

PPP Project:
**Sustainable and quality coffee production in Jaén,
San Ignacio and Bagua, Cajamarca, Peru**



Project Final Report
EDE Consulting
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LIST OF ABBREVIATIONS

CENFROCAFE	Central Fronteriza del Norte de Cafetaleros
CCCC	Common Codes for the Coffee Community (4C)
COICAFE	Central de Productores Agropecuarios del Distrito de la Coipa
COINCA	Compañía Internacional del Café S.A.C.
CPC	Cámara Peruana de Café
EDE	Emden, Drishaus & Epping Consulting for Coffee
FADENOR	Programa Familia, Ambiente y Desarrollo Nororiental
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit
ICP	International Coffee Partners GmbH
INADE	Instituto Nacional de Desarrollo
INCAGRO	Innovación y Competitividad para el Agro Peruano (es un Proyecto del Ministerio de Agricultura)
PAA	Programa Agroambiental
PEJSIB	Proyecto Especial Jaén San Ignacio Bagua
PDRS	Programa Desarrollo Rural Sostenible (GTZ)
PPP	Public Private Partnership
qq	Quintal (= 100 lb (45 Kg))
Mz	Manzana (10,000 varas cuadradas = 0.7 ha)

1. Key characteristics

Project location: Provinces of Jaén, San Ignacio (Cajamarca) and Bagua (Amazonas).

Project partners: International Coffee Partners
German Technical Cooperation-GTZ-PDRS
Programa Familia, Ambiente y Desarrollo Nororiental-FADENOR, now Programa Agroambiental-PAA (GTZ, KFW, INADE-PEJSIB)
Central Fronteriza del Norte de Cafetaleros-CENFROCAFE
Central de Productores Agropecuarios del Distrito de la Coipa

Support: Compañía Internacional del Café S.A.C. (COINCA)

Project beneficiaries: Direct beneficiaries are 250 farmers and their families; indirect beneficiaries about 6880 farmers and their families in the region

Project budget:	ICP	€ 250 000.00
	GTZ-PDRS	€ 115 000.00
	KFW - through PAA, EX FADENOR	€ 120 000.00
	PEJSIB -through PAA, EX FADENOR	€ 14,410.00
	CENFROCAFE	€ 7,740.00
	COICAFE	€ 1,050.00
	TOTAL	€ 508 200.00

Project duration: **Phase 1:** 01.09.2004 – 31.08.2007
Phase 2: 01.09.2007 – 30.11.2007

Altitude: 1,000 - 2,000 m.a.s.l.

Type of coffee: Typica, Caturra, Bourbon, Catimor, Pache, Mundonovo

2. Project background

Peru covers an area of 1,285,215 square kilometers and shares borders with Ecuador, Colombia, Brazil, Bolivia and Chile. It is a country with immense agricultural potential, rich in natural resources and with 84 out of the 103 ecological zones found in the world. After several years of inconsistent economic performance, the Peruvian economy grew by more than 4% per year during the period 2002-06, with a stable exchange rate and low inflation.

Coffee is the main agricultural export product of Peru significantly contributing to foreign exchange earnings. The product provides a living for more than 150,000 families involved in its production nationwide, as well as around 1,0 million Peruvians indirectly involved in the coffee chain. Peruvian coffee (2006: 3,5mio bx) represents 2,8% of the world coffee crop. As a reaction to its critical reputation in view of coffee quality, some years ago the country launched an ambitious program for improvement. The encouraging result was that the New York Board of Trade revised its rating of Peruvian coffee.

Despite the strong macroeconomic performance, underemployment and poverty have stayed persistently high. In fact, about 70% of the rural population lives in poverty with an annual income between 1,100 and 1,700US\$. While partial positive development has taken place in the coffee sector, many smallholder producers suffer from rather low income and at the same time deplete natural resources in an unsustainable way putting at risk the basis for living of future generations. This vicious circle is difficult to be broken up since external support by way of technical assistance, training and capacity building is not provided.

Solid experience shows that by way of the comprehensive concept of sustainable coffee production the complex problems outlined above can be successfully targeted. Application of this concept improves the situation of farmers providing long-term perspectives based upon the combination of competitiveness and sustainable practice. Sustainable production assures careful use of natural resources employed in coffee growing, improves the social situation of farmers and their families and strengthens the farmer organizations to be reliable commercial partners in an efficient supply chain.

3. Objective and Structure

The overall project objective was to improve the living conditions of coffee smallholder families in Jaén, San Ignacio and Bagua through a sustainable and quality coffee production. About 250 small scale producers and their families were involved in the project activities directly, whereas over 6500 people and their families in the region benefited indirectly.

The total area of the project's coffee region exceeds 2500 hectares, having on average farms of 10ha with coffee yield of about 9qq/ha (at project start). The topography makes sustainable agriculture a challenge due to severe erosion problems and is characterized by steep slopes and the river Marañon with his network. Typical features are abrupt changes in altitude ranging from 500 to 3000 m.a.s.l. and a diversity of microclimate with annual rainfall between 600–2.000 mm.

The project started in September 2004 for a three year period with support from International Coffee Partners during which the focus was placed especially on quality improvement, quality mapping, integrated coffee production systems and quality assurance system. In a prolongation of 3 months, the focus was placed on Farmer Field Schools to firmly establish know how transfer, soil analysis to prepare a regional fertilization plan and good management practices at farm level.

The ICP Project 'Sustainable and Quality Coffee Production in Jaén, San Ignacio and Bagua, Cajamarca' was a complementary approach to the GTZ/KfW (German Bank for Reconstruction and Development) Project 'Regional Development Jaen-San Ignacio-Bagua' (FADENOR, now PAA) with the objective to improve living conditions of the population in the region while ensuring the sustainable use of the natural resources. While the GTZ/KfW project concept is rather comprehensive supporting the farmer families within a holistic approach, the ICP project focused on all coffee business related issues: production, processing and commercialization as well as organizational strengthening and establishment of the management capacity to conduct all operations. All these issues were worked on with the general orientation towards sustainability.

The key components of the project were the following:

- Promotion of environmentally friendly production and processing
- Development and implementation of quality assurance system

- Strengthening of farmer organization and their business based management capacities
- Adaptation and implementation of standards for sustainable coffee production and formulation of indicators
- Commercialization optimization
- Diffusion of know how and sharing of positive experiences

As the objective was to promote sustainable practice in the coffee sector in order to achieve tangible benefits for the farmer families inter-institutional coordination and exchange made part of ICP work in the project area. Various stakeholders were involved in this PPP project, a pilot project in the framework of the Common Code for the Coffee Community (4C): International Coffee Partners (ICP), Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), Compañía Internacional del Café S.A.C. (COINCA), Kreditanstalt für Wiederaufbau (KfW), Instituto Nacional de Desarrollo (INADE), CENFROCAFE, and COICAFE.

On the side of the beneficiaries, two second tier organizations – CENFROCAFE and COICAFE - were supported and actively strengthened by the project. See Figure 1 for structure of organizations.

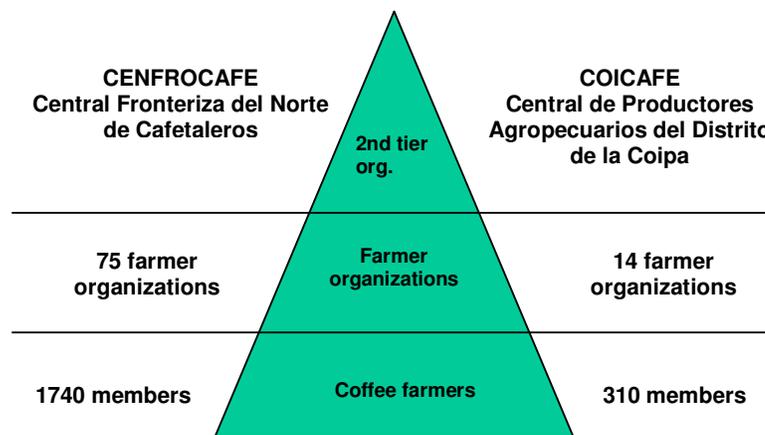


Figure 1: Structure of the organizations

4. Results and Activities

A number of 4 Results with related indicators and activities were specified at the start of the project to guide implementation and enable monitoring. Results 1 and 2 refer to the coffee growing community in general in the area of Jaen, San Ignacio and Bagua, whereas Results 3 and 4 concentrate on the directly supported selected farmer groups

Three additional results were defined for the 3 month prolongation phase.

Results to be obtained in order to reach the goal are:

4.1. Phase 1 – Result 1

The coffee farmers know about the quality potential in the region of PPP GTZ-ICP thanks to a quality mapping, are aware of key aspects of quality management and know how to better access markets.

Indicators:

- Regional cup profile
- Presentation of Peruvian and global coffee market
- Lists of participants at workshops and trainings
- Reports on knowledge and experiences
- Training in Farmer Field Schools (FFS)
- Reports and training records on FFS
- Reports on lessons learned in the framework of FFS
- Trainings and study tours
- Reports and records on study tours among farmers

Activities:

- Prepare a cup profile mapping of the Project region, including training and records on the results
- Analyze the quality management system of the supply chain from the collection center to shipping, give recommendations, write reports and provide training.
- Inform and train about the marketing of the coffee of the region
- Share results with the groups on quality management system and sustainable production (Results 3-4)

4.2. Phase 1 - Result 2

The coffee farmers in the region of Jaén, San Ignacio and Bagua are familiarized with the concept of sustainable coffee and certification schemes, are supported in their comparative analysis considering the reality of smallholder production, and participate actively in the process of the Common Code for the Coffee Community (4C project)

Indicators:

- Certification mapping – certification schemes that have been certified/verified in the region
- Reports, list of participants and communication and training material on sustainable coffee production and certification schemes.
- Consulting report on the impact of sustainable production and certification on farmers, their families, the communities, market demand and future tendencies.
- Report analyzing the viability of the 4C Initiative in the region
- Report on lessons learned – systematization of experiences

Activities:

- Make a diagnostic of the certifications available in the region
- Inform and train about sustainable coffee production and certification schemes (including Rainforest Alliance)
- Compare different certification schemes considering the impact on the farmers/families/communities, demand and future development of the market/ market tendency
- Facilitate the participation of important actors in the region to adhere to 4C
- Based on the result, validate sustainability standards for coffee and develop and adapt indicators

Results concerning the direct support of selected farmer groups:

4.3. Phase 1 - Result 3

The coffee farmers of the beneficiary groups have optimized the quality of their production and marketing thanks to a quality management system.

Indicators:

- Technical reports and records
- Coffee quality management system set up and implemented
- Regional event conducted on a regular basis
- Webpage

Activities:

- Select groups according to preestablished criteria
- Analyze in a participatory approach the production and processing systems
- Set up a quality management system
- Monitor the process of organizational strengthening and conduct training and give support where necessary
- Define and develop activities to promote the marketing of the coffee of the beneficiary groups

4.4. Phase 1 - Result 4

The project beneficiaries are familiarized with the concept of sustainable coffee and certification schemes, are supported in their comparative analysis considering the reality of smallholder production, and supported in the definition and implementation of the activities required to guarantee the sustainability of the coffee that has been produced.

Indicators:

- Reports, list of participants, progress reports
- Consulting report
- Technical reports
- Report on the viability of the 4c initiative

Activities:

- Inform and train about sustainable coffee production and certification schemes (including Rainforest Alliance)
- Compare different certification schemes considering the impact on the farmers/families/communities, demand and future development of the market and market tendency
- Facilitate the participation of important actors in the region to adhere to 4C
- Support activities that strive for sustainable coffee production and, if desired, to obtain a specific seal.
- Benefit from process in order to validate standards on sustainable coffee production and adapt indicators taking into account the three pillars of sustainability: social, environmental and economic
- Promote the exchange of experiences and results with the 4C initiative

4.5. Phase 2 - Result 1

Farmer Field Schools secure know how transfer within the organizations of COCICAFE

Indicators

- 230 farmers have been trained in 9 training sessions
- 7 facilitators and 8 co-facilitators have been trained and are working

Activities

- Implement Farmer Field Schools in 8 organizations of COICAFE
- Train leaders among farmers to become facilitators of Farmer Field Schools in their organizations

4.6. Phase 2 - Result 2

Famers are aware of the importance of soil analysis for its positive impact on a more efficient resource management, such as soil, human and economic.

Indicators

- 230 farmers have been trained in taking soil samples
- Soil analysis results (Number of results depends on number of topographic regions identified)
- 60 soil samples have been taken and sent to the laboratory for analysis
- 15 soil analysis have been interpreted
- Report - topographic map
- A regional fertilization plan for 6 organizations of COICAFE has been drawn up

Activities

- Within the framework of FFS take soil analysis so that the farmers become acquainted with the physical properties of a soil and gets to know some management practices to improve soil
- Take soil samples of different topographic areas for laboratory analysis
- Interpret laboratory results to draw up a fertilization plan
- Prepare soil mapping of 6 different topographic areas
- Draw up a regional fertilization plan

4.7. Phase 2 - Result 3

Smallholders are aware that good management practices contribute to improve their living conditions

Indicators

- 230 farmers have been trained in how to administer their farms to improve their living conditions
- 230 farmers have been trained in recordkeeping

Activities

- Train farmers in basic management practices (introduction to basic concepts of administration and its practical implementation)
- Train farmers in recordkeeping – income, expenses and profit calculation

5. Impact

Regular monitoring provided project partners an insight into project activities and progress. All major results according to planning matrix were achieved. Sustainable coffee production and quality improvement were core activities.

5.1. Environmental impact

Complementary to other initiatives this PPP Project actively promoted sustainable coffee production and quality improvement. The improvements made at farm level, especially in farming and postharvesting practices, reflected in the high scoring and thus good performance in environmental leadership during the verification under C.A.F.E. Practices.

The corrective actions resulting from the verification under C.A.F.E. Practices, were addressed in the Farmer Field Schools, thus strengthening the awareness about the environmental importance of good agricultural practices, use of water, waste water management, and use of energy.

Another important activity to foster environmental awareness was the coffee contest “Concurso Nor Oriental de café calidad y sostenible” (*Contest on sustainable coffee in the Northeast*) conducted as collective initiative by ICP, Programa Agroambiental, GTZ, and other local institutions. Sustainability was key to this contest and condition for participation.

The following key impact was achieved:

- 551.75 ha have been verified under C.A.F.E. Practices standards in 2006
- Comparing pre-project and post-project situation, waste water impacts were reduced
- 90% of the farmers now recycle coffee pulp and use it as fertilizer
- Zero use of agrochemicals of “dirty dozen”
- Awareness creation on the importance of soil conservation practices and soil analysis
- Regional fertilization plan for 4 organizations of COICACE have been drawn up, based on the identification of topographic areas and soil analysis of 43 families, hence providing the basis for a more efficient fertilization at farm level for 250 project beneficiaries
- Involvement of youngsters in solid waste management.
- 951 families have participated at the coffee contest, meeting the requirement of sustainable production

5.2. Social impact

The project as such did not consider specifically a social component, as the Programa Agroambiental (PAA), as partner of this project, already was promoting activities to improve farmer’s living conditions at project start. A key strategy of the PAA to motivate farmers to make changes was through competitions and credit. Apart from directly improving the living conditions of the farmer families through the PAA, also project activities had an important social impact.

The following key impact was achieved:

Through the PAA, 951 families benefited from the different competitions focused on:

- kitchen improvement, especially by building a more efficient stove, hence reducing the need for fire wood and consequently lessening the pressure of the local population on the area's ecological resources.
- crop diversification, by providing farmers with cash income and important nutritional sources
- animal breeding (small livestock) in stables, to increase family income and facilitate the collection of the manure to be applied on the fields as fertilizers

The social impact achieved indirectly through project activities was:

- Compliance with social standards under C.A.F.E. Practices
 - 100% of the farmers treat their workers fair and pay the minimum wage
 - 100% of the farmers do not hire children under 14 and they attend school
- Empowerment of farmers and their organizations through Farmer Field School Methodology
- Training of 5 leaders of COICAFE and CENFROCAFE in computer basics

5.3. Economic impact

Key for the economic impact of this program had been the quality improvement. Almost all project activities had been focused on improving quality, through farming, harvesting and postharvesting practices in line with mayor sustainability criteria. Farmers became aware of the importance of quality and understood quite well that cup quality opens up new market opportunities and also serves as an instrument for negotiation. The fact that COINCA S.A.C. decided to verify under C.A.F.E. Practices, COICAFE and CENFROCAFE, helped to establish a market linkage with both Starbucks and COINCA. Both organizations benefited from the premium paid by Starbucks which motivated the farmers to reinvest in their farms and keep focusing on quality.

The project also contributed to strengthen the commercial ties between the organizations and COINCA S.A.C., but specially that of COICAFE. Not only were better prices paid by COINCA than those by intermediaries in the region, but also advanced payments were made for fertilizer purchase in bulk and crop collection.

5.3.1. Quality improvement

Quality mapping was one key component of the project. The objective was to identify existing quality, shortcomings and potential. 250 farmers from two organizations (CENFROCAFE and COICAFE) in the regions of Jaén, San Ignacio and Bagua benefited directly from its outcome. However, almost 6500 farmers and their families in the region benefited indirectly from this quality mapping, as the small holder organizations in the region understood the importance of quality and reinforced their focusing on quality. Hence, this pilot initiative has had a strongly positive multiplier effect for the coffee from the northern region of Peru.

The following key impact was achieved:

- Quality lab has been installed in CENFROCAFE
- COICAFE's coffee lab had been equipped by selling all coffee samples gathered during 2006 for the purpose of "coffee mapping".

- 5 cuppers have been trained (advanced level); one of the cuppers now work at the coffee lab of COINCA S.A.C. located in the region of Cajamarca, and the other 4 at the collection centers of their organizations and also as cuppers.
- 7 youngsters, leaders of their communities, have been trained in basic cupping to serve their organizations and support current cuppers.
- Within the framework of coffee mapping 582 samples were cupped during project lifetime (Year 1: 197; Year 2: 164; Year 3: 221). Improvement of cup quality (clean cup – no defect) from 48,73% at project start to 76,5% at project end. According to SCAA parameters at project end the intensity was rated at project end 7.8 in 6 out of the 15 organizations, while at project start the intensity was rated 0.6.
- Quality has been enhanced through good harvesting and postharvesting practices:
 - FFS has served as effective training place
 - 100% of the farmers trained in pulper maintenance and repair
 - 100% of the farmers have adopted selective picking of coffee cherries
 - 100% of the farmers use clean water for coffee processing
 - 100% of the farmers are aware of the different factors that influence coffee quality (processing, hygiene, cleanliness, storage conditions, etc.)
- 951 families in the region participated at the second contest of high quality and sustainable coffee (II Concurso Nororiental de Café de Calidad y Sostenible-San Ignacio 2007) whose objective was to promote speciality coffee of the region in Peru as well as abroad.

5.3.2. Marketing

Both quality improvement and certification opened up better market opportunities for COICAFE and CENFROCAFE.

The following key impact was achieved:

- In 2006 COINCA S.A.C. structured its supply chain for Starbucks under C.A.F.E. Practices standards with 152 farmers of COICAFE and 155 farmers of CENFROCAFE
- Increase of productivity from 9 qq per ha in 2004 to 25 qq per ha in 2007, increasing family income

COICAFE:

- Sales increase from 504 qq green coffee in 2004 to 5000 qq in 2007; 96% sold to COINCA S.A.C.; shows a clear and strong market tie
- 2500 qq were sold to Starbucks verified under C.A.F.E. Practices from 152 verified farmers
- Increase of verified farmers from 152 to 385 in 2007
- In 2007, the differential per qq parchment paid by COINCA was \$ 5 above the local
- Currently COICAFE is striving for Fairtrade certification
- COICAFE buys agricultural inputs (fertilizers) for project beneficiaries in bulk; COINCA's role is of utmost importance as only the advance payments given by the exporter make this bulk purchase feasible.

CENFROCAFE:

- Sales increase of 13 containers in 3 years (from 63 to 76) among all the member organizations of Cenfrocafe. This shows a clear increase of confidence and sense of belonging from the farmers with their organization.
- 3944 qq green coffee sold to COINCA in 2006; 1100 qq as verified under C.A.F.E. Practices to Starbucks
- 6 member organizations verified under C.A.F.E. Practices

- Aware of the importance of quality, CENFROCAFE sold 374 qq of organic coffee as gourmet coffee with a differential to up to \$ 42 per qq.
- CENFROCAFE buys agricultural inputs (fertilizers) for project beneficiaries in bulk.

5.3.3. Organizational development

- COICAFE was capitalized with \$ 25000 at project end thanks to sales income
- Strong market ties with COINCA opened up new opportunities. For the 2008 harvest COINCA granted a credit of \$ 50000 at an interest of 1% for coffee purchase and 40000 bags of fertilizers at annual interest rate of 9%. Currently 385 members of COICAFE benefit from these credits, which are to be paid back with the current harvest.
- FFS methodology strengthened the organization, as awareness was created among farmers that they are the organization and as such must take responsibility. In this respect, concrete actions were taken by the members of the organization thus changing the Board and the administration.
- A study tour to Guatemala and Honduras was made to familiarize the participants with quality assurance systems, coffee purchase modalities and recordkeeping.
- Internal Control System in place in both organizations
- Business plan prepared in a participatory process for CENFROCAFE
- The presidents of both COICAFE and CENFROCAFE were trained in business management
- 320 farmers have been trained in basic management and recordkeeping at farm level. Each farmer was given a planner for farm management planning and recordkeeping.

6. Discussion

Considering quality improvement the project has by far outreached any expectations. At project start the coffee of the region of Jaén, San Ignacio and Bagua, was used especially as filler in blends, and nowadays the coffee from the North is gaining importance in the Peruvian coffee industry. Of utmost importance have been all activities involved in quality improvement, such as training in good agricultural practices, in good harvesting and postharvesting practices, in pulper maintenance, selective picking, adequate drying and storage facilities, but also in capacity building for cuppers and equipment of coffee lab. The positive impact on quality improvement in terms of market opportunities and prices, and hence on the farmer's economy have had a multiplier effect in the region. At present most organizations in the region are focusing on quality at farm level and coffee mapping to define cup profiles and look for market opportunities which pay accordingly.

A solid foundation was laid down by the project on the importance of quality. Both CENFROCAFE and COICAFE are focusing all their efforts on quality improvement and certification, as these two elements are opening up new business opportunities.

Project impact has also been to build business relationships between COICAFE, CENFROCAFE and COINCA and to strengthen them. Market linkage, certification and premiums were key to keep farmers motivated on focusing on quality and sustainability.

7. Outlook

As mentioned above coffee mapping and quality improvement had a dramatic positive impact on the beneficiaries and hence on the organizations. Project activities were not only key to improve coffee quality, increase productivity but also to establish the capacity at farmer individual and farmer organizational level to hold a sustainability certificate. The C.A.F.E. Practices seal proved to be an excellent option for marketing as well as to achieve and document tangible improvements of sustainability. COINCA S.A.C. played an important role in this setup becoming a key business partner for COICAFAE.

Capacity building has been another important key element during project intervention. Especially the FFS methodology has shown to be quite an innovative methodology for adult training in this region, having positive impact on the organizations and its members. Since leadership has shown to be a key issue for its success, local facilitators were appointed among farmers of each organization to lead the FFS. A major impact has been the empowerment of the farmers who realized that within this methodology they are the actors who are encouraged to share and pass on their knowledge. With this participatory method where knowledge is acquired by experimentation, observation, and discussion, farmers feel comfortable and understand much better the topics, as the training and exchange of experience is done in their own language.

An interesting observation has been made by farmers in regions where organizations are still weak “We as members of an organization meet to discuss problems of the association, but we are not used to work in a team or to share our problems we have in our coffee plantations, or to share the solutions.”

The project has served as a model for market opportunities and income increase through quality improvement. In this respect, almost all organizations in the region are focusing on quality, and especially CENFROCAFE and COICAFAE with all their base organizations. Main focus lies on for identifying cup profiles per region and developing products.

Quality improvement as well as more efficient farming practices in line with sustainability criteria, development of managerial skills, organizational development, among others, is an ongoing process; however the project achieved to leave a fertile ground. During project implementation the organizations acquired comprehensive knowledge enabling them to explore identified market opportunities in an ever more competitive market.