



**Project:**

**“Reconversion of small coffee farms into self-sustaining agricultural family units”**

**FINAL REPORT**

**October 2007 – September 2011**



**April 2012**

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## I. PROJECT SUMMARY

### 1. TITLE

Reconversion of small coffee farms into self-sustaining agricultural family units (REFINCA).

### 2. NUMBER: CFC / ICO / 31

### 3. PROJECT EXECUTING AGENCY (PEA):

Ecuador's National Coffee Board (COFENAC)

### 4. LOCATION

The REFINCA Project was executed in the Republic of Ecuador in the provinces of **Manabi** (Jipijapa, 24 de Mayo and Paján counties); **El Oro** (Las Lajas, Marcabelí, Balsas, Piñas, Zaruma and Portovelo counties) and **Loja** (Chaguarpamba, Olmedo, Gonzanamá, Calvas, Quilanga, Puyango, and Celica counties). In the execution of the Project the following organizations took part:

**In the Manabi province:** In the implementation of the project the following organizations were involved: Association of Artisan – Coffee - Growers “Xipixapa ACAFXI”, Peasants’ Association “Nueve de Octubre”, Mutual Aid Association “Quince de Agosto”, Peasant Association "La Nueva Flor del Salto", Peasant Association for Integral Development "La Trinidad", Peasants’ Association "Pedro Pablo Gomez", Peasants’ Association "Las Maravillas de Cascol ", Peasants’ Association “Bienestar y Progreso”, Union of Farmers Organizations of the South East of Manabi (UOCSEM), and Union of Progressive Multi-sector- Peasants’ Organizations from Manabi -Ecuador-UNOCAPROM.

**In the El Oro province:** Organic Coffee Farmers’ Association “Las Lajas – ACOLL”, “San Francisco Association” from Balsas, Association of Small Producers of Special Coffees “Marcabelí – APECAM”, Producers’ Pre – Association de Zaruma and Portovelo, Association “Monsignor Manuel Ignacio Romero”, and the Association of Agricultural Producers “La Bocana”.

**In the Loja province:** Agricultural Producers’ Association "Reina del Cisne", Coffee Growers’ Association "Santa Rufina", Agricultural Producers’ Association from Chaguarpamba, Microenterprise "Buena Vista", Association of Organic Producers from Puyango - APOP, Association "Unidad Gestion y Trabajo", High Land Coffee Producers’ Association Puyango – PROCAP, Community "Honor y Trabajo", Association for the Industrialization of Food Products MASAGEM, Association of Special Coffee Producers from Cariamanga – APCEC, Coffee Producers Cooperative "San Felipe", Association of Agricultural and livestock Production “El Laurel”, Association of Organic High Land Coffee Producers "Union de Artesanos El Colmenar", Association of Artisans Producers of High Land Coffee “Fundochamba – AAPCAF”, and the Association of High Land Coffee Producers Espindola and Quilanga – PROCAFEQ.



**5. STARTING DATE:** October 1, 2007

**6. COMPLETION DATE:** September 30, 2011

**7. FINANCING**

The Project total investment was U.S. \$ 2'898,965 (100%), of which the Common Fund for Basic Products FCPB funded U.S. \$ 1'030,725 (35.5%), the Corporation USDA PL - 480 co financed activities the first two years of implementation with the amount of U.S. \$ 269,189 (9.3%), COFENAC contributed U.S. \$ 376,221 (13%), and the producers U.S. \$ 1'222, 830 (42.2%) in hand labor and investments in the farm.

## II. BACKGROUND AND CONTEXT

Since the year 2000, the global oversupply of grain and the slow growth of world consumption caused the sustained fall in prices in the international market which is reflected in a severe crisis, causing increased poverty among producers, increased migration from rural areas to cities and to other countries, abandonment of farms and natural resource degradation.

According to the United Nations Organization, the standard of living of a population is established according to the quantity and quality of services received by the state and society. This is classified into seven categories for Human Security: economic security, food security, health security, environmental security, personal safety, community security and political security. The lack of any of these categories means poverty in a given area. The higher the number of category needs that cannot be met, the higher the poverty level in a given community.

Food security is perhaps the most important of human rights because of its level depends not only the current welfare of individuals, but the physical and mental development of future generations. To achieve food security the income of people should increase to allow the purchase of goods and services as well as to assure the availability of products for the family diet.

In Ecuador, the problem of food security is not precisely the lack of food but the inability to access to it. In rural areas a strong constraint is the lack of income, which determines a limited consumption of local food produced on farms, that is, maintaining a subsistence economy and consumption, where the most serious problem is the poor variety of foods and therefore an unbalanced food intake, that is short in vitamins and proteins. This has the added problem of low levels of schooling in the population, preventing the generation of new forms of production where it is necessary to incorporate new technologies and personal skills.

Coffee production is seasonal only generating revenues in the months of June, July and August which are insufficient to sustain families, particularly due to the dependence on international market prices. In these circumstances, the rest of the year farmers have no income assured.

It is possible to reduce the risks of dependence on coffee growing by diversifying production systems, integrating crop and livestock components, transforming primary production for added value and preserving natural resources. In this manner the small farmer can ensure a permanent income all year around, because he receives a share of the added value that is generated in the production chain. At the same time the peasant family has different food products for home consumption to ensure for a balanced diet.

The project was developed in line with the strategy of the International Coffee Organization, considered in the document EB 3768/01 Rev. 2 of 06 November 2001, which states: "In cases where producing countries have suffered large declines in production for reasons outside their control, it may be appropriate to promote programs to encourage the recovery of the productive capacity, provided that the increases are not in a large scale, which could have a detrimental effect on the balance of supply and demand. Such assistance helps that coffee of certain features continue in the market, retaining the use of comparative advantage and what it is of not less importance, that there is a significant source of employment, since coffee is an intensive crop in terms of labor. It is a component of this strategy to pay special attention to the promotion of studies and technical assistance for coffee development in countries that have suffered natural disasters. "

The model of farm reconversion was based on the following fundamental principles: a) Permanent and safe income, b) Food security, and c) Natural resources conservation. The justification, key actions and purpose of the REFINCA project are indicated in Table 1.

**Table 1. Justification, key actions and purpose of the REFINCA Project**

Justification	Key actions	Purpose
Revenues from the coffee is seasonal (harvest time), which are insufficient to sustain families. The farmers have no secure income all year around.	<ul style="list-style-type: none"> <li>• Diversify production systems,</li> <li>• Transform the primary production to get added value.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure permanent income in every month of the year</li> <li>• Having a variety of food products for a family balanced diet .</li> </ul>
Families did not have permanent access (both physical and economic) to the basic food they need.	<ul style="list-style-type: none"> <li>• Increase the income of people in order for them to be able to purchase goods and services,</li> <li>• Ensure availability of products for the family diet.</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure adequate production of food,</li> <li>• To achieve maximum stability in the flow of food,</li> <li>• Ensure access to food.</li> </ul>
The advanced age of the coffee plantations and the low price led farmers to replace coffee with pasture, a practice that have negative effects on the environment. In addition, the economic crisis led to the felling of trees remaining in the coffee farms.	<ul style="list-style-type: none"> <li>• Establish agroforestry systems on coffee farms to conserve natural resources</li> </ul>	<ul style="list-style-type: none"> <li>• Provide suitable habitat for flora and fauna,</li> <li>• Preserve the natural environment,</li> <li>• Regulate water flow, oxygenate the atmosphere and capture carbon dioxide.</li> </ul>

The goal of the Project Reconversion of small coffee farms into self-sustaining agricultural family units was "To ensure food security of farmers and their families, guaranteeing permanent income and the preservation of natural resources based on the reconversion of coffee plantations into self-sustaining farming households".

The specific objectives and expected results of the REFINCA project are shown in Table 2.

**Table 2. Objectives and expected results of the REFINCA project**

Objectives	Expected Results
Strengthen the management capacity of the producer organizations and entities involved in the project implementation in the provinces of Manabi, Loja and El Oro, as the basis for a successful project execution.	Strengthen at least one producer's organization in each of the provinces of Manabi, Loja and El Oro, as well as to develop institutional management capacity of COFENAC and partners organizations of the project.
Reconvert 1,200 coffee farms, based on the diversification of the agro-productive systems, in order to ensure food security, improve family income and conserve natural resources.	Reconversion of 1,200 coffee farms in agricultural self-sustaining units (400 in Manabi, 400 in Loja and 400 in El Oro) based on the diversification of the production systems.
Promote the transformation of primary production and develop channels for associative marketing of agricultural products in local markets of the provinces of Manabi, Loja and El Oro, as a basis for improving the incomes of farm families	To have implemented at least one channel of associative marketing of agricultural products for the local market in the provinces of Manabi, Loja, and El Oro
Train leaders and technical teams of producers' organizations from Cuba, Guatemala and Honduras, in the aspects of restructuring and managing self-sustainable farms	Accomplish the training of teams of technicians and leaders of producers' organizations from Cuba, Guatemala and Honduras, in the aspects of restructuring and managing self-sustainable farms.

The project was planned to benefit 1,200 families (100%). The direct beneficiaries were 1,244 families of small coffee farmers affected by the falling coffee prices on the world market and that depend almost exclusively on coffee farming (104% compliance).

Farmers' organizations in the area of influence of the project were from the first and second level and had legal status granted by the Ministry of Agriculture, Livestock, Aquaculture and Fisheries (MAGAP); Ministry of Industry and Productivity (MIPRO); and Ministry of Economic and Social Inclusion (MIES). However, these organizations had weaknesses in the organizational and management aspects, which were reflected in the low convocation capacity and in the nil participation in community development issues.

The structure of the coffee farms in the area of influence of the project was very complex, prevailing poly cultures associated with coffee. In this sense, the families had a high dependence on coffee cultivation and the small areas used for other crops and for raising small livestock, without major technological application, only were intended for home consumption.

The area devoted to other crops was under short-cycle production (maize, rice, peanuts) and other perennial crops (sugar cane, bananas and pasture). A few families had small areas with horticultural crops for the production of vegetables such as coriander, tomato and pepper.

As for the forest system, the producers had cut down the few remaining trees, affecting the ecosystems and threatening the survival of native flora and fauna.

Livestock activities most important to those families were poultry farming (49.1%), more oriented to family consumption and a surplus for the local market, pig production (26.2%) and cattle (20.5%). Fish farming and beekeeping activities were virtually absent.

The average farm size was 6.9 hectares, from which 3.0 hectares corresponded to coffee areas that represent 45.9% of the total area of farms. However, due to the abandonment of coffee plantations, productivity levels were very low (3.71 hundredweights – or quintals of 100 pounds- of green coffee / ha).

Additionally, although coffee prices paid to producers showed a tendency to rise, small coffee farms generated low incomes and only for two or three months a year during harvest time. The rest of the year the farmers' families were left unprotected by the lack of income, employment and food. The average revenue generation on farms for agricultural production activities was US \$ 633.2 per year, equivalent to US \$ 52.8 per month.

Production and productivity levels at the farms and organizations did not improve in the absence of technical support and training to perform the various agricultural and livestock activities.

In percentages, 27.7% of farmers had not received technical assistance in coffee, 76.0% had not received technical assistance in other agricultural crops, and 85.5% had not received technical assistance in the areas of livestock production.

The low coffee production volumes and the weakness of the coffee producers' organizations prevented any chance of direct access to markets. *Coffee marketing* was performed through intermediaries in 90% of the total production. This reduced the family income not only by the low prices they received but also because usually they were taken advantage of in the weight of the coffee sold. Only 29.2% of beneficiaries traded a part of coffee production through the organizations.

In the provinces of Manabi and Loja agro industrial activities of any kind, in relation to coffee farms, did not take place. This means that farmers were "primary producers". In the province of El Oro, processing and marketing of roast and ground coffee took place under the brand "Café Lajense". Processing coffee was performed without criteria or technical standards, and volumes of sales were small.

## 1. PROJECT COSTS AND FINANCING PLAN

<b>Total Project Cost, in US dollars</b>	<b>2,898,965</b>	<b>100%</b>
FCPB contribution	1,030,725	<b>35.5%</b>
PL-480-USDA contribution	269,189	<b>9.3%</b>
COFENAC contribution	376,221	<b>13.0%</b>
National Counterpart	1,222,830	<b>42.2%</b>

To finance the project, COFENAC signed contracts of commitment with the Common Fund for Basic Products and the Corporation USDA PL-480. It was established in those agreements the amounts and forms of delivery of economic resources.

### III. EXECUTION AND RESULTS OBTAINED

#### 1. PROJECT IMPLEMENTATION

The project, "Reconversion of small coffee farms into self-sustaining agricultural family units (REFINCA)", was executed since 01 October 2007 until 30 September 2011 by the Consejo Cafetalero Nacional (COFENAC) in strategic alliance with ANECAFE and with the co-financing of the Common Fund for Commodities (CFC), under the supervision of the International Coffee Organization (ICO). From 01 November 2007 to 31 October 2009 we had the contribution of the Corporation PL-480-USDA for the execution of a segment of the project activities.

The REFINCA project aimed actions towards sustainability:

- In the social area the project considered the development of producers' organizations with characteristic features such as democratic functioning, Capacity of self control, participation of men and women, and accomplishment of the objectives, actions and goals outlined in its statutes, strategic plans and / or business plans.
- In the economic area it is important to identify the evolution of income as a result of productive agricultural interventions.
- In the environmental area it comes to be important to determine the actions to protect water sources, soil conservation and the use of clean technologies.

To carry out these aspects, the REFINCA project planned the execution of four components (Figure 1):

- Strengthening the producers' organizational partner concepts
- Diversification of the agro productivity of farms
- Agro industry and associative marketing
- Dissemination of results

The component of **Organizational Strengthening** is aimed to enhancing the administrative capacity of producers' organizations and institutions involved in the project implementation. It put forward the need for training of the participating organizations of producers to ensure their involvement in the management of the conversion of farms and the implementation of the Revolving Fund and the Internal Control System.

The component of **Agro productive Diversification of Farms** had as a purpose to convert the 1,244 coffee farms into self-sustaining agricultural family units through diversification of agricultural production systems. For this, a plan was implemented to convert inefficient coffee plantations into efficient ones, through the introduction of profitable farming activities to ensure food security and the improvement of income together with the conservation of natural resources and biodiversity.

The **Agro industry and associative marketing** component promoted processing of primary production and development of associative marketing channels for local sale of surplus agricultural products. This was generated by implementing agro industrial modules to produce roasted and ground coffee, balanced feeds for animals and the processing of bee honey.

The **Dissemination component of the project** sought to propagate results and experiences to build self-sustaining family farming units. In this regard there were two international events with the participation of technicians from Guatemala, Honduras, Ecuador and Mexico.



**Figure 1. Components of the REFINCA project**

### **1.1. INAUGURATION EVENT AND PROJECT OFFICIAL PRESENTATION**

The COFENAC as REFINCA Project Executing Agency (PEA), along with ANECAFE and representatives of the International Coffee Organization (ICO) and the Common Fund for Commodities (CFC), officially announce the beginning of the project in the city of Manta, on the 15<sup>th</sup> of September, 2007.

The event was attended by personalities linked to agricultural activities in Ecuador, as well as representatives of the organizations related to the project. In the event were present Ambassador Ali Mchumo (General Director of the CFC), Caleb Dengu (Former Director of CFC projects) and Lilian Volcan (OIC).

The official event for the beginning of the project allowed for the socialization of objectives and activities, as well as to get the compromise of various actors of the coffee chain of Ecuador for their active participation to assure an efficient project implementation.



## **1.2. FORMING THE TECHNICAL TEAM OF THE PROJECT**

The technical team consisted of 9 agricultural professionals and 18 community promoters led by a Project Manager. The definition of operational strategies and monitoring of the project was in charge of the Technical Division of COFENAC.

COFENAC conducted two courses aimed to training the technical team of the project, the first in the city of Portoviejo from 02 to 06 of October 2007 and the second in the town of San Vicente, from 02 to 07 of December 2007.

During the first event the following activities took place: a) The technical team was trained in the use of planning tools and record keeping, as well as in participatory assessment, b) Participation of the team, in conjunction with the project management committee, in the validation of the card for the diagnosis of farms. This card was applied afterwards to all beneficiaries of the project, c) a visit to the Jipijapa model farm where several work tools were applied such as: current and future map of the property, records of income and expenditures, and available family labor, employed or not employed.

In the second event the technical team contributed in the preparation of the "Training Plan for the School of Peasant Leadership" helping to define seven areas of training with their respective agendas. The technical team also contributed to the design and validation of the Internal Control System model for the producers' organizations and a model of revolving fund to be implemented by organizations as a microfinance alternative in rural areas.

The events aimed at training the technical team led reinforce concepts, management techniques of growing coffee and other crops, as well as standardizing technical and methodological aspects of the various project components.

Since October 2009 six new community promoters joined the project, taking the recommendation of the CFC - OIC, to strengthen the technical project team.

## **1.3. SOCIALIZATION OF THE PROJECT**

In the province of Manabi, 11 socialization events were conducted: one event was addressed to representatives of the organizations and the other 10 were held at the level of each organization of producers. In the province of El Oro, six seminar-workshops for the socialization of the project were carried out with the participation of producers related to the same number of producers' organizations. In the province of Loja, 13 events for the socialization of the project were conducted at the level of the producers' organizations involved in the project with the active participation of its members.

Local governments were also informed about the project. The socialization of the project allowed the beneficiary farmers to be committed and to have an active participation for the efficient implementation of the planned activities by components.

#### 1.4. STRATEGIES USED FOR THE RECONVERSION OF COFFEE FARMS INTO SELF-SUSTAINABLE PRODUCTION UNITS

The implementation and execution of activities under the project components REFINCA took effect in an integral way directed towards the reconversion of coffee plantations. The work was carried out at the farms and organization levels and took into consideration the addition of five specific strategies aimed at ensuring the ideal conditions for the reconversion of farms (Figure 2).

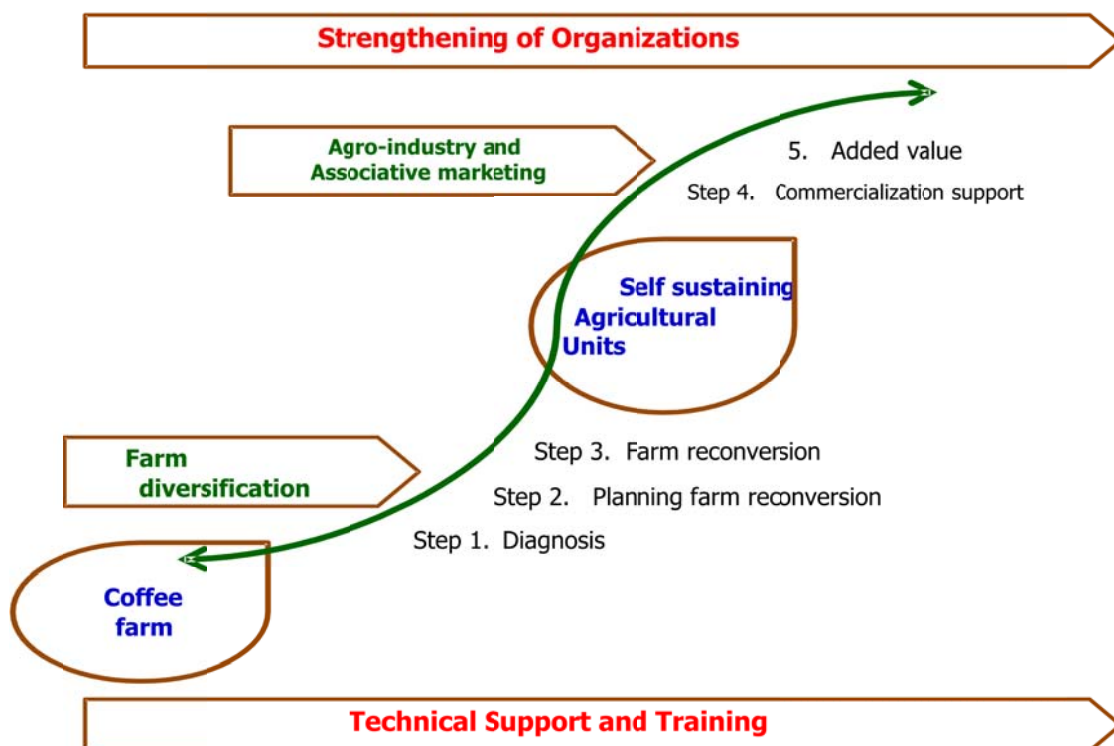


Figure 2. Strategies Employed in the REFINCA project

#### 1.5. DIVERSIFICATION OF AGRO-PRODUCTIVE SYSTEMS AND REFORESTATION

The model for the reconversion of farms was framed on two fundamental principles:

- The planning of the reconversion of farms involved a systematic programming and integration of agro-productive activities in order to ensure a safe and permanent income to meet basic family needs.

## Annex 1. List of organizations linked to the REFINCA project

Nº	Organizations from the province of Manabi	Ministry act number	Agency that granted ministerial agreement	Total number of members	Number of Project beneficiaries
1	Association of Artisan Coffee Growers Xipixapa ACAFXI (Jipijapa)	Nº 024	MIPRO	120	34
2	Peasant Association Nueve de Octubre (Jipijapa)	Nº 0862	MIES	25	29
3	Mutual Aid Association Quince de Agosto (Jipijapa)	Nº 3519	MAGAP	180	26
4	Peasant Association “La Nueva Flor del Salto” (Jipijapa)	Nº 0006	MIES	32	21
5	Peasant Association for Integral Development “La Trinidad”	Nº 003699	MIES	26	23
6	Peasant Association “Pedro Pablo Gómez” (Jipijapa)	Nº 0874	MIES	53	32
7	Peasant Association “Las Maravillas de Cascol” (Paján)	Nº 0633	MIES	97	75
8	Peasant Association “Bienestar y Progreso” (Paján)	Nº 016	MIES	17	27
9	Union of Farmers Organizations of the South East of Manabi (UOCSEM) ( 24 de Mayo)	Nº 2919	MIES	700	31
10	Union of Progressive Multi Sector Peasants Organizations from Manabí–Ecuador –UNOCAPROM (24 de Mayo)	Nº 0012	MIES	700	102
<b>TOTAL</b>				<b>1,950</b>	<b>400</b>

Nº	Organizations from the province of El Oro	Ministry act number	Agency that granted ministerial agreement	Total number of members	Number of Project beneficiaries
1	Organic Coffee Farmers Association Las Lajas –ACOLL	028 7/08/03	MIPRO	23	80
2	San Francisco Association from Balsas	067 23/12/03	MIPRO	22	61
3	Association of Small Producers of Special Coffees Marcabelí – APECAM	02-196 10/05/02	MIPRO	300	89
4	Producers Pre-Association from Zaruma	192 16/07/10	MAGAP	40	60
5	Association Monsignor Manuel Ignacio Romero	019 07/05/04	MIPRO	70	75
6	Pre association of Agricultural Producers from La Bocana	01 29/05/09	MAGAP	40	40
<b>TOTAL</b>				<b>495</b>	<b>405</b>

N°	Organizations from the province of Loja	Ministry act number	Agency that granted ministerial agreement	Total number of members	Number of Project beneficiaries
1	Agricultural Producers Association "Reina del Cisne"	161	MAGAP	18	41
2	Coffee Growers Association "Santa Rufina"	279	MIES	25	22
3	Agricultural Producers Association from Chaguarpamba	06-0232	MIES	28	21
4	Micro-enterprise "Buena Vista"	631	MIPRO	33	32
5	Producers Association for Industrialization of Food Products MASAGEM	08142	MIPRO	18	18
6	Association of Organic Producers from Puyango – APOP	712	MIPRO	23	23
7	Association "Unidad Gestión y Trabajo"	113	MAGAP	25	16
8	Community "Honor y Trabajo"	1572	MAGAP	33	29
9	High-Land Coffee Producers Association Puyango - PROCAP"	2000266	MIPRO	200	33
10	Association of Special Coffee Producers from Cariamanga – APCEC	284	MAGAP	17	22
11	Coffee Producers Cooperative "San Felipe"	0993 100	MAGAP	35	50
12	Association of agricultural and Livestock Production El Laurel	00341	MIES	20	20
13	Association of Organic High-Land Coffee Producers "Unión de Artesanos El Colmenar"	729	MIPRO	62	49
14	Association of Artisans Producers of High-Land Coffee "Fundochamba - AAPCAF"	686	MIPRO	21	20
15	Association of High-Land Coffee Producers Espindola and Quilanga – PROCAFEO	630	MIPRO	312	43
<b>Total</b>				<b>852</b>	<b>439</b>

## Annex 2.

# QUALITY STANDARDS OF COFFEE "REFINCA"

## 1. ROASTED AND GROUND COFFEE "REFINCA"

The roasted and ground coffee "**REFINCA**" is produced and processed by the Association of Agro-industrial Craft Producers AAPAGRIN, which represents growers from the South Zone of the Province of Manabi, based in the parish El Anegado in the Jipijapa county.

## 2. OBJECTIVE

To establish the requirements and quality standards that roasted and ground coffee "REFINCA" has to meet; product made with raw material from the Southern Region of the Province of Manabi, cultivated, harvested and processed by the Association of Agro-industrial Craft Producers AAPAGRIN.

## 3. USE OF STANDARDS AND APPLICATION

The standards will be used in the production and labeling of roasted and ground coffee "REFINCA" processed by the Association of Agro-industrial Craft Producers AAPAGRIN.

## 4. DEFINITIONS

- **Coffee.** - The term is used for the fruit and / or beans from plants of the genus *Coffea*, as well as for products intended for human consumption.
- **Coffee cherry.** - The fruit of the coffee trees in their mature state. Arabic Varieties: Typica, Bourbon Red, red Caturra, Villalobos, San Salvador, Catuai red, Pacas, Pache, Catimor, Sarchimor and Cavimor have red cherries. The fruits of the varieties Bourbon yellow, Caturra yellow, and Catuai yellow, in their mature state, have yellow cherries.
- **Special Coffee.** – The product that is distinguished from others by their particular "cup" characteristics, the growing areas where it is produced, the production and processing technology that is used, for its contribution to the conservation of biodiversity, for the solidarity principles that underlies its cultivation or the demand preference it has.
- **Current harvest.**- Coffee that does not exceed six months from harvest time.
- **Old harvest.**- Coffee that exceeds six months harvest time.

- **Coffee year.** - The period of one year from October 1 through September 30.
- **Strict high-land coffee.** - Coffee produced in growing areas located above the 1,200 meters above sea level.
- **High-land coffee.** - Coffee produced in growing areas between 800 and 1,200 meters above sea level.
- **Standard Coffee.** - Coffee produced in growing areas located below the 800 meters above sea level.
- **Wet processing.** - The conventional wet milling is a process of transformation of ripe coffee cherries, which involves floating, pulping, fermenting and washing to get wet parchment coffee, which after drying and threshing gives as a final product "washed coffee".
- **Processing organic coffee.** - Is a process of transformation from coffee cherries to wet parchment coffee, using special equipment called "ecological benefit module" that consists of a pulper, a mechanical apparatus to take out the mucilage, and a washing system.
- **Enzymatic wet processing.** – It is a process of transformation from coffee cherries to wet parchment coffee using enzymes to accelerate fermentation, which after drying and threshing as final product gives washed coffee.
- **Semi-wet processing.** – It is a process of transformation from mature coffee cherries to parchment coffee "with honey", which involves pulping and drying of "coffee slime" with all the mucilage, which after threshing gives as final product semi-washed coffee.
- **Dry processing.**- It is a process of transformation from coffee cherries to natural coffee.
- **Aired parchment coffee.** – It is the coffee bean covered by its endocarp after water runoff from washing and having a moisture content above 20 percent.
- **Dry parchment coffee.** – It is the coffee bean covered by its endocarp called parchment and a silvery skin with an optimum moisture content from 11 to 12.5 percent.
- **Dry ball coffee.** – Coffee cherries with all their fruit layers dried under the sun or by artificial methods.

- **Washed coffee** . - Parchment coffee obtained after wet processing.
- **Semi-washed coffee.** - Parchment coffee obtained after semi-wet processing.
- **Green coffee beans or "gold coffee"**. - The coffee bean without its layers obtained through an agro-industrial process.
- **Physical defects of the grain.** - The term "defect" is the general name given to grains lacking the physical qualities considered normal and unwanted particles found in a sample of green coffee. Physical defects refer to various types of grains that show changes in color and form, pieces of grain, husk and parchment or non-coffee items.
- **Primary defects.** - It is considered "primary defects" grain characteristics that significantly affect physical and cup quality.
- **Secondary defects.** – The term "secondary defects" are applied to grains whose characteristics do not impact heavily on the physical and cup attributes.
- **Roasting.** - An operation that consists of toasting coffee by heat.
- **Roasted coffee beans.** - The product obtained from the roasting of green coffee.
- **Roasted and ground coffee.** - Product obtained by grinding the roasted coffee beans.
- **Roasted ("torrado") coffee.** - Roasted coffee beans with addition of saccharose or glucose before ending the roasting process.
- **Decaffeinated coffee.** - Coffee, roasted and / or ground from which caffeine has been partially extracted.
- **Safety.** - The assurance that food will not cause harm to the consumer when prepared and / or eaten according to their intended use.
- **Fragrance.** - This is the feature to start the tasting, evaluating roasted and ground coffee from the perception of odors and dry freshness, offering hints of what will be in the infusion.
- **Aroma.** - It is an organoleptic property that describes the overall olfactory impression of coffee volatile substances. This quality is related to the fragrance given off by the drink. A delicately fine aroma, fragrant and pervasive is the manifestation of good coffee.

- **acid.** – It is a property which describes the taste impression caused by dilute solutions of most of the acids (citric, tartaric, etc.) present in the beverage. Those arabica coffees showing high acidity are considered superior.
- **Body.** - It is a characteristic determined by the content of soluble solids in the beverage and results from a combination of several perceptions captured during tasting as the feeling of fullness and consistency. Medium body arabica coffee gives to the beverage a feeling more palatable to drink. Robusta coffee by its nature tends to show more body.
- **Taste.** - It is a sensory property that describes the complex combination of taste and odor attributes perceived in drinking. It is the feeling of an overall balanced impression of coffee itself that is perceived in the mouth.
- **Cup defects.** – It Describes any sensory impression noted during tasting and that is atypical compared with a coffee properly prepared and well processed. Cup defects or "strange flavors" are usually associated with deterioration or contamination.
- **Contamination.** – It denotes the presence of off-flavors, improper of a clean drink that cannot be clearly defined. Coffee contaminants can be physical, chemical and biological.
- **Fermented.** - Chemical taste caused by the action of enzymes on sugars in green coffee. Unpleasant smell and taste.
- **Acrid.** - Burnt taste that is strong, bitter and perhaps irritating.
- **Fruity.** - This defect is characterized by an aroma and flavor that resembles ripe pineapple (fruity). It occurs when the grain has been a long time in the overripe cherry.
- **Stale or moldy.** This is caused by stacking or bagging a very wet parchment coffee. It can also occur when a dry coffee is wetted again.
- **Sour taste.** - Bad taste, reminiscent of rotten coffee pulp. It is due to inadequate fermentation, or to delay drying which causes coffee heating. Grains discolored and damaged by the pulping equipment are usually a common cause of this.
- **Wine-like taste.** – It has its origins in over-matured coffee or in delayed pulping. The more you fall behind this operation the originally sweet and pleasant taste turns to a bitter taste and becomes a significant defect always related to the presence of a golden or reddish layer.



- **Green.** - It features an astringent taste, grassy and immature due to an inefficient collection, which means that coffee was harvested when still green and generally not well developed.
- **Wood.** – Coarse taste, peculiar of an aged crop. Coffee stored at low altitudes with high temperatures and humidity usually takes on a woody flavor rather quickly. All coffees acquire a woody flavor if stored for too long.
- **Earthy.** – It is the coffee with a strong earthy smell.
- **Oily.** - A term sometimes used to denote a coffee with oily taste due to extreme roasting or a coffee somewhat old that has a fat taste but not rancid.
- **Rough.** – It gives a bitter, astringent and unpleasant sensation to the nostrils. It is usually coupled with the presence of many defective grains or poor preparation of the drink.
- **Smoked.** - Aroma and flavor associated with inadequate treatment of the heat source or to the presence of smoke that permeates beans during roasting. It is also caused by poor mechanical drying during processing.
- **Bitter.** - Primary taste caused by various substances such as caffeine, quinine and other characteristics as: type of coffee, roasted degree, and preparation method of the drink.
- **Aromatic.** - (Synonym: "Aroma of coffee"). Coffee volatile component that is generally enhanced after grinding the recent-roasted grain and leaves a pleasant smell sensation.
- **Astringent.** - Unpleasant and rough taste of coffee with an undesirable acidity.
- **Dull.** - Drink that has lost all of the desirable characteristics of coffee.
- **Cereal.** – The term applies to all infusions that remind the smell and the taste of cereal grains.
- **Weak.** - (Synonym: tasteless, low body, watery). Coffee with little flavor.
- **Sweetish.** - Aroma and natural caramel flavor of coffee. Good coffee should have this feature.

- **Balanced.** - (Synonyms: complete, full). A balanced product must contain the key features in its proper degree none of them being predominant. The balanced nature or rather all the taste qualities that ensure the equilibrium of an infusion or a solution is essential for coffee.
- **Fresh.** - Positive sensory characteristic that is applied to a freshly harvested and roasted coffee, whose aroma and flavor stands out particularly.
- **Clean cup.** - Characteristic of a cup with smooth flavor, but mostly free of contamination.
- **Metallic.** – Undesirable flavor from water stored in a metal container and used in brewing coffee.
- **Neutral.** - Drink without outstanding characteristics in relation to acidity and aroma.
- **Straw.** - Taste and smell of dry grass.
- **Paper.** - Acquired taste for coffee packed in paper bags or infusions prepared with a poor quality filter.
- **Burnt.** - Applies to a coffee that has passed its point of roasting.
- **Saco.** - Taste that is perceived in coffee infusions due to wetting of the organic fiber bag which contaminates green coffee.
- **Soft.** – Typical feeling of arabic coffee coming from wet processing.
- **Dirty.**- Undesirable flavor that comes from excess of black grains.
- **Strange flavors.** - All the flavors that do not belong to a clean and good infusion, but that cannot be clearly defined or placed in any category. Often described as an unpleasant taste or peculiar in the absence of a clear definition. When the off-flavor can be defined, the corresponding name is of course given.

## 5. REQUIREMENTS

### 5.1. Green coffee

- The green coffee or raw material used in the process of roasting and grinding "REFINCA" coffee must meet the general provisions of the Standard NTE INEN 285:2006.
- Coffee "REFINCA" will be 100% arabica coffee.
- The characteristics of green coffee will be, for altitude, those of "standard coffee."

- The green coffee used in the preparation of roasted and ground "**REFINCA**" coffee will be washed coffee.
- The green coffee or raw material for "**REFINCA**" coffee will have a humidity of 10-12 percent.
- The green coffee or raw material for "**REFINCA**" coffee will have no odors strange to the product.
- The green coffee or raw material for "**REFINCA**" coffee will be monitored and evaluated by staff from AAPAGRIN responsible for coffee quality.

## 5.2. Roasted and ground coffee

- The "**REFINCA**" coffee will have a medium toasted degree, according to the NTE INEN 1 123: 2006.
- The roasting of "**REFINCA**" coffee will take place at temperatures of 200 ° C to 220 ° Celsius.
- The "**REFINCA**" coffee will have a medium grinding degree, according to the NTE INEN 1 123: 2006.
- The roasted and ground "**REFINCA**" coffee must not have odor or taste different from the characteristic of the product.
- The roasted and ground "**REFINCA**" coffee will be 100% arabica coffee.
- The roasted and ground "**REFINCA**" coffee will have a homogeneous appearance.
- The roasted and ground "**REFINCA**" coffee will be processed under sanitary conditions to ensure their safety.
- The roasted and ground coffee that is marketed under the brand name "**REFINCA**" will fulfill the general conditions contained in the NTE INEN 1 123: 2006.
- The roasted and ground "**REFINCA**" coffee will meet the physicochemical requirements set out in the NTE INEN 1 123: 2006.
- The roasted and ground "**REFINCA**" coffee will comply with the microbiological requirements of the NTE INEN 1 123: 2006.
- The roasted and ground "**REFINCA**" coffee will have a certificate of Health Registration.
- The roasted and ground "**REFINCA**" coffee will be monitored and evaluated by AAPAGRIN staff responsible for coffee quality.

## 5.3. After roasting

- Once coffee is roasted it will be allowed to cool off and rest for 24 hours in clean plastic semi-open containers.
- Coffee will be ground after 24 hours of roasting.
- Ground coffee will be allowed to cool off and rest for 24 hours. During this time ground coffee must be kept in clean plastic semi-open containers.
- The roasted and ground coffee will be placed in appropriate packaging after 24 hours of milling.

## 6. PHYSICAL AND SENSORY QUALITY PARAMETERS OF "REFINCA" COFFEE

The making of roasted and ground "**REFINCA**" coffee will meet the following physical and sensory quality parameters (Table 1 and Table 2).

### 6.1. Physical quality

- The color of coffee beans for making "**REFINCA**" coffee will be green.
- The visual appearance of the green coffee bean for making "**REFINCA**" coffee will be very good.
- The raw material for making "**REFINCA**" coffee will have a homogeneous size. The sizes of grain to be used correspond to sieve numbers 15, 16 and 17.
- The grains of the green coffee to make "**REFINCA**" coffee will have a maximum of 23 secondary defects and zero primary defects in a random sample of 300 grams.

### 6.2. Sensory quality

- The aroma of "**REFINCA**" coffee will be Medium High.
- The acidity of "**REFINCA**" coffee will have a tendency to Medium.
- The flavor of "**REFINCA**" coffee will have a tendency to Medium High.
- The body of the "**REFINCA**" coffee will have a tendency to Medium High.
- The roasted and ground "**REFINCA**" coffee will have no cup defects.

**Table 1. Physical Quality Parameters of "REFINCA" coffee**

<i>"REFINCA"</i> <i>coffee</i>	Altitude (aslm)		Raw material	Physical Quality Parameters					
				Grain type	Grain humidity (%)	Grain color	visual aspect	grain size	Sieve numbers
	Standard	<800 aslm	100%	Washed grain	10-12	light green	very good	homogeneous	15- 16- 17

**Table 2. Sensory Quality Parameters of "REFINCA" coffee**

<i>"REFINCA"</i> <i>coffee</i>	Sensory Quality Parameters						
	Preparation		Sensory Properties*				Cup defects
	Roasting grade	Grinding grade	Aroma	Acidity	Flavor	Body	
	Medium	Medium	Medium High	Medium	Medium High	Medium High	Without strange odors or flavors

\* Evaluation Scale: 1= low; 2= low medium; 3= medium; 4= medium high; 5= high

## 7. QUALITY DETERMINATION TESTS

### 7.1. Cup determination test

- The roasted and ground "**REFINCA**" coffee must be evaluated for flavor, according to the cup test norm NTE INEN 1 123:2006.

### 7.2. Color determination test

- The roasted and ground "**REFINCA**" coffee will show a color according to the roasting process, in accordance with the provisions in the norm NTE INEN 1 123:2006.

## 8. LABELLING AND PACKING

### 8.1. Packing

- The packing material of "**REFINCA**" coffee will be inert to the action of the product so as to ensure its integrity, quality and safety.
- The "**REFINCA**" coffee will be packed in aluminum bags with a degassing valve.

### 8.2. Labeling

- The label on the package of "REFINCA" coffee shall show legibly the following information:
  - ✓ Product trade name: "**REFINCA**"
  - ✓ Name and address of manufacturer: AAPAGRIN; Address Km 1 via El Anegado (AAPAGRIN Agro-industrial Center)
  - ✓ Identification: "One hundred percent Arabica coffee"
  - ✓ Degree of roasting: Medium
  - ✓ Degree of grinding: Medium
  - ✓ Fabrication and expiration date: (dd/mm/yy)
  - ✓ Bar code
  - ✓ Net content according to the International System: 200 grams and 400 grams
  - ✓ The caption: "Made in Ecuador"
  - ✓ Health Registration Number
- Labeling should not have ambiguous meanings, captions and descriptions of product features that cannot be checked properly.
- Other features that the labeling must meet are set out in the norm NTE INEN 1334-Part 1 and NTE INEN 1334-Part 2.

## 9. PROHIBITIONS

- To adulterate pure coffee and market it as if it were pure coffee.
- To make or to sell roasted and ground coffee without complying strictly with the Norm NTE INEN 1 123:2006.

- To make or sell products whose presentation to buyers could lead them to suppose wrongly that the product is coffee.

## 10. REFERENCE NORMS

INEN (Ecuadorian Institute of Normalization, EC). 2006. Green coffee grains: Classification and requirements. NTE INEN 285. Quito, EC. 10 p.

INEN (Ecuadorian Institute of Normalization, EC). 2006. Roasted and ground coffee: Requirements. NTE INEN 1 123. Quito, EC. 10 p.

INEN (Ecuadorian Institute of Normalization, EC). 2000. Labeling food products for human consumption: Requirements. Part 1. NTE INEN 1334-1. Quito, EC.

ICONTEC (Colombian Institute of Technical Norms and Certification, CO). 2007. Roasted coffee, in grain or ground. NTC 3534. Bogotá, CO. 8 p.

CONACYT (National Council for Science and Technology: Technical Normalization Committees). Quality Standards. Grain roasted coffee and roasted and ground coffee. NSO 67.31.02:04. San Salvador, SV. 10 p.

## 11. CONSULTED LITERATURE

Hilten, H. Jan Van; Fisher, P. J. Café. 2002. Café. Guía del exportador. Centro de Comercio Internacional UNCTAD/OMC. Ginebra, CH. p. 270-321.

Duicela, L.; Guamán, J.; Corral, R.; Farfán D. 2010. Métodos de beneficio del café arábigo. COFENAC, Solubles Instantáneos C.A. Manta, EC. Cgraf. 16 p. (Boletín Divulgativo n° 07).

Duicela, L.; Corral, R.; Farfán D. 2011. Defectos físicos del café arábigo. Clasificación, descripción y prevención. 3 ed. COFENAC. Manta, EC. Cgraf. 32 p. (Boletín Divulgativo n° 09).

SCAA (Specialty Coffee Association of America). 2008. Protocolos de catación SCAA. US. p. 14-20.

El tostado del café (en línea). (s.f.). Consultado: 25 de Octubre de 2010. Disponible en: [http://www.bedri.es/Comer\\_y\\_beber/Cafe/Tostado.htm](http://www.bedri.es/Comer_y_beber/Cafe/Tostado.htm)

Control de calidad de café tostado y molido (en línea). (s.f.). Consultado: 15 de Octubre de 2010. Disponible en: <http://www.buenastareas.com/ensayos/Control-Calidad-Cafe-Tostado-Y-Molido/796257.html>

## **ADDITIONAL NOTES**

### **EXCEPTIONS**

The following exceptions for the elaboration of roasted coffee and roasted and ground coffee are presented in case of a specific required market demand:

- The group AAPAGRIN will process roasted coffee and roasted and ground coffee using natural raw material.
- The group AAPAGRIN will process roasted coffee and roasted and ground coffee using as natural raw material semi-washed coffee.
- The group AAPAGRIN will process roasted coffee and roasted and ground coffee with the degrees of roasted light-colored, strong and extra strong.
- The grain size determined by the sieve number will be according to buyers' request.
- The maximum number of primary and secondary defects in a sample of 300 grams of coffee to be roasted will be according to buyers' request.
- For these cases, the approved standards for the "**REFINCA**" coffee are not applicable.

### **MAKING ROASTED AND GROUND "REFINCA" COFFEE**

- Roasted and ground "**REFINCA**" coffee will be made by producers of AAPAGRIN trained in the area of coffee quality and with full knowledge of quality standards.
- Producers who make roasted and ground "**REFINCA**" coffee will know and will implement the AAPAGRIN Plant Operation Manual for roasted and ground coffee.



**The quality standards for "REFINCA" coffee were developed by producers linked to AAPAGRIN with the support of COFENAC technicians, specialists in coffee quality coffee and the REFINCA Project Technical Team "Reconversion of small coffee farms into self-sustaining family units" in the province of Manabi.**

**Quality Standards for Roasted and Ground "REFINCA" coffee detailed herein were approved by the producers of AAPAGRIN on February 17, 2011.**

**Its application is an exclusive right of the Artisan Agro-industrial Producers Association AAPAGRIN-REFINCA.**

## The Package of "REFINCA" coffee

