

BASELINE
REPORT
DRAFT

***“NCBA CLUSA El Salvador Coffee Rehabilitation
and Agricultural Diversification Project Baseline
Survey”***

Presented by:



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“NCBA CLUSA FY 2014 Food for Progress El Salvador Coffee Rehabilitation and Agricultural Diversification Project Baseline Survey”

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EXECUTIVE SUMMARY

Coffee cultivation and trade remains an activity of strategic importance to the economic, social and environmental sustainability of El Salvador. Despite a relative decline in its impact on the economy at the beginning of the new millennium, it is still an important economic activity and has served as a catalyst for the development of infrastructure and as a mechanism for the integration of rural communities into the national economy. The coffee sector remains a valuable strategic resource to strengthen Salvadoran socio-economic stability in the short, medium and long term.

Despite the challenges that coffee cultivation is facing in the domestic context, it is a key determinant in the preservation of the balance between the environment and groundwater aquifers due to the fact that coffee plantations spread over 160,000 hectares (16% of the country's total cultivated area). Coffee is grown in 196 of El Salvador's 262 municipalities, and accounts for more than 70% of plantations in four departments: Ahuachapán, Santa Ana, Sonsonate and La Libertad.

In addition to these economic and environmental considerations, the social impact of coffee is crucial to maintaining social and political stability for the country. Under normal conditions, coffee cultivation represents about 6% of the economically active population¹ (PEA). Furthermore, the investment that generates the activity itself, favors the development of micro-enterprises, which helps reduce migration of the rural population into the city and the challenges that this migration presents.

In this context, USDA/NCBA CLUSA proposes a four-year program to stabilize the coffee sector and increase food security in rural El Salvador. The program will improve productivity of coffee farmers by enabling better access to financing, improved inputs, and technical knowledge and skills, as well as the aggregation of production and increased leverage through producer organizations/cooperatives. It will also build capacity for private and government technical extension strategy, cooperation, and planning.

The USDA/NCBA CLUSA project aims to work with 7,500 coffee producers, 50 producer organizations and cooperatives, and government agencies and private sector in six of the seven most developed coffee production areas of El Salvador: Apaneca-Illamatepec, El Bálsamo-Quezaltepec, Tecapa-Chinameca, Cacahuatique, Chinchontepec, and Alotepec-Metapán.

As part of the preparatory activities for the project, NCBA CLUSA has commissioned the creation of a baseline survey to evaluate the initial conditions of the regions where the project will intervene. During the completion of fieldwork by the contracted firm, different reactions to the project were observed in the target population: in most cases the consultants found receptiveness and interest in collaborating

¹ Household Survey, Ministry of Economy, 2014.

from the producers and cooperative organizations. However, in some cases, they expressed indifference and in a few, a certain level of resistance to the project by declining to provide information to the survey.

The consultant team experienced a certain degree of resistance from CENTA-CAFÉ and the Ministry of Agriculture, since they refused to participate in the study with information and interviews. The Consultant Team could not establish a concrete explanation for this negative stance by government officials. The government is generally open to cooperating with US government programs; however, in this case it was not possible to establish a relationship of cooperation for this project associated with USDA. It is important that USDA and NCBA CLUSA address this issue as soon as possible because it can represent severe delays for the project once it begins field operations.

The USDA/NCBA CLUSA project is structured around five components: Capacity Building, Financial Services, Inputs, Market Access, and Training. After completing the baseline field work, the key issues that can be highlighted as an initial baseline for the five aforementioned components are summarized as follows:

Capacity Building: During 2014 CENTA-CAFÉ provided training to extension agents under the "Coffee Rescue in El Salvador" project. The training of approximately 60 extension agents and researchers was focused on agrochemicals, crop management, plant protection, and soil management. The following year, the same approach was utilized, however the number of staff to be trained was reduced to 30. It is important to note that there has been no additional training in other aspects that complement the coffee value chain. Among coffee producers in the six regions of the project:

- 40 technicians from the different cooperatives have been trained in improved coffee, agricultural diversification and basic extension techniques.
- There have been a total of 172 trainings on management for the boards of directors of the cooperatives in the last three years. For the administrative staff of the cooperatives, 22 training events in cooperative management were conducted in the last three years.
- Nine cooperatives have been advised on creating their own business plans between 2013 and 2015.
- A total of 15 cooperatives have participated in a regional network of coffee growers in the last three years, and participated in climate change, trade, international markets, and coffee forums. From these initiatives they have built six public-private partnership cooperative networks.

Financial Services: Most public and private banking institutions have divisions for agricultural credit, however only BANDESAL (Development Bank of El Salvador) and BFA (Salvadoran Bank for Agricultural Growth) have specific programs and a credit portfolio for coffee production:

- Over 60% of agricultural credit is provided by BFA, the main use of these credits is for the preparation of coffee plantations.

- The most common guarantees are mortgages, pledges and Irrevocable Payment Orders
- The Guarantee Funds offered are very limited and their requirements are very demanding. Most Coffee Producers cannot access these guarantee funds.
- No financial institution is supporting agricultural insurance.

Inputs: The vast majority of producers who were interviewed in the regions in which the project will be working stated that they have benefited from projects to support coffee cultivation and improve productivity in the plantations, mainly on improved coffee varieties and organic fertilizer inputs:

- Half of the regions under the study are utilizing improved coffee production techniques in 20% of their crop area, among which are pest and disease control, pruning, harvesting and post-harvest handling.
- Less than 1% of the cultivation area is currently devoted to agricultural diversification with other crops.
- 80% of farmers who were interviewed said they had received technical assistance from CENTA-CAFÉ.

Market Access: Most producers sell their coffee as cherry-fruit through intermediaries and beneficiaries:

- Only 8% of farmers have participated in business roundtables for coffee marketing.
- Coffee cooperatives have created 31 agreements involving 3,064 partners. Producer associations have participated in 21 coffee agreements.
- The Apaneca-Illamatepec region is the only one with a Protected Denomination of Origin (PDO) and that is part of tourism initiatives in partnership with local governments. Additionally, the region is showing more agricultural diversification and more comprehensive business schemes than the others (with a notable contribution of tourism revenue).
- In terms of production, the Tecapa-Chinameca region shows lower yields in coffee production (of which less than 5% is strictly height grown coffee).
- The coffee producers of Chalatenango have obtained the highest coffee prices (Chalatenango is part of the Alotepeque-Metapán region. However, this case should be treated as a separate geographical unit from the rest of the region because it has the best conditions for coffee cultivation and its producers have received the most training in marketing and production.)

Training: Two training topics were included in the survey for coffee producers participating in the project regions- production techniques and marketing issues/branding.

- Production: among those interviewed, 49% have been trained in Farmers Field Schools FFS² and 43% have attended training sessions in the aforementioned field schools. In the regions of Cacahuatique and Chinchontepec, there is greater participation from producers in these forms of agricultural training. The subjects which are addressed the most in those training events are pest and disease control, and pruning techniques for coffee trees.
- Marketing/Branding: a total of 2,240 associates in 28 producer cooperatives were trained in marketing techniques in 39 events over the past three years

Based on the above findings, the consultant team recommends USDA and NCBA CLUSA review some of the initial project concepts including:

a) Two of the six project regions have the most advantageous conditions for the implementation of all of the project components and NCBA CLUSA could consider working on strengthening the processes of value generation and branding that are already in process in these regions:

- ✚ (Region 1) Apaneca - Ilamatepec: coffee production in this region presents the best comparative advantage in terms of production quality, market positioning and complementary activities that enhance the sustainability of a business model based on the cultivation of coffee. This region has a protected designation of origin (PDO), which is a strategic asset that should be utilized and strategically enhanced by the USDA/NCBA CLUSA Project. Additionally, during the sessions and interviews with producers, they were very receptive and enthusiastic about the project concept.
- ✚ (Region 4) Cacahuatique: Coffee production in this region is of very good quality and is strengthened by a remarkable management and marketing capacity by the cooperatives. The project can create a positive impact by replicating concepts in Cacahuatique that have been developed for the region "Apaneca - Ilamatepec" to raise the quality of production and at the same time obtain a PDO. The producers can use the cultural history of the region to their advantage, especially by linking the product to highly recognized Salvadorans icons. Producers can use images to accompany the strategic positioning of their coffee cultivation (this is a geographical area associated with Gerardo Barrios and Monsignor Arnulfo Romero).

b) Adjust the geographical distribution of the project for two of the six proposed areas by focusing on certain sub-regions in those areas that have higher production and/or marketing capacity:

- ✚ (R5) Chinchontepec: In this region, sharp contrasts were observed, and it was not possible to identify a consistent quality of coffee production and organizational capacity of producer cooperatives. The fieldwork results suggest that the work should focus on the sub region of

² A Farmer Field School is a method of teaching agricultural issues designed for adult farmers. Producers active in a group, provide their knowledge and experiences in an organized manner and analyze the reality of their productive environment, reflect on their opinions collectively and make decisions based on what was learned (FAO, 1989).

Guadalupe producers, since this cluster has presented the best results in terms of quality and organizational capacity.

- ✚ (R6) Alotepeque - Metapán. This region presents difficult conditions to work in, since the geographical spread of its producers is wide and does not allow for efficient work and guaranteed results. It is the opinion of the Consultant Team that the economic costs in this region outweigh the potential results and impact of the project actions. In this region the Consultant Firm recommends focusing the work on coffee farmers from Chalatenango.
- ✚ In light of the results obtained from the baseline, the project should consider if it is convenient to work in the regions of (R2) Bálsamo – Quezaltepec and (R3) Tecapa - Chinameca. In both regions the firm observed very little receptivity from producers to work on project concepts and most productive farms were found to have limited production and financial capacity.

Risk factors associated with the USDA/NCBA CLUSA project are similar to those that affect any agricultural operation, particularly with the remarkable susceptibility of El Salvador to the effects of climate change (such as is currently being observed with the ongoing drought). These include, but are not limited to, outbreaks of coffee rust and Anthracnosis and climate change. Climate change is a real concern for the Salvadoran coffee producers and drought and unfavorable temperatures have become major climatic limitations for coffee production.

The combination of the effects of climate change and rust (and other plagues), explain the historically low coffee yields observed in coffee production cycles since 2013, combined with the fact that most coffee plantations are over 10-15 years old. These risks can be mitigated by the gradual renovation of coffee plantations with new coffee rust resistant varieties and the introduction of additional measures of protection and improvement of ecosystems adjacent to the coffee plantations.

Considering the context in which the USDA/NCBA CLUSA project will be implemented, the key factor is to innovate and build the project approach within the logic of the value chain. This recommendation is easy to impart, but very difficult to put into practice. The absence of an integrated approach like this one explains the ongoing weakness of the Salvadoran coffee sector.

This “new approach” can be put into practice through the application of advanced technical processes of primary production of coffee, as well as encouraging coffee farmers to move from trading coffee in cherry to dry beans. These approaches have to do with the modernization of the value chain of coffee production discussed in the last chapter of this document. To complement this, the best strategy to favorably position the coffee products is through training and fostering the production of differentiated or specialty coffees, preferably with international certifications such as "Fair Trade", "Rainforest Alliance", "Coffee Best Practices" etc.

1. Objectives of the Baseline Survey

The purpose of a baseline survey is to provide a base of information against which to monitor and assess the Project's progress and effectiveness during implementation and after the activity is completed. The following Project Baseline Survey examines and documents the agri-production and socio-economic environment that existed within the project area before the project begins the activities listed below.

Table 1-1. Principal components of the USDA / NCBA CLUSA Project

Capacity Building: Government Institutions	Capacity Building: Producer Groups/Cooperatives	Financial Services: Facilitate Agricultural Lending
NCBA CLUSA will parallel activities of the Government of El Salvador to support coffee rehabilitation and agricultural diversification NCBA CLUSA will also strengthen links to existing market information systems and early warning systems. Additionally NCBA CLUSA will help local government institutions to organize a forum to discuss the coffee sector, coordinate efforts by stakeholders, and advocate for support and incentives.	NCBA CLUSA will build the capacity of cooperatives by training extension agents in coffee improvement and crop diversification, farmer field schools and other basic extension techniques. NCBA CLUSA will also train cooperatives' leadership in institutional governance and business management and will build coffee cooperatives advocacy capacity, support networking and facilitate linkages between the private and public sectors.	NCBA CLUSA will improve access to finance for coffee producer organizations affected by coffee rust through the expansion of existing credit guarantees and loan funds. Additionally NCBA will work directly with the Salvadoran Development Bank and other banks to expand the reach of their current farm loan guarantee program and loan funds that are supported by the El Salvador government.
Inputs: In-kind Grants	Inputs: Develop Agrodealers and/or Other Input Suppliers	Market Access: Facilitate Buyer-Seller Relationships
NCBA CLUSA will provide in-kind grants to farmers to facilitate the dissemination and adoption of new coffee seed varieties and other planting material for crop diversification, including sweet pepper, zucchini, and red beans. These one-time in-kind grants are intended to buy down the risk of coffee rehabilitation and diversification.	NCBA CLUSA will develop the supply of locally available planting materials through training cooperatives and private nurseries in the production of local rust resistant seedlings. To promote crop diversification, the Project will identify and facilitate linkages between local input companies; suppliers of the diversified crops, and cooperatives.	NCBA CLUSA will work with cooperatives to research specific buyer quality and quantity requirements, identify new, and nurture existing opportunities and relationships, assist with bulking production, develop supply chains, identify domestic and export opportunities through events, link sellers and buyers, assist with building relationships, and identify financing needs and sales opportunities.
Market Access: Facilitate Private and Public Partnerships	Training: Improved Agricultural Production Techniques	Training: Improved marketing and branding

NCBA CLUSA will facilitate a wide range of public-private partnerships by encouraging dialogue and partnership aimed at addressing the coffee rust problem facing coffee producers, building relationships and coordinating meetings between all actors, creating linkages, promoting crop diversification, leveraging significant private resources, developing finance and technical assistance, and developing and solidifying effective private-public partnerships for targeted products.	NCBA CLUSA will support targeted cooperatives and farmers in coffee rust-affected regions to teach best practices and new agriculture techniques. NCBA CLUSA will establish farmer field schools aimed to support parallel efforts from the Ministry of Agriculture, CENTA-CAFÉ, CSC, along with cooperative and producer organization staff. NCBA CLUSA will also host radio programs to sensitize the farming community, the private sector, and the public in general about coffee rust.	NCBA CLUSA will provide training to cooperatives in all aspects of marketing and branding of coffee, particularly market needs, quality, pricing, transportation, logistics, promotional efforts, and public relationships. This activity will include the identification and training of local cooperatives in marketing concepts. NCBA CLUSA will also support promotional campaigns of producers most affected by coffee rust that will be linked with the specialty coffee markets and networks.
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This Baseline will be the starting point for designing and implementing a monitoring and evaluation system that allows for the collection of:

- Regular up-to-date data and information for management decision-making on the implementation of the project and;
- Accurate data and information for the project and its key partners to assess the impact of the project's activities on focused value chains and project beneficiaries.

To measure outcomes relative to the project objectives, the donor (USDA) and the implementer (NCBA CLUSA) agreed on 30 Result Indicators (RIs) that would be tracked over the course of the project. The baseline survey establishes the starting point for measuring these RIs.

To establish the baseline information, two surveys were developed. One survey was targeted towards coffee plantations located over 800 masl (meters above sea level), according to the Salvadoran Coffee Council. This survey focused on Project Objective 1 – Increased Productivity. The survey also included questions for farmers about seedling production.

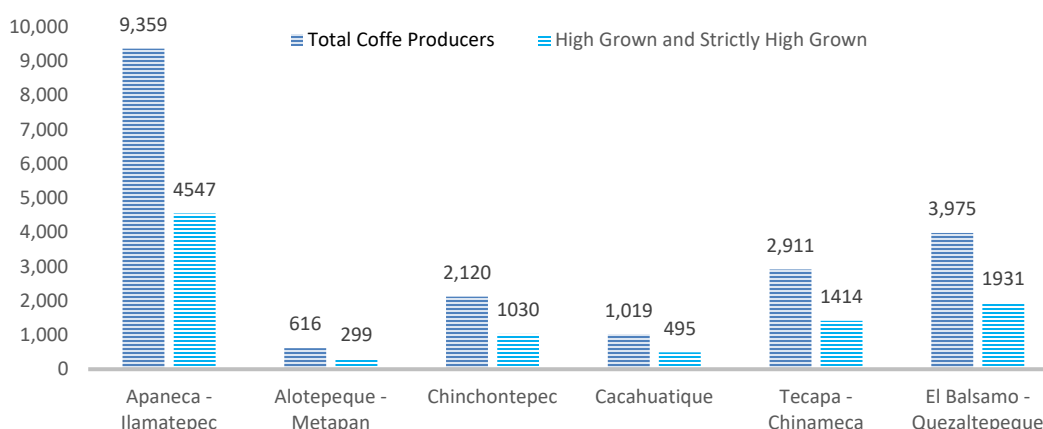
Interviews which focused on Project Objective 2 – Expanded Trade of Agricultural Products were also conducted with cooperatives. This interview will establish the baseline/starting point from which project performance can be gauged over time.

2. Survey Protocol and Methodology

The field work was organized in the six coffee producing regions that will be included in the NCBA CLUSA coffee project (R1) Apaneca - Ilamatepec, (R2) Bálsamo - Quezaltepec, (R3) Tecapa - Chinameca, (R4) Cacahuatique, (R5) Chinchontepec, and (R6) Alotepeque - Metapán. The survey takes into account only coffee plantations located at 800 masl (meters above sea level).

According to the Salvadoran Coffee Council in the target areas of the project there are 20,000 producers, but only 48.6% correspond to the areas of High Grown and Strictly High Grown coffee production. This means that only 9,718 producers meet this requirement. The details of the distribution and quantity of producers are shown in Graph 2-1.

Graph 2-1. Distribution of Coffee Producers by Region



Data from Salvadoran Coffee Council of 2013 and PROCAFE

The Coffee Rehabilitation and Agricultural Diversification Project that is being implemented by NCBA CLUSA El Salvador will focus its efforts on the 77.17% of the producers that are located in the range over 800 masl (7,500 producers) and 50 cooperatives.

Considering this information, the sampling frame was defined as “coffee producers whose farm is located over 800 meters above sea level that are associated with cooperatives or producers associations in the target project areas: (1) Apaneca- Ilamatepec, (2) El Bálsamo - Quezaltepec, (3) Tecapa - Chinameca, (4) Cacahuatique, (5) Chinchontepec, and (6) Alotepeque - Metapán”

In order to conduct the baseline data collection for the project’s performance monitoring indicators and evaluation assessments, an exercise was developed that combines qualitative and quantitative tools and techniques. The main techniques that were used were:

- a) An exhaustive review of documents associated with the project that have been generated by National Salvadoran Institutions in the last few years, such as the Salvadoran Coffee Council, PROCAFE, CENTA-CAFÉ, and IICCA, among others.
- b) Interviews conducted with representatives from public and private banks such as: SISTEMA COOPERATIVO FEDECACES, FINCA, Bank G & T Continental, Banco de Desarrollo de El Salvador (BANDESAL), and Banco de Fomento Agropecuario (BFA); brokers, such as Comercial Exportadora S.A de C.V (COEX) and Unión de Exportadores S.A. de C.V. (UNEX); and others associated with the cultivation, processing and marketing of coffee and its associated crops.

Table 2-1. List of institutions that were interviewed for the study

Institution	Position	Address
FINCA	Executive Director	Paseo General Escalón, C. Circunvalación No. 4647
SISTEMA COOPERATIVO FEDECACES	Business Director	23 Av. Nte y 25 C. Pte
UNEX	Financial and Administrative Manager	Blv. Constitución
BANCO G Y T CONTINENTAL	Business Director	C. La Reforma No. 206, Centro Financiero
COEX	Agency Chief for San Salvador	25 Av Norte, Edificio OXGASA
BANDESAL	Director of EDF ³	Alameda Roosevelt NO. 2007
BFA	Business Director	Km 10.5 carretera al Puerto La Libertad
PROCAFE	President	MAG Campus, Santa Tecla

³ ECONOMIC DEVELOPMENT FUND managed by BANDESAL, is a financial mechanism which is used to promote the development of sustainable projects in the country's productive sector. The objective is to contribute to the increase in the production and export of national products and services, as well as supporting the strengthening of productive chains, promoting development and competitiveness of entrepreneurs and fomenting the development of small and medium businesses.

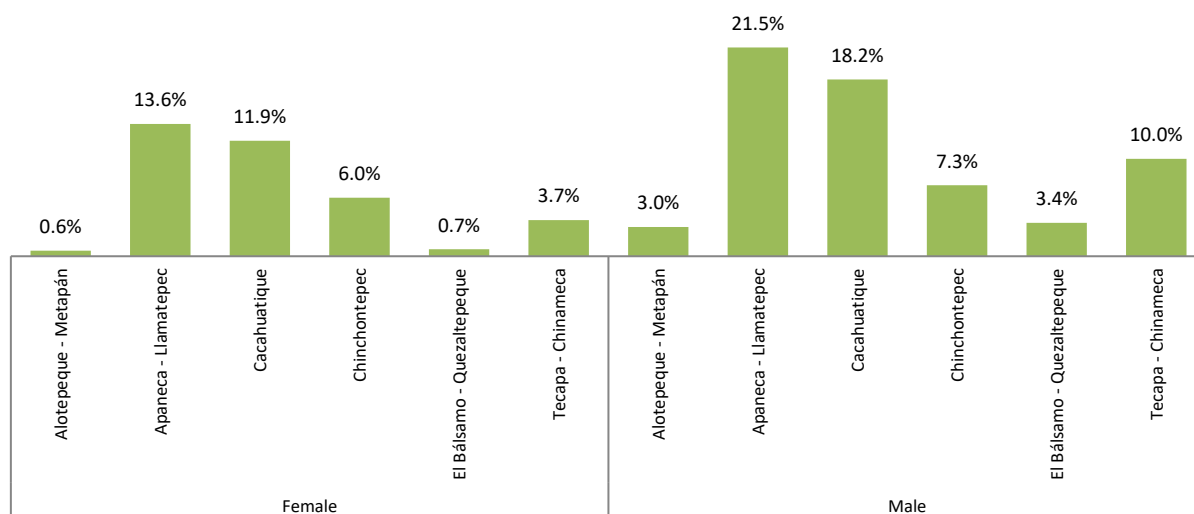
- c) Interviews with representatives of cooperatives that work under a non-individual producer's model in the target areas. Interviews were conducted with more than 40% of the cooperatives registered with the Salvadoran Coffee Council that are still active.
- d) Quantitative research through a survey focused on a sample of producers from the target areas, which was selected from the list of producer's associations that are registered in the Salvadoran Coffee Council, and individual producers with plantations in the target areas.⁴ The sample of 1,640 producers was determined using data from the Salvadoran Coffee Council allowing for a 10% rejection margin in the design for a maximum error of 5%, and a confidence level of 95% in the sample which consists 100% of High Grown and Strictly High Grown coffee producers⁵. At the end of the field work, the consolidated database contained 1,453 valid surveys. The reasons for this figure are listed below:
- i. The registry of the producers associations and cooperatives that was received from the Salvadoran Coffee Council had not been updated since 2013. Many producer's associations registered were cooperatives (63.82%) and the rest are no longer harvesting due to the problem of rust and low coffee prices.
 - ii. Many producers (and associations) refused to provide any information because in the last year many governmental programs and private projects had approached them and collected information, but the producers commented that there had never been any follow-up by the government or projects after the information had been provided.
 - iii. In the region of El Bálsamo-Quezaltepec, the authorities from CENTA – CAFÉ gave instructions to extension agents to "not give any information to anyone related to the project regarding the producers, cooperatives, etc." This situation severely impacted the collection of information and is potentially a risk to the project that should be taken into consideration by the project when designing the strategy for coordination with government authorities associated with the coffee production.
 - iv. Dangerous conditions in some areas, due to gang violence mainly in the regions of Chinchontepec and Cacahuatique, hindered access to producers and limited the willingness of participants to provide information.
 - v. Fieldwork coincided with the transportation strike. This caused severe restrictions in access to the field during the last week of July.

⁵ The maximum error and confidence level according to the number of 7,500 producers that will be working with NCBA CLUSA El Salvador's Project is 3.1% and 95% respectively.

a. Preparation of the team for the collection of information

Prior to the fieldwork, the survey team received a four hour training on conducting the survey. A second meeting took place with the supervisors of each team to define routes in each region according to the information provided by NCBA CLUSA. Originally there were only two teams, but in order to obtain the information in the timeframe provided, the firm trained a third team during the second week and went to the central region. The three teams (about 16 persons) worked in the regions to complete the survey with the sample of producers in the target areas. The information was collected in 3.8 weeks. The distribution of producers by gender was 63.5% male and 36.5% female. Distribution by region and gender is shown in graph 2-2.

Graph 2-2. Distribution of coffee producers surveyed by region and gender



To process all of the information a team of four individuals was trained. Within the team one person was in charge of the codification of each survey, the other three persons entered information into the database program.

For the interviews, two individuals of the main team dedicated about 45% of their time focusing on the institutions that gave information.

b. Data limitations

Institutional

For the baseline survey the firm encountered a certain level of resistance from CENTA-CAFÉ and the Ministry of Agriculture, refusing to participate in the study with information and interviews. Government officials that the team of consultants were looking to interview declined the invitation for interviews and as mentioned in previous paragraphs, came to the point of taking a negative stance towards the program and issuing specific orders that anyone from their staff that dealt with coffee producers and cooperatives, and even some extension technicians, were told not to give information to project personnel.

The Consultant Team could not establish a concrete explanation of why this negative stance was taken by government officials from CENTA-CAFÉ. The government is typically open and collaborative to cooperation with US government programs. However, in this case it has not been possible to establish a relationship of cooperation for this project associated with USDA.

This was a serious limitation for the fieldwork in the region of Bálsamo – Quezaltepec, specifically with producer associations. In other regions, the Consultant Team was able to establish other contacts to interview coffee producers.

Furthermore, the authorities of State Institutions like CENTA-CAFÉ, the Salvadoran Coffee Council and Banco Hipotecario were reluctant to provide time for interviews and sufficient information for the analysis of the current situation in relation to: capacity building of its staff, implementation of programs to support the recovery of the coffee and the components of these programs and their scope in the case of CENTA-CAFÉCAFÉ; the situation of agricultural loans related to coffee and the situation experienced by the institution in the last two periods relating to the arrears, newly granted loans and refinancing.

Social

El Salvador is facing a very difficult social situation due to an excessive increase in violence associated with the gangs. This situation affected work in some regions, particularly in El Bálsamo - Quezaltepec and Chinchontepec. This problem affected the capacity of the field team to visit some coffee plantations and conduct interviews with producers. This was the case in the region of Chinchontepec, specifically in the area of Santa Lucia, where gang representatives expressed to the field team personnel that to be able to enter the area they should talk to a main representative or head of the gang (*Palabrero*). In El Bálsamo - Quezaltepec in the northeast of the volcano of San Salvador, limited conditions to access the cooperative hull were identified; and the region of Cacahuatique as well, where field team was warned of the danger in some areas of San Matias.

3. The Project Environment

The cultivation of coffee has been one of the most important pillars of the Salvadoran society. It has fueled the Salvadoran economy and shaped the history of the country for more than a century. Coffee cultivation in El Salvador has remained attached to its values and historical traditions of production and processing, as well as the adoption of rules, techniques and technologies to guide and obtain a higher quality product. Unlike the industry in Guatemala and Costa Rica, the Salvadoran coffee industry developed largely without the benefit of external technical and financial help. It was first cultivated for domestic use early in the nineteenth century. By the second half of the 20th Century its commercial promise was evident, and the Salvadoran government began to support its production through legislation such as tax breaks for producers, exemption from military service for coffee workers, and elimination of export duties for new producers.

Coffee cultivation and trading remains an activity of strategic importance to the economic, social and environmental sustainability of the country. Despite a relative decline in the impact of the economy at the beginning of the new millennium, it has served as a catalyst for the development of infrastructure and as a mechanism for integration of rural communities into national economy. Here are some aspects that emphasize the socio-economic importance of coffee for El Salvador⁶:

- In 2012, coffee accounted for 1.2% of GDP and 10.0% of Agricultural GDP.
- Coffee exports in 2012 accounted for 5.6% of total exports. Coffee production between 1995 and 2012 accounted for 7.5% of total exports from El Salvador. The main countries that import Salvadoran coffee for the 2014-15 coffee year⁷ are the USA (47.9%), Japan 12.0% and Germany (10.4%) – Table 3-1.
- Coffee under normal conditions provides 150,000 direct jobs and 500,000 indirect jobs; providing resources in rural areas, boosting trade and alleviating rural poverty. For many years coffee sales have sustained rural populations: providing a better place to live, through the construction of roads, schools, access to basic services, among other type of infrastructures.

Job creation by the coffee sector also constitutes a major contribution in maintaining social and political stability for the country. Under normal conditions, coffee cultivation represents about 6% of the economically active population⁸ (PEA). In addition to that figure, the investment that generates the activity itself, promotes the development of micro-enterprises, which helps reduce migration of the rural population into the city and the problems that this activity involves.

⁶Consejo Salvadoreño del Café (Salvadoran Coffee Council CDC): *Coffee cultivation in El Salvador 2013*.

⁷ Consejo Salvadoreño del Café (Salvadoran Coffee Council CDC):

http://www.consejocafe.org/nuevo_sito/index.php?option=com_content&view=article&id=223&Itemid=52

⁸ Household Survey, Ministry of Economy, 2014.

Table 3-1. Principal countries importing Salvadoran coffee

Country	2013/2014			2014/2015 *		
	Quintales or cwt's qq	US\$	%	Quintales or cwt's qq	US\$	%
USA	290,549	47,386,415	44.6%	336,542	66,659,592	47.9%
Germany	68,647	10,186,883	10.5%	73,033	13,815,210	10.4%
Japan	80,523	15,016,717	12.4%	84,465	16,846,286	12.0%
Belgium	29,291	4,438,922	4.5%	33,180	5,886,975	4.7%
Canada	49,030	8,100,678	7.5%	27,227	5,215,396	3.9%
Sweden	26,550	3,947,616	4.1%	27,862	5,606,218	4.0%
Italy	23,484	4,054,071	3.6%	30,358	5,712,048	4.3%
Lebanon	825	146,025	0.1%	1,650	266,475	0.2%
Taiwan	7,155	1,699,655	1.1%	5,150	1,096,553	0.7%

Source: http://www.consejocafe.org/nuevo_sitio/index.php?option=com_content&view=article&id=223&Itemid=52

Coffee is vital from an environmental point of view: In El Salvador, coffee plantations spread over 160,000 hectares (16% of the country's total cultivated area)⁹. Coffee is grown in 196 of El Salvador's 262 municipalities, and accounts for 72.8 percent of plantations in four departments: Ahuachapán, Santa Ana, Sonsonate and La Libertad¹⁰. El Salvador produces only the Arabica Coffee species. The main varieties found are Bourbon, which comprises 42% of the existing plantations, Pacas accounts for 18% and mixtures of Bourbon and Pacas varieties represent 26%. A smaller percentage corresponds to coffee varieties such as Pacamara and other type of varieties such as Caturra, Catuai and Catisic¹¹. Table 3-1 and Table 3-2a summarize the distribution and main characteristics of the main varieties of coffee produced in El Salvador.

Table 3-2a. Distribution of the main varieties of coffee in El Salvador

Coffee Varieties	Area (mz)	Area (Ha)	%
Bourbon	71,929	50,350	42.00%
Pacas	30,827	21,579	18.00%
Bourbon/Pacas mixtures	55,145	38,602	32.20%
Pacamara and other	3,596	2,518	2.10%
New varieties of coffee rust resistant	9,762	6,833	5.70%
Total	171,259	119,882	100.00%

Source: PROCAFE. 2013. *Avances sobre Acciones Técnicas sobre el Control de la Roya del Cafeto en El Salvador and Salvadoran Coffee Council*.

⁹OXFAM – EU: *THE IMPACT OF COFFEE RUST: An assessment of the livelihoods and food security of families working in El Salvador's coffee sector, 2014* (Alberto Vargas, Coordinator, Emergency Food Security and Vulnerable Livelihoods (EFSVL) team)

¹⁰Consejo Salvadoreño del Café (Salvadoran Coffee Council CDC): *Coffee cultivation in El Salvador 2013*

¹¹PROCAFE: *El Salvador, Land of Coffee, 2013*.

The majority of Salvadoran coffee is grown under the shade of diverse tree species. This is an important contribution to the preservation of the environment, mainly because of the combination of shade-trees and the coffee plantation as the perfect habitat for endangered species and migrating birds¹², besides being an outstanding reservoir of beneficial flora, it improves the water catchment for groundwater and creates other positive impacts for the environment:

- o Hydrological importance: Perhaps the most important environmental service provided by the coffee park. It protects the soil from erosion, protects the main aspects of watersheds, and allows water infiltration to the aquifers. The map of hydrological divisions shows how coffee growing areas are primarily located in areas of groundwater, charging them and becoming an oasis within the areas of reduced infiltration. According to PROCAFE, every minute the coffee forest aquifers are enriched with 715m³ of water, of which 70% is retained, meaning that coffee contributes 500.5 m³ to water aquifers.
- o Contributions to biodiversity: Managing shaded coffee areas with native species, represents almost 110,000 hectares (200,000 Manzanas) allowing El Salvador to maintain biodiversity in flora and fauna. In areas of coffee forest, there are 209 species of native trees and 21 exotic, 188 bird species, 101 residents and 37 migratory (42 of these endangered and 19 endangered locally); and 31 species of small mammals, eight endangered; about 26 species of reptiles and 8 species of amphibians, several of which are endangered species, among others. Thanks to permanent crops in areas under shade coffee plantations, danger is kept away and reduces the threat of extinction¹³.
- o Power source and additional income: Pruning of shade trees and coffee plants are the main source of fuel for cooking in rural areas of the country. It provides an estimated 42% of the total wood used annually by the rural population. Coffee milling also generates 6 million quintals (qq) of pulp and 0.7 million quintals (qq) of parchment husk every year, which due to its high power of combustion is a valuable energy resource so that the use of oil is saved for grain drying. On farms, usually other products such as fruits, vegetables, flowers and timber trees are grown. These species are not only important for maintaining biodiversity, but are also a source of additional income when they are used wisely. Such diversification helps protect against price fluctuations, natural events and other uncertainties.
- o Carbon Sequestration: With the average of different gradients and species of shade trees, El Salvador mountains can keep a reserve of 190 tons of carbon per hectare per year and the net rate of fixation of carbon dioxide is 126 Kg per day. The coffee plantations in El Salvador keep a reserve of 32.2 million tons of carbon, with a setting of 13,178 tons of carbon dioxide per day. These environmental services are not capitalized on in El Salvador, presenting a future opportunity to pay for this kind of culture.

¹² According to the Audubon Society, taken together, Mexico, Central America and The Caribbean provide the yearly destination for more than a third of all migratory bird species that breed in the United States (200 or more different kinds of them).

¹³ PROCAFÉ Coffee and Biodiversity Project 2000

Table 3-2b. Principal Coffee Varieties in El Salvador

BOURBON	TEKISIC OR SALVADORAN BOURBON
ORIGIN: Ethiopia; then to Arabia, Netherlands, France and Martinique, and from there to El Salvador. DESCRIPTION: tall plant, long branches, open architecture, deep red berries. GROWING ALTITUDE: from 800-1500 meters. BEAN SIZE: length 0.95 cm; width 0.70 cm; thickness 0.36 cm. BOURBON CUP QUALITY EVALUATION: Aroma: penetrating and rich, floral overtones, sweet, chocolate-like. Body: full-bodied with excellent mouthfeel. Acidity: medium to high, good brightness, very well balanced. Flavor: sweet and pleasant, with long persistence and complex chocolate like attributes.	ORIGIN: The Tekisic cultivar was obtained from the Bourbon variety in El Salvador. Its selection began in 1949 and it was released in 1977. The word Tekisic comes from the Nahuat "tekiti," meaning work, and ISIC, "Instituto Salvadoreño de Investigaciones del Café" (Salvadoran Institute for Coffee Research). Therefore, Tekisic means the work of ISIC. DESCRIPTION: tall plant, long internode spacing, broad plant architecture, branches that tend to form fans of secondary shoots, light green shoots. GROWING ALTITUDE: from 800-1500 meters. BEAN SIZE: length 0.82 cm; width 0.64 cm; thickness 0.35 cm. TEKISIC CUP QUALITY EVALUATION: Same as Bourbon.
PACAS	PACAMARA
ORIGIN: Mutation of the Bourbon variety reported in Santa Ana, El Salvador in 1949. DESCRIPTION: short plant; long branches; short internode spacing; dark green leaves; well-developed roots; tolerates wind, sun and drought; compact architecture. GROWING ALTITUDE: from 600-1000 meters. BEAN SIZE: length 0.85 cm; width 0.66 cm; thickness 0.34 cm. PACAS CUP QUALITY EVALUATION: Aroma: mild with a rich fragrance. Body: medium Acidity: medium, with notable finesse. Flavor: subtle sweetness and lots of finesse.	ORIGIN: A Coffee Arabica hybrid originating in El Salvador in 1958 by artificially crossing Pacas with Red Maragogipe, from where it gets the name Pacamara. DESCRIPTION: mid-size plant; short internode spacing; large, corrugated, dark green leaves; large berries. GROWING ALTITUDE: 1000 meters and higher. BEAN SIZE: length 1.03 cm; width 0.71; thickness 0.37 cm. PACAMARA CUP QUALITY EVALUATION: Aroma: pronounced, with floral overtones and complex chocolate-like sweetness. Body: pronounced, full-bodied, excellent mouthfeel. Acidity: high, elegant. Flavor: chocolate-like, very persistent.

Source: PROCAFE: El Salvador Land of Coffee.

a. Institutional Framework

There are close to 19,600 coffee producers in El Salvador, of which 86% are small producers, with production properties of 7 hectares or less¹⁴, representing 21% of total national production. Table 3-3 illustrates the stratification of producers.

¹⁴MANZANAS, as a measure of surface, is a value corresponding to a square area of 100 staffs, which is 10 000v² (10 000 square yards). The rod, Spanish extent corresponds to 0.836 meters, squaring this equality equals 1 vara² = 0.698896 sq. Apple (10 000v²) therefore is an area equivalent to 6 988,96m² or 0.698896 ha; for practical purposes of calculation 1 mz = 0.7 ha.

Table 3-3. Stratification of Coffee Plantations in El Salvador

Size of the coffee plantation	Producers	%
7 Hectares (10 mz) or less	16,750	85.4%
7 – 70 Hectares (10 – 70 mz)	2,325	11.9%
More of 70 Hectares (100 mz)	432	2.2%
Total	19,600	100.%

Source: Consejo Salvadoreño del Café (Salvadoran Coffee Council CDC): Coffee cultivation in El Salvador 2013.

Producers accounting for about 25% of total production are grouped into marketing co-operatives. Together they form the “Unión de Cooperativas Cafetaleras de El Salvador”, “UCAFES” (Organization of Coffee Producing Co-operatives of El Salvador). A land reform carried out in 1980 led to the creation of the “Unión de Co-operativas Productoras y Beneficiadoras de Café”, “UCRAPROBEX” (Organization of Land Reform Coffee Producing and Processing Co-operatives). UCRAPROBEX groups small farmers who before the reform didn’t have access to land and accounts for 10% of national production. Other organizations include the “Asociación de Beneficiadores y Exportadores de Café”, ABECAFE (Association of Millers and Coffee Exporters), which groups the majority of the 99 coffee millers and exporters; and the Association of Coffee Producers of El Salvador, representing all producers.

These four coffee organizations along with four government institutions form a policy-making forum called the “Consejo Salvadoreño del Café” (Salvadorian Coffee Council). The Consejo Salvadoreño del Café, is also engaged in coffee promotion, statistics and international cooperation initiatives.

It is also important to mention PROCAFE (Salvadoran Foundation for Coffee Research Foundation) which is a privately funded institution managed by farmers through representatives of the four coffee unions mentioned above. Its main focus is to promote development and overall sustainability of the coffee industry through research, transferring specialized technology services, which facilitate knowledge and its application to preserve grain quality, increase productivity and profitability of coffee cultivation systems with sustainability criteria and environmental preservation.

Its main source of funding comes from the contribution of coffee producers, contributing fifty cents (US \$ 0.50) per quintal of green coffee exports. In recent years, the main role of this foundation has been gradually affected by the suspension of support from the government.

In the most recent available analysis by USDA on the actual state of the coffee production in El Salvador, states that¹⁵: “The main problem that the Salvadoran coffee sector is facing is the lack of an institutional framework that incorporates all the actors in the private sector (i.e. producers, cooperatives, millers) and also includes the public sector as the regulatory body, so that a clear strategy can be designed and moved forward, not only to rescue the sector but also to set out a path to reach sustainability and profitability for coffee farmers”.

It is noteworthy that the coffee production has been affected by the Salvadoran political situation since the Agrarian Reform in 1980 and the privatization of the banking system in the same year. During this time, land tenure was enforced up to 245 ha. The rest underwent a process of being transferred to farmers and related workers expropriated properties. The processes of research and technological development were abandoned and a new system of cooperative management took place. In these new administrative cooperative-structures, key leadership positions were taken by people with little or no technical ability to assume these new responsibilities.

Given the difficulties of achieving the expected results of the agrarian reform and serious financial commitments to the state to deal with payments to former owners of seized properties, a major change was made to the legal framework of the agrarian reform. With this change, agricultural associations through a legal process, could sell part of their property to meet the commitments stated above and further payments could be delivered to the associated plots for housing and the development of family farming. This led to a series of sales of major portions of coffee area and transfer of the domain to partners directly, causing the sector to find cooperative associations that work with the original foundation of the land reform ownership a good percentage of the coffee areas and cooperatives that have virtually remained as legal figures protecting small individual producers with an independent management and with the possibility of taxing or selling their plots.

b. Outbreak of Rust (Roya)

Coffee production in El Salvador had its peak in the cycle from 1992 to 1993 with 3.1 million bags of 60kg. In subsequent years, the annual average production was 2.3 million bags of 60kg. During 2000-2012, the average production fell to 1.5 million bags of 60kg.

In 2013, after the outbreak of rust, coffee production fell to a historic low of 0.5 million bags of 60 kg with a projected 2014 closure of the cycle at 0.8 million bags of 60kg (see Table 3-4).

The impact of rust in coffee production is very clear: it is estimated that the figures previously described up to 2012 decrease significantly by 2014, preliminary calculations developed by the consulting team approach that the contribution of coffee to GDP decreased by 50%: the 1.2% in 2012 to 0.6% in 2014 (10.0% of the agricultural GDP in 2012 to 4.7% in 2014).

¹⁵USDA El Salvador - Coffee Production & Exports -- Rust Up, GAIN Report Number: ES2013-ES2 - 5/24/2013

The outbreak of coffee rust disease in a large proportion of El Salvador's coffee plants has also affected the food security and livelihoods of families that depend on day labor from coffee plantations. The report prepared by OXFAM on rust outbreak in El Salvador¹⁶, said that “7,608 of the 47,409 households involved in coffee day labor were classified as being moderately food insecure, whereas 26,296 households were classed as slightly food insecure¹⁷”

Upon the data obtained in the study, OXFAM points out:

“Over the next 12 months in El Salvador (2014-2015 coffee cycle), the food security situation of day laborers and their households is likely to continue to worsen. When they have used up what little food reserves they have, they may have no choice but to resort to more drastic coping strategies, such as distress sales of assets and land...Shortage of income in these households will be more marked for people who are part of value chains. Food shortages are expected to be more visible in small shops in remote areas, especially those located in municipalities that have been affected by recurring extreme weather events in recent years, including the drought of 2014.

This situation is a result of unbalanced demand...The effects of coffee rust are expected to continue affecting the livelihoods and food security situation of the households involved in this study for a number of years. This is partly due to the loss of income associated with lower demand for day labor on coffee plantations, but also the fall in international grain prices, which shows no signs of recovery. The most vulnerable groups will continue to be those whose main source of food is closely linked to the income derived from day labor on farms – typically large households and those families with a female head of household.”

¹⁶OXFAM – EU: THE IMPACT OF COFFEE RUST: An assessment of the livelihoods and food security of families working in El Salvador's coffee sector, 2014 (Alberto Vargas, Coordinator, Emergency Food Security and Vulnerable Livelihoods (EFSVL) team)

¹⁷Ibid

Table 3-4. Historic Data of Salvadoran Coffee Production

YIELD YEAR	PRODUCTION QQ-GREEN- CHERRY 1/	PRODUCTION GREEN 2/	BAGS OF 60 kg	
1989/90	3,636,500	3,367,130	2,581,466	
1990/91	3,537,100	3,275,093	2,510,904	-3%
1991/92	3,153,700	2,920,093	2,238,738	-11%
1992/93	4,306,200	3,987,222	3,056,870	37%
1993/94	3,403,300	3,151,204	2,415,923	-21%
1994/95	3,360,600	3,111,667	2,385,611	-1%
1995/96	3,239,100	2,999,167	2,299,361	-4%
1996/97	3,305,900	3,061,019	2,346,781	2%
1997/98	3,002,400	2,780,000	2,131,333	-9%
1998/99	2,621,900	2,427,685	1,861,225	-13%
1999/00	3,712,600	3,437,593	2,635,488	42%
2000/01	2,406,098	2,227,869	1,708,033	-35%
2001/02	2,383,076	2,206,552	1,691,690	-1%
2002/03	1,963,400	1,817,963	1,393,772	-18%
2003/04	1,911,281	1,769,705	1,356,774	-3%
2004/05	1,858,020	1,720,389	1,318,965	-3%
2005/06	1,935,185	1,791,838	1,373,742	4%
2006/07	1,740,025	1,611,134	1,235,203	-10%
2007/08	2,119,810	1,962,787	1,504,803	22%
2008/09	1,985,625	1,855,724	1,422,722	-5%
2009/10	1,500,306	1,402,155	1,074,986	-24%
2010/11	2,614,000	2,442,991	1,872,960	74%
2011/12	1,624,211	1,517,954	1,163,765	-38%
2012/13	1,730,000	1,616,822	1,239,564	7%
2013/14*	700,025	654,229	501,576	-60%
2014/15 *	1,116,000	1,042,991	799,626	59%

Source: Consejo Salvadoreño del Café (Salvadoran Coffee Council CDC): Coffee cultivation in El Salvador 2013.

Over the years levels of coffee rust resistance have been identified among different species of coffee such as: *Coffea Arabica*, *Coffea canephora* and *Coffea Liberica*. Crosses have been made to find these attributes of strength in coffee research projects that have lasted for 20-35 years or more¹⁸.

The variety used as a source of resistance is the Hybrid Timor (HDT) variety that comes from a spontaneous cross between *Coffea Arabica* and Robusta variety Typical *Coffea Canephora*, which is most commonly used to transfer the genes for resistance to rust. From these crosses main varieties have emerged, illustrated in Table 3-5.

¹⁸PROCAFE. 2013. Avances sobre Acciones Técnicas sobre el Control de la Roya del Cafeto en El Salvador

Table 3-5. Main crossbreeding to achieve rust resistant varieties¹⁹

HdT-1 x Caturra	HdT-2 ♀ x Villa Sarchi ♂	HdT -3 ♂ x Caturra Amarillo ♀
Portugal CIFC	Portugal CIFC	Colombia CENICAFE
<i>Catimores</i> CIFC 832/1	<i>Sarchimores</i> CIFC 832/2	Colombia 1343 Multilineal Variety)

In El Salvador PROCAFE evaluated six lines of *Sarchimor*-variety with stable genetic variability. As a final result of the evaluation process, PROCAFE developed and released in 2007 the variety called "Cuscatleco" (*Sarchimor* line T-5296 as Cuscatleco variety with a range of adaptability of 600-1200 MASL), which was compared with controls such as Pacas, Catisic and Red Catuai. It has a production level of 40-50 quintals of coffee per mz, with some degree of susceptibility to *Cercospora* and "ojo de gallo" (*Mycena citricolor*). It has an average of 30 weeks of flowering for fruit harvest.

The *Sarchimor*-variety has better cup quality and research has provided these main conclusions²⁰:

- In areas of low and medium altitude cup, there are no significant differences with Bourbon and Pacas. In areas above 1,350 MASL cup quality from the new rust-resistant varieties, has less quality than the other varieties.
- There are differences in cup quality between groups and resistant lines; Sarchimor group has generally the best cup profiles.

c. Project Geography

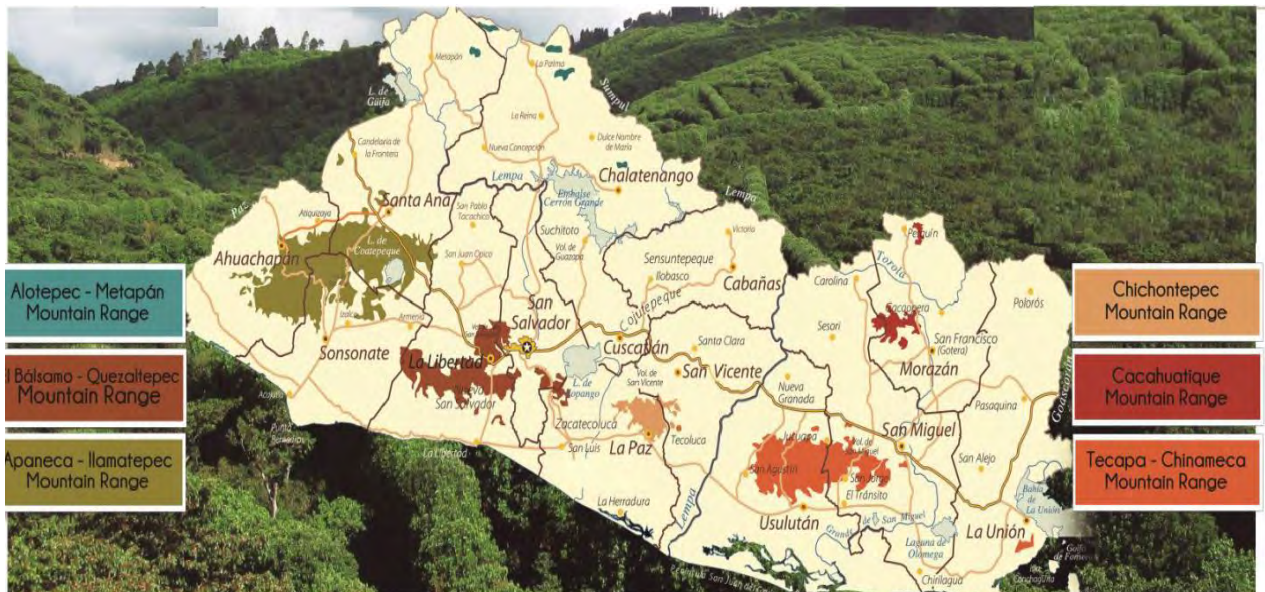
The project will work with 7,500 coffee producers, 50 producer organizations and cooperatives, government agencies and the private sector in six of the seven most developed coffee production areas of El Salvador: Apaneca-Illamatepec, El Bálsamo-Quezaltepec, Tecapa-Chinameca, Cacahuatique, Chinchontepec, and Alotepec-Metapan.

¹⁹ *Opus ibid*

²⁰ *Opus ibid*

The geographical distribution of the above regions are illustrated in Figure 3-1. Table 3-4 shows the main data defining coffee plantations in each of the regions, according to data provided by PROCAFE.

Figure 3-1. Project target coffee production areas



Source: PROCAFE: El Salvador Land of Coffee.

Table 3-4. Main features of the producing areas selected for the project.

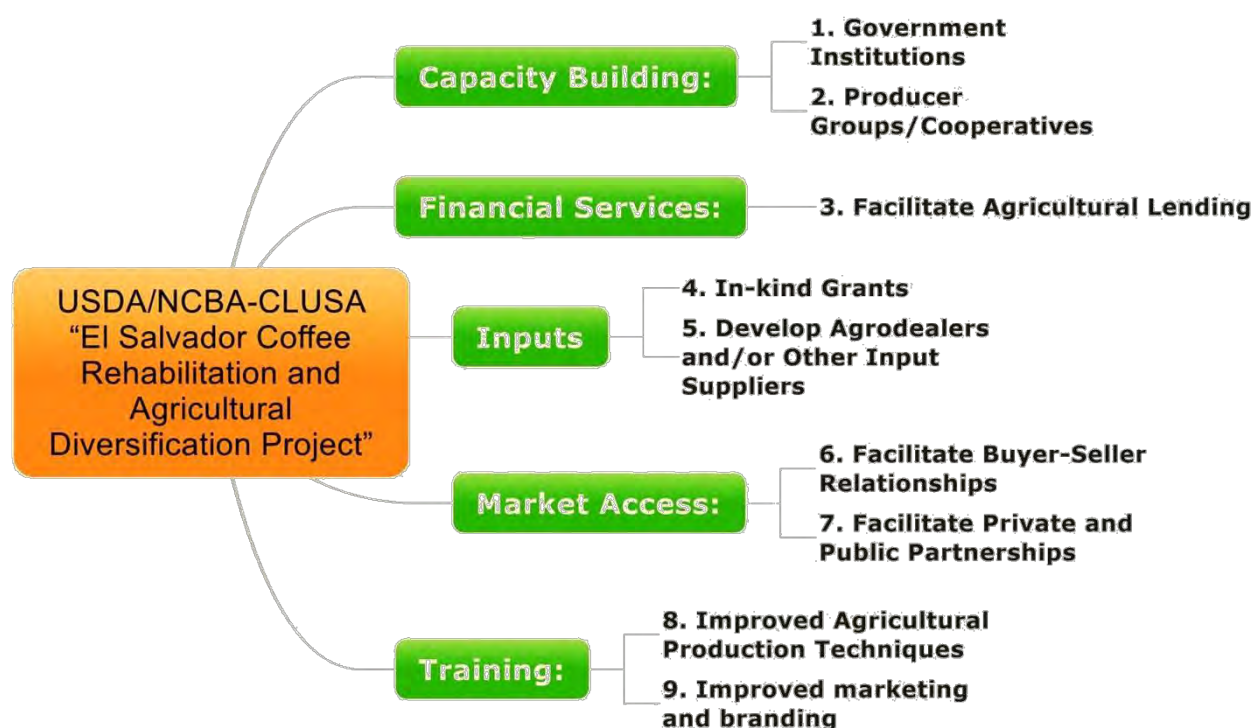
Alotepec – Metapán Mountain Range ALOTEPEQUE METAPÁN MOUNTAIN RANGE Predominant coffee varieties: Bourbon, Pacas and Pacamara. Beverage characteristics: excellent aroma; floral, chocolate-like, citrus flavors; exceptional citric acidity.	Chinchontepec Mountain Range CHICHONTEPEC VOLCANO Predominant coffee varieties: 71.7% Bourbon; 7.4% Pacas; 20.9% Bourbon and Pacas blend. Beverage characteristics: fragrant aroma, orange-flower scent; fine, sweet, chocolate -like flavor.
El Bálsamo – Quezaltepec Mountain Range EL BÁLSAMO MOUNTAIN RANGE – CENTRAL BELT Predominant coffee varieties: 51.8% Bourbon; 22.5% Pacas; 25.7% blend of Bourbon, Pacas and other varieties. Beverage characteristics: a balanced, creamy cup with excellent body, vanilla flavor, and bright acidity, giving it a velvety character.	Cacahuatique Mountain Range CACAHUATIQUE MOUNTAIN RANGE Predominant coffee varieties: 65.3% Bourbon; 20.6% Pacas; 14.1% other varieties. Beverage characteristics: a fine, juicy flavor with excellent aftertaste; plenty of body and a pleasant almond flavor.
Apaneca- Ilamatepec Mountain Range APANECA ILAMATEPEC MOUNTAIN RANGE Predominant coffee varieties: 64.2% Bourbon; 25.6% Pacas; 10.2%; blend of Bourbon, Pacas and other varieties. Beverage characteristics: sweet, floral, fragrant aroma; chocolate-like, nutty, apricot, creamy, citrus, fruity flavors; soft, fine acidity. Very consistent aftertaste. 84% of the Cup of Excellence 2002/2003 winners came from the Apaneca Ilamatepec Mountain Range.	Tecapa - Chinameca Mountain Range TECAPA CHINAMECA MOUNTAIN RANGE Predominant coffee varieties: 69.5% Bourbon; 22.2% Pacas; 8.3% mainly a Bourbon and Pacas blend. Beverage characteristics: a complex beverage; excellent balance of body, aroma and acidity; good sweetness; chocolate-like, ripe fruit, caramel, cantaloupe, apple and raisin flavors.

Source: PROCAFE: El Salvador Land of Coffee.

4. Baseline Survey Findings

This section is organized according to the structure of the USDA / NCBA CLUSA Project previously shown in Table 1-1 and summarized in Figure 4-1.

Figure 4-1. Project components of the USDA/NCBA CLUSA “El Salvador Coffee Rehabilitation and Agricultural Diversification Project”



Based on the definition of the performance indicators and the targets for the results, the baseline is usually considered zero (0). It is intended to evaluate the influence of project development. However, there are current conditions for the situation of the sector, precisely what was found in the surveys, interviews and sources of information.

The findings of the baseline study have evaluated various indicators of outputs and outcomes in accordance to the Performance Monitoring Plan of the Project, with the systematization and tabulation of the data collected.

a. Capacity Building

During 2014 the “Centro Nacional de Tecnología Agropecuaria y Forestal Enrique Álvarez Córdova” (CENTA) provided training to their extension agents in the context of ongoing preparation of their technicians, which is performed under the Family Agriculture Plan (PAF), and the PAF Chain Production Program implemented by the Ministry of Agriculture (MAG) under the

framework of the "Rescue of Coffee in El Salvador" project. The training of extension agents and researchers covered the following themes: agrochemicals, crop management, plant protection and soil management.

During 2015, MAG in order to continue upgrading the skills of extension staff of CENTA, created a strategy under which it has trained a group of agricultural extension workers (40) on the following topics: the importance of seed stages, nursery and farm seed production, critical times in seed quality, treatment of the substrate and structures, time and forms of seed calculation that have been used, selection of seedlings, types of seedlings, transplanting or seeding branch shade, agronomic crop management and seed coffee and coffee nurseries.

The capacity building aimed at Producer Groups/Cooperatives can be done through agricultural extensions which is one of the best models for achieving this goal. In this regard, the study found the following:

- 40 extension officers or agents in different cooperatives have been trained in improved coffee production, agricultural diversification and basic extension techniques.
- 22 cooperative management members were trained in the last three years in Cooperative Management.
- 172 board members of coffee cooperatives have been trained in the last three years (CENTA-CAFÉ, MAG-Amanecer Rural, Salvadoran Chamber of Commerce, and INSAFORP).
- 9 Coffee Producing Cooperatives have developed business plans between 2013 and 2015.
- A total of 15 cooperatives have participated in a regional network of coffee growers in the last three years, and participated in climate change, trade, international market and coffee forums.
- They have developed a total of 6 networks of public-private cooperative partnerships.

b. Financial Services: Facilitate Agricultural Lending

One of the key tools in the development of the coffee industry is funding. Historically general banking credit has considered coffee as one of the least risky activities in the agricultural sector. The process of agrarian transformation and export control (National Coffee Institute), added the first elements of risk in this sector, even with nationalized banks at the time, it led to the need for further analysis and supervision of loans.

Thus, the banking system incorporated integral specialized agricultural credit units into its technical personnel, organizing attention units for the agriculture sector and special credit lines. Furthermore, the Central Bank gave a greater differential in the intermediation of resources to

those banks demonstrating a better administrative structure for analyzing, monitoring and recovering agricultural credits.

Recently, the nationalized financial system has been converted to a private bank with presence of large international consortia, which added to a riggreenus risk rating of credit users, promoted by the Financial System Superintendence, which has caused the portfolio of agricultural loans to cease to be an important component in its investment strategies. Agricultural credit units were minimized and the banking risk was transferred to the coffee associations and coffee processors for the attention of the coffee producers financing.

An example of the reduction of agricultural credit unions is FEDECACES. FEDECACES stated that their agricultural unit ran only until 1990, because they recognized that customers of cooperatives had experience in forms of production but they were not able to manage appropriately, increasing the financial risk. Currently they only have one agronomist on their staff and financing is provided through partner intermediaries with limited participation from their end in the loans for coffee producers.

Development banks (Banco Hipotecario and Agricultural Development Bank) have continued with greater presence in the financing of coffee in the agricultural sector. The Agricultural Development Bank has the following loan portfolio situation.

**Table 4-1. Loan Portfolio of Agricultural Development Bank BFA
(In thousands of dollars)**

DESTINATIONS	2012			2013			2014		
	# Cred.	Total amount	% Arrears	# Cred.	Total amount	% Arrears	# Cred.	Total amount	% Arrears
Coffee Maintenance	171	10,683	5.8	147	7,365	47.3	201	11,113	5.9
Planting coffee	77	897		148	4,643		118	3,594	
Buy Properties Agricultural	6	230		6	582		1	160	
Infrastructure and agro industrial processing	10	536		12	506		33	967	
Refinancing	17	210		16	1,281		31	1,210	
Total	281	12,556		329	14,377		384	17,044	

* Lines have been developed specifically for debt consolidation and refinancing of arrears coffee percentages are only the coffee category.

The bank has developed special lines for debt consolidation and refinancing of arrears in coffee, especially for the results of the 2013 cycle. Regarding the administrative structure and personnel which serve their clients, it was not possible to obtain such information, but is recognized as the bank that has more presence in this sector.

The Salvadoran Foundation of Economic and Social Development (FUSADES) became a model of agriculture topics, and also had financing lines for this sector. However, six years ago they sold their portfolio to the Central America Bank. In regard to their analysis units, they closed such units three months ago and also closed the agriculture section with no plans to open it or make investigations in the near future.

The rest of the Salvadoran banking system has not developed credit lines specifically designed for growing coffee. According to information provided by some banks we can find cases like the G&T Continental Bank, in which their attention to coffee financing is very small. A business credit executive manages the agricultural demand and the unpaid balances that are covered with the new lending. Below is the Loan Portfolio of G&T Continental Bank.

**Table 4-2. Loan Portfolio Of G&T CONTINENTAL SA
(In thousands of dollars)**

Destination	2012/13		2013/14		2014/15	
	Number	Amount	Number	Amount	Number	Amount
Preparation for Harvest	1	\$ 1.500	1	\$ 1.000	1	\$ 1.000
Planting and replanting	-	-	-	-	-	-
Purchase of property	-	-	-	-	-	-
Refinancing	-	-	-	-	-	-

In the case of “FINCA” (Financial Fund for Small Loans), they have hardly served the coffee sector and do not have specialized personnel to assist coffee producers.

As noted above, marketers (processors and producers’ associations) have taken an important role in financing for the following reasons:

- Assuming the risk in granting credit, banking accountable to the total funding
- Through the Irrevocable Payment Orders, the coffee processors ensure the delivery of the coffee harvest to their industry.
- Producer facilitates the granting of credit without going through the rigorous analysis of the risk of commercial banks.
- The marketers (processors and producers associations) know the farmer, they have field staff and regional offices that allow them to establish the status of their plantations and crop forecasts, and also generate first-hand information on market conditions and prices for the formalization of sales to ensure recovery of funding.

An example of the financing granted by a benefactor in the case of COEX is illustrated in Table 4-3:

Table 4-3. Lending Portfolio of COEX LTD
(In thousands of dollars)

	2012/13		2013/14		2014/15	
Destination	Number	Amount	Number	Amount	Number	Amount
Preparation for Harvesting	1,700	\$ 9.000	1,600	\$ 6.300	1000	\$ 6.600
Planting and replanting	-	-	-	-	-	-
Purchase of property	-	-	-	-	-	-
Refinancing	-	-	-	-	-	-

These types of institutions are focused on the short-term financing (accouterment). Cases of unpaid credits are usually dealt with by equity financing from mortgage guarantees or small amounts are added to the credit of the next harvest.

Attachment 1 contains a summary of the main information collected through the surveys conducted with the financial sector representatives which highlights the most important points:

- Most financial institutions have internal units responsible for agricultural credit for users in this sector.
- Lending institutions do not have specific programs for the coffee sector except Bandesal and BFA.
- The main destination is accoutrement financing, for long-term financing the institutions have to obtain resources from Bandesal.
- The most common guarantees are mortgage, pledge and Irrevocable Payment Order.
- No financial institution is supporting agricultural insurance.
- Financial institutions are aware of the guarantee funds, but it is not a tool often used. The PROGARA had operating problems this year; to date the Ministry of Finance has not established the amount of guarantee for each bank.
- Most institutions have staff to provide technical assistance.

In general, the financial sector has reduced its coverage of financing this sector and the crop forecast shows that the future is not promising due to the incidence of rust and climate change. One of the criteria for determining the amount of funding that has changed dramatically, is the production base to finance. Previously, the average of the last four harvests was used; currently the criteria depends on the opinion of its field technicians assessing the condition of the plantation and harvest forecasts. This approach complicates the situation for the producer affected by rust, because his or her amount of funding has been drastically reduced by the impact on yields. It is a vicious circle in which the producer can only come out with additional funding for investment in planting.

c. Inputs

Currently there are programs and projects that promote the recovery of coffee plantations and reduce the incidence of rust. Between 20% and 99% (percentage varies based on the region) of respondents say they know of projects working on the delivery of improved inputs, including officers, the highest percentage is in the region of Chinchontepec and the lowest in Alotepeque-Metapán. In regions of Cacahuatique, Chinchontepec and Tecapa-Chinameca, the participation of women is remarkable.

Table 4-4. Producers who know of projects that provide improved inputs by gender and region

	Projects working in this area that provide improved inputs		Government programs working in the area that provide improved inputs.		Total		
Region	Female %	Male %	Female %	Male %	Female %	Male %	Total%
Alotepeque-Metapán	0%	0%	0%	24%	0%	24%	20%
Apaneca-Ilamatepec	22%	17%	19%	33%	41%	51%	47%
Cacahuatique	1%	4%	67%	72%	69%	76%	73%
Chinchontepec	19%	28%	79%	71%	98%	99%	99%
Bálsamo - Quezaltepec	0%	21%	20%	25%	20%	46%	42%
Tecapa - Chinameca	0%	4%	73%	79%	73%	83%	81%

A prerequisite for coffee producers to better address the incidence of diseases such as rust, is the adoption of improved techniques in coffee. It was observed that half of the regions under the study have 20% of the crop area with improved techniques in coffee. These include the control of pests and diseases, pruning, harvesting and post-harvest management. The regions with the lowest percentage of its area under this management are Chinchontepec and Bálsamo-Quezaltepec.

Table 4-5. Area under improved coffee production techniques

Region	%
Alotepeque-Metapán	19%
Apaneca – Llamatepec	13%
Cacahuatique	19%
Chinchontepec	8%
Bálsamo -Quezaltepec	2%

Tecapa –Chinameca	19%
Total	12%

The coffee producers recognize that they are facing problems and are aware of the risks that come with growing only one crop, but do not have the resources for agricultural diversification options. The study found that the percentages of the actual areas for agricultural diversification are minimal (1%) with no gender difference between producers, as shown in Table 4-6a:

Table 4-6a. Coffee producers growing regions areas for other agricultural products (agricultural diversification) Male and female

Region	Area (MZS)	
	Female%	Male%
Alotepeque-Metapan	0%	1%
Apaneca - Llamatepec	1%	2%
Cacahuatique	1%	0%
Chinchontepec	0%	1%
Bálsamo -Quezaltepec	0%	0%
Tecapa -Chinameca	1%	1%
Total	1%	1%

Producers which have had more access to improved varieties of coffee under projects that have provided such inputs, have received improved varieties of coffee and organic fertilizer, which is a good finding in terms of their preparation for gaining access to markets of specialty coffees. As well as for regions with access to improved inputs, Apaneca-llamatepec and Cacahuatique, share similar percentages of participation.

Table 4-6b. Producers with improved inputs by region

Region	Improved coffee varieties	Organic pesticides	Organic fertilizers	Other seeds and inputs	Total of producers for each region	%
Alotepeque-Metapan	24	2	21		50	4%
Apaneca- Llamatepec	320	122	272	152	490	35%
Cacahuatique	289	64	126	28	420	30%
Chinchontepec	78	86	114	111	186	13%

Bálsamo - Quezaltepec	32	16	60	48	58	4%
Tecapa -Chinameca	141	8	21		192	14%
Grand Total	884	298	614	339	1396	
%	63%	21%	44%	24%		

The presence of agricultural extension workers in different regions is dominated by CANTA-CAFÉ technicians. The Cacahuatique region has the highest number of producers receiving this service. The Alotepeque-Metapán region is receiving the lowest amount of extension services.

Table 4-6c. Number of producers receiving agricultural extension services by region

Region	Producers receiving agricultural extension services	CANTA-CAFÉ	MAG	Salvadoran Coffee Council	PROCAFE	OTHER	Total	%
Alotepeque-Metapán	22	17			2	2	43	3%
Apaneca-Llamatepec	152	100	6	4	16	26	304	22%
Cacahuatique	311	266	6		17	20	620	44%
Chinchontepec	99	81	6	1	8	13	208	15%
Bálsamo - Quezaltepec	27	11			3	15	56	%
Tecapa - Chinameca	86	82	2	2	2	2	176	13%
Grand Total	697	557	20	7	48	78	1407	
Percentage	-	80%	3%	1%	7%	11%	-	-

The table above shows the impact that can be achieved by strengthening the quality and quantity of agricultural extension through the government.

As mentioned in previous sections there are MAG efforts to strengthen its agricultural extension agents in issues related to the different stages of coffee growing. The communications

department records indicate that 60 extension agents and researchers from CENTA-CAFÉ were trained in 2014, while the number of agents trained was reduced to 40 in 2015²¹.

d. Market Access

The realization of a productive activity is aimed at generating profit. We have reviewed the aspects of production in this sector, but equally important are issues related to the marketing of the products.

Survey participants mentioned that they know of business roundtables that are held between producers and buyers. However, an average of only 8% have participated in roundtables, the highest attendance rates were in the Alotepeque-Metapán region. Most producers have not participated in the Chinchontepec region, showing the least degree of participation (3%).

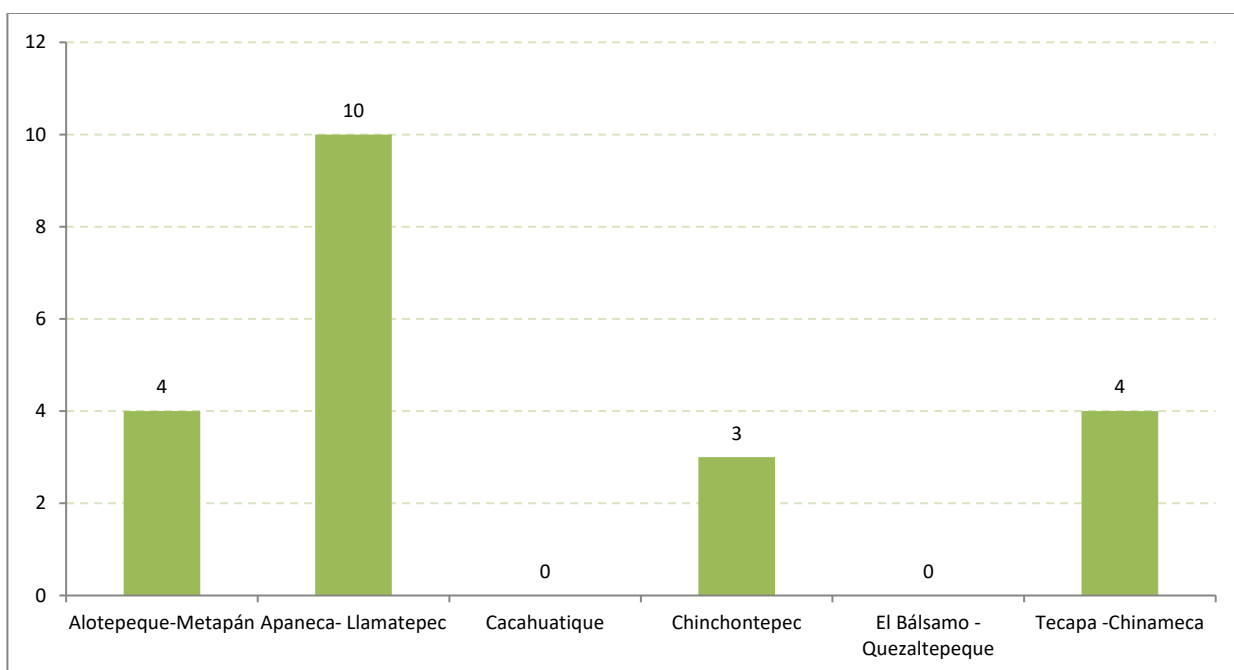
Table 4-7 Producers who participated in business roundtables.

Region	%
Alotepeque-Metapán	14%
Apaneca - Llamatepec	9%
Cacahuatique	10%
Chinchontepec	3%
Bálsamo -Quezaltepec	7%
Tecapa -Chinameca	5%
Grand Total	8%

Regarding the agreements created between buyers and sellers of the areas surveyed, the study gave a result of 31 agreements involving 3,064 members of different cooperatives that were identified. On issues related to market access, respondents mentioned that there are 35 cooperatives with public-private partnerships involving 3,271 members of their cooperatives. On the other hand, producer associations showed participation in 21 partnerships of this type with a distribution by region illustrated in Graph 4-1.

Graph 4-1. Number of producer associations with public-private partnerships

²¹Data up to May 2015.



Regarding the agreements between producers and sellers, within the survey a total of 111 farmers have participated in such agreements, representing 8% of the total.

Table 4-8. Number of producers who participated in agreements between buyers and sellers

Region	# Participants	%
Alotepeque-Metapán	7	14%
Apaneca- Llamatepec	42	9%
Cacahuatique	42	10%
Chinchontepec	6	3%
Bálsamo -Quezaltepec	4	7%
Tecapa -Chinameca	10	5%
Grand Total	111	8%

It is important to note that the Apaneca-Illamatepec region:

- Is the only coffee-growing region in the country that has achieved protected designation of origin (PDO) for coffee produced within the region. This certification allows for coffee marketing and positioning in regional and international markets.
- Is the one region that has developed tourism initiatives associated with coffee, requiring the development of alliances to facilitate the participation of local governments.

- As for production in different regions, the analysis of recent cycles shows low yields by qq green coffee (60kg of coffee cherry for every 60kg of dry coffee), the lowest corresponding to the region of Tecapa - Chinameca. These figures are consistent with behavior reported by authorities due to the coffee rust crisis.

It is difficult to follow price trends in the international coffee market. Despite the significant drop in production in Central America due to rust, prices are influenced by the large producers. The data obtained illustrates that the top prices paid for green qq correspond to the Alotepeque –Metapán region and the lowest in the region to the Balsamo – Quezaltepec region (Table 4-9).

Table 4-9. Income, sales volumes and selling prices for green qq regions

	Coffee Areas (mz)			Performance green qq / mz		Sales volume qq green / mz		Qq green sale price	
Region	Female	Male	Total	2013-2014	2014-2015	2013-2014	2014-2015	2013-2014	2014-2015
Alotepeque-Metapán	20.25	266.25	286.5	4.71	6.71	4.70	6.71	\$155.53	\$ 159.47
Apaneca-Llamatepec	1001.5	1550.04	2551.54	5.85	4.74	5.81	4.57	\$ 36.09	\$ 115.28
Cacahuatique	980.98	2218.62	3199.6	4.70	4.62	4.59	4.19	\$100.19	\$ 101.41
Chinchontepec	341.75	683.5	1025.25	4.10	3.38	3.95	7.69	\$ 95.87	\$ 105.09
Balsamo Quezaltepec	684.5	3440.04	4124.54	3.07	8.69	3.07	8.69	\$ 19.07	\$ 25.26
Tecapa - Chinameca	570.5	1715.86	2286.36	1.53	1.13	1.53	1.11	\$102.53	\$ 94.35
Grand Total	3599.48	9874.31	13473.79	3.83	5.25	3.79	5.44	\$ 91.77	\$ 68.04

As previously mentioned, the development of agricultural diversification in these regions is emerging, but it is important to mention that the region dedicated to this activity is the Apaneca-llamatepec region followed by the Chinchontepec region. Apaneca is recognized for growing vegetables, Tomato is the most common crop, and flowers and Chinchontepec for fruit production.

Table 4-10a. Percentage share in production volume in the cultivation of diversified products by producers by region

Region	% of Production
Alotepeque-Metapan	0%

Apaneca- Llamatepec	4. 5%
Cacahuatique	17%
Chinchontepec	3. 4%
Bálsamo –Quezaltepec	1%
Tecapa –Chinameca	2%

e. Training: Improved Agricultural Production Techniques

The combined agricultural extension field school is a form of effective technology transfer. Approximately 49% of coffee producers reported knowing of some type of field school and 43% have attended them. The highest participation is in the regions of Cacahuatique and Chinchontepec.

Table 4-11. Coffee Producers participation in field schools by region.

Region	Knowledge of the development of field schools in their cooperative	Number of producers who attended at least one field school	Average 2014	Average number of field schools reported by producers in 2014
Alotepeque-Metapan	36.00%	32.00%	3	3
Apaneca- Llamatepec	31.84%	18.78%	3	3
Cacahuatique	74.05%	73.81%	3	2
Chinchontepec	62.37%	44.62%	2	1
Bálsamo-Quezaltepec	25.86%	22.41%	3	3
Tecapa -Chinameca	36.98%	36.46%	4	3
Grand Total	49.21%	43.05%	3	2

One component of the project is related to capacity building, an area which has been mainly directed by government actions. This element is important because some of the constraints on the fieldwork are that producers have little receptivity to training, since it is what is most offered to them and their needs are at another level. Throughout the survey it was found that the region where farmers have been trained the most in improved coffee techniques for cultivation is in Cacahuatique. Those that have received fewer trainings are located in the regions of Alotepeque - Metapán and Bálsamo-Quezaltepec.

Table 4-10b. Percentage of farmers producing diversified products

Cultivation	% Of total production
Tomatoes	13%
Red / green Pepper	0%
Zucchini / pipián	1%
Jalapeño pepper	0%
Red beans	4%
Others	81%

Table 4-12. Percentage of producers trained in improved techniques by region

Region	% Trained producers by region
Alotepeque-Metapán	4%
Apaneca- Llamatepec	23%
Cacahuatique	39%
Chinchontepec	15%
Bálsamo -Quezaltepec	3%
Tecapa -Chinameca	16%

As for the topics covered in the trainings on improved techniques for growing coffee, pest and disease control was the most common, followed by pruning. This is reasonable since both issues are crucial to overcoming the effects of rust, are short-term options and are practical for the producer. Furthermore, assistance from the government and cooperating agencies has focused its support on these areas.

Table 4-13. Coffee Producers who have received trainings by training topics in each region

Region	Pest and disease%	Pruning%	Harvest%	Post-harvest handling%
Alotepeque-Metapán	84%	52%	18%	0%
Apaneca- Llamatepec	43%	20%	18%	12%
Cacahuatique	93%	41%	35%	13%
Chinchontepec	68%	39%	33%	12%
Bálsamo-Quezaltepec	50%	19%	16%	7%
Tecapa -Chinameca	74%	56%	3. 4%	0%
Grand Total	67%	35%	27%	10%

On training through radio programs, some producers have knowledge of MAG²²'s radio programs which deal with issues and problems related to coffee rust.

Regarding employment generation, male producers generate 59% of wages in permanent and temporary jobs. This figure is related to the fact that the majority of administrative and managerial positions in cooperatives are held by men.

²²CENTA produces "Cosecha Radio", a radio program that airs every Monday at 4:10 am on Radio Nacional de El Salvador (RNES) 96.9 FM and 10:00 am through the affiliate stations the Association of Radio and Participatory Programs El Salvador (HARPS), on 92.1 FM dial

Table 4-14. Number of wages generated (by region and gender)

	Permanent jobs		Temporary jobs		Total jobs
Region	Male	Female	Male	Female	
Alotepeque-Metapán	106	24	290	315	735
Apaneca- Llamatepec	1244	270	2898	2690	7 102
Cacahuatique	1317	203	4429	3628	9 577
Chinchontepec	505	143	1173	1242	3 063
Bálsamo -Quezaltepec	572	322	2421	1206	4 521
Tecapa -Chinameca	479	84	1211	1230	3 004
Grand Total	4223	1046	12422	10311	28, 002
%	15%	4%	44%	37%	

Complementary trainings on marketing and branding were conducted with producers within the six regions:

- There is a total of 2,240 associates in 28 cooperatives that have been trained in marketing techniques.
- They have all received 39 training sessions in the last three years in marketing techniques.

5. Project Performance Indicators Rationalization and Validation

To measure outcomes relative to the project objectives, the donor (USDA) and the implementer (NCBA) agreed on 30 Result Indicators (RIs) that would be tracked over the course of the project.

Performance indicators were reviewed during the baseline study in conjunction with the implementer (NCBA); the recommendations to adjust and/or to eliminate were based upon the criterion of recognizing the current situation of the coffee growing/producers, or because some of them were repetitive. Among them are the following:

Suggested changes	
3.3	Value of loans provided as a result of USDA assistance (male) Food For Progress (FFPr Indicator 6)
3.6	Number of individuals receiving financial services as a result of USDA assistance (male) Food For Progress (FFPr indicator 4)
3.8	Value of loans provided as a result of USDA assistance (female) Food For Progress (FFPr Indicator 6)
3.9	Number of individuals receiving financial services as a result of USDA assistance (female) Food For Progress (FFPr indicator 4)
4.1	Number of in-kind input grants distributed to farmers with USDA assistance
4.2	Value (in USD) of in-kind input grants distributed to farmers with USDA assistance
4.4	Number of hectares under improved agricultural techniques and technologies (coffee) (new) Food For Progress (FFPr Indicator 1)
4.5	Number of hectares under improved agricultural techniques and technologies (coffee) (continuing) Food For Progress (FFPr Indicator 1)
4.6	Number of hectares under improved agricultural techniques and technologies as a result of USDA assistance (diversified crops) (new) (diversification will be at farmers' discretion; targets will be revised after baseline) Food For Progress (FFPr Indicator 1)
4.7	Number of hectares under improved agricultural techniques and technologies as a result of USDA assistance (diversified crops) (continuing) (diversification will be at farmers' discretion; targets will be revised after baseline) Food For Progress (FFPr Indicator 1)
4.8	Number of individuals who have applied new techniques or technologies as a result of USDA assistance (coffee) (male) Food For Progress (FFPr Indicator 2)
4.9	Number of individuals who have applied new techniques or technologies as a result of USDA assistance (coffee) (female) Food For Progress (FFPr Indicator 2)
5.6	Number of farmers benefiting from agriculture inputs with USDA assistance
6.4	Number of producer organization members benefiting from buyer/seller meeting

Suggested changes	
7.2	Value of coffee related joint public-private initiatives aimed at expanding trade
7.4	Value of new public and private sector investment leverage as a result of USDA assistance (public) Food For Progress (FFPr indicator 9)
7.5	Value of new public and private sector investment leverage as a result of USDA assistance (private) Food For Progress (FFPr indicator 9)
7.6	Value of sales by project beneficiaries (coffee) Food For Progress (FFPr Indicator 13)
7.7	Volume of commodities (quintales or cwt's bag=100 pounds) sold by project beneficiaries (coffee) Food For Progress (FFPr Indicator 14)
7.8	Volume of commodities (metric tons) sold by project beneficiaries (diversified crops) (diversification will be at farmers' discretion; targets will be revised after baseline) Food For Progress (FFPr Indicator 14)
7.9	Value of sales by project beneficiaries (diversified crops) Food For Progress (FFPr Indicator 13)
9.1	Number of farmer field schools established
9.2	Number of individuals who have received short-term agricultural sector productivity or food security training as a result of USDA assistance (male) Food For Progress (FFPr Indicator 16)
9.5	Number of farmers who have received training on improved agricultural techniques and technologies as a result of USDA assistance
9.6	Number of individuals who have received short-term agricultural sector productivity or food security training as a result of USDA assistance (female) Food For Progress (FFPr Indicator 16)
9.9	Number of jobs attributed to USDA assistance (male) Food For Progress (FFPr Indicator 15)
9.10	Number of jobs attributed to USDA assistance (female) Food For Progress (FFPr Indicator 15)

Suggested deletions	
4.12	Number of <i>individuals</i> <u>who have applied</u> new techniques or technologies as a result of USDA assistance (diversified crops) (new) (diversification will be at farmers' discretion; targets will be revised after baseline) Food For Progress (FFPr Indicator 2)
4.13	Number of <i>individuals</i> <u>who have applied</u> new techniques or technologies as a result of USDA assistance (diversified crops) (continuing) (diversification will be at farmers' discretion; targets will be revised after baseline) Food For Progress (FFPr Indicator 2)
4.14	Number of <i>hectares</i> <u>under improved</u> agricultural techniques and technologies (coffee) (new) Food For Progress (FFPr Indicator 2)

4.15	Number of <i>hectares</i> <u>under improved</u> agricultural techniques and technologies (coffee) (continuing) Food For Progress (FFPr Indicator 2)
7.10	Value of sales by project beneficiaries (coffee) (diversified crops) Food For Progress (FFPr Indicator 13)
9.7	Number of individuals who have received short-term agricultural sector productivity or food security training as a result of USDA assistance (new) Food For Progress (FFPr Indicator 16)
9.8	Number of individuals who have received short-term agricultural sector productivity or food security training as a result of USDA assistance (continuing) Food For Progress (FFPr Indicator 16)
9.14	Total number of individuals benefiting directly as a result of USDA assistance (new) (standard FFRp) Food For Progress (Indicator 17)
9.15	Total number of individuals benefiting directly as a result of USDA assistance (continuing) Food For Progress (Indicator 17)

The consulting firm has made recommendations outlined in ATTACHMENT E PERFORMANCE INDICATORS based on the data collected and analyzed under the baseline study.

6. Amendment Options to the Project Monitoring and Evaluation Process

The project refers to six geographical regions that have distinct characteristics in terms of ease of access due to reasons of a social nature and the level of readiness from farmers for a project. This condition makes monitoring in the six regions a complex task especially since the subjects to be measured are cooperatives; producers and their associations; and government institutions.

It is desirable that the monitoring and evaluation system identifies each of these groups of project beneficiaries from NCBA CLUSA El Salvador and is able to generate information of targeted goals according to the type and amount of benefits received by the project.

Once the beneficiary groups are identified, the project should determine points of measurement within the beneficiaries to establish a basis²³ for monitoring 100% of the indicators in relation to its progress in achieving the annual targets.

A third step in the process is the creation of monitoring tools for the project and aligning the indicators so that they can be measured. It is important to consider the levels of access to mobile telecommunications and Internet access in areas where the project will operate.

Monitoring and evaluation should not be based on a census of all beneficiaries, but a sample of the 7,500 beneficiaries. In order to have an adequate representation (95% confidence level and 5% margin of error) the sample size should be around 900 beneficiaries.

To be effective, this measurement should take into consideration the gender distribution of producers found in the six regions.

Meanwhile the midterm and final evaluations should consider the tools and findings of the baseline in terms of baseline indicators and focus on the development of a measurement process of the five components and nine activities developed in the project.

These measures should allow for the development of comparisons between producers who are direct beneficiaries of the project and those who are indirect.

Additionally, this measure must provide average levels of progress towards the goals set by the project in the design phase and should generate conclusions and recommendations to guide the staff of NCBA CLUSA El Salvador to carry out changes that will allow them to achieve planned targets.

²³ It is recommended that the measurement frequency should be quarterly to generate timely information to enable refocus efforts and should not be achieving compliance with the goals set by the program. Please clarify here.

Meanwhile the final assessment should establish whether the goals are achieved and if this was through the development of the project and relevant causal relationships that will be established so that the achievement of the goals can be attributed to the project.

In the case of the mid-term evaluation, changes will be determined by the behavior of the results indicators. The final evaluation will provide results that will be compared to the results obtained during the baseline survey and the mid-term evaluation. This will allow the project to establish the changes that took place as a result of NCBA CLUSA's intervention.

7. Project Approach Recommendations

Despite the challenges that coffee cultivation is facing in the domestic context, coffee cultivation and processing remains a major component for strengthening local development processes and is a valuable strategic resource to strengthen the Salvadoran economy in the short, medium and long term. Besides these economic considerations, the social impact of coffee production is very significant due to the direct and indirect employment it generates for a large segment of the rural population, and the benefits arising from such employment.

a. Appropriateness of the Geographic Focus

After evaluating the receptivity that the Consultant Team has observed in field work in the six regions that the original project design intends to cover, the team believes it will not be possible to achieve results and accomplish the expected impact of the project, if this geographic focus is maintained.

(R1) Apaneca - Ilamatepec: coffee production in this region presents the best comparative advantages in terms of production quality, marketing positioning and complementary activities that enhances the sustainability of a business model based on the cultivation of coffee. This region has a protected designation of origin (PDO), which is a strategic asset that should be exploited and strategically enhanced by the USDA/NCBA CLUSA Project. Additionally, during the sessions and interviews with producers, they were very receptive and enthusiastic about the project concept.

(R2) Bálsamo – Quezaltepec: Compared to other regions of the project, CENTA-CAFÉ and the Ministry of Agriculture, have a significant intervention in this region. Nevertheless, the consulting team was not able to identify that the intervention from this institutions is giving concrete results in the production capacity and marketing of coffee. Unfortunately, in this region the biggest problem that was identified was the coordination and development of the field work, which is largely due to a systematic blockage of CENTA-CAFÉ officials and the Ministry of Agriculture. This situation will give a negative impact on the relationship with producers when the project starts operating, so it is recommended to consider and carefully evaluate if this region continues to be of interest for the project.

(R3) Tecapa - Chinameca: During the fieldwork, the Consultant Team did not find a significant number of coffee producers of strict height grown (above 800 MASL), so the activities that the project is aiming toward coffee producers would not have an impact on the overall performance of the project, therefore the Consultant Team does not recommend to consider this Region within the concepts of the project.

(R4) Cacahuatique: Coffee production in this region is of very good quality and is strengthened by a remarkable management and marketing capacity by the cooperatives. The project can create a positive impact by replicating concepts in Cacahuatique that have been developed for the region "Apaneca - Ilamatepec" to raise the quality of production and at the same time obtain a

PDO. The producers can use the cultural history of the region to their advantage, especially by linking the product to highly recognized Salvadorans icons. Producers can use images to accompany the strategic positioning of their coffee cultivation (this is a geographical area associated with Gerardo Barrios and Monsignor Arnulfo Romero).

(R5) Chinchontepec. In this region sharp contrasts were observed, and it was not possible to identify a consistent quality of coffee production and organizational capacity of producer cooperatives. The fieldwork results suggest that the work should focus in the sub region of Guadalupe producers, since this cluster presents the best results in terms of quality and organizational capacity.

 (R6) Alotepeque - Metapán. This region presents difficult conditions to work in, since the geographical spread of its producers is wide and does not allow for efficient work and guaranteed results. It is the opinion of the Consultant Team that the economic costs in this region outweigh the potential results and impact of the project actions. In this region the Consultant Firm recommends focusing the work on coffee farmers from Chalatenango.

Project Risk Factors and Risk Mitigation

Risk factors associated with USDA / NCBA CLUSA project are similar to those that affect any agricultural operation, particularly in the remarkable susceptibility of El Salvador to the effects of climate change (such as currently being observed with the drought). These may include but are not limited to outbreak of rust and the coffee Antracnosis that continues to affect coffee crops.

Climate change is a real concern for the Salvadoran coffee producers. Overall, drought and unfavorable temperatures are the major climatic limitations for coffee production. These limitations are expected to become increasingly worse in Salvadoran coffee regions since they are part of the Central American dry corridor, that shows changes in climate between harsh heat and sensible rains and also because coffee cultivation has spread towards marginal lands, where water shortage and unfavorable temperatures constitute major constraints to coffee yield, particularly in the eastern part of the country.

The combination of the effects of climate change and the effects of rust, explains the historically low coffee yields observed in cycles of coffee in 2013, combined with the fact that most coffee plantations are over ten years old.

This risk can be mitigated by the gradual renovation of coffee plantations with new varieties resistant to coffee rust and the introduction of additional measures of protection and improvement of ecosystems adjacent to coffee plantations.

This risk can be mitigated through advanced technical processes of primary production of coffee, as well as encouraging coffee farmers to evolve to trade coffee in cherry to dry beans, these considerations have to do with the modernization within the value chain of coffee production that will be discussed in the next chapter. To complement this, the best strategy to favorably position the coffee products, is through training and fostering the production of differentiated or

specialty coffees, preferably with international certifications such as "Fair Trade", "Rainforest Alliance", "Coffee Best Practices" etc.

b. Staffing and Organizational Structure

The vast majority of cooperatives producing coffee have severe limitations in their administrative capacities in the production management processes and mainly in their ability to visualize the production process as part of a value chain that starts from the most basic considerations of genetic crop management, culminating with all processes associated with the positioning of their products on local, regional and global coffee markets.

Despite all of this the central government, various organizations of civil society and international cooperation have invested considerable resources in the development of capacities within the technical and managerial staff of cooperatives producing coffee.

Administrative weakness is associated directly with the constant rotation of leadership positions in the board of directors. Usually, all capacity building efforts being made by government institutions, NGOs and civil society organizations focus on times when there is renovation in management positions. In reality, when changes are made in staff, there is no process of institutionalization of training and efforts are lost with the people who are removed from leadership positions in these cooperatives.

The results of this institutional weakness were noticeable, even before the 2013 outbreak of rust and lack of rainfall has been observed in the past two years, the sector's productivity has fallen to averages of 15-18 quintals / block between the years 1992-2000 at lower levels to 10 qq / mz currently. Nevertheless, positive aspects are displayed, such as the strong growth in the specialty market, i.e., gourmet coffees, certified organic, etc., which are currently 30% of total coffee exports.

In this context, the project can provide valuable strategic elements to introduce technology production and marketing of coffee cultivation, as discussed in the next chapter.

c. Governmental Strategic Plans and Project Goals

Coffee production is one of the ten agricultural chains priorities within the Family Farming Program (PAF) of the Ministry of Agriculture. The duties related to strengthen the cultivation of coffee has been entrusted to technicians of CENTA-CAFÉ, an operational branch of CENTA newly created.

Unfortunately, during the process of recollecting information a strong opposition from CENTA-CAFÉ to the project design and subsequent operation was observed. This is an issue which, as mentioned above, caused severe limitations on field work and can even block future project operations.

It is therefore necessary that USDA and NCBA CLUSA make the necessary efforts in order to overcome this impasse and propose a cooperative relationship with the authorities of CENTA-CAFÉ and the Ministry of Agriculture as part of the strategic objectives of the project and territorial work that must develop in areas that benefit the project.

8. Value Chain Considerations

A value chain is a supply chain consisting of the input suppliers, producers, processors and buyers that bring a product from its conception to its final use. A value chain approach seeks development to address the major constraints at each level of the supply chain, rather than concentrating on just one group (e.g., producers) or on one geographical location. Constraints often include a lack of technical, business or financial services support, a difficult regulatory framework, poor public infrastructure (roads, telecommunications, electricity, etc.), a lack of information about or weak connections to end markets, and/or inadequate coordination between firms. Taking a value-chain approach is often essential to a successful economic development since micro and small enterprises and smallholder farmers will only benefit over the long term if the industry as a whole is competitive.

The value chain analysis is very important to develop the cultivation of coffee and make it as valuable as possible to support the development of the producers and their families. Figures 8-1a & b show the summary details of the main aspects of the analysis of the value chain for coffee, which starts from the basic considerations on the genetic quality of plantations up to its position in the market.

One of the main elements in the analysis of the coffee value chain is the international market, in which coffee is the second largest valued commodity in international trade, and the most widely traded tropical agricultural commodity after petroleum. Coffee trade is dominated by Latin America and Caribbean countries, accounting for 57% of world exports, while African countries account for 14%²⁴. In this scenario, the two main references are the International Coffee Agreement and the subsequent Creation of the International Coffee Organization.

In 1954 in Brazil, it was proposed to create an International Coffee Agreement that includes both producing countries and importing countries. Subsequently, the Organization of American States (OAS) developed studies of this proposal. In 1958 the Coffee Study Group was established in Washington, consisting of 20 producers and consumer countries; they intended to examine the short-term problems and declining coffee prices and problems of long-term trends in the imbalance of the coffee economies.

The International Coffee Organization was established in 1963 with the first International Coffee Agreement (ICA) for a period of five years, and it has continued to operate under successive Agreements negotiated since then. These includes the ICA 1968 (and its two extensions), the ICA 1976 (with one extension), 1983 (and its four extensions), the 1994 Agreement (with one extension) and the 2001 Agreement (with three extensions).

²⁴The International Coffee Organization website http://www.ico.org/trade_statistics.asp?section=Statistics

Figure 8-1a. Coffee Value Chain

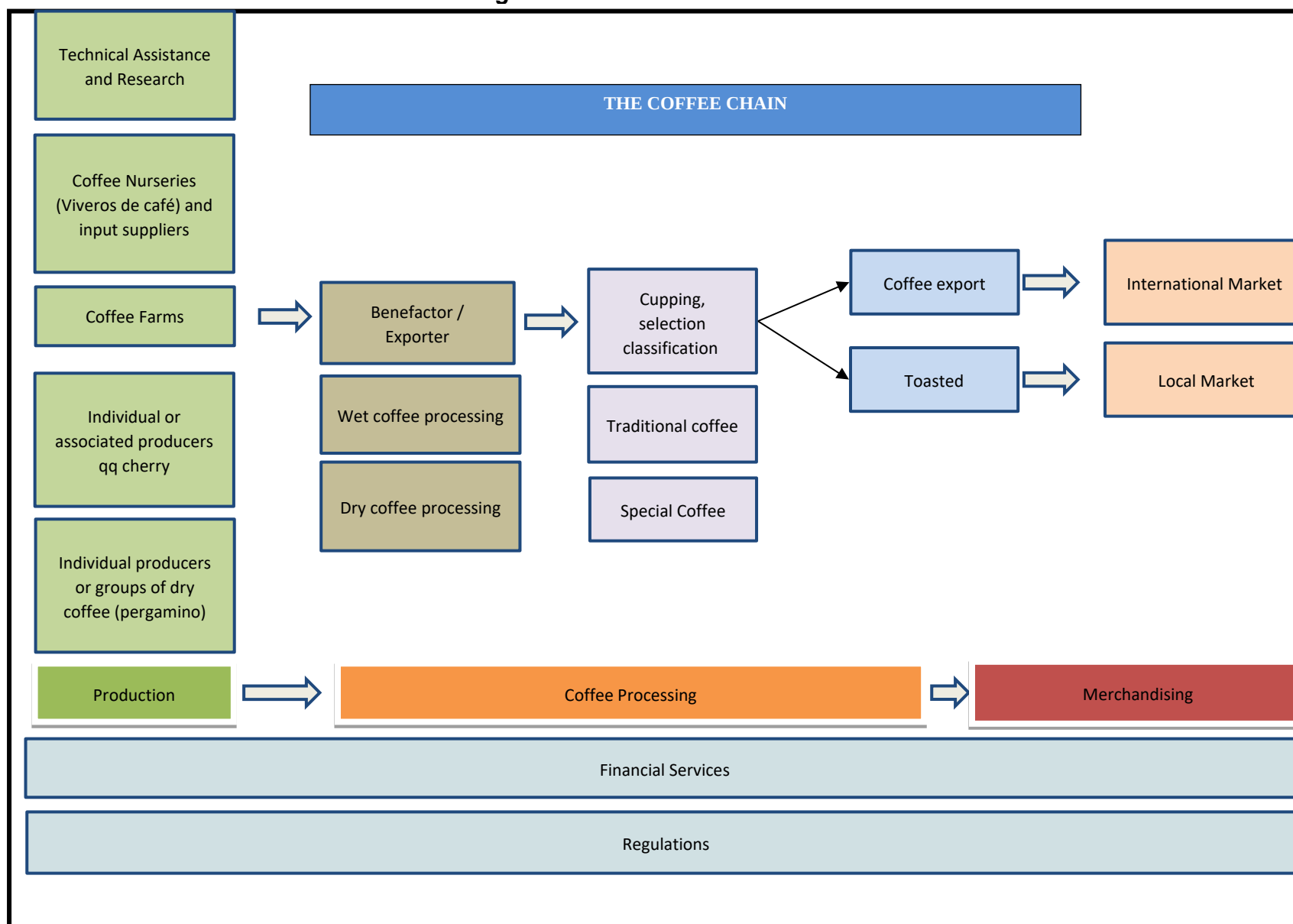
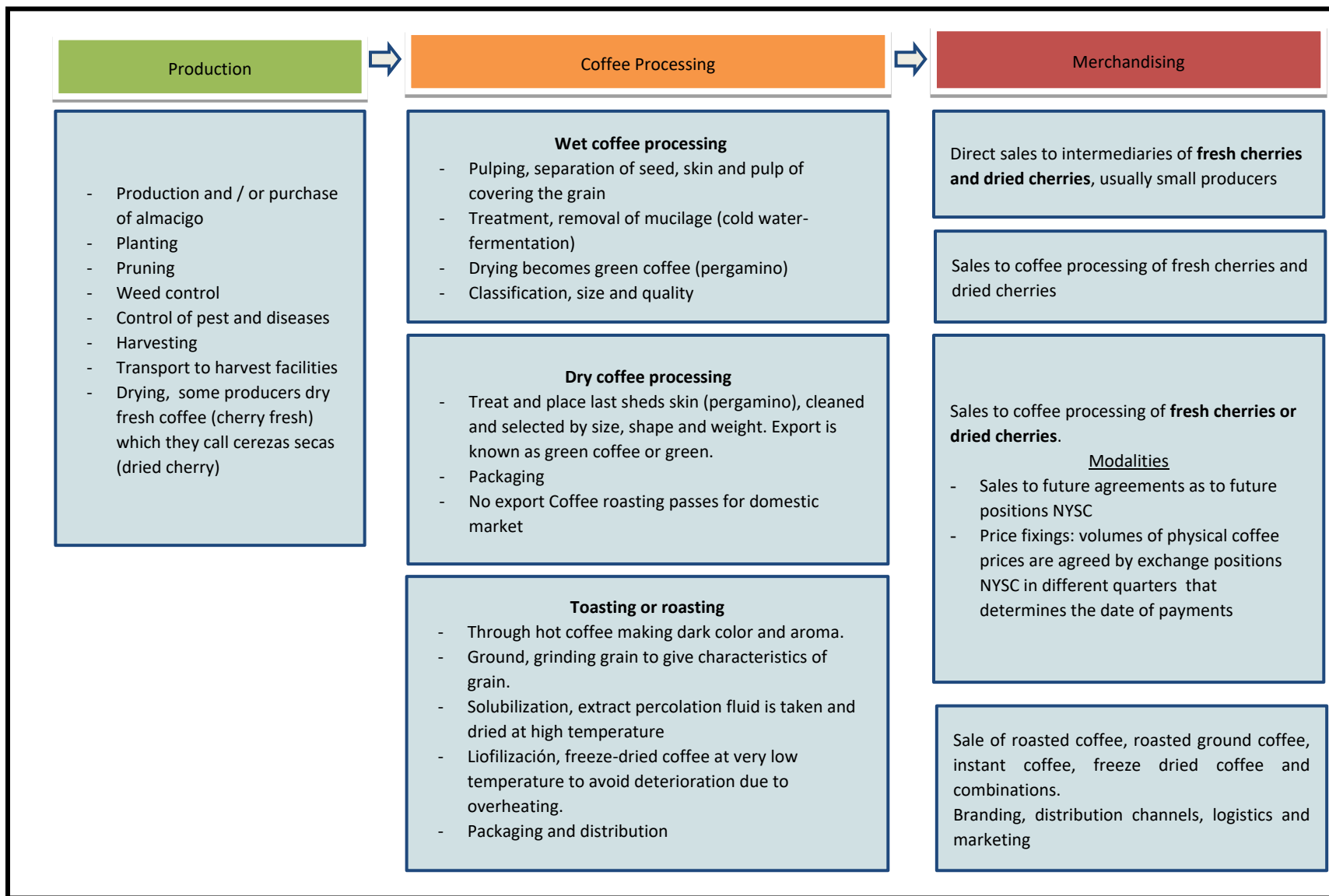


Figure 8-1b. Coffee Value Chain



The latest Agreement, the ICA 2007, was adopted by the Council in September 2007 and entered into effect on 2 February 2011²⁵. In this Agreement the functions of the ICO as a forum for intergovernmental consultations were strengthened, facilitating international trade through the increase in transparency and access to relevant information that promotes a sustainable coffee economy for the benefit of all stakeholders and in particular small-scale farmers in coffee producing countries. This 2007 agreement has a duration of ten years and may be extended for another eight years.

However, the OIC is no longer in the management of world supply and pricing, in this new scenario the OIC has reduced its role and their impact in coffee marketing; among the reasons why the International Coffee Agreements regulate prices includes:

- Increase in supplier countries.
- The process of managing coffee quotas is complicated and difficult to negotiate and modify.
- Changes in the world's habits of drinking coffee, which requires different types of coffee, and quick ways of sourcing and trading
- Possibility to buy the product outside the terms of the OIC seriously weakened the same agreement.
- Interests of transnational corporations. A free and open market favors those operators who have greater bargaining power. Market concentration import, trade, roasting and distribution in the hands of a few companies, in addition to its strong bargaining power in front of thousands of producers and isolated groups not organized in most cases, makes them some actors paramount in defense of the absence of any quota agreement that harms their interests.

The coffee sector worldwide is dominated by four large Multinational Companies; Nestlé, Procter & Gamble, Kraft/Phillips Morris, and Sara Lee. These four Multinational Corporations control approximately 70% of the world's market share in roasted and ground coffee for home consumption.

Currently the marketing and pricing of coffee is an activity carried out directly by the producers with their buyers and coffee processors (usually known in the Salvadoran coffee sector as "beneficiadores"). This is a direct treatment relationship based primarily on trust between the parties, which can be linked to the provision of financial arrangements to facilitate the production of coffee, which keeps the marketing operation linked.

Salvadoran coffee producers traded mainly unprocessed fresh fruit coffee, in the first links of the chain, unlike countries such as Costa Rica who have made efforts to advance their producers to the next link of coffee processing, in which fresh fruits are processed, transformed into dried coffee beans, pulped and for moisture, leaving the dried grain for better conditions. Staying in the production of fresh coffee perishables reduces producer bargaining power and advantages benefactor-producers, and strengthens the capacity for large buyers/processors to set prices and production conditions, which are generally detrimental to coffee producers.

²⁵ http://www.ico.org/icohistory_e.asp?section=About_Us#sthash.FT2tMCBC.dpuf

The NCBA CLUSA Project has the opportunity to make a significant contribution to improve the competitiveness of coffee growing in El Salvador, impacting positively on improving various links of the value chain previously illustrated in Figures 8-1A and 8-1b.

As previously illustrated in the above figures, when the coffee value chain and the conditions of regional and global markets is analyzed, it is obvious that the way to achieve better profits in the coffee business is not in the production of fresh coffee, the Salvadoran coffee producers need to move up the chain and add value through coffee processing facilities (beneficios) that can be adjusted to different sizes of production scales of coffee beans.

Better sale prices of coffee can be obtained by increasing the value added via processing of coffee or certify production via quality differentiation seals for sale to local or international markets. To illustrate, Table 8-1 shows how the sales price for producers is drastically improved when moving in the value chain previously illustrated.

Table 8-1. Scenarios of producer price improvement when moving within the coffee value chain



Basic Coffee Production			
Cherry NYSC Price: \$139.05 Domestic Market Price qq Green/cherry producer: \$92.70	Dry Green Coffee Yield 80% Domestic Market Price qq green coffee: \$117.70	Roasted Coffee Yield 80 ponds toasted per qq green cherry. Average price per pound: \$3.50 Domestic Market Price qq Toasted: \$280.00	Retail – Coffee Shop Yield 1 pound toasted: 32 cups Average price per coffee cup: \$1.85 Domestic Market Price qq Toasted: \$4,736.00
Production of specialty coffees			
Domestic Market Price qq Green/Cherry producer: \$117.70	Domestic Market Price qq green coffee: \$142.70	International Market Price qq Toasted: \$500- \$1,000	Average price per coffee cup: \$4.0 Domestic Market Price qq Toasted: <u>\$10,240</u>

Source: Own calculations made by the Consultant Team based on the closing price of NYSE Cofe on August 18, 2015.

The NCBA CLUSA Project contributions to coffee production in the target areas, may consider improving the genetic quality of coffee plantations, to transform from a basic coffee production to an improved coffee production differentiated by quality and compliance with international standards.

Practices for the production of differentiated coffees, such as organic or specialty coffees, is a key part of technical assistance in the value chain. The producer must be clear that the use of these techniques should mean an improvement in its sales prices. This is a key point that must be taken into consideration by the NCBA CLUSA project, to include in its offer of technical assistance and support of equipment and infrastructure within the concepts of this project.

Protected designation of origin (PDO)

The Protected designation of origin is the name of an area, a specific place or, in exceptional cases, the name of a country, used as a designation for an agricultural product or a foodstuff, which comes from such an area, place or country, whose quality or properties are significantly or exclusively determined by the geographical environment, including natural and human factors, whose production, processing and preparation takes place within the determined geographical area. In other words, to receive the PDO status, the entire product must be traditionally and entirely manufactured (prepared, processed and produced) within the specific region and thus acquire unique properties



CENTRO NACIONAL DE REGISTROS
REGISTRO DE LA PROPIEDAD INTELECTUAL
UNIDAD DE PROPIEDAD INDUSTRIAL
DEPARTAMENTO DE SIGNOS DISTINTIVOS

DENOMINACIÓN DE ORIGEN

No. 00052



Inscrita al: 00003

Libro: 00001

Folios: 007 – 008

Fecha de Inscripción: 25/01/2010
Fecha de Vencimiento: INDEFINIDO

TITULAR: ESTADO DE EL SALVADOR

SE UTILIZARÁ PARA: CAFÉ.

ZONA GEOGRÁFICA DE PRODUCCIÓN

La zona geográfica de producción será a partir de los 900 m.s.n.m. en adelante y constituyendo las circunscripciones siguientes: DEPARTAMENTO DE AHUACHAPAN: Ahuachapán, Concepción de Ataco, Apaneca, Tacuba, San Pedro Puxtla, Jujutla, Atiquizaya, El Refugio. DEPARTAMENTO DE SONSONATE: Juayúa, Nahuizalco, Izalco, Salcoatitán. DEPARTAMENTO DE SANTA ANA: Santa Ana, Chalchuapa, San Sebastián Salitrillo, El Congo, Coatepeque. La Zona Geográfica de Elaboración Y Transformación será en los Departamentos que comprende la Sierra APANECA-ILAMATEPEC siendo estos: AHUACHAPAN, SONSONATE Y SANTA ANA.

CUALIDADES Y CARACTERÍSTICAS ESENCIALES DEL PRODUCTO

Estado del Café: CAFÉ ORO FINO EXPORTABLE.

Color: grano o semilla de café comprendido de verde a verde-azulado.

Granulometría: Tamaño del Grano: zarandas que comprendan del número 15 en adelante.

La preparación para su exportación deberá ser un máximo de 5 defectos secundarios, 0 defectos primarios en una muestra de 350 gramos. (Sin embargo este parámetro podrá ser definido después de la caracterización de los diferentes estratos de altura).

Consistencia: Dura.

Forma: ovalada.

Humedad del CAFÉ ORO FINO EXPORTABLE: rango de 11.5% al 12%.

Olor: Fresco y limpio.

Aspecto: Limpio.

El Secado al sol será en patios o en su caso en secadoras previa autorización del Órgano de Administración.

El café debe tener un reposo mínimo de un mes.

Se caracteriza el grano por generar una bebida muy agradable en taza.


Carlos David Jarquín Castellanos
SECRETARIO


Juan Carlos Aguilar Samayoa
REGISTRADOR

