

**THE COLOMBIAN COFFEE GROWERS' FEDERATION:
ORGANISED, SUCCESSFUL SMALLHOLDER FARMERS FOR 70 YEARS**
Jeffery W. Bentley and Peter S. Baker

Abstract

The Colombian Coffee Growers' Federation (La Federación Nacional de Cafeteros de Colombia) is a powerful and successful farmers' organisation funded by farmers. By describing the history and present activities of the Federation, this paper examines the factors that have contributed to its many achievements. Since its establishment in 1927, the Federation has served the welfare of the country and promoted the economic and social well-being of Colombian coffee growers. The success of the Federation can be traced to the experience and competence of both its managers and members, the stability of its leadership, its financial security, and its political independence. Although the Federation leadership comes from elite families, they have tended to act in the interests of smallholder coffee growers.

Over the years, the Federation has established a number of subsidiary institutions, including a research institute, a capital fund and a merchant marine fleet. Established in 1938, the National Coffee Research Centre (Cenicafé) is the scientific research institute of the Federation. It is most unusual for a growers' association to continuously fund research at such a level and, as such, it is unique in developing countries. Cenicafé's research contributes to the high quality of Colombian coffee and the subsequent premium price that it demands. Farmers play a key role in setting Cenicafé's research agenda, although there has been less involvement of farmers in conducting or validating the research itself.

Whilst the Colombian Coffee Growers' Federation may look like a competent, alternative government or a big business with social sensibilities, it is still fundamentally an organisation of smallholder farmers. It remains a striking example of what farmers can achieve by working together and should be considered as a model for all aspiring growers' federations.

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Jeffery Bentley is a cultural anthropologist and an independent consultant. He can be contacted at Casilla 2695, Cochabamba, BOLIVIA
Fax: +591 4 296 481 Email: bentley@albatros.cnb.net

Peter Baker is an entomologist who directed the IIBC's Coffee IPM Project with Cenicafé from 1994 to 1998. He can be contacted at CABI Bioscience, Silwood Park, Buckhurst Road, Ascot, Berkshire SL5 7TA, UK
Fax: +44 (0)1344 875 007 Email: p.baker@cabi.org

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Network Coordinator: Catherine Longley Assistant Editor: Helen Suich Administrator: Alana Coyle

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Acronyms

ICA	International Coffee Agreement
ICO	International Coffee Organisation
IIBC	International Institute of Biological Control
USA	United States of America

THE COLOMBIAN COFFEE GROWERS' FEDERATION: ORGANISED, SUCCESSFUL SMALLHOLDER FARMERS FOR 70 YEARS

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1 INTRODUCTION

Coffee producers' organisations in Latin America have tended to be dominated by wealthy coffee growers¹. For example, the Salvadoran coffee élite dominated the government, confiscated peasants' land and then supported a military slaughter of protesters in 1932. This eventually culminated in the civil war of the 1970s and 1980s (Paige, 1997; see also Durham, 1979). Few organisations have succeeded in extending their franchise to smallholder farmers. This paper looks at an exception to this rule – an established and successful farmers' organisation funded by farmers. For 70 years, the Colombian Coffee Growers' Federation (La Federación Nacional de Cafeteros de Colombia) has been running a billion dollar agro-industry, engaging in a wide range of activities, including transport (the Federation owns a merchant marine business) and agricultural research. Despite this, their case has received little attention in development literature, despite current interests in agricultural sustainability and farmers' participation, of which this is a textbook example.

2 COFFEE IN COLOMBIA

Coffee has been grown in Colombia since at least 1787 and has been exported since 1835 (Chalarca, 1987). In the early decades of the twentieth century, settlers began moving further up the Cauca River, clearing forest to plant coffee on the slopes of Colombia's Central Range of the Andes. The land was ideal for coffee and ill-suited to much else, due to its extremely steep slopes, fertile soils and a good deal of land between 1,000 and 2,000 metres above sea level (Bates, 1997a). With at least some rainfall almost all year, the coffee bushes bear fruit year round, making coffee ideal for smallholder farming.

By the 1990s, the coffee-growing area of the Central Range was organised into six departments (Figure 1). People began to call the region *Eje Cafetero* (the Coffee Belt or Central Coffee Belt) to distinguish it from the wider area (on the East, West and Central Ranges of the Colombian Andes, and on the Sierra Nevada de Santa Marta) where coffee is grown less intensively. The six departments of the Central Coffee Belt now have a population of about 12 million people and 250,000 coffee farms (Table 1). Of the 16 coffee-producing departments in Colombia, 46 per cent of the coffee farms are in the Central Coffee Belt, accounting for 61 per cent of the area planted to coffee in Colombia. In 1997, the average amount of land planted to coffee by each of Colombia's 423,368 household coffee farms was 1.5 hectares (Federación Nacional de Cafeteros de Colombia, 1997).

Within the coffee belt there is a dense network of paved roads snaking through the mountains, traffic is fast and heavy and there is a town every few kilometres. The largest roads are built by the national government to link the cities with each other and with the ports (Cartagena, Barranquilla and Santa Marta on the Caribbean coast and Buenaventura on the Pacific coast). Smaller roads are built by the Coffee Growers' Federation and link almost every farmstead to the road system. Except for some natural forest remnants on hilltops and in canyons, the vegetation is mostly coffee, grown with perhaps a few banana plants and some tufts of bamboo. Coffee is labour-intensive and the farmhouses are dispersed to be near the groves. The farmhouses tend to be two storeys high, with Spanish tile roofs and ringed with verandas. Even smaller houses have an air of comfort and function.

3 HISTORY AND DESCRIPTION OF THE FEDERATION

History

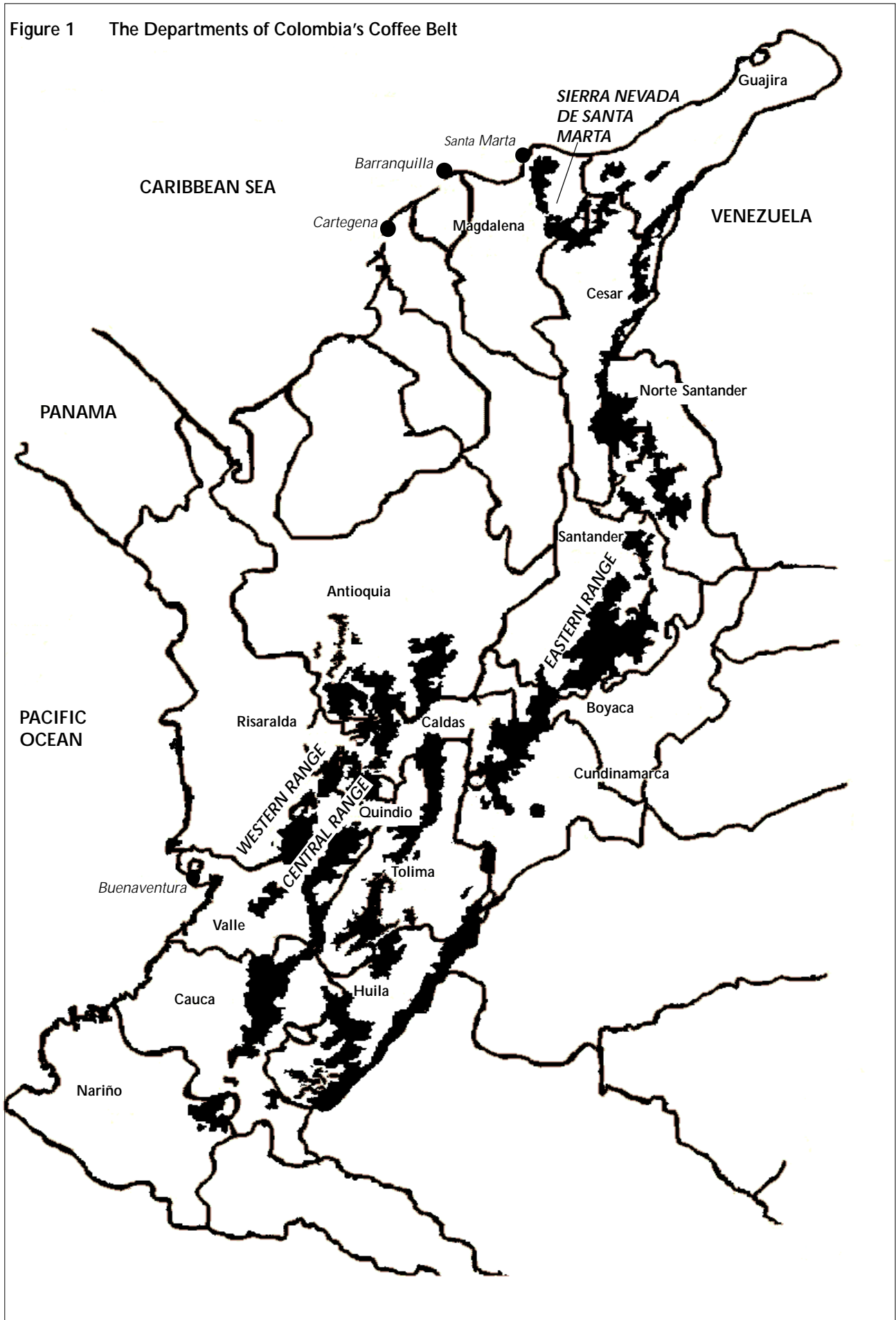
Colombian coffee farmers organised themselves into the Colombian Coffee Growers' Federation in 1927 at the Second National Coffee Congress. Nearly all of the founders grew coffee, some were pioneer exporters and many were educated. Although the main founders were élites, they were not élitist. They allied themselves with peasant farmers and saw their competitors as the foreign companies that dominated the export trade and often paid Colombian growers only half of the international price for coffee (Chalarca, 1987). The

Table 1 Coffee farms and area in Colombia

	Department	No. of farms	Area under coffee (ha)
Central Coffee Belt	Antioquia	96,484	125,212
	Caldas	47,320	91,421
	Quindío	7,600	51,484
	Risaralda	25,355	62,052
	Tolima	51,977	106,131
	Valle	26,703	89,569
	Subtotal	255,439 (46%)	525,869 (61%)
Rest of Colombia's Coffee Belt	Boyacá	14,939	12,012
	Cauca	83,508	61,604
	Cesar	4,915	21,226
	Cundinamarca	48,727	61,121
	Huila	52,801	76,123
	Guajira	1,495	4,348
	Magdalena	2,294	16,535
	Nariño	34,613	20,490
	Norte Santander	18,507	31,947
Santander	34,242	37,881	
	National Total	551,480 (100%)	869,158 (100%)

Source: Federación Nacional de Cafeteros de Colombia, 1997

Figure 1 The Departments of Colombia's Coffee Belt



objective of the founders was to protect and defend coffee for the welfare of their country and to promote the economic and social well-being of growers (Junguito and Pizano, 1997). Establishing the Federation kept private (especially foreign) exporters from colluding to drive down prices paid to farmers. It was an ambitious project: in the beginning, the Federation had no shipping, banking or storage facilities and no scientific assistance.

The Federation has been profoundly influenced by two events: the Second World War and the International Coffee Agreement. The war cut off Latin American coffee producers from their European markets. In a 1940 agreement with the United States of America (USA), Latin American coffee-producing countries divided the US market into quotas; coffee was abundant during the war, but ships were scarce, and the original intent of this agreement was to ensure a fair assignment of shipping to the USA (Hernán Uribe, pers. comm.). The coffee quota system permitted high prices until 1948 when it ended. The wartime quotas allowed the Federation to accumulate capital in the National Coffee Fund.

The International Coffee Agreement (ICA) consisted of various agreements made in the period 1962–89 between consumer and producer nations and was administered by the International Coffee Organisation (ICO). The ICA sustained the earnings of coffee growers and the Federation for over 25 years at the expense of northern consumers. It was one of the most successful counter-examples to the

complaint that producers of tropical commodities are mere price takers. The ICA was organised by coffee-producing nations (especially Brazil and Colombia) and by consumer countries (especially the USA) to create a new quota system and to raise coffee prices. However, domination by these three countries eventually led to the disintegration of the ICA. The Kennedy administration considered the ICA to be basic to the Alliance for Progress, through which the USA provided support to Latin America. Brazil and Colombia used the agreement to keep Mexico, Central America and African countries from increasing their coffee export quotas, leading to discontent within the organisation. In 1989, when foreign policy in the USA became more interested in Central America, the Reagan administration abandoned its policy of support to the ICA and increased quotas to Central America. This led to a considerable fall in the Federation's income, although it still remains a profitable organisation.

Over the years, the Federation has established a number of subsidiary institutions, including a research institute, a capital fund and a merchant marine fleet (Table 2). The wartime quotas allowed the Federation to accumulate capital in the National Coffee Fund, which stimulated interest in developing a merchant marine fleet. The original statutes of the Federation called for experimental farms and the publication of a magazine, in which coffee growers could learn about the results of the experiments (Federación Nacional de Cafeteros de Colombia, 1928). In 1938, the Federation founded the National Coffee Research Centre (Centro Nacional

Table 2 History of some of the Federation's subsidiary institutions

Name of institution	Description	Year founded
Cenicafé (Centro Nacional de Investigaciones de Café)	Conducts agronomic research on coffee.	1938 – replaced earlier efforts at the experimental farm of La Esperanza.
Coffee Fund (Fondo Nacional del Café)	Established to buy coffee in excess of the World War II quota. Continues to buy and sell coffee. Stabilises farm-gate prices. Formally belongs to the government, but managed by the Federation.	1940 – renewed by contract with the Colombian government about every 10 years.
Flota Mercante Grancolombiana	Merchant marine institution. Owns three ships and hires 60 others with seven international routes (US East Coast, South America West Coast, Gulf of Mexico, Northern Europe, Mediterranean, Japan and Far East). Imports and exports freight in general, including 34 per cent of Colombia's coffee exports. 80 per cent owned by the Federation, and 20 per cent by the Development Bank of Ecuador.	1946 – authorised in 1932; approved in 1944; began service in 1947.
Bancafé (Banco Cafetero)	Finances the production, harvest, transport and export of coffee and other agricultural products. In 1996 Bancafé had 295 offices and 6,575 employees.	1953
Almacafé (Almacenes Generales de Depósito del Café)	Storage network of 90 warehouses with a total capacity of 16.6 million bags of 60kg. Buys from 59 farmers' cooperatives and 600 other purchase centres.	1965 – based on an earlier storage system begun in 1929, when the world stock market crash prevented Colombia from exporting all its coffee.

Source: Junguito and Pizano, 1997

de Investigaciones de Café or Cenicafé), a scientific institution for agronomic research on coffee. The participation of farmers in research was explicit from the start: the statutes state that every member of the Federation has the right to inspect the experimental farms.

Description of the Federation

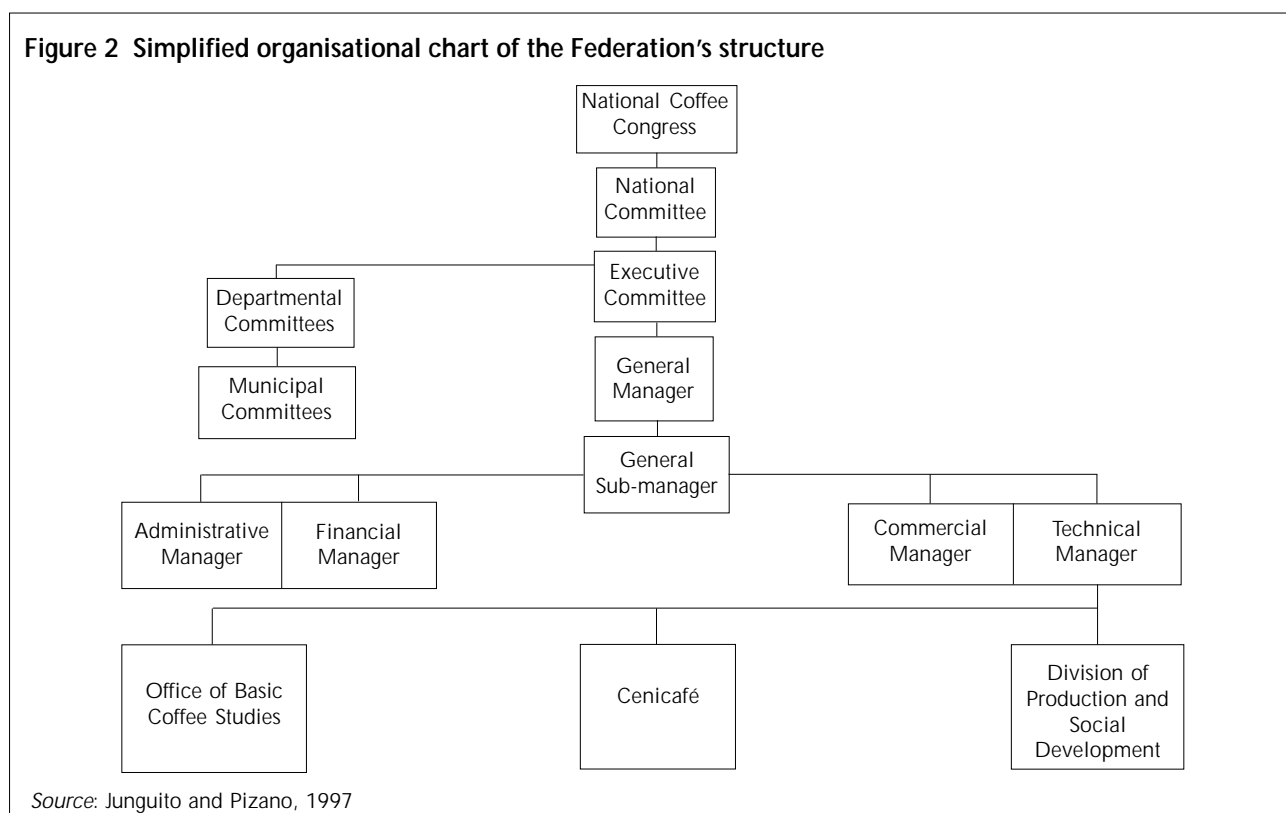
The Federation is a powerful organisation. One of the Federation's early managers later became the president of Colombia², and other Federation leaders have held high posts in the Colombian government. Colombia sells more coffee than any country except Brazil, which is highly significant given that coffee ranks second only to petroleum in tropical exports (Bates, 1997a). The Federation's coffee sales are worth about \$1.5 to \$2 billion per year and its annual income in 1996 was about \$140 million, having fallen from levels of over \$200 million per annum achieved in the last few years of the ICA (Junguito and Pizano, 1997).

The Federation has a democratic hierarchy (Figure 2) based on 371 Municipal Committees which are democratically elected at the grassroots level. The Municipal Committees elect 15 Departmental Committees, which in turn elect a National Coffee Congress (Cárdenas, 1997b). The proportion of coffee grown in the department determines the number of seats held by each Department at the Congress. The Coffee Congress (when in session) is the Federation's highest authority. It selects the National Coffee

Committee, a general manager and a sub-manager. When the Congress is not in session, the National Coffee Committee is the top authority. The general manager handles external relations, while the sub-manager is in charge of internal operations. The managers behave much like the executives of a large corporation, but instead of having a board of directors, the managers are accountable to the democratically elected Coffee Congress.

The Federation is not a charitable organisation but a socially responsible business. The success of the organisation can be traced to three factors:

- Experience and competence. The Federation management and members have grown up within the Colombian coffee business. Federation installations are professionally managed. For example, the laboratories have the latest equipment, reagents and other supplies and the staff wear clean, white lab coats. People come to meetings on time. The coffee-buying warehouses are well lit and the coffee is bagged and stacked neatly.
- Stability. Since 1927, the Federation has had only eight general managers; indeed since 1937, there have been only three general managers. Other staff members also tend to make a career of their work with the Federation. Because of competitive salaries and professional working conditions, Cenicafé is able to retain good scientists.
- Financial security. The Federation has a level of income that allows for investment.



A further reason for success is the Federation's political independence. The Federation has struggled to avoid government take-over, though in 1935 it was forced to accept a government ruling that half of the Federation's 10-person national committee should be appointed by the government (Bates, 1997a). The Federation has since won back more control; now only six of the 14 members of the National Committee are government appointees, and the Colombian President no longer has to approve the committee's measures (Junguito and Pizano, 1997). The Federation is able to keep most of its earnings and manage its own business. Although the Federation has many dealings with both Colombian and foreign governments, Federation leaders are quick to point out that they are apolitical (Hernán Uribe, pers. comm.). Both the government and the leftist guerrillas respect the Federation – the dictatorship of the 1950s did not interfere with the Federation, and no extension agent or other staff have been kidnapped by guerrillas (Hernando Duque, pers. comm.).

Coffee producers in countries with weak growers' organisations are at the mercy of national governments who often leave smallholders with only 30–40 per cent of the international coffee price (Bates, 1997a; 1997b). In contrast, Colombian farmers receive about 95 per cent of the world price for their harvest in the form of a cheque that can be cashed the same day. The Federation also cushions its members from price fluctuations on the world market by buying more coffee when prices are low and letting private buyers buy more coffee when prices are high (Chalarca, 1987). The Federation's strength can be attributed to the following factors:

- The large volumes of coffee the Federation deals in means it can achieve economies of scale and is also able to influence world prices. When prices are high, the Federation saves money in the Coffee Fund which is later used to keep prices from falling too low. When prices are low, the Federation stores coffee in its network of warehouses (owned by a subsidiary called Almacafé) to sell when world prices recover. If the Federation were weak or disorganised, it would have to sell its coffee immediately, and the buyers would store it in warehouses in Germany, the US and elsewhere (Cárdenas, 1997b).
- Since the 1920s, the Federation has built up markets based on its reputation for quality – Colombian coffee enjoys a premium of about 20 per cent. It created the Juan Valdez trademark in 1959, which helped establish Colombian coffee as a brand. Colombia sells 35 per cent of its coffee as unblended roasts, labelled '100 per cent Colombian', something other countries have been unable to match.
- The Federation is able to sign large contracts with big roasting firms. Four roasting firms buy half of the coffee imported by coffee-drinking countries; the Federation negotiates with these large corporations in a way that small exporters could never do (Cárdenas 1997b; Bates, 1997a).

The Federation pays all Colombian growers the same price for their coffee, regardless of distance from highways and ports (Hernán Uribe, pers. comm.). Farmers do, however, have to haul their coffee to a Federation buying centre, which means that transport and transaction costs are lower for farmers in the densely inhabited Central Coffee Belt. In more marginal coffee-producing areas, farmers often prefer to sell at a lower price to more convenient private buyers (McGee, 1997). The Federation does not have a monopoly to buy or export coffee, and private dealers control about half the Colombian coffee market which gives the Federation some healthy competition.

Federation leaders

The leaders of the Federation have always encouraged smallholder farmers to participate in the coffee-growing franchise (Ocampo, 1997). Bates (1997a) notes that although the Federation leadership comes from elite families, they have tended to act in the interests of smallholder coffee growers. For example, in the 1930s the Federation supported breaking up some large estates and lobbied for the creation of a mortgage bank to allow smallholders to buy land. Instead of resisting land reform, the Federation eased the 'democratisation' of coffee production (Bates, 1997a). Various reasons have been put forward to explain the incorporation of smallholder interests into the Federation's agenda (Box 1).

Box 1 Why has the Federation incorporated the interests of smallholders?

Federation members' hypotheses:

- as labour was scarce and land abundant, élites were less interested in appropriating land and killing labourers than in El Salvador, for example;
- the founders of the Federation were idealists who believed in liberal democracy;
- Colombian élites and smallholders were united in their determination to present a solid front to drive out North American middlemen.

Bates (1997a) suggests that:

- élites needed smallholders as a political constituency for votes in national elections.

Thorp and Durand (1997) suggest that:

- élites were interested in smallholders as clients in a traditional social hierarchy;
- coffee's high transaction costs and economies of scale in storage stimulated cooperation between large- and small-holders;
- the coffee economy grew gradually, so the élites sought good conditions for both the productivity of coffee and for the rest of the economy;
- the Colombians needed to deal collectively with Brazil, which was trying to restrict supply in order to raise prices;
- the Federation has had exceptionally good general managers and, as a whole, has been extraordinarily capable and professional.

Box 2 How the Federation decides to spend its money

The National Committee of Coffee Growers (Figure 2), in consultation with the Government of Colombia, decides on general issues relating to the Coffee Fund. The government is consulted because the Coffee Fund is large enough to influence Colombia's macroeconomy. The Federation takes a percentage of the total fund as a fee for managing it. The main purpose of the Coffee Fund is to buy the coffee harvest from farmers. Cenicafé is also financed from part of this fee. Money from the Coffee Fund may also be spent on items approved by the National Coffee Congress. For example, the Congress recently approved a plan proposed by the Federation's Director of Research to recruit 1,200 new extensionists.

The rest of the money is divided among the Departmental Committees, in proportion to the amount of coffee they produce. Over half (53 per cent) of the Federation's income is distributed to Departmental Committees to be spent on roads, schools and other public goods. The Departmental Committees disburse funds to their Municipal Committees, but *not* in proportion to the amount of coffee each municipality produces. Instead, they have worked out a formula which allows poorer municipalities within each department to receive a proportionately larger share. The Municipal Committees then decide on public works that they need. In some cases they negotiate with local government to put up 30 per cent matching funds.

Source: Hernando Duque (pers. comm.)

The Federation's responsibilities

In 1927 the Federation and the Colombian government fixed a tax on coffee exports, agreeing that the government would return the money to the Federation to be spent on public goods for coffee-growing communities. The contract was renewed several times, most recently in 1997 when the tax was set at US\$0.10 per pound of coffee exported (Cárdenas, 1997b). Some of this money is used to fund Cenicafé and the rural extension service. The Federation also uses funds to build roads, clinics, water systems and schools, and to hire teachers (Box 2).

Nearly all the public works in the Central Coffee Belt are funded by the Federation. The Federation has built 16,923 schools, constructed 12,882km of roads and improved another 50,672km, and even the most remote farmsteads have electricity. In many ways therefore, the Federation operates as a kind of competent, alternative government in the Colombian Coffee Belt, where little corruption is evident. This is remarkable given that nearly one-third of Colombia's population lives within the Central Coffee Belt (Table 3).

For anyone with experience of working with smallholder farmers elsewhere in Latin America, it comes as a surprise to see the prosperity of the Colombian Coffee Belt. Schools have windows and books; the roads are paved; the water is drinkable; doctors visit the clinics; and lights work all the time. Children attend high school and sometimes university. Households often have telephones, refrigerators, colour television, motorcycles and even jeeps. The Federation has agricultural input supply stores and grocery stores where members can buy supplies at accessible prices. Few other large groups of farmers in Southern countries enjoy a comparable standard of living from a legal crop. In other words, coffee and its social organisation allows

Table 3 Population and land in coffee by region

Region	Population	Total area under coffee (ha)	Inhabitants per ha. of coffee
Central Coffee Belt	11,626,300	525,869	22.1
Rest of the Coffee Belt	10,956,528	343,289	31.9
All of Colombia	35,886,280	869,158	41.3

Sources: Hammond, 1995; Federación Nacional de Cafeteros de Colombia, 1997

many thousands of Colombian households to have a decent, middle-income standard of living.

In more marginal coffee-producing areas of Colombia however, the material benefits are not so great: there is less land planted to coffee per person and the Federation spends less money. As Table 4 shows, the level of misery is higher in the rest of the Coffee Belt than in the Central Coffee Belt.

4 AGRICULTURAL RESEARCH: CENICAFÉ

The National Coffee Research Centre (Cenicafé) is the scientific research branch of the Federation. It was established in 1938 and currently receives about one per cent of the Federation's budget. It is most unusual for a growers' association to continuously fund research at such a level and, as such, it is unique in developing countries. Cenicafé's research contributes to the high quality of Colombian coffee and the subsequent premium price that it demands. Cenicafé has developed into a major modern research institute, with state-of-the-art facilities and high quality research. Many technical publications are produced, including the Cenicafé scientific journal, *Cenicafé*, established in 1949. Cenicafé works according to a five-year strategic plan, the most recent of which is mainly oriented towards reducing Colombia's high coffee production costs. Cenicafé could have a higher international profile but its scientists have an ethos of working directly for farmers, so publication in international journals is not a priority. Nevertheless, Cenicafé is the world's most important coffee research institute and is one of the top scientific establishments of the Andean region.

Farmer participation in setting the research agenda

Farmers play a key role in setting Cenicafé's research agenda. The Federation managers themselves come from coffee-farming families, own their own coffee farms and have many informal contacts with coffee growers. Through extension agents, the Federation administers a questionnaire every year to farmers. The information collected is submitted to the Coffee Congress and is used as the basis for submitting annual research demands to Cenicafé. Every five years, the Director of Cenicafé sends a letter to every departmental committee, asking them to describe their research needs. These requests are then sent on to Cenicafé's disciplinary departments (e.g.

Table 4 Misery in the Coffee Belt

Department	Percentage of rural, coffee-producing households living in 'misery'*
Central Coffee Belt	
Antioquia	20.2
Caldas	10.1
Quindío	6.4
Risaralda	9.8
Tolima	30.6
Valle	11.3
Rest of the Coffee Belt	
Boyacá	32.5
Cauca	44.5
Cesar	74.4
Cundinamarca	27.4
Huila	34.5
Guajira	89.2
Magdalena	47.7
Nariño	37.2
Norte Santander	49.3
Santander	31.3
Average	28.0

* The Federation defines 'misery' as having two or more of the following: poverty; crowding; inadequate housing; inadequate access to drinking water; children not attending school.

Box 3 Cenicafé research success

- Yield increases: the release of the improved variety 'Caturra' in the mid-1970s contributed to yield increases from 42kg per hectare in the 1960s to 84kg in the 1990s.
- Rust resistance: scientists anticipated the arrival of coffee rust (*Hemileia vastatrix*) and undertook research into durable resistance to rust. Thousands of genetic crosses were made and sent to the Coffee Rust Research Centre in Portugal, resulting in 'Variedad Colombia'. This rust-resistant variety was ready for distribution through the Federation's extension service by the time the disease arrived in 1983.
- Coffee berry borer control: entomologists developed cultural controls for another new pest in Colombia, a small beetle known as the coffee berry borer (*Hypothenemus hampei*). The control, called 'ReRe', includes picking ripe and over-ripe berries from the branches. Cenicafé entomologists have also collaborated with the International Institute of Biological Control (IIBC) in introducing African parasitic wasps for the biological control of the coffee berry borer.
- Pollution-free coffee processing: researchers have recently finished developing a water-saving coffee processing technology for removing pulp from cherry coffee. Traditional methods used about 40 litres of water while the new method uses only 0.7 litres. Because the volume of waste is less, pulp waste can be spread on the groves as organic fertiliser, instead of being dumped into streams.

Sources: Cárdenas 1997b; Chalarca 1987; Cenicafé, 1995

Entomology), which take them into account when designing their five-year plan. It is clear that:

- There is a self-conscious 'coffee culture' (*cultura del café*) in the Coffee Belt, especially in the departments of Caldas (where Cenicafé is headquartered), Risaralda and Antioquia. Many of the researchers at Cenicafé have coffee-farming backgrounds.
- Cenicafé's scientists are very much aware that their jobs and funding depend on the Federation, whose fate is bound with the success of individual coffee growers. The Coffee Congress, which is elected from coffee growers themselves, has the authority to increase or decrease funding for Cenicafé.

Cenicafé has enthusiastically set itself a difficult agenda: to intensify without resorting to many of the customary tools of intensification. It has aimed to develop a particular blend of advanced agronomic techniques with a strong environmental emphasis. Cenicafé encourages farmers not to apply insecticides, herbicides, etc. and not to pollute streams with waste water from de-pulping. Yield increases, a rust-resistant coffee variety, biological control of the coffee berry borer and water-saving methods for removing coffee pulp are some of the valuable results from Cenicafé's research (Box 3).

Links between Cenicafé and the extension service

Cenicafé maintains links with Federation extension agents, who are based in the Municipal Committees. Cenicafé holds an annual meeting to discuss research findings with extensionists. It also publishes several series of pamphlets for extensionists. Informal links between Cenicafé and extensionists are perhaps equally as important. Extensionists often contact friends at

Cenicafé for advice about farmers' problems. The Federation broadcasts a half-hour weekly television programme called *Las Aventuras del Profesor Yarumo*, estimated to have about five million viewers. The crew of the programme moved to Cenicafé in 1997 to bring research and extension even closer together.

The Federation extensionists usually have university training, but most also have a coffee-farming background and good rapport with the growers. Extensionists have played a key role in the high adoption rates of Cenicafé's cultural controls for coffee berry borer. Adoption rates vary according to region and research method used, but rates of over 75 per cent have been reported (Duque and Chaves, 1997). Castaño (1998) reports that 94 per cent of the farmers in the Central Coffee Belt claim to use cultural controls for berry borer.

5 CONCLUSION

The Coffee Belt is a relatively peaceful part of Colombia, free from violence and guerrilla activities. The Federation has certainly contributed to this relative social stability by providing jobs, public works and other primary social needs, thus avoiding some of the sources of mass dissatisfaction (Cárdenas, 1997a).

The Federation has developed into a unique international enterprise. It is funded entirely by growers and remains accountable to them. Agricultural research funded by the Federation is a positive example of sustainable farmer participation in setting the agenda of agricultural research, although there has been less involvement of farmers in conducting or validating the research itself. Keys to the success of the Federation include:

- the exceptional vision, integrity and organisational ability of the people that set it up;

- its experience and competence;
- stability of management and technical staff;
- financial power – income from coffee has allowed the Federation to conduct research, invest in storage and shipping and buffer farmers from erratic price changes;
- political independence – the Federation has a large constituency; it has participated in electoral politics when possible and has avoided government deprecation;
- participation – smallholder coffee growers have been included in the franchise;
- a democratic hierarchy; and
- vertical integration (banks, ships, storage, research, etc.).

Federation and government leaders are quick to point out that coffee is at a crossroads in Colombia. With increasing diversification of the Colombian economy, coffee is no longer the dominant foreign exchange earner it once was. In the future, Colombian coffee will be more important for its social role in providing a livelihood to over 400,000 farmer households and jobs for one million other people (Cárdenas, 1997a, 1997b; Betancur, 1997).

Certain problems will have to be resolved (see Vallejo and Vallecilla, 1997). There are economic, class and educational differences between the Federation leadership and their grassroots members. Many smallholders think that the Federation actually introduced the coffee berry borer and coffee rust to Colombia (Castrillón, 1998; Castaño, 1998). The fact that the grassroots membership has such damaging

beliefs suggests that there may be underlying problems associated with communication. Because the Federation is the only institution with much presence in the Coffee Belt, many smallholders have come to view it as a large, public-sector bureaucracy and hence to be treated with scepticism. The chronic agrarian and social crisis that Colombia continues to suffer, with the secular decline in coffee prices, means that farmers tend to blame their troubles on the most familiar and omnipresent organisation that they know – the Federation. The very stability and order of the Federation means that it is slow to react to new situations. In the coming years it may have to make more radical changes than it is accustomed to, in order to regain some of the vision of its founding fathers, perhaps with more active participation of farmers at all stages of research and development.

Nevertheless, the Federation has done an outstanding job for both its coffee farmers and Colombia. This remarkable institution may look like a competent, alternative government or a big business with social sensibilities, but it is still fundamentally an organisation of smallholder farmers. It remains a striking example of what farmers can achieve by working together and should be considered as a model for all aspiring growers' federations. Formal interest in farmer participation in agricultural research may be relatively new, but as this example shows, farmers have paid for, and helped set the research agenda for Colombian coffee for 70 years. Future study of the Federation is needed to learn more lessons that can be applied to other situations.

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ENDNOTES

- 1 Many international donors have supported farmers' organisations in Latin America, with uneven results. For example, AgREN Paper No. 47 (Bebbington et al.) describes a large cooperative of smallholder cocoa growers in Bolivia. The cooperative has functioned for years but is still dependent on foreign donations.
- 2 Mariano Ospina Pérez, manager of the federation: 1930-34, president of Colombia 1946-50; see Chalarca, 1987.

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