INTERNATIONAL TROPICAL TIMBER ORGANIZATION

ITTO

PROJECT PROPOSAL

TITLE	PRODUCTIVE FOREST MANAGEMENT FOR THE RURAL RESERVE AREA OF GUAVIARE
SERIAL NUMBER	PD 32/99 Rev.2 (F)
COMMITTEE	REFORESTATION AND FOREST MANAGEMENT
SUBMITTED BY	GOVERNMENT OF COLOMBIA
ORIGINAL LANGUAGE	SPANISH

SUMMARY

Law 160 of 1994 on Land Reform created the Rural Reserve Area status, which has been declared in areas affected by colonization processes. The Department of Guaviare is one of the six major departments in the Colombian Amazon Region, covering an area of approximately 5.5 million hectares, half a million of which constitute the Rural Reserve Area of Guaviare (RRA-G). In addition, the Sustainable Development Plan formulated for the RRA-G places special emphasis on the management of soil, water and biodiversity resources, atmospheric conditions, employment generation, social equity and economic efficiency, so as to correct previous mistakes of past agricultural production activities. This Development Plan, which has been submitted, discussed and approved by the various Municipal Councils for Rural Development, envisages forest development as the strategic productive axis for social and economic welfare in the region and for the rehabilitation and conservation of the Amazon forests of the area. This project provides specific support for the implementation of the Management Plan for the RRA-G. To this end, activities have been designed for financing through significant present and future contributions.

Specific objectives:

1. Develop the forest management skills of rural producers in the Rural Reserve Area of Guaviare.
2. Implement demonstration exercises to test and adjust forest production options.
3. Develop management plans for forest reserve areas suitable for utilization, forest plantation establishment and management plans for agricultural areas, and plans for the protection and rehabilitation of forest lands of significance for the provision of environmental services.

EXECUTING AGENCY	CORPORACION DE ORDENAMIENTO TERRITORIAL SINERGIA (CO-SINERGIA)
COOPERATING GOVERNMENTS	--
DURATION	36 MONTHS
APPROXIMATE STARTING DATE	JANUARY 2000

BUDGET AND PROPOSED SOURCES OF FINANCE

Source	Contribution in US$
ITTO	**618,969**
Gov't of Colombia	373,800
TOTAL	**992,769**

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PART I: CONTEXT

A. RELEVANCE TO ITTO

1. Compliance with ITTO objectives

This project proposal complies with the following ITTO objectives as expressed in Article 1 of the ITTA 1994, items a, c, d, e, f, g, h, i, j, k, l, m and n, for the following reasons: (a) the project is based on an innovative design in economic, social and environmental terms, so that its experiences and results can be widely shared and an ongoing communication channel can be established with relevant and interested parties in relation to the international tropical timber trade; (c) the project seeks to introduce significant production changes for the agricultural and forest sectors within a framework of sustainable natural resource utilization, social viability and economic optimization; (d) the project is aimed at increasing local and national capacity to introduce products from sustainably managed sources into the market; (e) the project seeks to ensure the management of important productive areas of natural forest for immediate consumption, establish plantations to supply medium and long term markets, and rehabilitate forest areas of significance for genetic resource management, so as to broaden and diversify the production base without adversely affecting the natural resource base and increasing the possibilities to strike a balance between producer and consumer prices; (f) the project envisages an improved management of water, soil and biodiversity resources based on participatory methodologies of technological adjustment; (g) the project seeks to develop production designs to attract private investors and to strengthen the opportunities for the establishment of strategic investment partnerships; (h) [~~the project is aimed at developing a management system that will facilitate the establishment of product labeling and certification schemes as well as the gathering and wide dissemination of information~~] the project is aimed at taking significant actions in timber product processing; (i) the project seeks to take a significant step forward in the field of timber product processing; (j) the project essentially seeks to establish the sustainable management of timber producing forests, the establishment of forest plantations on lands once covered by natural rainforests, and the rehabilitation of significant forest areas which are necessary for water supply, erosion control and wildlife protection; (k) the project is aimed at establishing a direct link between farmers and industrial producers and the domestic and international markets interested in products from sustainable sources; (l) the project has been designed in accordance with the guidelines of the current forest policy and the "Green Plan" and seeks to make recommendations for their improvement and development, particularly at the sub-national and local levels; (m) the project is based on the transfer of technology and horizontal cooperation between the private industrial sector and the rural communities and their respective organizations; (n) the project will produce relevant information for the Forest Statistical System, which will in turn be available at all levels.

2. Compliance with ITTO criteria

With reference to the ITTA 1994, Article 25, paragraph 1, this project is particularly related to the field of reforestation and forest management. Furthermore, both the design and the implementation of the project will be based on the ITTO criteria and guidelines for the Sustainable Management of Natural Tropical Forests, the Establishment and Sustainable Management of Planted Tropical Forests, Fire Management in Tropical Forests, and the Conservation of Biological Diversity in Tropical Production Forests.

3. Relationship to ITTO Action Plan and Priorities

This project takes into account the ITTO priorities contained not only in the ITTA 1994 (Article 25, paragraph 2) but also in the Libreville Action Plan. For example, in the Libreville Action Plan, item 3.2 on reforestation and forest management goals, support actions are recommended for activities aimed at: (a) securing and improving the tropical and Amazon timber resource base; and (b) increasing the technical, financial and human capacity to manage the timber resource base. With reference to goals 1, 2 and 3 of the Action Plan, the project is particularly related to the following actions: Goal 1, actions 2, 6, 7.1, 7.2, 7.4, 7.5, 7.7; Goal 2, actions 2, 4, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7; Goal 3, actions 1, 2, 3, 4, 5, 6.1, 6.2, 6.3, 6.4, 6.5, 6.6.

B. RELEVANCE TO NATIONAL POLICIES

1. Relationship to sectoral policies affecting tropical timber

The Ministry for the Environment, in compliance with the Constitutional mandate of 1991 and Law 99 of 1993, promoted the discussion and adoption of policies, rules and specific plans for the environmental management of natural resources. In particular, it adopted the Forest Policy (CONPES[1] document 2834 of 1996); the Policy Guidelines for the Integrated Management of Water Resources (National Environmental Council – Consejo Nacional Ambiental -CNA[2], 1996); Colombia's Position in the "Kyoto Protocol" of the Framework Convention on Climatic Change (CNA, 1997); the National Biodiversity Policy (CNA, 1997); the Environmental Management Plan for Wildlife Protection (CNA, 1997); the Strategic Plan for the Rehabilitation and the Establishment of Forests In Colombia or "Green Plan" (CNA,1998), and it promulgated Decree 1791 of 1996 on the Forest Harvesting Regime. These decisions have been adopted under a new paradigm of sustainable and rational utilization of natural resources and the environment.

This project has been conceived and designed as a specific and timely definition of the aforementioned policies, regulations and Strategic Plan. In particular, the second strategy of the Forest Policy -to preserve, rehabilitate and utilize natural forests- includes the following action proposals: reduce and control deforestation; promote reforestation and afforestation; promote the sustainable utilization of forests; and promote the protection of natural forests. The third strategy, aimed at the strengthening of support instruments, has the following action proposals: to implement research activities for natural and planted forests; to organize a national forest statistics and information system; to guarantee community participation and promote education and training activities.

At the sectoral level, the Ministry for the Environment has signed important agreements for "Clean Production" with different producer groups, including those that are implementing activities in forest areas. Furthermore, the Ministry for Agriculture and Rural Development has promoted the conclusion of important agreements for the rural sector, including agreements for the development of the forest sub-sector, through the so called "Production Chains". To date, agreements have been signed for the "Forest production chain, particleboard and plywood, furniture and timber products", and for the "Forest chain, pulp, paper and graphic industries". The same Ministry has achieved a modest progress in the operation and financing of the Forest Incentive Certificate which seeks to achieve the reforestation of forest areas that have been converted to other land uses. Similarly and in a complementary manner, the Ministry for the Environment has established the Forest Incentive Certificate for the conservation of natural forests. Finally, the Orinoco Regional Planning Council launched in mid-1998 its regional forest incentive certificate known as the "Orinoco Regional Forest Incentive", aimed at encouraging the rehabilitation of forest lands of the northern Amazon region and the Colombian eastern plains region which feeds the Orinoco river and which at Guaviare becomes the transitional point for the Amazon ecosystem.

2. Relation to sub-sectoral aims and programs

This project has been designed on the basis of three pragmatic sources. The first source is the Sustainable Development Plan for the Guaviare Rural Reserve Area[3], which based its production strategy on the principle of sustainable forest management. The second source is the Departmental Development Plan for Guaviare[4], which has given a lot of consideration to the areas of the environment, agricultural production, land-use management and rural business management development, among others. The third and equally important source in terms of project activities is the Strategic Forest Rehabilitation and

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1 CONPES, National Economic Policy and Social Council. The Council is made up of the President of the Republic and the Ministers, and public and private institutions related to the subject being dealt with are also invited to participate. The CONPES documents, which are the responsibility of the Ministers in coordination with the National Planning Department, are important because they determine the distribution of resources and responsibilities within the framework of the Government's Development Plan. The Forest Policy document was discussed and considered for two long years before it was submitted to CONPES.

2 The National Environmental Council is a similar body to CONPES, with a wider representation of stakeholders by their own right. The President of the Republic, the Ministers and a wide range of institutions, private associations and NGO and community representatives participate in this Council. The CNA documents can provide indicative figures for the distribution of resources and can recommend the allocation of responsibilities.

3 The plan was prepared by the SINERGIA Land Management Corporation (1998) in accordance with the Technical Cooperation Agreement between the Inter-American Agricultural Cooperation Institute (Instituto Interamericano de Cooperación para la Agricultura – IICA) and the Colombian Institute for Land Reform (Instituto Colombiano de la Reforma Agraria - INCORA). See refrences in the annexes.

4 Government of Guaviare, 1998.

Establishment Plan for Colombia, better known as the "Green Plan", formulated by the Ministry for the Environment.

In general terms, the Green Plan contemplates *inter alia* the following components: incorporation of forest utilization, agroforestry, conservation and ecological rehabilitation activities into environmental land management; rehabilitation of degraded ecosystems and promotion of protection reforestation in areas which provide basic environmental services for the population; incorporation and application of environmental criteria that will contribute to curbing deforestation; promotion of sustainable agricultural uses through the implementation of agroforestry; promotion of actions aimed at making commercial reforestation competitive; development and strengthening of research activities; promotion of training activities and community participation; incorporation of silvicultural activities in national plans and programs of La Paz.

3. Institutional and legal framework

The project's core legal framework is based on the following:

Decree-Law 2811/74 or National Natural Resources and Environmental Code.
Law 99/93, which establishes the Ministry for the Environment and the National Environmental System.
Law 101/93, which re-organizes the Ministry for Agriculture, and contains provisions related to the rural sector and to agricultural, fisheries and forestry activities.
Law 139/94, which establishes the Forest Incentive Certificate (CIF) for plantations.
Law 160/94, on the National Land Reform and Rural Communities Development System.
Law 223/95 (Article 250), on taxation reform, establishes the CIF for the conservation of natural forests.
Decree Regulation 1791/96, which establishes the forest harvesting regime.

The following institutions are directly related to the project: rural organizations integrated by the owners of the Agricultural Family Units (Unidades Agrícolas Familiares – UAFs); Municipal Councils and their Municipal Agricultural Technical Assistance Units (Unidades Municipales de Asistencia Técnica Agropecuaria - UMATAs), responsible for coordinating and supporting the transfer of technology to rural users; the Corporation for the Sustainable Development of Northern and Eastern Amazon (Corporación para el Desarrollo Sostenible del Norte y Oriente Amazónico – CDA), responsible for the implementation of environmental policies and regulations, the issuing and monitoring of forest harvesting permits, the coordination of activities for the sustainable development of the region, including the formulation of environmental plans; and the Non-Governmental Organizations working to increase the technical, organizational and administrative capabilities of the civil society. The Ministry for the Environment, as the national body responsible to ITTO, and the Ministry for Agriculture and Rural Development, will play a crucial role in the general administration of the project by providing support to local institutions, managing counterpart resources and ensuring the future sustainability of project actions. The Amazon Research Institute, SINCHI and CORPOICA (Colombian Corporation for Agricultural Research) carry out significant research efforts (agroforestry systems and agro-sylvo-pastoral systems respectively), the results of which can be used by this project[5].

Finally, the Solidarity Network, which provides economic support for local self-managed development processes, and the National Program for Alternative Development [PLANTE] (PNDA), aimed at providing economic support for the substitution of illegal crops, are two essential agencies for the successful completion of the project and for the continuation of its actions upon the completion of the ITTO funding stage.

[5] The central mandate of these institutes is the implementation of social, economic and environmental research for the benefit of society.

PART II: THE PROJECT

1. ORIGIN (including relationship to earlier ITTO supported actions)

The mandate provided for in Law 160 of 1994 gave rise to a process of promotion and establishment of Rural Reserve Areas throughout the country. One of the first processes was initiated in the Department of Guaviare. At the end of 1997, a Rural Reserve Area was established in this department and during 1998 the process of formulation and coordination of a Sustainable Development Plan has been taking place in that area as provided for by the above Law. At the same time, the formulation of the Green Plan and the Departmental Development Plan described in section B2 above have taken place, as well as the formulation of policies and regulations described in section B1 above. There is a clear common denominator in all these plans and policies: the emphasis given to the forest sub-sector as a strategic component in the rural development and rational environmental management processes. Even though the project has been developed independently of any other initiatives, there is a close relationship with an Amazon project financed by ITTO, i.e. the project for the Recovery of Natural Ecosystems of the Hillsides of Caqueta [PD 172/91 Rev.2 (F)], which, despite being implemented in a distant and fairly different area, has produced many results that led to the consideration of agroforestry activities as a mechanism to achieve forest and environmental rehabilitation, increased income levels for the rural families, and improved social conditions in the Department of Guaviare.

This project seeks to secure resources to initiate a number of strategic activities with a view to regional development. These project activities should also lead to the allocation of significant national and institutional contributions to supplement resources and thus ensure the successful implementation of the Sustainable Development Plan for the RRA-G, which is actually an environmental and forest development plan.

2. PROJECT OBJECTIVES

2.1 Development objective

Achieve the protection and rehabilitation of Amazon forest lands.

2.2 Specific objectives

1. Develop the forest management skills of rural producers in the Rural Reserve Area of Guaviare.

2. Implement demonstration exercises to test and adjust forest production options.

3. Develop management plans for forest reserve areas suitable for utilization, forest plantation establishment and management plans for agricultural areas, and plans for the protection and rehabilitation of forest lands of significance for the provision of environmental services.

3. PROJECT JUSTIFICATION

3.1 Problem to be addressed

The following diagram illustrates a generalized way of approaching the problem to be addressed. The most relevant causes to the problem, from the project perspective, appear below the problem area which is considered the central component, and the most important consequences appear above the problem area. It should be noted that this diagram does no represent specific directional indicators between the different elements, but rather the interactive manner in which the elements for diagnosis operate and interact.

	Unemployment and social conflicts	Land tenure concentration
CONSEQUENCES	Low income levels per unit area	
	Soil erosion	
	Loss of forest cover and biodiversity	Climatic and hydrological disturbances
CENTRAL PROBLEM	Change in forest land use and degradation of soils under agricultural uses	
	Under-utilization of regional biophysical supply	Under-utilization of forest potential
CAUSES	Lack of adequate training and organization	Production systems based on shifting agriculture and extensive cattle ranching

The analysis is based on a situation where the production systems of the different rural agricultural owners and producers, within the framework of the specific environmental conditions of their region, is not always the most appropriate. Furthermore, the social organizational conditions are also deficient as the comparative advantages of the different stakeholders are wasted due to unnecessary antagonisms making it extremely difficult to establish strategic productive partnerships for the mutual benefit of the parties involved.

These technological and administrative realities have led to the proliferation of extensive cattle ranching production systems that have wasted enviable climatic conditions and forestry and biological resources, causing great damage to vital resources such as soil, water and genetic resources. It has also resulted in a supply of low quality, low market-value products, when it is clear that a more technical approach to the timber production process could generate more and better benefits, giving a higher value to forest lands and thus counteracting the process of conversion of forest soils into pasture lands for cattle ranching.

If we consider that soils are the essential support for agricultural-cattle ranching activities and that the forest cover is the best possible ally for the protection and development of these sectors, the conversion of forest lands into other uses and management structures which promote the erosion and degradation of these lands is clearly a serious problem. The superposition of erosion and land use maps in Colombia[6] clearly demonstrates that this is one of the most serious problems affecting the region and the country as a whole. These maps distinctly show that the areas affected by erosion are almost exactly the same areas used for agricultural and cattle ranching activities, while the areas that have maintained their forest protection and production cover do not show any appreciable levels of erosion.

3.2 Characteristics of the region or area where the project will be located

The following analysis of the territorial, population, agricultural/cattle ranching and forestry situation is based on the study on the Guaviare Human Settlements carried out by the SINCHI Institute (1996).[7]

The Department has a total area of 5,485 km^2, of which 51.3% corresponds to the 1959 Forest Reserve, 19.2% to indigenous reservations, 22.2% to National Parks System areas and 7.3%to areas taken from the Forest Reserve. The current population is estimated to be 120,000 (1998 Departmental Development Plan).

In 1996 the total population was approximately 92,000, with a high growth rate of about 6%, due to both migration intakes and a high birth rate. Almost 70% of the population are migrants (mainly from Meta, Bocayá, Cundinamarca, Tolima and Valle). It is estimated that at the time, 30% of the "resident" population were in reality an itinerant group of people carrying out illegal activities in the area. Furthermore, it is estimated that 70% of the population lived in rural areas and had a higher growth dynamics than their urban counterparts, the latter being distributed in urban centers as follows: 75% in San José del Guaviare; 9% in Calamar; 9% in Retorno and 7% in Miraflores. The indigenous population accounted for less than 7% of the total population and were facing serious difficulties arising out of inter-ethnic and territorial conflicts.

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[6] See: Environmental profile of Colombia (Pombo et al, 1990); Colombian soils: origin, evolution, classification, distribution and use (IGAC, 1994); Ideam internet page (http//: www. Ideam.gov.co).

[7] See map in annexes for the exact location of project areas.

The situation of the rural areas is given in the following tables, taken from the same source:

Table 1.

No. of farms in Guaviare		
Municipality	Farms	%
San José	3,210	39.5
El Retorno	2,572	31.6
Calamar	982	12.1
Miraflores	1,368	16.8
Total	8,132	100.0

Table 2.

Smallholdings area, land use and main production systems

Municipality	Farm area ha	Land uses						Production systems		
		Agric.		Stockbreeding		Forestry		Agric.	Stockbr.	Forestry
		Ha	%	Ha	%	Ha	%			
San José	112,358	10,786	9.6	36,516	32.5	65,056	57.9	M-Pl-Ca	Gc-Po	Bd
El Retorno	75,239	4,890	6.5	35,889	47.7	34,459	45.8	M-Pl-Cñ	Gc-Po	Bd
Calamar	73,700	3,611	4.9	11,792	16.0	58,296	79.1	M-Pl-Cñ	Gc-Po	Bd
Miraflores	66,896	3,211	4.8	4,682	7.0	59,004	88.2	M-Pl.Cñ	Gc-Po	Bd

M=corn; Pl=banana; Ca=cacao; Cñ=cane; Gc=cattle meat; Po=pork; Bd=forest
Source: IICA, Ministry of Agriculture and Rural Development, 1995. Smallholdings survey in Colombia

It is interesting to note the evolution of cattle ranching between 1987 and 1995 in the areas taken from the Forest Reserve (402,200 hectares). In 1987 cattle ranching occupied an area of 140,000 hectares, whereas in 1995 it had extended over an area of 219,204 hectares. These figures corroborate the problem of the conversion of forest lands to pasture lands, which has also increased the size of landholdings and the number of landowners.

The project will be implemented in sites within the Guaviare Rural Reserve area. As can be seen in the scheduled activities and expected outputs, a total of 250 ha of demonstration trials will be established and management plans will be developed for 2,500 ha of natural forests. These pilot forest plantation trials will be established along the San José-El Retorno-Calamar road. Forest areas will cover the area of influence of this road and of the main rivers in the area, including the Guaviare and Unilla rivers.

3.3 Other relevant aspects of "pre-project situation"

Despite the forest and timber wealth of the region, timber harvesting activities are almost always performed in a disorderly and irregular manner, due to the fact that natural forests are not considered to be sources of wellbeing, but rather as possibilities to expand the agricultural/cattle ranching frontiers. It is for this reason that a rational land management plan for indigenous reservations, protected areas, forest reserves and agricultural/cattle ranching lands can only be established and maintained if important production changes occur within the agricultural/cattle ranching areas, which would increase the income obtained per unit area and stabilize the rural communities. Furthermore, the region has suffered a severe economic and social crisis, brought about to a great extent by the use of traditional production systems.

3.4 Intended situation after project completion

Almost the only, and definitely the best, agricultural/cattle ranching production activities for these lands that are considered viable at the social, environmental and economic levels, are related to forest management activities. Otherwise, the problem of extensive cattle ranching, shifting agriculture and illegal crops will continue to worsen day by day.

After project completion, once the potential of forest production, timber resources and forest management and reforestation has been shown, an important process will have been initiated leading to agricultural/cattle ranching re-conversion, environmental rehabilitation, social and population stabilization and economic reactivation. It is very likely that important progress will have been made in land-use zoning, both at the local level and at the level of the Family Agricultural Units, and that management plans will have been formulated and implemented for each specific situation. However, in terms of the development objective, the most important result will be to increase individual and collective capacities so as to ensure a better technological and business administration skills, an objective that is really the best guarantee possible to ensure the sustainability of the actions initiated by the project.

3.5 Target beneficiaries and others affected

The project will benefit a group of the farmers mentioned under section 3.2, or in other words, some of the owners of the approximately 8,000 properties in the Department that will be converted to Family Agricultural Units (FAUs) within the Rural Reserve Area. It is estimated that it will be necessary to train 100 farmers (both men and women) in sustainable forest management and forest plantation establishment techniques, as well as training a group of approximately 50 people, made up of public officers and the teaching staff of educational centers closely related to this field of activity. Even though the entire beneficiary population is larger than that, it is expected that the direct benefits produced will trigger off a self-sustained process within the aforementioned community group.

The above will be achieved through the establishment of different types of activities in the properties themselves and through training workshops for farmers and public servants from technical, agricultural and environmental assistance institutions. Furthermore, the project will strengthen the capacity and training levels of teaching institutions, particularly the rural centers in the region of the Rural Reserve. In other words, the project will carry out specific activities related to the implementation and introduction of appropriate technologies, and at the same time will satisfy the education and training needs of farmers, men, women and young people.

The scope of this project goes beyond the technical, economic and financial capacities of the local, regional and national institutions, and for this reason it is necessary to seek international cooperation, particularly from those who are prepared to support Colombia in finding a solution to the problems of the deterioration of the Amazon region and the loss of forest resources. Furthermore, it is not only necessary to provide financial support, but it is also of vital importance to ensure the support of experts in the implementation of the forest techniques that this project seeks to implement.

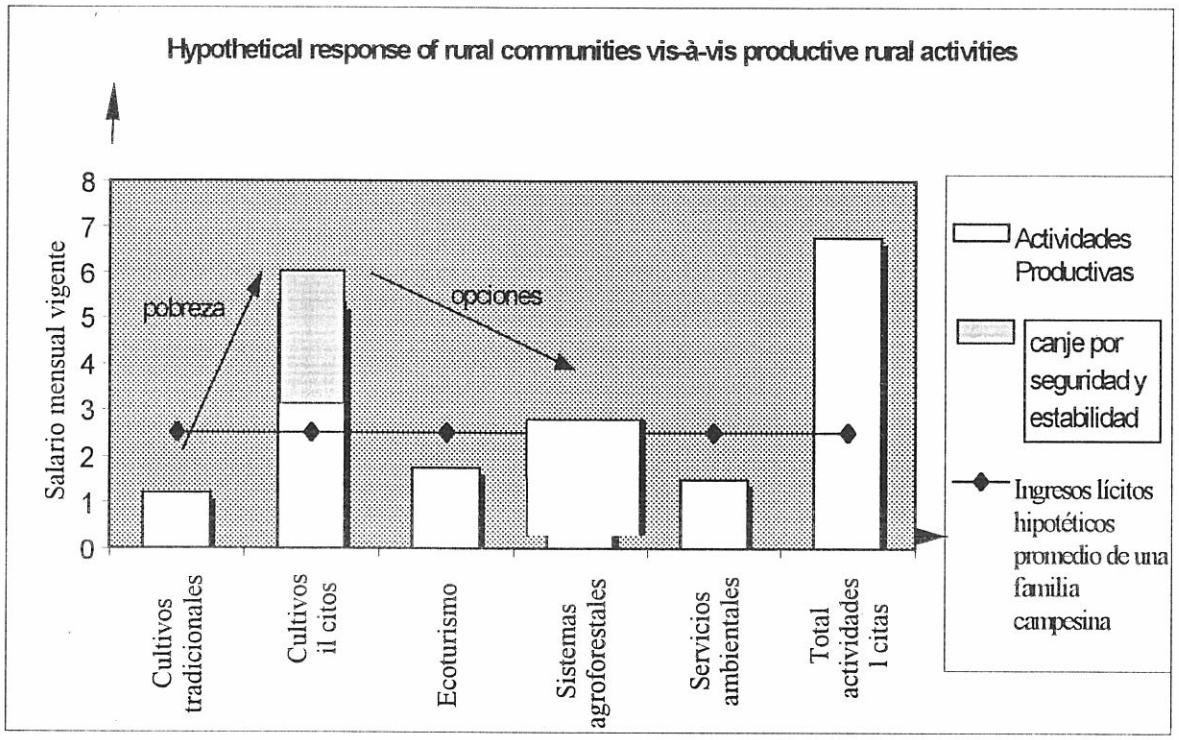
The target population has been closely linked to the establishment of the Rural Reserve Area and the formulation of its Sustainable Development Plan. When the plan was submitted to the community and the authorities at the Municipal Councils for Rural Development, it was unanimously and enthusiastically endorsed.

3.6 PROJECT STRATEGY

3.6.1 Reasons for selection

As can be seen in the following chart, the main reasons for selecting this project are economic considerations, but the project can also produce important positive social and environmental impacts. In brief, the project seeks to achieve, through the land use zoning plan, the incorporation of different and complementary production activities in each Family Agricultural Unit. The basis for this proposal depends to a great extent on the maintenance and rehabilitation of a productive forest cover. Thus, the average income of families will surpass the minimum acceptable levels, facilitating the gradual accumulation of capital through the utilization of timber resources and the real valuation of the land.

Figure on changes to the agricultural-cattle ranching production paradigm. Source: Rural Mission. Sustainability Agenda, 1998.



On the basis of the above production model, the project seeks to increase the diversification of rural production through the implementation of different forestry systems in each FAU. Furthermore, it seeks to convert the provision of services into a source of income for rural families and to promote greater efficiency in the management of soil, water and biodiversity resources and atmospheric conditions. The project seeks to gradually introduce the new production systems without causing an abrupt interruption to the current production systems and family incomes. A combination of training activities, planning exercises and pilot or demonstration trials will be the preferred strategies for the population to meet the challenges arising out of the proposed changes.

3.6.2 Lessons drawn from past evaluations

The design of this project proposal was based on the studies contained in the Departmental Development Plan (1998), the final report of the Project on Technical Assistance Linked to the Development of Sustainable Agriculture (1998), the document of the Sustainability Agenda of the Rural Mission (1998), the Forest Policy (1996), and the documents produced by the Amazon Institute for Scientific Research, SINCHI: Typology by Biophysical Units of the Guaviare Production Systems (1998), The Family Agricultural Unit in the Rural Reserve Area of Guaviare (1998) and Human Settlements in Guaviare (1996). Either directly or indirectly, these studies underscore the urgency of dealing with problems of land-use management and the rehabilitation and conservation of forest ecosystems. Some of the studies specifically identify the problems related to the expansion of the agricultural frontier at the expense of natural forest lands. Finally, it is clearly necessary to directly satisfy the needs of the rural population and to make concerted efforts to raise their education and technological training levels.

3.6.3 Technical and scientific aspects

The development of this project proposal has followed a silvicultural or forestry approach. The reason for this is that natural or planted forests are the most important components for the protection and development of soils, and for the protection and management of water resources, biodiversity and the atmosphere. All of these resources constitute precisely the essential support for the development of a society and its productive activities. Much has been written by the scientific community about the need to protect the Amazon region. It has been determined that, due to the incessant advances of settlements

into the territory, the best alternative to minimize anthropogenic impacts is precisely through sustainable forest development. The project envisages the application of ITTO guidelines and criteria for the sustainable management of natural and planted forests, forest fire prevention and management, and biodiversity conservation. The above rationale is supported by the contents of the next section and of section 3.6.1.

3.6.4 Economic aspects

The table that appears under section 3.6.1 is the starting point, from an economic perspective, for the formulation of this project proposal. In other words, there are more profitable agroforestry options to the traditional crops obtained from shifting agricultural practices, in terms of yield per unit area, reduction of manpower required for arduous tasks such as slash-and-burn activities and accumulation of capital in timber resources. Sylvo-pastoral activities have proven to be more profitable than cattle ranching activities as the number of heads of cattle that can be managed per unit area increases, the growth rate is higher, and diseases and the cost of veterinary services are reduced. Furthermore, other sources of income in addition to the two aforementioned sources can also be derived from activities such as forestry, tourism and the provision of environmental services. Therefore, there is a very good cost/benefit ratio both for the production systems and the FAUs.

3.6.5 Ecological/environmental aspects

From its inception, the project design has taken into account the promotion of the same beneficial aspects than those that have been considered in the ITTO Manual for Project Formulation ("Guidelines to take account of the environmental impact of projects", paragraph 9, Annex E), and has avoided those that could have a negative impact (paragraph 10). In addition, it is expected that better use of available technologies will be made to ensure reduced impact logging (RIL).

3.6.6 Social aspects

Colombian legislation considers that a participatory approach is essential for the development of projects like the one hereby proposed. The Municipal Councils for Rural Development, the body responsible for the discussion and analysis of projects and the appointment of local counterparts, are fully aware of the proposals contained in the Sustainable Development Plan for the Rural Reserve Area and of its forestry component in particular. Furthermore, not only do project activities promote a high level of interaction with local farmers, but in fact it is stipulated that, to all extent and purposes, they should be implemented by the owners of the FAUs and the participants of the workshops and planning activities. In addition, all pilot forest operations will be implemented with the participation of voluntary counterparts from the families of the property owners, making them feel that they truly participate in the project. As in the previous case, Annex D of the ITTO Manual for Project Formulation ("ITTO Guidelines for ensuring local community participation in the project cycle") has been duly taken into account during the project design.

3.6.7 Managerial aspects

This project falls under the responsibility of the Ministry for the Environment and the Ministry for Agriculture and Rural Development, by virtue of Laws 99 and 101 of 1993 respectively. The Ministry for the Environment is responsible for the management of environmental policies and natural resources. The Ministry for Agriculture and Rural Development is responsible for agricultural policies and for the processing and marketing of forest products harvested from natural forests or forest plantations. The Corporation for the Sustainable Development of the Northern and Eastern Amazon (Corporación para el Desarrollo Sostenible del Norte y Oriente Amazónico -CDA), is responsible for the implementation of framework environmental policies and the formulation of regional policies, and has the power to consider, approve and issue forest harvesting permits or authorizations (Law 99/93; Decree 1791 of 1996). The Municipal Agricultural Technical Assistance Units (Unidades Municipales de Asistencia Técnica Agropecuaria – UMATAS) are the bodies responsible for agricultural extension activities in the municipalities, as forest activities are considered to be agricultural activites under Law 101 of 1993.

The aforementioned institutions, with the full support of the Ministries, are in a position to house the project and cooperate in the implementation of project activities. However, due to limited institutional budgets, limited staff numbers, the high turnover rate of the staff and the multiple functions they have to perform, it is recommended that a multidisciplinary work team be established to strengthen the institutions, work exclusively for the project and have administrative and political independence. This work team could provide constant help to the rural families, the real target beneficiaries of the project, to

help them overcome any difficulty that may arise. In view of this, and taking into account its close and long relationship with the region, it is recommended that the SINERGIA Land Management Corporation (CO-SINERGIA) be the institution responsible for project implementation.

On the basis of the above institutional framework, it is further recommended that the administration of the project be based directly in the field in order to ensure the streamlining and efficiency of the process and to maintain appropriate links with the CDA and the UMATAs. Furthermore, and in view of the project's emphasis on forest and business management training and ecological and market research activities, cooperation agreements should be entered into and the possibility of subcontracts should be considered with institutions such as SINCHI, CORPOICA, SENA, Apostolic Vicariate, and other teaching and training centers, particularly municipal centers. These agreements have been very successful with organizations such as Co-SINERGIA.

3.7 REASONS FOR ITTO SUPPORT

3.7.1 ITTO aspects

The first and main reason for ITTO support arises out of the compatibility of the Organization's objectives with the proposed project. Furthermore, the independent nature and ease of preparation of project proposals for the ITTO is of fundamental importance. Other funding sources tend to exert their influence in the conception and design of project proposals beyond what could be considered as appropriate, an aspect which is somewhat contrary to the concept of sustainable development. In addition, ITTO has produced a number of technical guidelines that are particularly suitable for the conditions of the target project area. The project and these guidelines provide a promising alternative for the rural producers who have not been able to improve their living standards through other types of production activities.

3.7.2 Relationship to relevant actions supported by other donors

The private sector is expected to contribute substantially in terms of investment and horizontal cooperation through the transfer of forest technology in the fields of nurseries, selection and propagation of species, improved silvicultural practices and marketing. Furthermore, the municipalities, the department and the Nation, through different mechanisms, are capable of providing important counterpart contributions in cash and in kind. The possibility of international, bilateral or multilateral cooperation will depend on events external to the project, although it is expected that the impacts of the project could well pave the way for this type of cooperation.

3.8 RISKS

The most important risks that could hinder the implementation of this project are related to the disruption of the consensus so far reached for the development of the Rural Reserve Area, which could be caused by the replacement of public officers. The project strategy to overcome this risk will be based on the fact that it belongs to the FAU (Family Agricultural Units) families.

Other risks could be related to changes in investment priorities and policies. As it is now, the project is fully consistent with the provisions of the National Development Plan, the Departmental Development Plan, the Green Plan and the Forest Policy, which will ensure the adequate environment for its implementation.

In technical and silvicultural terms, there are potential risks related to the design quality of plans for the management of natural forests and the establishment of forest plantations. In order to minimize these risks, it is expected that these plans will be revised by forest experts with experience in the successful establishment of plantations or management of forests in the country, as well as by government experts responsible for national forestry programs.

With regard to economic aspects, there may be risks related to the allocation of resources for future sustainability and expansion of land and population covers. Efforts have been made in this proposal to minimize these risks (Outputs 1.3, 3.2 and 3.3) through the formulation of a specific project to be registered with the National Investment Projects Bank (BPIN). This Projects Bank is a mechanism used in Colombia for the allocation of medium and long term institutional contributions. The BPIN operates on the basis of biannual cycles; therefore, if at the beginning of this project, another complementary project

is designed and registered, there would be new and additional financial resources as from Year 3 onwards.

In relation to counterpart contributions for years 1 and 2 of project implementation, it is envisaged that funds will be secured from private resources from rural producers and municipal, departmental and institutional plans in support of the region, the agricultural sector, the forest sub-sector and rural community training. In addition, it should be noted that the forestry component of the Sustainable Management Plan for the Rural Reserve Area includes significant financial allocations to ensure an adequate flow of funds for this project.

No significant risks are foreseen in the environmental field, as forest fires are almost non existent in the selected area given the high rainfall and relative humidity levels throughout the year. Furthermore, agroforestry and sylvo-pastoral systems as well as mixed forest plantations are considered to be fairly resistent to pests and diseases. This, coupled with the use of good silvicultural practices, will make it possible to overcome problems of this nature. It should be noted that losses due to forest fires, pests and diseases in Colombia have been very limited on private lands or in the Amazon region because the silvicultural management of these plantations has been very good and after their establishment, the owners make sure that their assets are protected.

4. OUTPUTS

4.1 Specific objective 1

Develop the forest management skills of rural producers in the Rural Reserve Area of Guaviare.

OUTPUT 1.1. Forest technical and self-management skills of FAU farmers have significantly increased and technical and administrative assistance is only required to a lesser extent.

OUTPUT 1.2. Preliminary zoning proposals have been prepared for production and the provision of services for at least 50 FAUs[8].

OUTPUT 1.3. A project prepared and registered with the National Investment Projects Bank to ensure future technical support, training and financing.

4.2 Specific objective 2

Implement demonstration exercises to test and adjust forest production options.

OUTPUT 2.1. Detailed forest inventories carried out over 2,500 ha of natural forests in the target areas within the Rural Reserve.

OUTPUT 2.2. At least 10 pilot forest plantation exercises over 250 ha with various designs under implementation, monitoring and evaluation by rural families and related institutions.

4.3 Specific objective 3

Develop management plans for forest reserve areas suitable for utilization, forest plantation establishment and management plans for agricultural areas, and plans for the protection and rehabilitation of forest lands of significance for the provision of environmental services.

OUTPUT 3.1. At least 50 Family Agricultural Units have been permanently zoned for sustainable forest production, conservation and rehabilitation of ecosystems and soil, water, forest and genetic resources.

[8] The average size of FAUs in RRA/G ranges from 70 to 150 ha.

OUTPUT 3.2. At least 50 FAUs have new projects approved and in the process of being financed to carry out new inventories, natural forest management plans, and forest plantation establishment and management plans, incorporating the management of soil, water and biodiversity resources.

OUTPUT 3.3. At least 25 owners of participating FAUs have plans approved, financed and under implementation for the sustainable use of natural forests and forest plantations.

5. ACTIVITIES AND INPUTS

5.1 OUTPUT 1.1. Forest technical and self-management skills of FAU farmers have significantly increased and technical and administrative assistance is only required to a lesser extent.

Activity 1.1. Organization of bi-monthly workshops (15) with FAU owners so as to increase forest technical and production project administration skills.

Activity 1.2. Three visits to ongoing national forest projects with a high positive economic, social and environmental impact.

Activity 1.3. Organization of three horizontal cooperation workshops at the FAUs with the participation of farmers from different successful forest projects.

Activity 1.4. Organization of two seminars in the region on mechanisms and instruments for regional forest development and improvement of the quality of life of the population.

Activity 1.5 Carry out an economic evaluation of the institutional setup and impacts on the rural producers' economy prior to project completion, including relevant conclusions and recommendations.

5.2 OUTPUT 1.2. Preliminary zoning proposals have been prepared for production and the provision of services for at least 50 FAUs.

Activity 2.1. Organization of two workshops to analyze possible alternatives to encourage private investments in regional forest industries for the sale of services and to propose novel economic mechanisms to national, regional and local authorities.

Activity 2.2. Provide technical assistance in the formulation of individual projects for each FAU.

Activity 2.3. Prepare a document containing policy proposals and regional and local standards for land-use regulation, the payment of environmental services derived from forest activities, and the encouragement of private investment.

5.3 OUTPUT 1.3. A project prepared and registered with the National Investment Projects Bank to ensure future technical support, training and financing.

Activity 3.1. Prepare a project proposal to ensure the availability of financial resources so as to implement and extend some of the project activities once ITTO support has concluded.

Activity 3.2. Approval of project design and project registration with the National Investment Projects Bank (BPIN).

5.4 OUTPUT 2.1. Detailed forest inventories carried out over 2,500 ha of natural forests in the target areas within the Rural Reserve.

Activity 4.1. Prepare maps of the region at a scale of 1:50,000 and of FAUs at a scale of 1:25,000, and collect environmental and social information from secondary sources and field checking.

Activity 4.2. Conduction of participatory statistical forest inventories in the target areas of the Rural Reserve.

Activity 4.3. Systematization of information required for the subsequent development of management plans and land use zoning in the FAUs.

5.5 OUTPUT 2.2. At least 10 pilot forest plantation exercises over 250 ha with various designs under implementation, monitoring and evaluation by rural families and related institutions.

Activity 5.1. Design and preparation of 10 pilot or demonstration trials on forest management alternatives for natural forests and agricultural lands.

Activity 5.2. Arrangements for the submission, approval and formulation of projects developed during the implementation of Activity 2.2 above.

Activity 5.3. Intensive staff training through the implementation of demonstration exercises.

5.6 OUTPUT 3.1. At least 50 Family Agricultural Units have been permanently zoned for sustainable forest production, conservation and rehabilitation of ecosystems and soil, water, forest and genetic resources.

Activity 6.1. Final preparation of FAU zoning.

Activity 6.2. Preparation of regulations for land use in the FAUs based on the zoning agreed with the institutions involved.

5.7 OUTPUT 3.2. At least 50 FAUs have new projects approved and in the process of being financed to carry out new inventories, natural forest management plans, and forest plantation establishment and management plans, incorporating the management of soil, water and biodiversity resources.

Activity 7.1. Preparation of natural forest management plans and forest establishment and management plans for the FAUs with defined land use zoning.

Activity 7.2. Submission, maintenance and management of public and private resources for the implementation of the management plans described for the above activity.

5.8 OUTPUT 3.3. At least 25 owners of participating FAUs have plans approved, financed and under implementation for the sustainable use of natural forests and forest plantations.

Activity 8.1. Develop demonstration exercises into full forest management proposals and secure financing for the proposals prepared during project implementation.

Activity 8.2. Establish permanent harvesting and environmental impact monitoring and research plots.

Activity 8.3. Introduce forest products from FAU sources under forest management into the domestic and foreign markets.

6. LOGICAL FRAMEWORK WORKSHEETS

The logical framework worksheets are included in the annexes so as to facilitate the reading of the project document.

7. WORK PLAN

See work plan table in the annexes.

8. INSTITUTIONAL ARRANGEMENTS FOR EXECUTION AND OPERATION

8.1 Management structure

The Ministry for the Environment is the national agency responsible to ITTO and will therefore be in charge of the general management of this project. The Ministry will also chair the Steering Committee. Under a specific written agreement between ITTO and the Ministry for the Environment, the Land Use Management Corporation - CO-SINERGIA - will be given the responsibility for project implementation. CO-SINERGIA will have an office in the implementation area and will act as the Technical Secretariat of the Steering Committee.

Furthermore, CO-SINERGIA will be responsible for all the administrative aspects of the project, including the submission of activity and financial reports. Project financial resources will be administered through an independent bank account. Audit services will be sub-contracted out by CO-SINERGIA in agreement with the Ministry for the Environment. The convening, selection and appointment of personnel will be jointly coordinated by CO-SINERGIA and the Ministry, the former being in charge of the signing of contracts. The same procedure will be followed for any other sub-contracts envisaged in the project and authorized by the Steering Committee.

The project will involve intensive work on the design of production proposals for the FAUs and the procurement of resources for their implementation. One of the main responsibilities of the Project Director and CO-SINERGIA will be to obtain additional counterpart funds and funding for the FAUs.

The acquisition and custody of project items and equipment will be in accordance with the policies and procedures of ITTO and the Ministry for the Environment. CO-SINERGIA will be responsible for the correct use, maintenance and conservation of items and equipment. The final disposal of equipment after project completion will be in accordance with the rules and procedures of ITTO and the Ministry for the Environment.

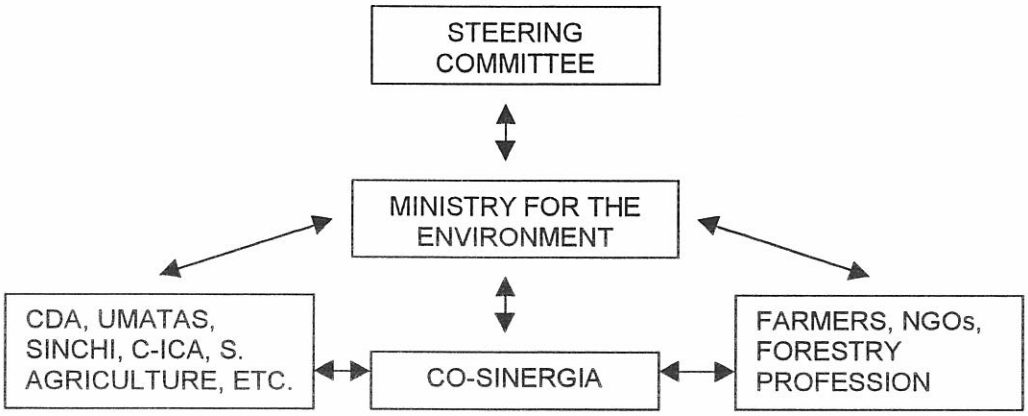
CO-SINERGIA and the Project Director will be responsible for ensuring the appropriate climate for the balanced and wise participation of all project beneficiaries and the various public and private stakeholders. They will also be responsible for providing information in an open and transparent manner and for sufficiently reporting on project achievements, outputs and activities.

The initial establishment of the Steering Committee will be the responsibility of the Ministry for the Environment, which will also convene the Committee meetings. The Steering Committee will also comprise representatives from the Ministry of Agriculture and Rural Development, the Amazon Institute for Scientific Research - SINCHI -, the Corporation of the Colombian Institute for Agricultural Research - CORPOICA -, the Secretary of Departmental Agriculture, the Heads of the Municipal Units for Agricultural Technical Assistance, the Corporation for the Sustainable Development of Northern and Eastern Amazon - CDA-, a delegate from local NGOs, a delegate from the forestry profession, and three delegates from the owners of Family Agricultural Units in the Rural Reserve Area of Guaviare participating in the project. An ITTO representative and a delegate from each donor country will also participate in the Committee.

The Steering Committee will meet at least twice a year (once per semester) in one of the municipal chief towns of the RRA-G. These meetings may be attended by individuals or institutions specifically invited on the basis of the established agendas. The Steering Committee will be responsible for evaluating project progress and reaching the necessary consensus to further its implementation.

CO-SINERGIA will establish a technical team of the highest professional level possible according to the requirements stipulated in the Project Document. To this end, the Corporation and the Project Director will engage skilled professional, technical and operational staff, linked or familiarized with the region and the local communities. Every effort will be made to inform the staff of institutions such as UMATA (Municipal Unit for Agricultural Technical Assistance) and CDA (Corporation for the Sustainable Development of Northern and Eastern Amazon) of project details and to ensure their participation in training events and in the provision of technical support for project activities to the greatest extent possible.

The organizational chart for project coordination and implementation is given below:



8.2 Future operation and maintenance

Project achievements are expected to be maintained and multiplied in subsequent years by ensuring that the economic returns derived from forestry are higher than those from other production activities, and by the adequate zoning of areas, the payment of forest incentives for plantations and natural forests, the payment of environmental services, and the establishment of attractive conditions for private investments.

An essential element of this project is that the farmers themselves, after being duly trained, will be in charge of administering their Family Agricultural Units in an efficient and cost-effective manner and of following up project actions.

8.3 Key staff

The project will ensure an open process for the selection of key staff. Personnel requirements are included in the annexes.

9. Prior obligations and pre-requisites

The essential pre-requisite is the conclusion of the implementation agreement between ITTO, the Ministry for the Environment and CO-SINERGIA. Secondly, the corresponding disbursements must be made and the administrative arrangements for staff recruitment and for the provision of counterpart contributions must be ensured. Thirdly, before project start-up, a detailed presentation of the proposal must be made for the local institutions and communities. The final membership of the Steering Committee must be established and the first Committee meeting must be convened soon after the appointment of project staff.

These administrative arrangements must be made in accordance with the provisions stipulated in item 8.1 above within two months of the ITTO Council Session where the project is financed. The estimated starting date for the project is 2000.

10. Possible future actions

CO-SINERGIA, in coordination with the UMATAs, CDA, mayors and the Ministries for the Environment and for Agricultural and Rural Development, will be responsible for the registration of the Project in the National Investment Projects Bank (BPIN) so as to ensure future economic resources necessary for the UMATAs, CDA, SINCHI and CORPOICA to continue providing forest technical assistance to the FAUs and to follow-up training activities for a larger number of farmers and officers. The relevant BPIN form must be completed before the end of the first year of project implementation.

PART III: MONITORING, REPORTING AND EVALUATION

1. Arrangements for reporting

Project progress reports

The Project Director and CO-SINERGIA will be responsible for preparing six-monthly comprehensive and detailed reports on all project activities and on the administration of costs. These reports will be submitted at least three weeks before the Steering Committee meetings to the Ministry for the Environment, ITTO, the Steering Committee and donor countries. The reports will be prepared following the standard format and procedures established by ITTO, but the organizations may request additional information as necessary.

Project completion report

The project completion report will be submitted according to ITTO procedures, i.e. within three months of project completion. The Project Director and CO-SINERGIA will be responsible for preparing this report, which will be sent to ITTO and the Steering Committee members through the Ministry for the Environment. The project completion report will include in the annexes all publications and promotional material produced by the project.

2. Arrangements for ITTO monitoring and review

Every effort will be made to ensure that ITTO and donor countries participate in each Steering Committee meeting, and the dates of these meetings should coincide with at least one of the annual evaluation visits of the Organization. Efforts will be made to ensure that the evaluation missions have always access to all field activities and implementation sites.

3. Evaluation

The project will invite ITTO, the donor countries and the members of the Steering Committee to visit the project's field activities at any time they deem fit. At the end of Year 2 of project implementation, a mid-term evaluation report will be submitted to the Steering Committee. At the previous Committee meeting, the appointment of three people will be requested to carry out this independent evaluation. The project will provide the necessary support to ensure the successful completion of this evaluation. The reason for this mid-term evaluation will be to report on project achievements and make them available to all interested parties. In addition, valuable results are expected to be obtained, which could be used for the improvement of policies and instruments with a view to forest, economic and social development.

4. Schedule

A preliminary schedule for disbursements, monitoring reviews and Steering Committee meetings is given below:

First disbursement request:	15 January 2000
First Steering Committee meeting:	March 2000
First progress report:	July 2000
Second Steering Committee meeting and first ITTO mission:	August 2000
Project Completion Report:	March 2003

PART IV: PROJECT BUDGET

1. Project budget by component (see annexes)

2. Project budget by year and by financing source (see annexes)

Annexes

- Summary of revisions made in response to the 17th Expert Panel comments
- **Summary of revisions made in response to the 18th Expert Panel comments**
- Logical Framework Matrix
- Logical Framework Worksheets **(including unit costs)**
- Work plan
- Unit costs **(US$) (Summary)**
- Consolidated yearly budget
- Project budget by component
- Overall project budget by activity
- Terms of reference for project staff
- General list of project equipment
- Maps
- References
- List of abbreviations
- Certificate of Co-Sinergia's legal capacity and representation
- Curriculum vitae of the Director of the Land Use Management Corporation, SINERGIA
- CODFO official letter of support to the implementing agency in the forestry field
- Certificate of CODFO's legal capacity and representation

ANNEXES

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- Certificate of CODFO's legal capacity and representation

Summary of the revisions made in response to the 17th Expert Panel comments

The revised project proposal includes a number of modifications that were either suggested by the Expert Panel or considered to be appropriate based on informal exchanges with experts (for example, specific objectives). The revisions have been marked as follows:

Bold typeface	Text added
[_____]	Underlined text between square brackets: text deleted
italics	Text related to project sustainability and counterpart contribution allocation

17th Expert Panel Recommendation

1. *Specify more clearly the outputs expected from the project, such as area under sustainable forest management, area under forest plantations, number of project proposals presented to the Colombian Government, etc.*

Observation:

Project outputs have been adjusted specifying areas and number of proposals for each case. Activities have also been adjusted accordingly. Thus, expected project outputs should be:

OUTPUT 1.1. Forest technical and self-management skills of FAU farmers have significantly increased and technical and administrative assistance is only required to a lesser extent.

OUTPUT 1.2. Preliminary zoning proposals have been prepared for production and the provision of services for at least **50** FAUs. [25% of the]

OUTPUT 1.3. A project prepared and registered with the National Investment Projects Bank to ensure future technical support, training and financing.

OUTPUT 2.1. Detailed forest inventories carried out **over 2,500 ha** of natural forests in the target areas within the Rural Reserve.

OUTPUT 2.2. At least 10 pilot forest **plantation** exercises **over 250 ha** with various designs under implementation, monitoring and evaluation by rural families and related institutions.

OUTPUT 3.1. At least **50** [% of the] Family Agricultural Units have been permanently zoned for sustainable forest production, conservation and rehabilitation of ecosystems and soil, water, forest and genetic resources.

OUTPUT 3.2. At least **50** [% of the] FAUs have new projects approved and in the process of being financed to carry out new inventories, natural forest management plans, and forest plantation establishment and management plans, incorporating the management of soil, water and biodiversity resources.

OUTPUT 3.3. At least **25** *[10% of the]* **owners of participating** *FAUs have plans approved, financed and under implementation for the sustainable use of natural forests and forest plantations.* [and are participating in a pilot certification scheme.]

Expert Panel Recommendation

2. *Focus on achieving sustainable forest management practices in the region first. Consider certification as a component for a follow-up project proposal of the project.*

Observation:

The relevant project output and related activities have been deleted, which is marked as follows in the text of the revision:

[5.6 OUTPUT 2.3. Design and pilot community trial for the establishment of a certification system including relevant recommendations and trade relations between local producers and national and international markets.

Activity 6.1. Organization of three workshops on marketing, quality and certification of forest products.

Activity 6.2. Selection of certifying firm and improvement of contract for the design and implementation of pilot trials for forest products and services certification.

Activity 6.3. Selection of firm and improvement of contract for the survey of domestic and foreign markets for forest products originating from the FAUs participating in the project.]

Expert Panel Recommendation

3. *Consider an economic evaluation of the institutional setup prior to project completion.*

Observation:

An activity has been added for this purpose as follows:

Activity 1.5 Carry out an economic evaluation of the institutional setup and impacts on the rural producers' economy prior to project completion, including relevant conclusions and recommendations.

Expert Panel Recommendation

4. *Provide an enhanced assessment of the risks involved in the implementation of this project.*

Text has been added to comply with this recommendation so that this section now reads:

The most important risks that could hinder the implementation of this project are related to the disruption of the consensus so far reached for the development of the Rural Reserve Area, which could be caused by the replacement of public officers. The project strategy to overcome this risk will be based on the fact that it belongs to the FAU (Family Agricultural Units) families.

Other risks could be related to changes in investment priorities and policies. As it is now, the project is fully consistent with the provisions of the National Development Plan, the Departmental Development Plan, the Green Plan and the Forest Policy, which will ensure the adequate environment for its implementation.

In technical and silvicultural terms, there are potential risks related to the design quality of plans for the management of natural forests and the establishment of forest plantations. In order to minimize these risks, it is expected that these plans will be revised by forest experts with experience in the successful establishment of plantations or management of forests in the country, as well as by government experts responsible for national forestry programs.

With regard to economic aspects, there may be risks related to the allocation of resources for future sustainability and expansion of land and population covers. Efforts have been made in this proposal to minimize these risks (Outputs 1.3, 3.2 and 3.3) through the formulation of a specific project to be registered with the National Investment Projects Bank (BPIN). This Projects Bank is a mechanism used in Colombia for the allocation of medium and long term institutional

contributions. The BPIN operates on the basis of biannual cycles; therefore, if at the beginning of this project, another complementary project is designed and registered, there would be new and additional financial resources as from Year 3 onwards.

In relation to counterpart contributions for years 1 and 2 of project implementation, it is envisaged that funds will be secured from private resources from rural producers and municipal, departmental and institutional plans in support of the region, the agricultural sector, the forest sub-sector and rural community training. In addition, it should be noted that the forestry component of the Sustainable Management Plan for the Rural Reserve Area includes significant financial allocations to ensure an adequate flow of funds for this project.

No significant risks are foreseen in the environmental field, as forest fires are almost non existent in the selected area given the high rainfall and relative humidity levels throughout the year. Furthermore, agroforestry and sylvo-pastoral systems as well as mixed forest plantations are considered to be fairly resistent to pests and diseases. This, coupled with the use of good silvicultural practices, will make it possible to overcome problems of this nature. It should be noted that losses due to forest fires, pests and diseases in Colombia have been very limited on private lands or in the Amazon region because the silvicultural management of these plantations has been very good and after their establishment, the owners make sure that their assets are protected.

Expert Panel Recommendation

5. *Scale down the budget, particularly in relation to personnel, sub-contracts and capital item costs. Consider local administrative costs as a counterpart contribution. Include both detailed and consolidated budgets by components.*

The ITTO budget has been scaled down in two ways - first, by eliminating sub-contracts, including in relation to certification; second, by increasing the national counterpart contribution, because in the detailed project revision it has not been possible to reduce personnel and equipment costs given the characteristics of the target area and the interest of rural producers' in participating in regular trials and technology transfer. Unit costs are provided in the budget tables as well as in the list of capital items. The revised overall budget is as follows:

ITTO	US$	617,318	[968,363.00]
COLOMBIAN GOVERNMENT	US$	373,800	[143,000.00]
TOTAL	US$	991,118	[1,111,363.00]

Summary of the revisions made in response to the 18th Expert Panel comments

The revised project proposal incorporates the modifications suggested by the 18th Expert Panel. The revisions have been marked as follows:

Bold typeface Text added

[~~xxxx123~~] Crossed out text between square brackets: text deleted

18th Expert Panel Recommendations

1. ***Eliminate any reference to forest certification erroneously left in the text of the proposal***

Response

All references to forest certification erroneously left in the text of the proposal have been deleted.

2. ***Provide further breakdown of the project budget components and include unit costs, particularly in relation to duty travel, DSA, capital items and raw materials***

Response

The relevant worksheets (activities and inputs) now include an additional column for unit costs in US$, which complements the project budget by component and the overall list of project equipment, both of which already showed unit costs.

3. ***Include a separate budget item line for ITTO Monitoring & Evaluation Costs (US$10,000/year)***

Response

These costs have been included as item 71 in the project budget.

4. ***Re-calculate ITTO's Programme Support Costs so as to conform to the standard 5.5% of total Project Cost***

Response

These costs have been included as item 72 in the project budget.

LOGICAL FRAMEWORK MATRIX

PROJECT ELEMENTS	INDICATORS	MEANS OF VERIFICATION	ASSUMPTION
Development objective Achieve the protection and rehabilitation of Amazon forest lands	Significant rehabilitation of the regional forest cover. Conversion of extensive cattle ranching and shifting agriculture into agroforestry production systems. Average income levels of rural families exceed subsistence needs. Significant increase in trade of forest products from sustainable sources.	Public and private statistics. Project reports. Municipal agreements. Documents submitted to CDA. Plans approved by CDA. Forest incentives provided. Consultants' reports.	
Specific objective 1 **Develop the forest management skills of rural producers in the Rural Reserve Area of Guaviare.**	The rural families receive proper training on forest, environmental and economic management. The project sustainability is guaranteed with national resources. Zoning proposals for land use being developed	Project reports. Public and private institutional reports. CDA and UMATAs reports	Project disbursements made according to schedule Timely disbursement of counterpart contributions The Project's technical and administrative team is maintained with only a few changes
Output 1.1 Forest technical and self-management skills of FAU farmers have significantly increased and technical and administrative assistance is only required to a lesser extent	**100** farmers owners of FAUs and **50** public officers trained in forest management and development in 36 months	Project reports and reports from participating institutions	Project staff and temporary consultants are qualified FAU members attend training sessions
Activity 1.1 Organization of bi-monthly workshops (15) with FAU owners so as to increase forest technical and production project administration skills	15 workshops held with the participation of nearly 150 people	Project reports; reports from institutions and rural organizations; Consultants' reports	
Activity 1.2 Three visits to ongoing national forest projects with a high positive economic, social and environmental impact.	3 visits to different forest projects with the participation of 50 people	Project reports; reports from institutions and rural organizations; reports of visited projects	
Activity 1.3. Organization of three horizontal cooperation workshops at the FAUs with the participation of farmers from different successful forest projects	3 horizontal cooperation workshops held with the participation of 120 people	Project reports; reports from institutions and rural organizations; Consultants' reports	
Activity 1.4. Organization of two seminars in the region on mechanisms and instruments for regional forest development and improvement of the quality of life of the population	2 seminars held with 120 participants	Project reports; reports from institutions and rural organizations; Consultants' reports	
Activity 1.5 Carry out an economic evaluation of the institutional setup and impacts on the rural producers' economy prior to project completion, including relevant conclusions and recommendations.	**Independent consultancy carried out and evaluation document submitted including analysis, conclusions and recommendations.**	**Project reports by rural organizations and institutions; Consultants' reports**	

PROJECT ELEMENTS	INDICATORS	MEANS OF VERIFICATION	ASSUMPTION
Output 1.2 Preliminary zoning proposals have been prepared for production and the provision of services for at least 25% of the FAUs	Land use plans prepared by 50 FAUs	Project and municipal reports	There is sufficient secondary information to carry out field activities
Activity 2.1. Organization of two workshops to analyze possible alternatives to encourage private investments in regional forest industries for the sale of services and to propose novel economic mechanisms to national, regional and local authorities	2 workshops held with 50 participants Document prepared with feasible recommendations	Project reports; reports from institutions and rural organizations; Consultants' reports	
Activity 2.2. Provide technical assistance in the formulation of individual projects for each FAU.	Assistance provided to interested FAUs; viable proposals prepared by a quarter of the FAUs	Project reports; reports from institutions and rural organizations	
Activity 2.3. Prepare a document containing policy proposals and regional and local standards for land-use regulation, the payment of environmental services derived from forest activities, and the encouragement of private investment	Document containing proposals submitted to relevant public agencies and the private sector	Project reports; reports from institutions and rural organizations	
Output 1.3 A project prepared and registered with the National Investment Projects Bank to ensure future technical support, training and financing	Relevant BPIN form submitted by municipalities and agencies	BPIN record; institutional certifications and letters	There is the political will at various levels to support social development based on forestry activities
Activity 3.1. Prepare a project proposal to ensure the availability of financial resources so as to implement and extend some of the project activities once ITTO support has concluded	Preliminary draft of project proposal prepared in close cooperation with local stakeholders	Project reports; reports from institutions and rural organizations	
Activity 3.2. Approval of project design and project registration with the National Investment Projects Bank (BPIN).	Joint application to BPIN is agreed upon	Project reports; reports from institutions and rural organizations	
Specific objective 2 Implement demonstration exercises to test and adjust forest production options	Forest inventories carried out. 10 successful pilot forest management exercises	Documents submitted to CDA and project reports Permits issued by CDA; project reports Consultants' reports; project reports; CDA statistics	Staff turnovers are limited and do not affect project planning Acceptable level of compliance of local, regional and national development plans with the provisions established
Output 2.1 Detailed forest inventories carried out over 2,500 ha of natural forests in the target areas within the Rural Reserve	**2,500 ha of** forests in the RRA-G have been inventoried and the resulting information has been made available to the public	Consultants' reports; project reports; CDA documents and statistics	Sufficient secondary information available to carry out field activities

PROJECT ELEMENTS	INDICATORS	MEANS OF VERIFICATION	ASSUMPTION
Activity 4.1. Prepare maps of the region at a scale of 1:50,000 and of FAUs at a scale of 1:25,000, and collect environmental and social information from secondary sources and field checking	Adequate maps available and field checks carried out	Consultants' reports; project reports; institutional documents	
Activity 4.2. Conduction of participatory statistical forest inventories in the target areas of the Rural Reserve	Participatory forest inventories implemented in most FAUs	Consultants' reports; project reports; institutional documents	
Activity 4.3. Systematization of information required for the subsequent development of management plans and land use zoning in the FAUs	Organized and systematized field information available and used for other activities	Consultants' reports; project reports; institutional documents	
Output 2.2 At least 10 pilot forest exercises over 250 ha with various designs under implementation, monitoring and evaluation by rural families and related institutions	10 demonstration forest exercises **over 250 ha** under implementation in the FAUs	Consultants' reports; project reports; farmers' reports; institutional documents	Locations for demonstration activities are properly selected
Activity 5.1. Design and preparation of 10 pilot or demonstration trials on forest management alternatives for natural forests and agricultural lands	Ten designs prepared in close cooperation with FAU owners	Consultants' reports; project reports; farmers' reports; institutional documents	
Activity 5.2. Arrangements for the submission, approval and formulation of projects developed during the implementation of Activity 2.2 above	The approval and funding of proposals is secured	Consultants' reports; project reports; farmers' reports; institutional documents	
Activity 5.3. Intensive staff training through the implementation of demonstration exercises	The ten exercises are successfully implemented and are useful for forest extension	Consultants' reports; project reports; farmers' reports; institutional documents	
Specific objective 3 Develop management plans for forest reserve areas suitable for utilization, forest plantation establishment and management plans for agricultural areas, and plans for the protection and rehabilitation of forest lands of significance for the provision of environmental services.	**50** FAUs with approved zoning A fourth of the FAUs with projects in the process of being financed A tenth of the FAUs with operational forest projects	Municipal agreements; project reports; CDA, CORPES and UMATAs documents; reports from planning and financial departments	Adequate support to the project by institutional and private sectors
Output 3.1 At least 50 Family Agricultural Units have been permanently zoned for sustainable forest production, conservation and rehabilitation of ecosystems and soil, water, forest and genetic resources	A fourth of the FAUs have their management plans approved and under implementation	Consultants' reports; project reports; farmers' reports; institutional documents	Project staff and temporary consultants are qualified. The FAU members attend training sessions. The conditions required for cooperation events are met
Activity 6.1. Final preparation of FAU zoning	Final proposals discussed and approved by Municipal Councils	Municipal agreements; project reports	

PROJECT ELEMENTS	INDICATORS	MEANS OF VERIFICATION	ASSUMPTION
Activity 6.2. Preparation of regulations for land use in the FAUs based on the zoning agreed with the institutions involved	Field adjustment of agreed zoning	Project reports	
Output 3.2 At least 50 FAUs have new projects approved and in the process of being financed to carry out new inventories, natural forest management plans, and forest plantation establishment and management plans, incorporating the management of soil, water and biodiversity resources	**50** FAUs have produced viable forest projects and are negotiating financing or are implementing them	Consultants' reports; project reports; farmers' reports; institutional documents	Forest extension activities are successful Appropriate selection of FAUs
Activity 7.1. Preparation of natural forest management plans and forest establishment and management plans for the FAUs with defined land use zoning	Plans effectively prepared	Plans submitted to institutions; project documents; institutional documents	
Activity 7.2. Submission, maintenance and management of public and private resources for the implementation of the management plans described for the above activity	Resources obtained	Institutional reports and project reports	
Output 3.3 At least 25 FAUs have plans approved, financed and under implementation for the sustainable use of natural forests and forest plantations, ~~and are participating in a pilot certification scheme~~	**25** FAUs have their management plans financed and under implementation	Institutional reports and project reports	Forest extension activities are successful Appropriate selection of FAUs
Activity 8.1. Develop demonstration exercises into full forest management proposals and secure financing for the proposals prepared during project implementation	Pilot activities planned as self-managed production projects and **financed**	Consultants' reports; project reports; farmers' reports; institutional documents	
Activity 8.2. Establish permanent harvesting and environmental impact monitoring and research plots	10 plots established	Consultants' reports; project reports; farmers' reports; institutional documents	
Activity 8.3. Introduce forest products from FAU sources under forest management into the domestic and foreign markets.	Trading of timber from sustainable sources taking place in the region and different markets	Consultants' reports; project reports; farmers' reports; institutional documents	

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK WORKSHEETS

PROJECT TITLE: Productive forest management in the Rural Reserve Area of Guaviare

PROJECT ELEMENTS	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTION
Development objective Achieve the protection and rehabilitation of Amazon forest lands	Measures of development objective achievement Significant rehabilitation of the regional forest cover. Conversion of extensive cattle ranching and shifting agriculture into agroforestry production systems. Average income levels of rural families exceed subsistence needs. Significant increase in trade of forest products from sustainable sources.	Sources of data Public and private statistics. Project reports. Municipal agreements. Documents submitted to CDA. Plans approved by CDA. Plans approved by CDA. Forest incentives provided. Project reports; Official statistics Consultants' reports and project report.	The forest policy and agricultural policy applied will continue supporting the forest sub-sector The implementation of the Green Plan and regional forest incentives will be promoted The necessary support will be provided for the implementation of the Sustainable Development Plan for the RRA-G Forest sub-sector competitiveness agreements will enter into force The departments and municipalities will fulfil their commitments to the Departmental Development Plan and the Municipal Development Plans

PROJECT ELEMENTS	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTION
Specific objectives 1. Develop the forest management skills of rural producers in the Rural Reserve Area of Guaviare. 2. Implement demonstration exercises to test and adjust forest production options 3. Develop management plans for forest reserve areas suitable for utilization, forest plantation establishment and management plans for agricultural areas, and plans for the protection and rehabilitation of forest lands of significance for the provision of environmental services.	The rural families receive proper training on forest, environmental and economic management. The project sustainability is guaranteed with national resources. Zoning proposals for land use being developed Forest inventories carried out. 10 successful pilot forest management exercises 50 FAUs with approved zoning 50 FAUs with projects in the process of being financed 25 FAUs with operational forest projects	Project reports; public and private institutional reports. Project reports; CDA and UMATAs reports Documents submitted to CDA and project reports Permits issued by CDA; project reports Consultants' reports; project reports; CDA statistics Municipal agreements Project reports; CDA, CORPES and UMATAs documents Project reports; CDA, CORPES and UMATAs documents	Project disbursements made according to schedule Timely disbursement of counterpart contributions The Project's technical and administrative team is maintained with only a few changes Staff turnovers are limited and do not affect project planning Acceptable level of compliance of local, regional and national development plans with the provisions established Adequate support to the project by institutional and private sectors
Outputs OUTPUT 1.1 Forest technical and self-management skills of FAU farmers have significantly increased and technical and administrative assistance is only required to a lesser extent OUTPUT 1.2 Preliminary zoning proposals have been prepared for production and the provision of services for at least 50 FAUs OUTPUT 1.3 A project prepared and registered with the National Investment Projects Bank to ensure future technical support, training and financing OUTPUT 2.1 Detailed forest inventories carried out over 2,500 ha of natural forests in target areas within the Rural Reserve OUTPUT 2.2 At least 10 pilot forest exercises over 250 ha with various designs under implementation, monitoring and evaluation by rural families and related institutions	100 farmers owners of FAUs and 50 public officers trained in forest management and development in 36 months Land use plans prepared by 50 FAUs; 24 months Relevant BPIN form submitted by municipalities and agencies 2,500 ha of forests in the RRA-G have been inventoried and the resulting information has been made available to the public; 24 months 10 demonstration exercises under implementation over 250 ha; 36 months	Project reports and reports from participating institutions Project and municipal reports BPIN record; institutional letters Project reports and CDA reports Project reports; CDA and UMATAs reports Project reports; consumers' reports; consultants' reports	Project staff and temporary consultants are qualified FAU members attend training sessions Possibility of field visits to successful projects The conditions required for horizontal cooperation events are established There is sufficient secondary information to carry out field activities Locations for demonstration activities are properly selected There is the political will at various levels to support social development based on forestry activities

PROJECT ELEMENTS	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTION
OUTPUT 3.1 At least 50 Family Agricultural Units have been permanently zoned for sustainable forest production, conservation and rehabilitation of ecosystems and soil, water, forest and genetic resources	50 FAUs have their management plans approved and under implementation - 24 months	Project reports; UMATAs and CDA reports	Project staff and temporary consultants are qualified FAU members attend training sessions
OUTPUT 3.2 At least 50 FAUs have new projects approved and in the process of being financed to carry out new inventories, natural forest management plans, and forest plantation establishment and management plans, incorporating the management of soil, water and biodiversity resources	50 FAUs have produced viable forest projects and are negotiating financing or are implementing them – 30 months	Project reports; reports from CDA and other institutions	Possibility of field visits to successful projects The conditions required for horizontal cooperation events are established There is sufficient secondary information to carry out field activities
OUTPUT 3.3 At least 25 FAUs have plans approved, financed and under implementation for the sustainable use of natural forests and forest plantations, ~~and are participating in a pilot certification scheme~~	25 FAUs have their management plans financed and under implementation – 20 months	Project reports; UMATAs and CDA reports; consultants' reports	Locations for demonstration activities are properly selected There is the political will at various levels to support social development based on forestry activities

PROJECT DESIGN SUMMARY

LOGICAL FRAMEWORK WORKSHEETS

PROJECT TITLE: Productive forest management in the Rural Reserve Area of Guaviare

ACTIVITIES	INPUTS	UNIT COSTS (US$)
Activity 1.1 Organization of bi-monthly workshops (15) with FAU owners so as to increase forest technical and production project administration skills (15 five-day workshops run by workshop consultant and 15 participants)	120 m/d Consultant 15 return air trips 15 return land trips fuel for transport of rural communities 1125 days DSA printed and audiovisual materials, office supplies	100 230 35 37.5 5.5 200
Activity 1.2 Three visits to ongoing national forest projects with a high positive economic, social and environmental impact (10 farmers, 10 officers, 5 days, 3 visits)	225 days DSA 32 return air trips 34 return land trips – rural communities	5.5 230 85
Activity 1.3. Organization of three horizontal cooperation workshops at the FAUs with the participation of farmers from different successful forest projects (3 five-day workshops with 3 consultants and 36 participants)	65 m/d consultants 9 return air trips 9 return land trips 600 days DSA printed and audiovisual materials, office supplies cost of road and river transport – 110 participants	100 230 22.5 5.5 100 275
Activity 1.4. Organization of two seminars in the region on mechanisms and instruments for regional forest development and improvement of the quality of life of the population (2 seminars with 3 consultants, 5 days and 50 participants)	50 m/d consultants 6 return air trips 6 return road trips fuel for transport of 100 farmers 600 days DSA printed and audiovisual materials, office supplies	100 230 35 250 5.5 200
Activity 1.5 Carry out an economic evaluation of the institutional setup and impacts on the rural producers' economy prior to project completion, including relevant conclusions and recommendations.	Comprehensive sub-contract 36 m/m Project staff	
Activity 2.1. Organization of two workshops to analyze possible alternatives to encourage private investments in regional forest industries for the sale of services and to propose novel economic mechanisms to national, regional and local authorities (2 workshops, 3 days, 25 participants, 2 workshop consultants)	20 m/d consultants 4 return air trips 4 return land trips 180 days DSA printed and audiovisual materials, office supplies	87 230 35 5.5 100
Activity 2.2. Provide technical assistance in the formulation of individual projects for each FAU (36 m/m technicians)	36 m/m project technical personnel fuel maintenance 3 motorcycles 2 lightweight boats printed and audiovisual materials, office supplies	2333 2.5 4000 5000 500
Activity 2.3. Prepare a document containing policy proposals and regional and local standards for land-use regulation, the payment of environmental services derived from forest activities, and the encouragement of private investment	12 m/m project personnel printed and audiovisual materials, office supplies	2333 100

ACTIVITIES	INPUTS	UNIT COSTS (US$)
Activity 3.1. Prepare a project proposal to ensure the availability of financial resources so as to implement and extend some of the project activities once ITTO support has concluded	12 m/m project personnel printed and audiovisual materials, office supplies	2333 100
Activity 3.2. Approval of project design and project registration with the National Investment Projects Bank (BPIN).	6 m/m project personnel printed and audiovisual materials, office supplies 1 return air trip travel expenses-5 days	2333 50 230 55
Activity 4.1. Prepare maps of the region at a scale of 1:50,000 and of FAUs at a scale of 1:25,000, and collect environmental and social information from secondary sources and field checking	6 m/m consultant 36 m/m project personnel fuel - land and river transport vehicle maintenance printed and audiovisual materials, office supplies travel expenses – 150 field days specialized geographic equipment maps, satellite images, aerial photographs, cartography	3000 2333 500 100 30 750 1500
Activity 4.2. Conduction of participatory statistical forest inventories in the target areas of the Rural Reserve	6 m/m consultant 36 m/m project personnel fuel – land and river transport vehicle maintenance printed and audiovisual materials, office supplies travel expenses – 150 field days specialized forest equipment maps, cartographic documents, satellite images, aerial photographs	3000 2333 1000 250 30 2500
Activity 4.3. Systematization of information required for the subsequent development of management plans and land use zoning in the FAUs	4 m/m consultant 20 m/m project personnel computers and software printed and audiovisual materials, office supplies thematic mapping	3000 2333 15000 2000
Activity 5.1. Design and preparation of 10 pilot or demonstration trials on forest management alternatives for natural forests and agricultural lands	5 m/m consultants 12 m/m project personnel fuel – land and river transport vehicle maintenance printed and audiovisual materials, office supplies photocopies and books	3000 2333 1000 500
Activity 5.2. Arrangements for the submission, approval and formulation of projects developed during the implementation of Activity 2.2 above	6 m/m project personnel printed and audiovisual materials, office supplies	2333 50
Activity 5.3. Intensive staff training through the implementation of demonstration exercises	10 m/m project technical personnel 24 m/m operational staff (wages at 50%, counterpart 50%) purchase of forestry inputs purchase of forestry equipment transport inputs fuel – land and river transport vehicle and equipment maintenance	2333 9 30000 10000 1000 2000
Activity 6.1. Final preparation of FAU zoning	6 m/m project technical personnel fuel – land and river transport vehicle maintenance basic and thematic mapping, satellite images	2333 500

ACTIVITIES	INPUTS	UNIT COSTS (US$)
Activity 6.2. Preparation of regulations for land use in the FAUs based on the zoning agreed with the institutions involved	3 m/m project personnel printed and audiovisual materials, office supplies basic and thematic mapping, satellite images	2333 100
Activity 7.1. Preparation of natural forest management plans and forest establishment and management plans for the FAUs with defined land use zoning	6 m/m consultant 18 m/m project personnel fuel – land and river transport vehicle maintenance printed and audiovisual materials, office supplies basic and thematic mapping, satellite images	3000 2333 1500 300
Activity 7.2. Submission, maintenance and management of public and private resources for the implementation of the management plans described for the above activity	10 m/m project personnel printed and audiovisual materials, office supplies basic and thematic mapping, satellite images	2333 200
Activity 8.1. Develop demonstration exercises into full forest management proposals and secure financing for the proposals prepared during project implementation	18 m/m project personnel	2333
Activity 8.2. Establish permanent harvesting and environmental impact monitoring and research plots	Comprehensive contract 36 m/m project personnel	 2333
Activity 8.3. Introduce forest products from FAU sources under forest management into the domestic and foreign markets.	12 m/m project personnel 10 return air trips and travel expenses -50 days	2333 230/55

7. Work Plan

OUTPUTS/ACTIVITIES	Resp. party	SCHEDULE OF ACTIVITIES 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36
OUTPUT 1.1. Technical skills increased		
Activities		
1.1. Bi-monthly workshops	Project staff	
1.2. Visits to projects	Sub-contract	
1.3. Workshops on horizontal cooperation	Sub-contract	
1.4. Seminars on forest development	PS	
1.5. Economic evaluation on institutional setup	Sub-contract	
OUTPUT 1.2. Preliminary zoning proposals		
2.1 Workshops on investment alternatives and sale of services	Consultant	
2.2. Assistance in the formulation of FAU individual projects	PS	
2.3. Policy proposals and regulations on land use, etc.	PS	
OUTPUT 1.3. BPIN project registration to secure funding		
3.1 Prepare proposal for future project sustainability	PS	
3.2. Project approval and registration with BPIN	PS	
OUTPUT 2.1. Detailed forest inventories		
4.1. Preparation of maps	PS	
4.2. Participatory forest inventories	PS	
4.3. Systematization of information for plans and zoning	PS	
OUTPUT 2.2. 10 forest exercises under implementation		
5.1. Design 10 forest and plantation management exercises	PS	
5.2. Arrangements for project approval and funding	PS	
5.3. Intensive staff training, field preparations	Consultant	
OUTPUT 3.1. 50 FAUs zoned for production/services		
6.1. Final preparation of FAU zoning	PS	
6.2. Preparation of land use regulations	PS	
OUTPUT 3.2. 50 FAUs with projects being funded		
7.1. Preparation of natural forest and plantation management plans	PS	
7.2. Secure private and public resources for management plans	PS	
OUTPUT 3.3. 10% of FAUs with plans under implementation		
8.1 Develop pilot exercises into full proposals	PS	
8.2. Establish research plots	PS	
8.3 Introduce sustainable forest products into markets	PS	

UNIT COSTS OF PERSONNEL AND BASIC INPUTS

INPUTS	UNIT COST
m/d Forest consultant	100
m/d Social forestry consultant	67
m/d Economics consultant	87
m/d Project Director	100
m/d Project professionals	50
m/d Project technicians	17
m/d Project workers	9
return airfare Santafe de Bogota - San Jose	230
return land travel - regional	35
fuel - river transport	2.5
susbsistence allowance m/d	15
transport inputs	2
basic and thematic mapping	75
satellite imagery	1500

CONSOLIDATED YEARLY BUDGET

Code	Budget Component	Total ITTO	Year 1	Year 2	Year 3
10	Project personnel				
11	National experts	224,000	74,666	74,666	74,666
12	Administrative personnel				
13	Consultants	100,000	33,333	33,333	33,333
14	Other labour				
15	Fellowships and training				
16	International Experts				
19	Component Total	324,000	108,000	108,000	108,000
20	Subcontracts				
21	Subcontract – economic eval.				
22	Subcontract - market surveys				
23	Subcontract - research plots				
29	Component Total				
30	Duty Travel				
31	DSA	7,905	3,905	2,000	2,000
32	Transport costs	44,795	15,000	15,000	14,795
39	Component Total	52,700	18,905	17,000	16,795
40	Capital Items				
43	Capital equipment	73,500	73,500		
49	Component Total	73,500	73,500		
50	Consumable Items				
51	Raw materials	39,000	15,000	15,000	9,000
52	Spares				
54	Office supplies	27,500	9,000	9,000	9,500
59	Component Total	66,500	24,000	24,000	18,500
60	Miscellaneous				
61	Sundry	40,000	15,000	15,000	10,000
62	Refund of pre-project costs				
69	Component Total	40,000	15,000	15,000	10,000
	Subtotal	556,700	239,405	164,000	153,295
70	ITTO Admin., monit. & eval.				
71	**Monitoring & evaluation**	**30,000**	**10,000**	**10,000**	**10,000**
72	**Program Support Costs (5.5%)**	**32,269**	**11,000**	**11,269**	**10,000**
79	**Component Total**	**62,269**	**21,000**	**21,269**	**20,000**
99	**Grand Total**	**618,969**	**260,405**	**185,269**	**173,295**

PROJECT BUDGET BY COMPONENT

Code	Budget Component	Total	ITTO	Colombia
10	Project Personnel			
11	National Experts			
12	Coordinator 36 m@ 3,000	108,000	108,000	
13	Professionals 3 x 36m@ 1,500	162,000	116,000	46,000
14	Technicians 3 x 36m @ 500	54,000		54,000
15	Administ. 1 x 36m @600	21,600		21,600
16	Forest Consultants 5 x 8m@3,000	120,000	100,000	20,000
16	Social Consultants 2 x 6m @ 2,000	24,000		24,000
16	Economics Consultant 1 x 2m@2,600	5,200		5,200
17	Other labour 16 x 25m @250	100,000		100,000
19	Component Total	594,800	324,000	270,800
20	Sub-contracts			
21	Sub-contract – Economic evaluation	30,000		30,000
22				
23	Sub-contract – Research plots	30,000		30,000
29	Component Total	60,000		60,000
30	Duty Travel			
31	DSA	12,905	7,905	5,000
32	Transport costs	72,795	44,795	28,000
39	Component Total	85,700	52,700	33,000
40	Capital Items			
43	Capital equipment	73,500	73,500	
49	Component Total	73,500	73,500	
50	Consumable Items			
51	Raw materials	49,000	39,000	10,000
52	Spares			
54	Office supplies	27,500	27,500	
59	Component Total	76,500	66,500	
60	Miscellaneous			
61	Sundry	40,000	40,000	
62	Refund of pre-project costs			
69	Component Total	40,000	40,000	
	Subtotal	930,500	556,700	373,800
70	ITTO Admin., monit. & eval.			
71	**Monitoring and evaluation**	**30,000**	**30,000**	
72	**Program Support Costs (5.5%)**	**32,269**	**32,269**	
79	**Component Total**	**62,269**	**62,269**	
99	**Grand Total**	**992,769**	**618,969**	**373,800**

OVERALL PROJECT BUDGET BY ACTIVITY

OUTPUTS/ACTIVITIES	BUDGET COMPONENTS						
	Project Personnel	Sub-contracts	Duty Travel	Capital Items	Consumable Items	Miscellaneous	GRAND TOTAL
OUTPUT 1.1							
Activity 1.1	43,500		12,000	2,500	2,000	5,000	65,000
Activity 1.2.	3,000		15,000	4,500	1,000	2,300	25,800
Activity 1.3.	14,500		10,500	1500	2,000	2,000	30,500
Activity 1.4.	16,500		1,500	1,500	1,500	2,000	23,000
Activity 1.5.		30,000					30,000
Subtotal OUTPUT 1.1	77,500	30,000	39,000	10,000	6,500	11,300	174,300
OUTPUT 1.2							
Activity 2.1.	7,500		4,000		1,500	2,000	15,000
Activity 2.2.	54,000		7,500	15,000	3,000	2,500	82,000
Activity 2.3	18,000			3,500	2,500	1,000	25,000
Subtotal OUTPUT 1.2	79,500		11,500	18,500	7,000	6,500	122,000
OUTPUT 1.3							
Activity 3.1.	18,000			3,500		2,000	23,500
Activity 3.2..	9,000			2,500		1,000	12,500
Subtotal OUTPUT 1.3	27,000			6,000		3,000	36,000

OUTPUTS/ACTIVITIES	BUDGET COMPONENTS						
	Project Personnel	Sub-contracts	Duty Travel	Capital Items	Consumable Items	Miscellaneous	GRAND TOTAL
OUTPUT 2.1							
Activity 4.1.	54,000		7,500	8,000	6,500	2,200	78,300
Activity 4.2.	79,000		9,000	5,500	4,500	2,000	100,000
Activity 4.3.	18,000		1,000	5,000	1,500	2,000	26,500
Subtotal OUTPUT 2.1	151,000		17,500	18,500	12,500	5,200	204,800
OUTPUT 2.2.							
Activity 5.1	108,000		5,200	5,000	24,000	1,250	143,700
Activity 5.2.	9,000		1,000			500	10,500
Activity 5.3.	27,000		3,000	5,000	8,000	5,000	45,000
Subtotal OUTPUT 2.2	144,000		9,200	10,000	32,000	4,000	199,200
OUTPUT 3.1.							
Activity 6.1.	9,000		3,500	8,000	5,500	2,000	28,000
Activity 6.2.	13,500				1,500	1,000	16,000
Subtotal OUTPUT 3.1.	22,500		3,500	8,000	7,000	3,000	44,000
OUTPUT 3.2.							
Activity 7.1.	45,000		1,500	2,500	5,000	3,000	57,000
Activity 7.2	15,000		1,000			1,500	17,500
Subtotal OUTPUT 3.2	60,000		2,500	2,500	5,000	4,500	74,500

OUTPUTS/ACTIVITIES	BUDGET COMPONENTS						
	Project Personnel	Sub-contracts	Duty Travel	Capital Items	Consumable Items	Miscellaneous	GRAND TOTAL
OUTPUT 3.3.							
Activity 8.1.	15,300				3,000	1,000	19,300
Activity 8.2.		30,000			1,500		31,500
Activity 8.3.	18,000		2,500		2,000	2,500	25,000
Subtotal OUTPUT 3.3	33,300	30,000	2,500		6,500	3,500	75,800
Total OUTPUTS	594,800	60,000	85,700	73,500	76,500	40,000	930,500
ITTO Monitoring & Eval. 5.5%							30,618
ITTO Admin. costs							30,000
GRAND TOTAL							**991,118**

TERMS OF REFERENCE FOR PROJECT STAFF

Project Coordinator (Director)

Degree: University graduate specialized in natural or biological science; preferably with a post-graduate degree.

Work experience: Over five years experience in activities related to the project. In particular, he/she must have knowledge or experience in the following fields:

- Forest management and forest plantations;
- Project formulation, evaluation and administration;
- Strategic issues related to the development of the forest sub-sector;
- Management of water resources and biodiversity;
- Community and industrial development management;
- Process leadership and staff management.

Location: The coordinator should be available to establish his/her permanent residence and work base in the Department of Guaviare during the project implementation period.

University Professional (2)

Degree: Forest Engineering

Work experience: Over three years experience in activities related to the project. In particular, he/she must have knowledge or experience in the following fields:

- Forest management in general;
- Development and implementation of natural forest management plans;
- Development and implementation of forest plantation establishment and management plans;
- Prevention and control of forest fires and pests;
- Management of relations with rural communities.

Location: Availability to establish permanent residence and work base in the Department of Guaviare during the project implementation period.

University Professional (1)

Degree: Biology, ecology, agricultural science

Work experience: Over three years experience in activities related to the project. In particular, he/she must have knowledge or experience in the following fields:

- Project formulation and evaluation;
- Environmental impact assessment;
- Development and implementation of environmental management plans;
- Water, flora and fauna resource management;
- Management of relations with rural communities.

Location: Availability to establish permanent residence and work base in the Department of Guaviare during the project implementation period.

University Professional (2)

Degree: Anthropology, sociology, economics

Work experience: Over three years experience in activities related to the project. In particular, he/she must have knowledge or experience in the following fields:

- Land use planning and management;
- Social and economic development;
- Project formulation and evaluation;
- Social and environmental impact assessment;
- Management of relations with rural communities.

Location: Availability to establish permanent residence and work base in the Department of Guaviare during the project implementation period.

Technician

Degree or training: Technician in administration or equivalent

Work experience: Over two years experience in activities related to the project. In particular, he/she must have knowledge or experience in the following fields:

- Administration, accounting, systems and secretarial duties.

Location: Availability to establish permanent residence and work base in the Department of Guaviare during the project implementation period.

Technician

Degree or training: Rural extension expert

Work experience: Over three years experience in activities related to the project. In particular, he/she must have knowledge or experience in the following fields:

- Agricultural production;
- Natural resource management;
- Industrial development;
- Management of relations with rural communities.

Location: Availability to establish permanent residence and work base in the Department of Guaviare during the project implementation period.

LIST OF PROJECT EQUIPMENT

DESCRIPTION	QUANTITY	ESTIMATED COST
Motorcycle 200cc	4 @ 4,000	16,000
Lightweight boat with outboard motor 25 hp	2 @ 5,000	10,000
Computers with printers	5 @ 3,000	15,000
Miscellaneous equipment for forest operations	1	10,000
GPS	2 @ 750	1,500
Audiovisual equipment (video camera, projector, VHS, etc.)	1	5,000
Office equipment	1	8,000
Specialized technical equipment for field activities	1	3,000
Total:		73,500

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ACRONYMS AND ABBREVIATIONS

BPIN:	Banco de Proyectos de Inversión Nacional (National Investments Projects Bank)
CDA:	Corporación para el Desarrollo Sostenible del Norte y Oriente Amazónico (Corporation of Sustainable Development in Northern and Eastern Amazon)
FIC:	Forest Incentive Certificate
CNA:	Consejo Nacional Ambiental (National Environmental Council)
CODFO:	Corporación Colombiana para el Desarrollo Forestal Participativo (Colombian Corporation for Participatory Forest Development)
CONPES:	Consejo Nacional de Política Económica y Social (National Economic and Social Policy Council)
CORPES:	Consejo Regional de Política Económica y Social (Regional Economic and Social Policy Council)
CORPOICA:	Corporación Instituto Colombiano de Investigaciones Agropecuarias (Colombian Corporation/Institute for Agricultural Research)
CO-SINERGIA:	Corporación de Ordenamiento Territorial, Sinergia
IDEAM:	Instituto de Estudios Ambientales (Environmental Studies Institute)
IGAC:	Instituto Geográfico Agustín Codazzi (Agustin Codazzi Geographic Institute)
IICA:	Instituto Interamericano de Cooperación para la Agricultura (Inter-American Institute for Agricultural Cooperation)
INCORA:	Intituto Colombiano de la Reforma Agraria (Colombian Land Reform Institute)
ITTO:	International Tropical Timber Organization
NGO:	Non Governmental Organization
PLANTE:	Plan Nacional de Desarrollo Alternativo (National Alternative Development Plan)
SENA:	Servicio Nacional de Aprendizaje (National Training Institute)
SINCHI:	Instituto Amazónico de Investigaciones Científicas (Amazon Scientific Research Institute)
FAU:	Family Agricultural Unit
UMATA:	Unidad Municipal de Asistencia Técnica Agropecuaria (Municipal Uint for Agricultural Technical Assistance)
RRA-G:	Rural Reserve Area of Guaviare

CURRICULUM VITAE

PERSONAL DETAILS:

SURNAME:	Sepúlveda López
FIRST NAME:	Moisés
DATE OF BIRTH:	13 October 1952
PLACE OF BIRTH:	Salamina (Caldas)
ID NUMBER:	19.181.146 of Bogota
ADDRESS:	Cra 9ª No. 50-50, Apto. 401, Tel. 2121134 MOBILE PHONE: 3565887
E-MAIL:	sinergia@col1.telecom.com.co

HIGHER EDUCATION DEGREES:

- PhD in Law, Political and Social Sciences
  National University of Colombia, 1978

- Specialization in Regional Development Planning and Administration,
  University of Los Andes, CIDER, 1994

- Master's Degree in Environmental Development and Sanitation
  Pontificia Universidad Javeriana, IDEADE, 1995

- Specialization in Environmental Law
  Universidad Colegio Mayor de Nuestra Señora del Rosario, 1997

CURRENT WORK ASSIGNMENTS AND ACTIVITIES:

INSTITUTION: Corporación de Ordenamiento Territorial - SINERGIA
(Non Governmental Organization)

POSITION: General Director and Legal Representative

- Member of the Association of Experts in Environmental Law of the University of Rosario

- Member of the Society of Lawyers Specialized in Environmental Law in Colombia

RECENT PUBLICATIONS AND RESEARCH STUDIES:

- Las Zonas de Reserva Campesina: Un instrumento para el Desarrollo Humano Sostenible? (*Rural Reserve Areas: An instrument for Sustainable Human Development?*) Amazon Institute of Scientific Research, SINCHI, 1995.

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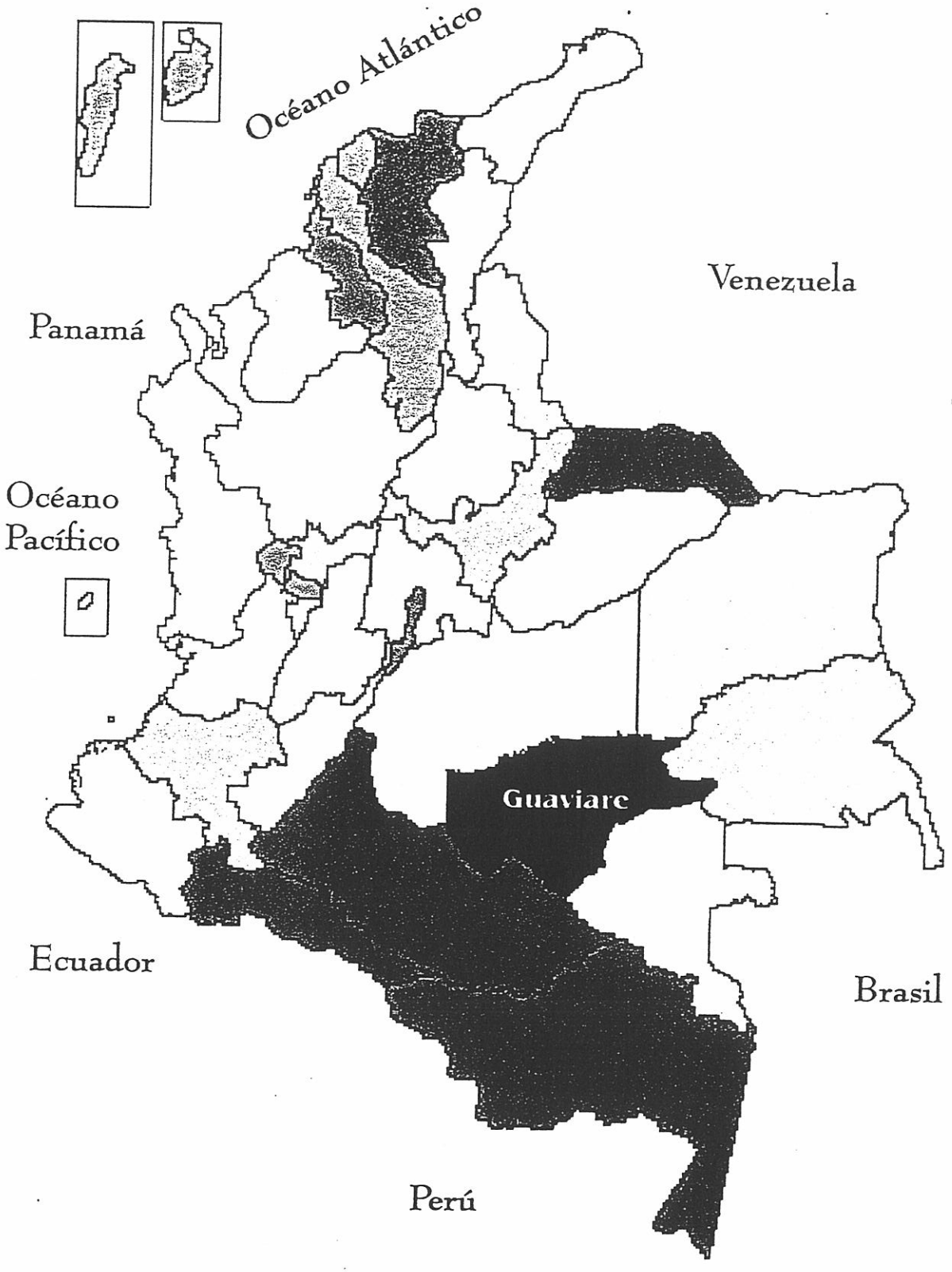

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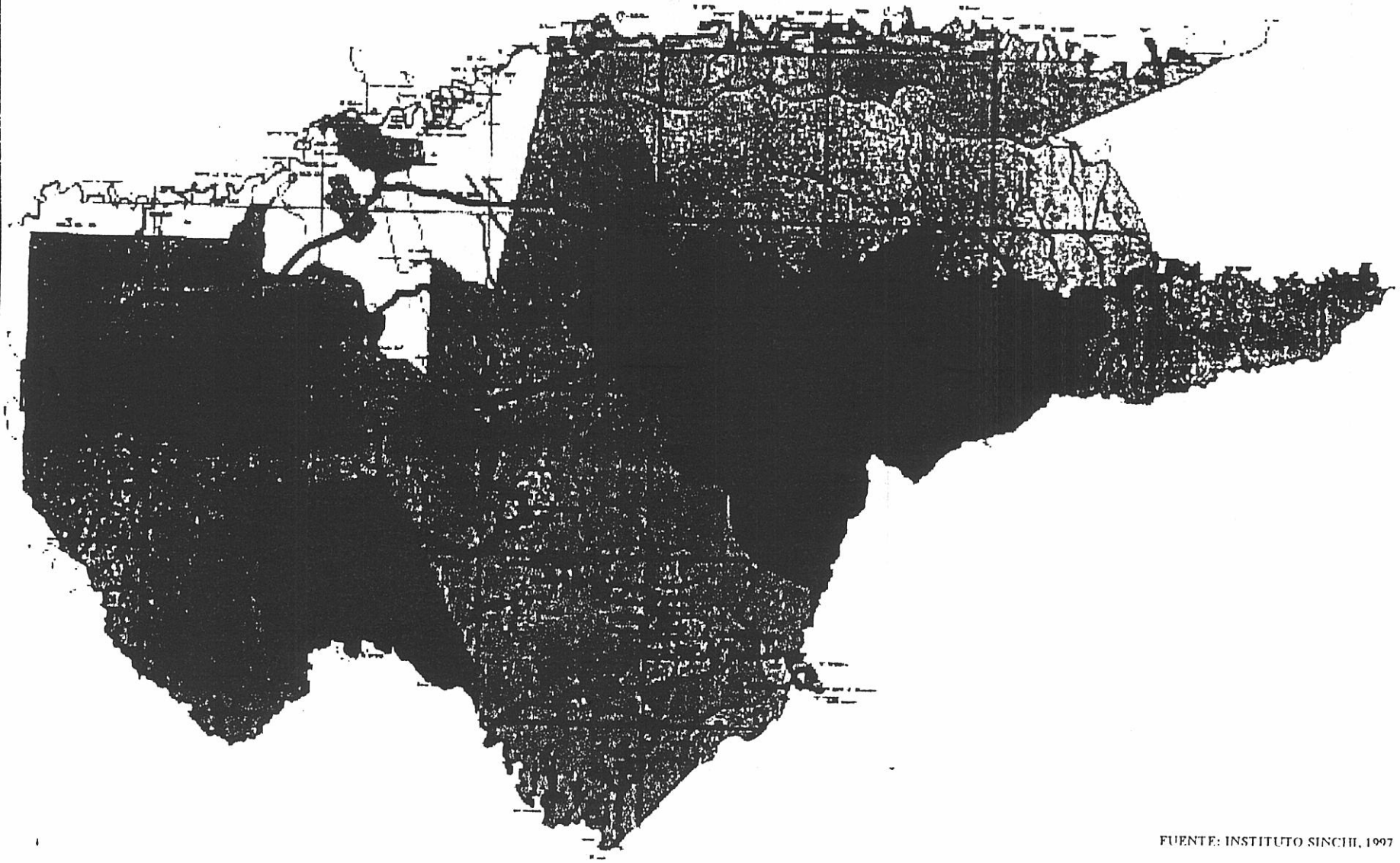

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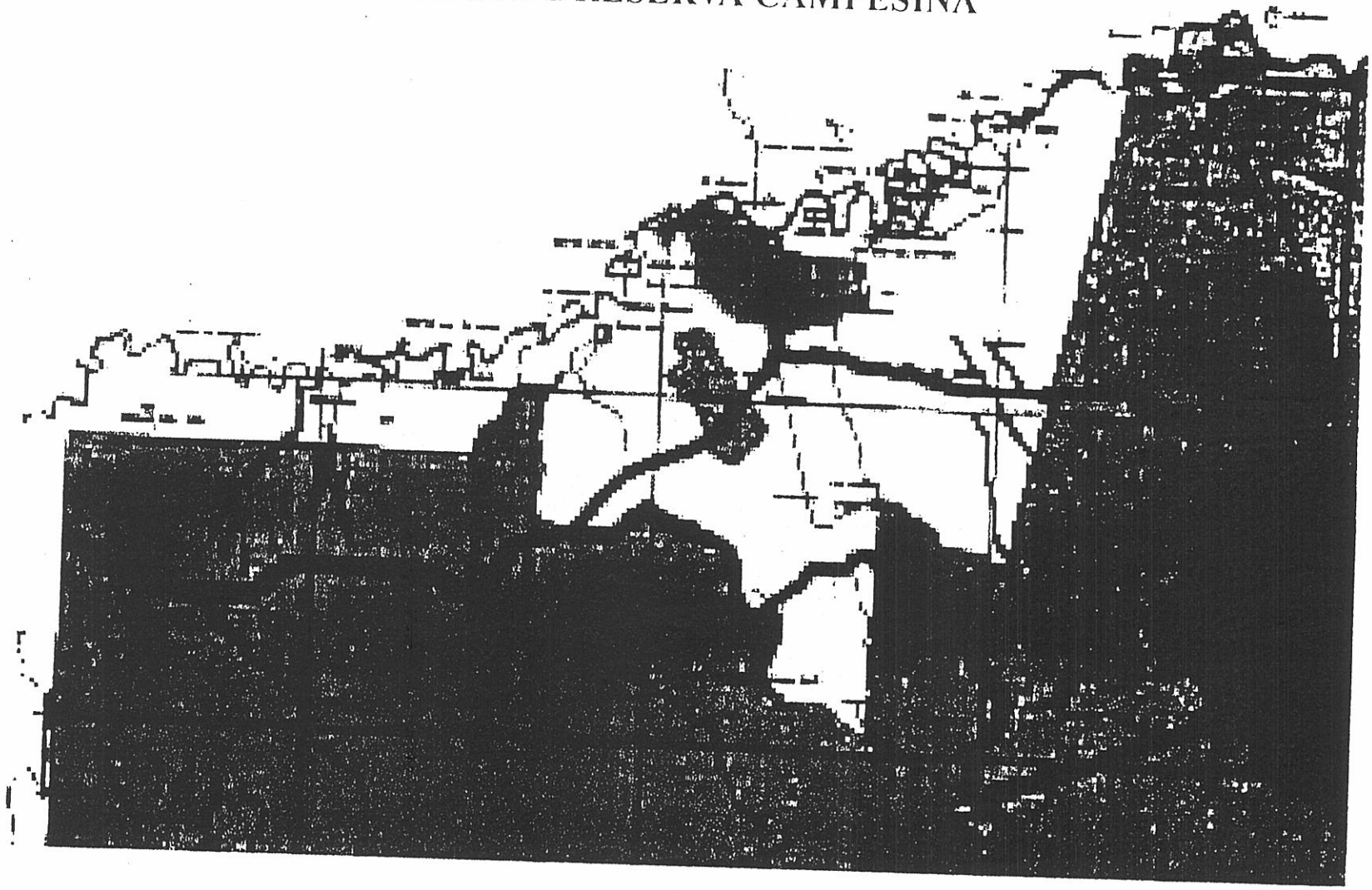

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