involved in project implementation: incorporation of the new curricula into the respective programs.

Expected results

1. Strengthening of the technical competencies of the targeted professors and courses with the appropriate issues for continuous improvement and productivity.
2. Professionals trained as trainers on quality and productivity systems, who will work as professors in the institutions of higher education and audiovisual aids defined and available for use in the courses on quality and productivity, in order to facilitate development of skills on these issues, especially in engineering and other technical programs.
3. Audiovisual aids defined and available for use in the courses on quality and productivity, in order to facilitate development of skills on these issues, especially in engineering and other technical programs.

PROJECT 4: STRENGTHENING EL SALVADOR'S QUALITY AND PRODUCTIVITY INFRASTRUCTURE

1. Country: El Salvador

2. Contact information for requesting country:

Herbert Rico Jerez

Quality and Productivity Manager

Ministry of the Economy

Telephones: (503) 2231-5636 Fax (503) 2281-1156

E-mail: hrico@minec.gob.sv

3. Requested cooperation:

Technical and economic assistance.

4. Relationship between the cooperation project and national objectives:

This type of project is framed within the objectives of the industrial policy launched in 2005 by the Salvadoran President with the Ministry of the Economy for technical capacity-building and improvement of the competitiveness of domestic industry and as a development strategy for small and medium-sized enterprises.

The objectives proposed under item 6, Quality, of the industrial policy are:

- To develop the industrial quality infrastructure;
- To create a national culture of productivity and quality;
- To improve the support infrastructure for good practices in quality and productivity;
- To position the issues of quality and productivity as a national priority.

5. Priority: 1**6. Related to the requested cooperation:****Background**

In the areas of quality and productivity, El Salvador has marked shortcomings. The quality services provided to businesses, primarily exporters, are quite deficient. Proof of this is that often, our businesses are faced with problems of rejections of their exports, even when they were tested prior to shipment. Moreover, the methodologies and protocols used by a large number of testing and trial laboratories are not the most up-to-date, while they also have weak quality management systems and training of their technical human resources.

Industry must respond to the approach of globalization within a framework of exponential productivity and competitiveness, while understanding productivity as the point of departure for achieving savings throughout a business's value chain. Therefore, new technical methodologies are required, or those existing must be improved for integrated management within organizations (private enterprise, public, and academic sectors) and "waste" must be eliminated, whether it be tangible (resources like raw materials) or intangible (knowledge, information). The currently weak coordination between public and private institutions contributes to this problem.

It is important to note that gap analyses on technology and quality have been executed in the food and beverage, agroindustry, aquaculture and fisheries, and pharmaceutical sectors, reflecting what has been mentioned above.

At the same time, the preparatory phases are being completed for the creation and strengthening of the new national quality and productivity system, including the institutional framework for the areas of: accreditation, standardization, technical regulation, and metrology.

Cooperation objectives

General objectives:

To increase the competitiveness of the Salvadoran business sector, primarily small and medium-sized enterprise (SME) exporters, by strengthening them in the areas of quality and productivity.

Specific objectives:

- a. To develop relevant competencies in the development of quality and productivity programs in the sectors identified as the country's centers of economic and social development, including key professionals from the business sector as well as public institutions and consultants to support their activities, in order to act as multiplier agents and typical examples of the models of continuous improvement and productivity systems.
- b. To strengthen the technical and management capacity of those testing and trial laboratories that are ISO-17025 accredited.
- c. To have a shared vision among the business, government, and academic sectors on the issues of quality and productivity as a fundamental requirement to "facilitate" the construction of the "Salvadoran Quality and Productivity System."

Brief description of the project

COMPONENTS:

- A. Awareness /quality culture
- B. Implementation of specialized courses on continuous improvement
- C. Internships
- D. Equipment

ACTIVITIES:

- Awareness/quality culture;
- Implementation of specialized courses on continuous improvement;
- Development of a “Lean Manufacturing” course in private enterprises (at the pilot level);
- Development of quality and productivity competencies in the public and private sectors, including training of consultants;
- Internships at quality centers in other countries in order to learn how they were developed, as well as other entities related to the issues of quality and productivity.

Expected results

- a. The competitive capacities of Salvadoran companies will have been strengthened (primarily in exporting SMEs) in the areas of productivity and quality.
- b. The capacities of Salvadoran companies will have been increased on the issue of compliance with international quality standards.