

PROJECT DOCUMENT
(DRAFT)

**Project on the Management and Use of the
Natural Forests in the Republic of Colombia**

JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)

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INTRODUCTION

The forest covering in Colombia occupies about 64 million hectares, which accounts for 45% of the Colombian territory. However, the forestry and wood exploitation share in Colombia represents only 0.2% of the overall GDP and 1.1% of the GDP of the agricultural, forest, hunting and fishing sectors as a whole. Additionally, illicit crops prevail in the natural forests of the country. Said illicit crops yield huge revenues, resulting in the worsening of safe conditions plus other negative outcomes for the rural area dwellers, in addition to other negative influences on the regional economy. Considering this situation, the National Development Plan (PND) deems that the forest sector is an essential pillar for the economical growth and well being of the population. Also, The National Forestry Development Plan (PNDF) for the 2000 - 2025 period includes as priority tasks of Colombia the development of the forest sector, the promotion of regional economy through the sustainable management of forests, and the creation of peace through the eradication of illicit crops. By taking into account this background, the Colombian government has requested cooperation of the Japanese government to develop the capacity of human resources intending to perform the rational forest management and to accomplish the objectives of the PNDF.

As a response to the above request, a preliminary study was carried out in February 2004, to confirm the backgrounds of such request of cooperation. This preliminary evaluation study was carried out to detect the training needs in order to: (1) Provide with essential data enabling us to specify the feasible subject matters, (2) Define scheme of the project and prepare the Draft Project Design Matrix, and (3) Justify the implementation of the Project. The governments of Japan and Colombia agreed on the above-mentioned issues by signing a Minutes of Meeting. The preliminary evaluation study team will submit these results to Japan side in order to define further measures.

CHAPTER 1. GENERAL CONDITIONS OF COLOMBIA

1.1 NATURAL CONDITIONS

Colombia is located to the NW South America. It has coastlines and territorial domains on the Pacific Ocean and the Caribbean Sea. Colombia is the fourth largest country in South America, having 1,139,000 km².

Due to the country geographical characteristics, the territory can be classified clearly in five natural regions, as follows: The Atlantic or Caribbean, the Andean, the Pacific, the Orinoquian and Amazonian. The Atlantic region features extensive plains and coasts on the Caribbean Sea, on which shores there are cities such as Cartagena, Barranquilla and Santa Marta among others. The Andean Region named as such after the range of mountains of Andes, is the most populated of all the regions and has the highest levels of economical and industrial growth. Most of the main cities of Colombia are located in the Andean region.

The Pacific region is typically known for the rainy forests of Choco and the coastline on the Pacific Ocean. The Indigenous and Afro-Colombian ethnic communities have been settled down in this region. The Orinoquian Region comprises the eastern plains and the Amazonian region. In both regions predominate indigenous communities, rainforests, and large-wide fast flowing rivers. These regions together with Choco are rich in biodiversity and natural resources.

1.1.1 Soils

Soil types in Colombia are very diverse, due to the huge diversity of climates, geological features, relief, and vegetation existing in the country. However the fertile flat land, which can be cultivated by mechanizing, and physical and chemical appropriate soils are comparatively of little importance in the country. The most abundant soils are those having restrictions such as high humidity levels (i.e. climate conditions and floods), low fertility, high acidity and ruggedness. In general terms, the soils of the mountain range, the semi-arid zones and the flooding sectors are not so much developed. The mostly evolved parts are located around the flat lands where the old non-eroded terraces are frequently found.

1.1.2 Climate

Although Colombia is located in the Ecuadorian zone, the Andes hills system confers the country a notorious variety from the point of view of its land topographical conditions, ranging from the tropical rainy forests and plains up to high plateaus and snow capped mountains. Therefore, the

climate variations are not due to the seasons in a year but to the different altitudes. Temperature decreases about 6°C for every 1.000 meters of altitude, so at the sea level the annual average temperature is near 30°C.

While there are no seasons in Colombia and the climate in each region is kept relatively stable throughout the year, there are some slight changes according to the different times of the year, such as the dry season or the rainy season. The dry season generally occurs in December-January and in July-August, and the rainy season, in April-May and October-November, although this is not very exact.

1.1.3 Vegetation

In lower lands (hot lands) the rain amount and their distribution along the year are the factors determining the changes of physiognomy and general flora composition of vegetation. In these regions, the following principal types of vegetable formation can be distinguished: the ever green shaded forests in the very humid and humid Equatorial climates, the dry climate's deciduofoliolate forests, the thorny forests of very dry climates, the thorny scrub lands of the very dry or semi-arid climates, the cactus vegetation of semi-arid climates, and the savannah of dry climates.

In the Andean zone, vegetation is arranged by altitude belts or strips, which match in general terms the thermal belt referred to in the morphology and climate sections herein. Those belts are known as bio-climate belts. Above the sub-Equatorial belt (500-1000 meters above seal level), the principal vegetable formations are the following: Sub-Andean forests of temperate climate, Andean forest of cold climate, High Andean forest, moor, and super-moor.

Some specialized vegetable formations exist including mangrove, permanently or temporally flooded forests, Amazonian scleromorphic forests, and the swamps and marshes vegetation.

1.2 SOCIOECONOMIC CONDITIONS

1.2.1 Social Conditions

1.2.1.1 Population

At present, the urban centers comprise 72.6% of the Colombian population, which has been estimated to be 46 million people, where 59.8% lives under the line of poverty and 23.4% under the line of extreme poverty. There is in Colombia a strong migration trend from the rural areas to the cities, as a result of the rough economical and social conditions, and the violence that rural people have to face with, plus the lack of proper utilities and opportunities to access the technical education or the healthcare services.

The population distribution is not uniform throughout the territory, where the most populated zone is the Andean zone wherein almost three-quarters of the Colombian population live, on a land surface representing less than one quarter of the continental physical space of the country. The less populated areas are the far vast plains of the Orinoquian, Amazonian and Pacific-Atrato regions. It has been estimated that by the 2000-2005 period, the population of Colombia will grow at the rate of 1.7% per year, even though this dynamics cannot be considered as uniform for the whole territory.

According to the last census data (DANE 1993) and forecasts for 2005, it has been estimated that there still live about 752,780 indigenous people in the country, with their own culture, traditions and folklore. On the other hand, it has been considered that there are about 554,763 black people in Colombia including the so-called cimarrones (runaway black people) which are part of the black communities too.

1.2.1.2 Education

Education is one of the social sectors where more advance has been noticed during the past 15 years. Illiteracy is currently about 8.5%, thanks to the educational programs undertaken by the government to this respect. The educational coverage and the structures of educational services have been improved as seen by the index of students per teacher for elementary school, which rose from 20 to 27 between 1987 and 2002.

1.2.1.3 Health

During the last decades, some significant advances have been attained in indexes such as reduction of children mortality rate and the occurrence of transmittable diseases (i.e. poliomyelitis, measles, diphtheria, cholera, rabies, pests, and yellow fever) whose rates are equal or close to zero. The increase or prevalence of poverty in most of the country has also led to a stagnation or increase of the children malnutrition rates.

Although some notable advances have occurred in the last decade after the inception of the Social Security General System, the health care system can be still deemed as highly deficient, as it has not been possible so far to achieve a complete coverage throughout the country, and its quality is deficient. In spite of the improvements herein described, the picture is still dark in the horizon, due to the ever-growing budgetary deficit of the central government and the territorial entities, and the low proportion of those contributing their money to the system of health.

1.2.1.4 Poverty

About 66.3% of Colombian households have low incomes placing them under the line of poverty. This proportion affects a little more than 29 million people. The situation is even worse in the

rural area where about 82% of its dwellers are below the line of poverty, which accounts for almost 10 million people.

The high proportion of the population placed under the line of poverty is one of the principal reasons why the people seeks new activities, including the illicit coca crops and poppy (for cocaine and heroine extraction, respectively) to cope with the increasingly deficit in the families shopping basket.

1.2.2 Economy

1.2.2.1 Economic indexes

By 2002 the Colombian GDP (in current thousand of million pesos) was 203,142 (DANE preliminary figure). The growth rate for 2002 was 1.7%. By sectors, the boom of construction is notorious where the activity has grown by 8.7% followed by transport with 3.5%, electricity and gas by 3%, financial entities by 2.4%, agriculture 0.5%, among others.

A good portion of the territory is under the control of illegal groups. There is a notable fiscal deficit, a high unemployment rate and a high level of internal and external debt. Likewise, there is a deterioration of the social rates. For the current administration, the principal challenges are the democratic security, where considerable expense increases have been registered, as well as the reform to the state.

1.2.2.2 Industry

The Colombian industry is diversified. The industry resulting from the agricultural origin raw materials transformation, that is, food, beverages, tobacco, continues to be the most relevant, contributing 33.45% of the value of the national production. The following lines are the chemical industry (including rubber and plastics) with 18.65%, textile, leather, and shoes with 9.88%, petrochemicals with 8.91% and paper and printing with 8.03%. The other industrial sectors are important by approximately 5%.

In the agricultural sector (agriculture and livestock), there are numerous small sized agro-industries engaged in the manufacture of panela (brown sugar block), cheese and other dairy products, arequipe (made by boiling down milk and sugar), bocadillos (guava jelly solid) and even alcoholic beverages. The manufacture of traditional craftsmanship is also an important sector, including the manufacture of musical instruments, blankets, hats, trimmings, leather goods, furniture, ceramics, and baskets.

1.2.2.3 Foreign Trade

The principal business partner of Colombia is the United States, a country where 43.3% of its exports are sent to, and from where 31.7% of its imports come. After the United States, Colombia keeps its main commercial exchange operations with the Andean Community (19.5% of exports and 11.5% of imports) followed by the European Union (13.7% of exports and 14.3% of imports). The balance of trade has been negative during the last years.

About 45% of exports consist on products from the industrial sector, which is a substantially opposite situation to what occurred 20 years ago, when raw materials were predominant. However raw materials continue to be extremely important as they reach 44.6% represented mainly in oil and the by-products thereof, and coffee, coal, and ferronickel. About half of the imports (46%) are represented by raw materials and intermediate products, mainly for industrial applications, followed by the capital goods and building materials, with about one third thereof (32%). Consumption goods (21%) and other minor sectors represent the remaining portion.

CHAPTER 2. BACKGROUND AND CURRENT FOREST SECTOR SITUATION

2.1 Forest Resources

Out of 114 million hectares of continental extension having this country, about 64 million are occupied by natural forests (IDEAM, 1997) holding a huge proportion of 'mega-diversity' of the country, which accounts for 10% of the world biodiversity, a reason why Colombia has been acknowledged as one of the countries having the largest biodiversity in the world. Similarly, the country ranks in the seventh place in the world having the largest area of forest covering in relation to tropical forests (FAO, 1999)¹, representing 6.24% of the total offer for the Tropical South America and 1.5% of the forests of the world and it is placed as the second one having the largest number of plant species in its territory (World Resources Institute, WRI, 1997). Additionally, Colombia is the seventh country having the largest share of "forest borderline" in the world (FAO, 1990).

Currently there are no accurate data on the different types of forest ecosystems represented within the forest reserves, or on the conservation status thereof. It is possible however to ascertain that no specific actions of conservation or protection have been applied at all to mangrove swamps, cativales, sajales, guandales and other forest formations equally important from the environmental standpoint that can be endangered.

On the other hand, there exist numerous forest species subjected to high levels of pressure for the selective exploitation; for instance, in the Pacific Region, the most exploited species having a high pressure level are the following: *Prioria copaifera*, *Tabebuia rosea*, *Carapa Guianensis*, *Brosimum utile* and generally the entire set of virolas. In the Andean Region there are many forest species which are still exploited even though that there are some isolated specimens or spots left, including member species of the *Laureacea* family in general, and the following species: *Jacaranda copaia*, *Tabebuia rosea* and *Cedrela montana*, among others.

¹ According to "Evaluation of World Forests", 1995, published by FAO (1999), the countries having the largest tropical natural forest covering are: 1. Brazil (546,239,000 hectares); 2. Independent Republic of Congo (109,203,000 hectares); Indonesia (103,666,000); 4. China (99,523,000); 5. Peru (67,378,000 hectares); 6. Mexico (55,278,000); 7. Colombia (52,862,000 hectares).

Table 1. Forest Covering in Colombia

Type of Covering	Million hectares
Basal Forest	38.7
Andean Forests	9.1
Riparian -or gallery- forests	3.4
Hydrophytic forests: mangrove and those of swamp	2.8
Fragmented basal forests and Andean forests	9.9
Total	63.9

Source: Ministry of Environment. PNDF. 2000.

2.2 Forest Policy within the Framework of the National Forestry Development Plan (PNDF) and National Development Plan (PND)

2.2.1 National Forestry Development Plan

The following ministries have formulated this Plan: Ministry of Environment, Ministry of Economic Development, Ministry of Foreign Trade, and Ministry of Agriculture and Rural Development, in coordination with the National Planning Department. This Plan was endorsed by the National Environmental Council by the end of 2000 and confirmed by the National Council of Economic and Social Policy (CONPES), by means of Resolution 3113 of 2001.

The Plan projects the Colombian forest sector to year 2025, period in which, the Plan should have been consolidated as a strategy within the process of the national economic development, with a high share in the agricultural production and in employment generation, based on the sustainable use and management of both natural and planted forests. Based on a competitive industry at the international level, and with the achievement of environmental benefits and services for the society as a whole, it is possible that a forest culture could be consolidated.

Said Plan identified three core programs as follows: 1) The ordering, conservation, and restoration of forest ecosystems; 2) The development of Forest Productive Chains; and 3) the Institutional Development.

2.2.2 National Development Plan 2003-2006 "TOWARDS A COMMUNITY STATE" - Component: The Social Management of Rural Area

The National Development Plan, known as "TOWARDS A COMMUNITY STATE", has the following main objectives: to Provide Democratic Security; Encourage the Sustainable Economic Growth and Employment Generation; Construct Social Equity; and Increase the Transparency and Efficiency of the State. This Plan incorporates the forest sector into the country development

plans, taking advantage of its comparative advantages and promotes the competitiveness of environmental capitals and services within the national and international markets.

The objective 'To Provide Democratic Safety' also deals with the forest topics, when reference is made to the development in depressed areas and in-conflict places, and when dealing with priorities in foreign relations and international cooperation.

The objective "Encourage the Sustainable Economic Growth and Employment Generation" includes the forest issues in the field of environmental sustainability.

The objective 'To Construct Social Equity' makes special reference to the forest topics within the component of the Social Management of the Rural Areas and, in dealing with the Program of Alternative Development (known as "Plan Colombia"), such references are made in the Productive Projects and Generation of Incomes components, and within the Family Forest Guard component as well.

2.3 Colombian Institutional System Towards a Sustainable Forest Management

2.3.1 General Aspects

Starting from the enactment of Law 99/1993 whereby the Ministry of Environment (now known as Ministry of Environment, Housing, and Territorial Development, MAVDT) was created, the public sector in charge of the management and conservation of the environment and renewable natural resources was reorganized. The National Environmental System (SINA) was established, and some regulations were enacted which have been promoting the forest activity.

Based on the above institutional reorganization, the Ministry of Environment, Housing, and Territorial Development has been put as the highest environmental authority, coordinator and formulator of the policies for the natural renewable resources and the environment, where the forest sector is analyzed from an ecosystem approach oriented towards assuring the use, protection, and conservation of the national forest patrimony.

Law 99, 1993 assigned to the Ministry of Agriculture and Rural Development the function of defining the policy for commercial plantations, based upon the national environmental policy and that of natural renewable resources, as stated by the Ministry of Environment, Housing, and Territorial Development. In this sense, this entity is responsible for the regulation, operational issues, and functioning of economic instruments, such as the Certificate of Forest Incentives (CIF) for plantations, created by Law 139, 1994.

2.3.2 Management and Promotion

In the field of environment, the Regional Autonomous Corporations and the Sustainable Development Corporations (CARs), and the Urban Environmental Units are available, which manage the natural renewable resources, seeking that the sustainable development is ensured within their own jurisdictions. In this legal framework, CARs are in charge of carrying out the forest regulation, awarding authorizations licenses, concessions, and licenses of exploitation within the limits set forth by the Ministry.

Additionally, there is the Special Administrative Unit for the National Natural Parks Systems, which manages the areas of special handling, with the purpose of ensuring the protection of the natural legacy as well as the nation biological diversity.

There are still other organizations related to the sectoral network, that are relevant to the forest productive development, including the following: The Colombian Agricultural Research Corporation (CORPOICA), the National Forest Research and Promotion Corporation (CONIF), the Colombian International Corporation (CCI), and the Colombian Agricultural Institute (ICA), which perform functions in the researching, promotion, and regulation matters.

2.3.3 Inter-Institutional Coordination

The SINA, National Environmental System, has been established as the set of guidelines, standards, activities, resources, programs, and institutions which permit the implementation of the environmental principles contained in the current legal framework, being led by the Ministry of Environment, Housing, and Territorial Development.

Likewise, the National Environmental Council, composed of eight (8) ministries, the DNP, the People's Ombudsman, the Comptroller General of the Republic, community representatives, guilds, academy, and representatives of the forest activities, serves as instance of the highest level for Inter-Institutional coordination.

Starting from the approval of the National Forestry Development Plan (PNDF), a new age was commenced, and the public and private management have been led by the PNDF's technical Inter-Institutional Committee, with the purpose of consolidating the Plan as the forest policy in the long term. After the approval of Conpes (National Council of Economical and Social Policies) 3125 "Strategy for the Consolidation of the National Plan of Forest Development", the figure of "Coordination" (coordination office and position) was established, to serve as an instance of coordination between the governmental entities, the private sector, community organizations, NGOs, the academy, and other representative actors.

2.3.4 Weaknesses

In spite of the meaningful advances in the institutional topics, outlined above, there still persist a number of aspects, which currently make it difficult to develop the forest sector:

- Limited mechanisms of management and coordination in the national, regional, and local instances.
- Weak schemes of diffusion and socialization of the forest policies and regulations
- Low regional planning in forest matters, that could be otherwise articulated to the PNDF
- Low operational capacity of the CARs, mainly in the areas having natural forests
- Incipient consolidation, acquisition, and diffusion of forest sector-related data
- Absence of duly organized guild schemes with a long-term vision.

2.4 Current Regulatory Framework

The regulations related to the preservation, conservation, use, and management of the forest richness of the country is very wide. Some studies list more than one hundred of these regulations including laws, decrees, resolutions, and agreements. However, up to this date, there is no analytical study available to determine the relevance and validity of all of these regulations, in the current setting of Colombia, for instance.

The main legal instruments related to the forest sector include:

Law 99 of 1993

This law is based on three big foundations, the first of which is the creation of an entity (Ministry of Environment, now known as Ministry of the Environment, Housing, and Territorial Development) which is a valid speaker to the remaining of the state, the civilian society, and the international community, together with the incorporation of institutions and territorial entities as managers of the environmental policy. The second foundation is made by the new spaces and mechanisms of people participation in the environmental management issues. The third foundation is the allocation of economical resources enabling the operations of the Ministry and their entities.

In response to the new constitutional challenges, Law 99/93 mentions to the Ministry of the Environment and to Regional Corporations and their duties in relation to forest matters.

Decree-Law 2811, 1974

Known as the National Natural Resources and Environmental Protection Code which is intended to regulate, prevent, control and seek the improvement, conservation, restoration and sustainable use of the renewable natural resources so as to defend the people health and well being.

The Code deals with matters related to flora, forest areas, forest reserves, forest exploitations and industries, trading, and protection, among other relevant issues.

Decree 1791, 1996

The regime of Forest Exploitation has objectives to regulate both public administrative management and individual activities, regarding the use, management, exploitation, and conservation of forests and the natural flora so as to attain a sustainable use.

Law 101, 1993

The Agricultural Development law intends to promote the modernization of the agricultural and fishing trading operations, to create an bases of incentives for rural capitalization and for the natural resources protection, and also to favor the technological advancement of the agriculture, as well as the rendering of technical assistance to small scale producers. This will be achieved taking into consideration the processes of decentralization and participation. For the legal purposes, the commercial exploitation and reforestation are considered as essentially agricultural activities.

Law 70, 1993

This law is also known as the law of black communities, and it intends to acknowledge those communities, which have also been occupying the uncultivated lands located on the riversides rural areas of the rivers of the Pacific basin, the right to collective property, pursuant to those people traditional production practices.

Law 139, 1994

The Forest Incentive Certificate (CIF, in Spanish) was created by the government of Colombia by Law 139 of June 22, 1994 as an economic management instrument to promote the reforestation activities, recover the forest covering, to stop the cutting of trees and to incorporate the reforestation into the Colombian economy, thus making bigger contributions to the GDP, due to the comparative advantages involved.

Outlook

Due to the existence of vast spectrum of regulations related to the forest component, the country needs to adopt an Unique National Forest Statute or General Forest Law, to gather, simplify, and project the forest legislation into the current social and economical setting of this country, and of course towards the future. The strategy for the consolidation of the PNDF, Conpes 3125/2001, also highlighted the need of performing actions aimed at procuring a proper legal framework enables the long term development of the plan and the system herein referred to.

According to the above premises, and in coherence with the spirit of the forest policy, PNDF, Conpes 3125, and Conpes 3237, the government of Colombia presented a proposal which is in process of adjustment and conciliation. This law comprises components related to reforestations, natural forests, and transverse elements that can permit having clear regulations on this theme.

2.5 Forest Exploitation

The forest products market is, since its origin, oriented towards: (i) market of sawn timber produced from generally logs of about 3 meter long; and (ii) to a lesser extent towards logs for specific use with very low level transformation, for both the cellulose manufacture and for the wood pulp, paper, and cardboard, as well as sliced veneers for plywood.

The wood market herein described has some characteristics of its own featuring two sources of origin in the formation of value chains, by offer from natural forests or from the planted forests, which are mostly worked on low scale and high dispersion within the Colombian territory.

Two situations can be drawn from the above remarks.

Firstly, a proliferation of woods suppliers of natural forests is triggered, selling their commodities at highly distorted prices due to the inadequate appropriation of the natural resources, which in turn leads to under-estimate the cost of said resources.

Secondly, there appears a more organized offer of products coming from planted forests, where prices are allocated by concentrated demand. The offer is easily substituted with products from natural forest, which essentially result in a disloyal competition as a consequence of the under estimate of production costs by considering in their pricing setting, just only based on the cost of exploitation and freight. This market situation will undoubtedly affect the price stability conditions, and configuration of an acceptable economical profitability level in terms of investments for people involved in the industrial reforestation activity.

Starting from the exploitation of forests, as the first link in the timber product chains for the generation of raw materials, and to supply the market demand, four common and frequent links can be differentiated in the different forest chains. Said links are as follows:

- Link of timber-traders that act as intermediates, stockpilers, transporters from the wood extraction site to the trading people or transformers.
- Link for warehouses acting as suppliers to the retail distributors, or to the small and medium-sized enterprises.
- Link of the agents generating value added on the inputs, either for the production of wooden goods or for the incorporation as an intermediate product of timber for the generation of goods that are not mainly wood-incorporating goods.
- Link of the traders towards the internal/exporting market final consumers.

The above links are rather scattered in most of the chains and with the exception of the working capital demanding enterprises, and depending upon the regions and the arising economic dynamics, the complete sequences can either exist or not.

Under the current conditions, the market of supply operates in highly informal horizons, which are the result of the following aspects: (i) the change of the rules on concessions and the forest exploitation authorizations, which involved as a technical requisite, the inventories at 100%, and (ii) the coming into force of the Colombian constitution amendment of 1991 through different regulations which left a great deal of the areas with natural forests under the jurisdiction of the collective property.

The above events led to the concentration of the exploitation of timber from natural forests in non-recorded exploitations, under the umbrella of the “domestic exploitations”¹ which while not permitting the trade of the products of the exploitation, they do justify the extraction of low scale even with the purpose of supplying the timber commercial demand.

Based on the above assumptions, the meaningful reduction arising in the volumes of legal exploitations can be justified, which are granted and recorded at a nation level by the different entities responsible for the management of the forest resources, as reported for the 1990-1995 period, and whatever arises for the 1996-2001 period (Table No. 2)

Pursuant to the above records, for the first half of the 90s (1990-1994), a total volume of 673.611 m³ yearly authorizations were reported, while by the end of that decade, and the starting of this century (1997-2001), a total average of recorded timber of 90.336 m³ per year was reported.

¹ Art. 5 Decree 1791 of 1996 issued by the Ministry of the Environment which provides the regime of exploitation of forests in Colombia.

Table 2. Volumes in Granted Legal Exploitation Authorizations
1990 – 2001 Period

Year	Exploited Volume in Planted Forest (m ³)	Exploited Volume in Natural Forest (m ³)	Total Exploited Volume (m ³)
1990	ND	ND	641,748
1991	ND	ND	989,968
1992	ND	ND	553,437
1993	ND	ND	778,242
1994	ND	ND	404,662
1995	4		4
1996	ND	ND	ND
1997	4,964	314,792	319,756
1998	401	69,808	70,209
1999	13,517	15,325	28,842
2000	5,886	17,580	23,465
2001	4,927	4,481	9,408
TOTAL 1990 – 2001	29,698	421,986	3,819,741

Source: Romero (2002), Improvement of institutional capacity to exploit natural forests, according to Data form Institute of Environmental Studies IDEAM. Data of 1990-1994 were compiled by National Institute of Renewable Natural Resources and for Environment INDERENA, and 1995-2001 were reported by Regional Autonomous Corporations CARs.

As shown in Table 3, the volume recorded for the 1997-2001 period is 1,059,315 m³ with a total of 22,476 transactions. The highest volume recorded occurred in 1997 when more than 460,000 m³. Starting from that year, the records are irregular, and they are also too low, in comparison with volumes from 1 to 2 million m³/year, which are estimated as the actual national production.

Table 3. Natural Forest Exploitation Authorizations According to CARs-Reported Volume Ranges

	Range	Volume (m³)	Volume (%)	No. of authorizations	Average Volume (m³)
1997	0 – 20	76.840,97	16,69	5912	13,00
	20.01 – 100	16.446,17	3,57	497	33,09
	100.01 – 1000	40.417,03	8,78	109	370,80
	1000.01 – 10000	169.466,90	36,81	63	2.689,95
	> 10000	157.217,00	34,15	7	22.459,57
	TOTAL	460.388,07	100,00	6588	69,88
1998	0 – 20	32.029,76	22,81	2644	12,11
	20.01 – 100	17.646,59	12,57	619	28,51
	100.01 – 1000	11.432,48	8,14	33	346,44
	1000.01 – 10000	22.067,00	15,71	7	3.152,43
	> 10000	57.254,00	40,77	3	19.084,67
	TOTAL	140.429,83	100,00	3306	42,48
1999	0 – 20	31.872,22	31,54	2820	11,30
	20.01 – 100	10.506,88	10,40	322	32,63
	100.01 – 1000	14.032,33	13,89	40	350,81
	1000.01 – 10000	44.640,00	44,18	15	2.976,00
	> 10000	0,00	0,00	0	0,00
	TOTAL	101.051,43	100,00	3197	31,61
2000	0 – 20	35.435,85	17,08	3201	11,07
	20.01 – 100	10.697,15	5,16	307	34,84
	100.01 – 1000	15.645,49	7,54	45	347,68
	1000.01 – 10000	107.979,00	52,04	32	3.374,34
	> 10000	37.731,00	18,18	3	12.577,00
	TOTAL	207.488,49	100,00	3588	57,83
2001	0 – 20	58.334,86	38,90	5185	11,25
	20.01 – 100	17.698,28	11,80	574	30,83
	100.01 – 1000	6.824,47	4,55	27	252,76
	1000.01 – 10000	23.100,00	15,40	9	2.566,67
	> 10000	44.000,00	29,34	2	22.000,00
	TOTAL	149.957,61	100,00	5797	25,87
TOTAL 1997 – 2001		1.059.315,43		22476	47,13

Source: Elaborated by study team and based on 9 CARs & IDEAM records

As seen in table 3, the total of operations involved in the supply of 1.059.315 m³ of reported woods, for the 1997-2001 period, is 22.476 authorizations, with no clear trend in the behavior of the concerning agents due to the irregularity seen in the recorded volumes. On the other hand, the number of operations recorded is concentrated in the volumes lower than 20 m³. However, such huge number of participants is not at all significant in comparison with the higher ranks.

The share of the corporations in each year of the period is shown in the Table 4.

CODECOCO shows for the last two years a 50% share approximately of the total exploited. CORANTIOQUIA shows a higher steadiness in the record of annual share ranging from 19% in 1997 to 50% in 2001.

CORPONARIÑO and CVC are corporations that fail to report data, however it is clear that in their jurisdiction areas, the extraction of wood of natural forests is strongly emphasized, but the problem in controlling the activity is much higher than in other regions of Colombia, due to the prevailing of the geographical location and poor road infrastructure conditions. Additionally, there exist institutional capacity problems and lack of means to achieve an efficient control of the exploitation, immersing the timber land exploitation activity within a horizon of strong illegality, as seen in the records in Table 2, according to which the volumes for natural forests are lower than those coming from the plantations for year 2001.

Table 4. Natural Forest Exploitation Authorizations issued by Corporations.
Period 1997 – 2001

Year	CAR	Volume (m ³)	Volume (%)
1997	CAR	12,00	0
	CARDER	2.799,20	0,54
	CARSUCRE	2.493,90	0,54
	CDA	49.294,64	10,71
	CORANTIOQUIA	87.071,09	18,91
	CORMACARENA	6.607,54	1,44
	CORNARE	6.630,50	1,44
	CORPOAMAZONIA	2.670,67	0,58
	CORPOCALDAS	20,00	0
	CORPONARIÑO	118.884,00	25,82
	CORPOURABA	1.365,30	0,3
	CRA	1.250,68	0,27
	CRC	91.115,20	19,79
	CVC	90.173,35	19,59
TOTAL	460.388,07	100	
1998	CDA	973,53	0,69
	CORANTIOQUIA	48.930,42	34,84
	CORPOGUAJIRA	65.734,02	46,81
	CORPOGUAVIO	32,49	0,02
	CRA	3.068,17	2,18
	CRC	21.690,00	15,45
	CVC	1,20	0
TOTAL	140.429,83	100	
1999	CAS	12.692,43	12,56
	CORANTIOQUIA	34.033,83	33,68
	CORMACARENA	397,48	0,39
	CORNARE	6.827,86	6,76
	CORPOGUAJIRA	501,00	0,5
	CRC	46.598,83	46,11
TOTAL	101.051,43	100	
2000	CAS	382,89	0,18
	CODECHOCO	137.922,00	66,47
	CORANTIOQUIA	42.364,83	20,42
	CORMACARENA	70,34	0,03
	CORPOGUAJIRA	11.917,05	5,74
	CORPOMOJANA	27,94	0,01
	CORPONOR	24,1	0,01
	CVC	9.701,34	4,68
	CVS	5.078,00	2,45
TOTAL	207.488,49	100	
2001	CODECHOCO	69.800,00	46,55
	CORANTIOQUIA	75.585,25	50,4
	CORPONOR	90,88	0,06
	CVS	4.481,48	2,99
TOTAL	149.957,61	100	
TOTAL 1997 – 2001 PERIOD		1.059.315,43	

Source: Compiled data by using CARs and IDEAM records

2.6 Forest Decrease and Deterioration

In spite of the efforts directed towards the conservation of the forest ecosystems, there persist some processes of transformation, fragmentation, and losses as a result of human activities, which are one of the principal direct causes of biodiversity loss, soils deterioration, and reduction of forest capitals and services, such as water regulation, protection of soils, and the supply of

water for the human consumption and productive processes, among others, which are important factors for the local development of many communities. According to the reports from the Hydrology, Meteorology, and Environment Studies Institute (IDEAM), 26% of the land surface is intensively intervened while 15% is partially intervened by agro-ecosystems. Likewise, the fauna population that depends on the forests for their survival has been seriously affected, resulting in the isolation of some species and the decrease of populations, putting their biological stability at risk.

The forest patrimony of Colombia is badly affected by the deforestation, which is process resulting from the lack of settlement and occupation policies and plans on land use for colonization, as well as some practices like slash and burn, non-sustainable agricultural and cattle raising activities, and the intensive use of fire wood. Also the roads, hydroelectric, and mining infrastructure works are part of the problem together with oil exploration/exploitation. Additionally to this situation, other factors should be mentioned, such as the public disorders (security problem) and the illicit plantations that have deepened even more into the problem of fragmentation and loss of forest ecosystems.

The forest fires are disasters contributing in a direct manner to the increase of deforestation and make difficult the sustainable management of forest ecosystems, as well as the reforestation activities. All of above-mentioned factors affect the social and economic aspects. It has been estimated that 95% of fires in Colombia are due to anthropic causes. This situation becomes more acute with the presence of "El Niño" phenomenon.

With respect to changes that have been occurring with the natural vegetal coverings including forest components, the following trend was registered between 1990 and 1994:

Table 5 Changes in Vegetable Covering with Forest Component. Years 1990 and 1994

Type of vegetal covering with wooded component	Year 1990 Area of forest and wooded component (ha)	Year 1994 Area of forest and wooded component (ha)	Net Change (ha)
Andean forest	9.333.153	9.151.122	- 182.031
Fragmented Andean forest	1.472.715	1.449.638	-23.077
Planted forest	130.810	153.820	23.010
Amazonian basal forest	33.002.356	32.907.784	-94.572
Caribbean basal forest	7.534	7.624	90
Fragmented basal forest	3.696.537	3.724.402	27865
Orinoquian low land forest	20.980	20.980	0
Pacific low land forest	4.494.460	4.446.441	- 48.019
Riparian Forest	3.900.741	3.893.440	-7.301
Andean special swamp	4.976	4.976	0
Amazonian special swamp	161.186	161.186	0
Caribbean special swamp	2.358.008	2.407.346	49.338
Andean	90.201	90.347	146
Caribbean rupicolous special	26.773	26.773	0
Caribbean mangrove swamp	60.128	61.060	932
Pacific mangrove swamp	178.747	187.784	9.037
Moor	840.213	818.047	-22.166
Woody savannah	419.201	420.293	1.092
Shrub savannah	2.920.184	2.920.102	- 82
Andean xerophytic vegetation	143.971	130.411	- 13.560
Basal xerophytic vegetation	213.072	213.072	0
TOTAL NET CHANGE	63.475.946	63.196.648	- 279.298

SOURCE: IDEAM

It can be seen that most of the types of covering are decreasing which leads to a notable fragmentation of the ecosystems. These facts inevitably cut down the intra and inter ecosystem flows, giving rise to a deterioration higher speed rate and increasing concurrently the biodiversity loss.

2.7 Taken Corrective Measures

Within the National Forestry Development Plan (PNDF), in its sub-program of forest ordering and zoning of the Ecosystems' Ordering, Conservation and Restoration Program, it has been expected to define new approaches and processes for the forest ecosystems management, which take into consideration the local and regional needs in relation to the productive processes requirements, and the supply of environmental services to finally consolidate the protection, production, ecological and social functions of forests and wood lands, seeking to consolidate and harmonize the economical development and the sustainable use of the natural renewable resources.

In compliance with the above purpose, the Ministry of the Environment and CARs will develop the guidelines for ecosystems management, and will set the different categories of use for their preservation and production. This will enable the municipalities to carry into effect the territorial

ordering plans, taking into consideration the local needs and concerns without causing any discrepancies with those of the regional and local level.

In order to be provided with an essential tool permitting to organize and keep the forest resources, enabling us to identify the current offer of resources, and their conservation status, the IDEAM, together with the "Alexander Von Humboldt" (IAVH) Biological Resources Research Institute, the "John Von Neuman" (IIAP) Pacific Environmental Research Institute, the SINCHI Amazonian Institute for Scientific Research, the Ministry of the Environment, the CAR and the universities alike, will progress into the completion of the national/regional forest inventory (according to PNDP guidelines).

2.8 Reforestation

In dealing with reforestation with protection purposes, some micro-basins recovery actions have been promoted, implementing the following models: protector, producer, dendro-energetic, agro-forestry, live fences, and margins protection, with priority on native species and the active participation of communities in about 111,082 hectares¹.

About 167,533 hectares have been reforested as commercial oriented plantations². It has been estimated that Colombia has a forest area of 25 million hectares that are prone to exploitation with competitive commercial purposes. In the short term, a potential of 3.0 million economically feasible hectares has been identified. Several species of coniferous and hard wood trees have been identified with yields between 20-40 m³/hectare/year and 15-35 m³/hectare/year, respectively, which allow to set cutting intervals between 8 and 20 years, placing them in a privileged position at the international level³.

2.9 Participation of Communities

In the Pacific and Amazonian regions, about 41.6% out of the total area of 55.5 million hectares under Forest Reserve according to Law 2, 1959, belongs to Afro-Colombian and indigenous communities. This fact places Colombia in a situation that is very different to other countries of the Amazonian basin or of the world, as most of its forests do not belong to the nation but to the ethnic groups.

The definition of the regime of property of forests (public and collectively owned) affect the access schemes, use of areas, and resources and therefore, on the distribution of benefits and on the responsibilities on the management, protection, and control of exploitation operations. In this

¹ Ministry of Environment. Achievements and advances of the environmental management in Colombia. Collective Environmental Project. Management Report 1998 - 2002. Bogotá 2002.

² IGAC-CORPOICA. Zoning of the conflicts on the use of the lands in Colombia. Bogotá 2002. No areas lower than 2500 hectares are not included.

regard, for the case of Law 70, 1993 the Technical Commission, through the Agustin Codazzi Geographical Institute (IGAC), the Colombian Institute for the Agrarian Reform (INCORA), the Ministry of Government and the Ministry of the Environment will continue with the process of granting titles deed to black communities, and INCODER for the definition and zoning of Indigenous Reservations, with the purpose of assuring the continuity of plans of territorial ordering and application of management plans for the sustainable use of the existing forest resources.

2.10 Participation of Other International Organizations in the Forest Sector

In compliance with the International Forests Conference “Colombia: A country of forests and life”, the Colombian Agency of International Cooperation (ACCI) with the coordination with the Coordinator of the Plan and the Inter-institutional Committee of the PNDF, progressed within the international cooperation strategy framework, towards the structuring of the forest matter subject axis, which arose after the statement from the preliminary meeting held in London on July 10, 2003¹.

The Block of Forest Topics develops the presidential strategy, which is related to the consolidation of Colombia as a country with forest vocation. Other issues under discussion were the promotion of the sustainable forest management (MFS) in forest ecosystems and the strengthening of the public and private institutional systems, thus encouraging this sector as one of the mainstays of the new rural development. The central axis of this strategy is the support and consolidation of the National Forestry Development Plan (PNDF), which incorporates the guidelines and actions included in the main international agreements on the issue of forests, particularly those agreements achieved within the framework of the United Nations Commission for the Sustainable Development (IPF: Intergovernmental Panel on Forests, IFF: Intergovernmental Forum on Forests, and UNFF: United Nations Forum on Forests).

It is expected to arise the interest and the participation of several different diplomatic missions through the above initiatives, so as to support the development of strategic forest projects for Colombia, through the international cooperation efforts.

The followings are some initiatives to support the forest efforts, and facilitate participation processes with local communities, including:

³ National Corporation of Forest Investigation and Promotion (CONIF) - Management Report 2001. Bogotá D.C. July, 2002

¹ In said meeting, and after some consultations with national entities and cooperation sources, a decision was made to work in six (6) subject matters blocks: i) Forests; ii) forced migration, and humanitarian assistance; iii) demobilized, dissociated, and reinserted persons (from illegal armed forces); iv) government managerial capacity; v) regional programs of development and peace; and vi) productive development. International Cooperation Strategy, 2004.

- Magdalena River Forest Program carried out by the National Federation of Coffee Growers of Colombia (Federación de Cafeteros) with funding from the government of Germany through the Kreditanstalt für Wiederaufbau (KfW).
- Economic Reactivation/Environmental Preservation Program of the Basin of Magdalena River with the coordination of CORMAGDALENA (Regional Autonomous Corporation of the Grand River of Magdalena) with the technical assistance of CONIF (National Corporation of Forest Research and Promotion) and ONF (National Forest Office of France)
- Forest Ecosystems Restoration and Conservation Program under the coordination of MAVDT and CARs and the financial-administrative and technical alliance with the Fund for Environmental Action.
- Definition of technical and methodological criteria and starting of the implementation of two (2) experiences of forest regulation at the regional level within the framework of the National Forestry Development Plan, supported by the government of the Netherlands, and carried out with the coordination among MAVDT, the Corporation for the Sustainable Development of the Southern of Amazonian Region (CORPOAMAZONIA), and the Regional Autonomous Corporation for the Sustainable Development of Choco (CODECHOCO).
- Productive forest ordering for the zones of rural reserves of Guaviare, with the sponsorship of the International Tropical Timber Organization (ITTO), with the coordination of MAVDT, and the Corporation for the Sustainable Development of Northeastern Amazonian (CDA).
- Alternative model of funding for the sustainable management of the San Nicolas forests sponsored by ITTO, carried out by the Regional Autonomous Corporation of the basins of Negro and Nare Rivers (CORNARE), with the coordination of the Swiss Federal Institute of Research and Materials Testing and Technology.
- Establishment and management of community's productive and protector forests in the lower and middle Atrato in the department of Choco, Colombia, sponsored by ITTO with the coordination of CODECHOCO and MAVDT.
- Sustainable management and restoration of mangrove swamps by the local communities of the Colombian Caribbean area, sponsored by ITTO, and carried out by CONIF, in coordination with MAVDT.

- Forest Project for the Basin of Chinchina River, as an environmental and productive alternative for the city and region (PROCUENCA), sponsored by the Mayor Hall of Manizales through the Promotional Institute of Manizales, and under the FAO administration.

CHAPTER 3. PROBLEMS TO BE APPROACHED AND THEIR CURRENT STATUS

3.1 Important Tasks of the Forest Sector

In Colombia, it is noticeable to see the decrease and deterioration of the natural forests due to the illegal exploitation of forests, the pressure of the agricultural exploitation, the illicit crops, and other causes. However, any effective measures have not so far taken to solve these problems. Additionally, the contribution of the forest sector to the national economy is currently in a low level. In view of this situation, the National Forestry Development Plan was formulated (for 2000 to 2025 period) and it was acknowledged as a government policy of the forest sector for the long term. Also, the importance of the forest sector is taken into account with a high priority in the National Development Plan. In order to carry out the PNDF, the Inter-institutional Committee of PNDF (see Table 1) was created. However, to implement said plan, it would be very important to disclose it in depth to the regional level entities and formulate regional plans for the forest development.

Therefore, an analysis on the actors related to the management and use of the natural forests was carried out including the regional and local level entities/organizations. According to the analysis herein, the following actors were pointed out:

1. Central government institutions responsible for forest public administration and policy

a. National Planning Department (DNP)

It participates in the formulation of the forest sector policies

b. Coordination office of the National Forestry Development Plan (PNDF)

Coordination of the formulation and management of the national policies for the long-term

c. Ministry of Environment, Housing, and Territorial Development (MAVDT)

Environmental policies and regulations

d. Ministry of Agriculture and Rural Development (MADR)

Policies and promotion of forest production

2. Institutions of Research and Promotion

a. National Corporation of Forest Research and Promotion (CONIF)

- Promotion of the sustainable management of natural forests and planted forests
- Research into natural forests

b. Hydrology, Meteorology, and Environmental Studies Institute (IDEAM)

- Gathering, recording, systematization, and generation of forest statistics and information
- Coordination of the forest information systems

3. Regional Entities of Public Administration and Extension

a. Regional Autonomous Corporations (CARs)

Administration and Planning of Forests

b. National Training Service (SENA)

Training and technology transfer on management, exploitation, and primary transformation of the forest products.

c. Colombian Institute for Rural Development (INCODER)

Execution of the production policy set forth by the ministry of Agriculture

4. Local and Community Organizations

a. Regional Councils of Productive Chains

- Organization of the private/public sectors in dealing with competitiveness agreements
- Promotion of sustainable productive activities and support to the coordination between the public and private sectors,

b. Indigenous, peasants, and Afro-Colombian communities,

- Actors as owners of forests (raw materials, timber and non-timber products, environmental capitals and services)
 - Management and exploitation of forests
- c. Cooperatives and associations of forest products
- Exploitation of natural forests and marketing of their own products
- d. Plan Colombia (Family Forest Guard)
- Promotion and stimulation of productive activities as alternatives to illicit crops

Taking into account the above description, this JICA project will be carried out with the participation of the central government entities that are deeply related to the management of natural forests, among the members of the Inter-Institutional Committee for the PNDF, and it will also try to involve and train the regional institutions leading the environmental public administration such as CARs, as well as the community organizations, so as to contribute to the execution of the PNDF. In this way, this project can be considered as an important tool for materializing the PNDF. The Inter-Institutional Committee of the PNDF is shown in Figure 1 as well as the relation to other actors for carrying out said plan.

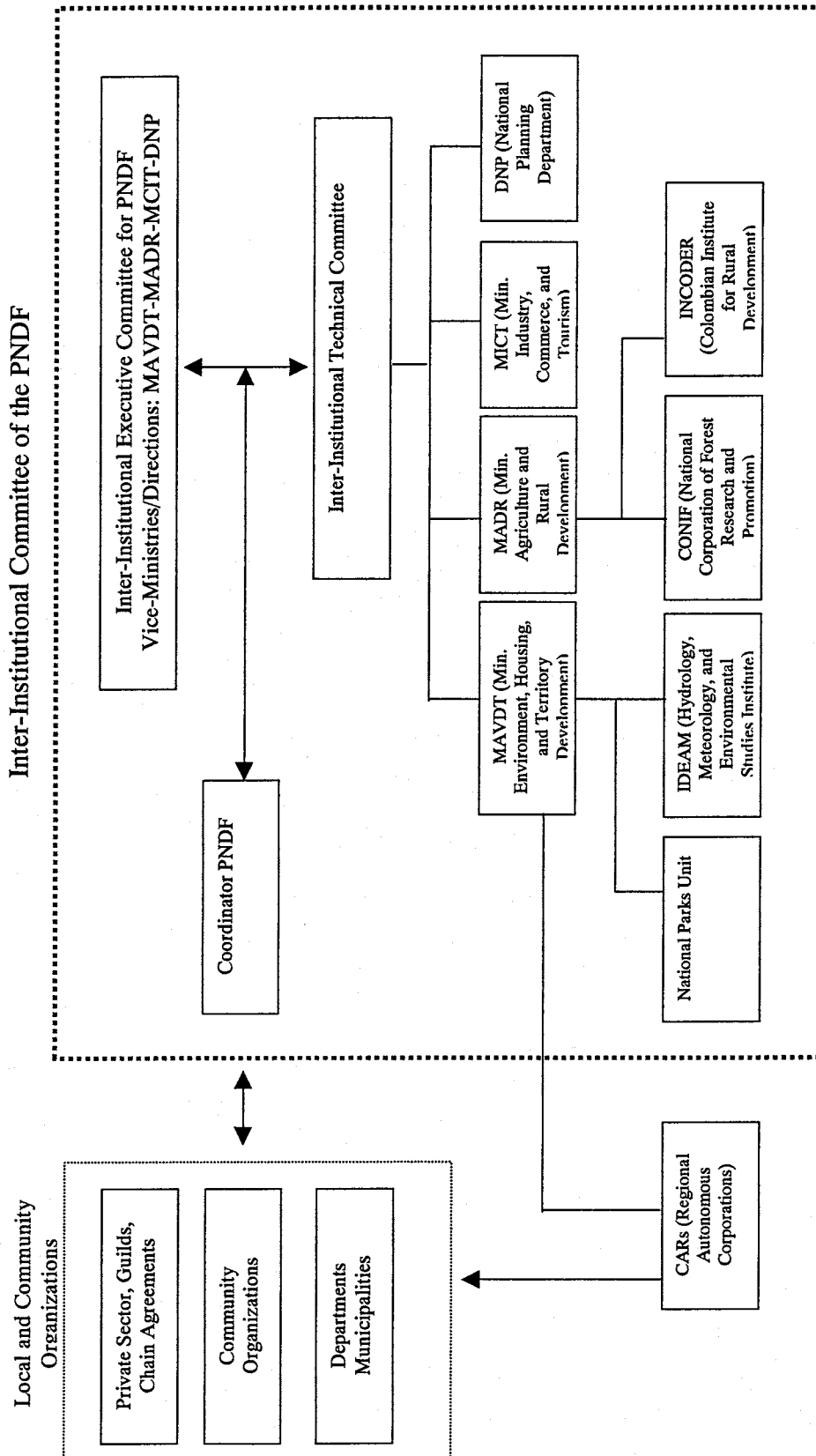


Figure 1. Structure of the Inter-Institutional Committee of the PNDF

3.2 Problems and Needs of Related Actors

With the purpose of implementing an effective training program for the different actors related to the management and use of natural forests, the workshop attempted to identify the problems and needs of training of each of the actors (See Attachment 2). The result of the workshop with respect to the identification of the problems and needs was as follows:

(1) Central governmental entities

- Establishment of policies and systems in relation to the management and exploitation of natural forests
- Techniques to attain a sustainable management of natural forests
- Formulation, implementation, and monitoring of the forest management plan
- Techniques for the sustainable use of natural forests (timber and non-timber forest products)

(2) Institutions of the regional public administration

- Preparation and monitoring of the forest management plan
- Techniques of restoration of the forest ecosystem
- Process of organization and strengthening of producers using the natural forests
- Survey on the potential of the non-timber forest products

(3) Institutions of research and extension

- Tools of forest management (forest information system, forest statistics, inventory, preparation of database, etc)
- New technologies for forest protection, genetic improvement, biotechnology, etc.
- Technology of forest exploitation
- Technology of natural forests enrichment

(4) Local communities

- Techniques of forest exploitation with less impact

- Techniques of agricultural production that can co-exist with forests
- Techniques for the exploitation of forest products (timber and non-timber products)
- Potential of non-timber forest products
- Process of organization, administration techniques, enhancement of productivity, market development for producing groups
- Benefits and techniques of sustainable forest management
- Techniques of production machinery operation and maintenance

Based upon the above results, the training needs were classified into three categories, as follows:

- (1) Formulation and implementation of policies related to the forest management by the entities responsible for the public administration of both central and regional levels, as well as planning, execution, and evaluation techniques for the forest management.
- (2) Technologies of research institutions on the following issues: preparation of forest information systems and statistics; techniques and know-how of sustainability of forests; biotechnology, genetic breeding, among other issues.
- (3) Techniques of extension institutions and community organizations on: organization of small-sized producers, sustainable management and use of natural forests; exploitation of timber and agricultural production with lesser impact on forests, diversified forest use, among other issues.

Based on the above-identified problems and needs, a draft of the subject matters for the training course was prepared, which appears in the Attachment 3. Regarding this draft, the involved entities agreed on it after discussing the topics, and the study team of this evaluation, will send it to JICA in Japan to further study.

CHAPTER 4. STRATEGIES OF THE PROJECT

4.1 Strategies of the Project

The importance of the forest sector in Colombia was described in the previous Chapters herein; however, in spite of this importance, an effective technology for managing natural forests has not been established and human resources for this activity are limited. This explains why contribution of this sector to both national and regional economy is still very low, and causes non-sustainable exploitation activities which do not favor the well-being of people and enables the illegal exploitation activities (developments without pertinent authorizations). Because of this, there is an urgent need to strengthen institutional capacity through training personnel necessary for the adequate management of natural forests.

The purpose of this project is to develop the capacity of national and regional administrative institutions, and research institutions and local communities as well, etc. that are involved in the management and use of natural forests, by training courses in Japan or in any third country. Additionally, in order to ensure a multiplicative effect for the results of the courses, some seminars have been planned to be organized by participants in the training programs, as well as a monitoring and evaluation of the training courses effects, so as to ensure efficiency thereof.

Furthermore, an operational structure for the Project, composed by involved entities, will be created, which will be under coordination of the Sustainable Rural Development Direction of the National Planning Department, which assumes the role of counterpart for the Project. This structure formed in this way, will intend to facilitate the efficient implementation of the Project through the elaboration of a training program according to the needs of the sector, the coordination of the adequate selection of participants in the courses, and the execution of seminars and monitoring.

Finally, in the important stages of this Project's execution period, short-term experts of JICA will be send in order to evaluate whether techniques imparted in the training is being applied in the management activities, and give recommendations and make all adjustments that are need for the Project.

Taking into consideration the above-mentioned aspects, the objectives, results, and activities of the Project have been defined here, and Project Design Matrix (PDM) has been drawn up.

4.2 Project Execution System

4.2.1 Counterpart Entity

All institutions involved in the Project agree in that DNP assume the role of official counterpart of the Project.

As an advisor technical body of the President, and in concordance with National Constitution, the National Planning Department (DNP) is responsible for defining operations and promoting implementation of the country's strategic vision in social, economic and environmental fields, by means of the design, addressing, and evaluation of Colombian public policies, as well as the management and allocation of public investments, definition of frameworks for the private sector, and realization of said policies into governmental plans, programs, and projects.

The Sustainable Rural Development Direction supports DNP management on issues related to productive development and technology, marketing in the agricultural, forest and fishing sectors, rural housing and development, in co-operation with pertinent bodies and entities. This direction promotes the improvement of productivity, competitiveness, and efficiency of the sector through formulation, follow-up, control, and evaluation of policies, plans, programs, studies, and investment projects.

Organizational chart of DNP is illustrated in Figure 3. DNP staff is composed of 387 employees and 68 outside contractors formally engaged. For this project, the Sustainable Rural Development Direction will assume the role of direct counterpart. This office has two sub-directions as follows: Production and Technical Development Sub-direction, Marketing and Agricultural Funding Sub-direction. The number of employees of this Office is 18, as shown in Figure 4.

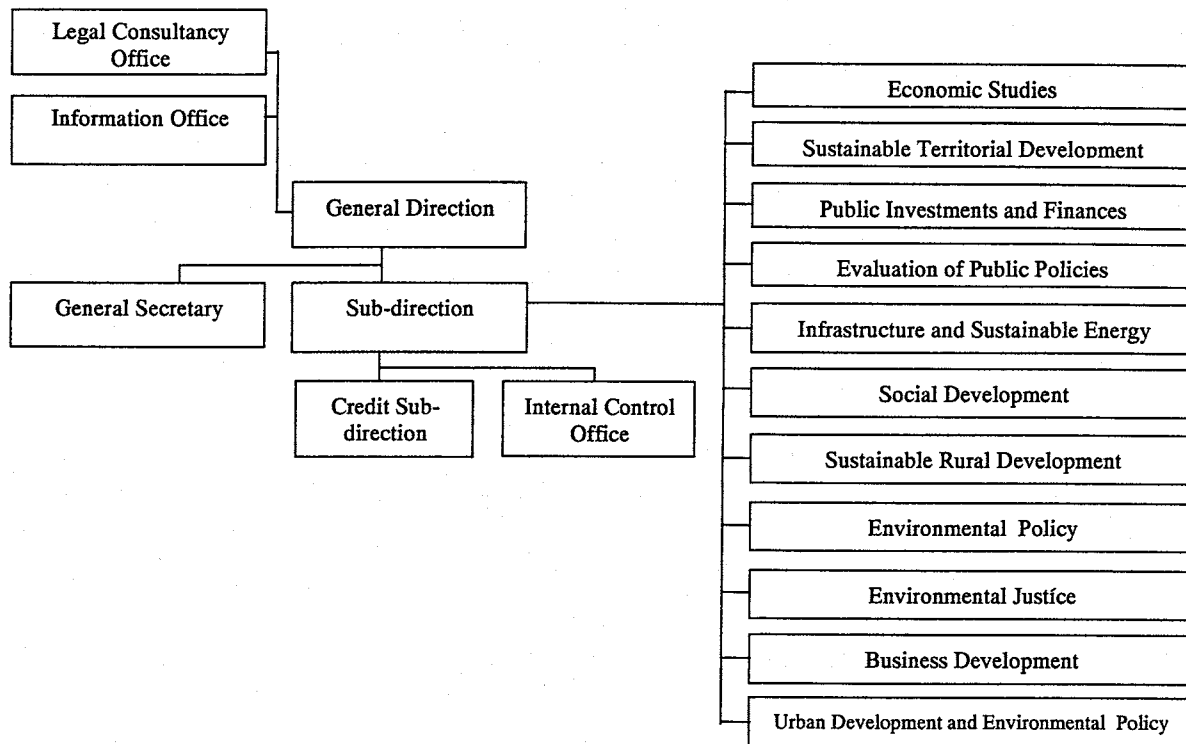


Figure 3.- DNP Organizational Chart

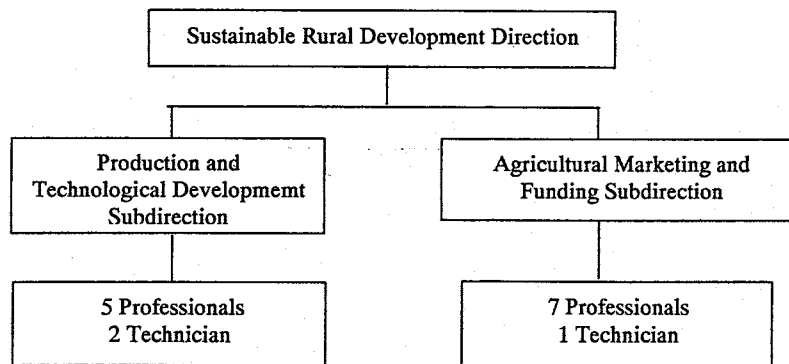


Figure 4.- Organizational Chart of the DNP's Sustainable Rural Development Direction

4.2.2 Execution System of the Project

In the workshop held with Project-involved institutions, an unanimous decision was made in the sense that Rural Sustainable Development Direction of DNP, as the Project's counterpart, plays the

role of general coordination, and under coordination thereof, an operational structure for the Project will be established as shown in Figure 5. This structure is based on the Inter-Institutional Committee of the PNDF and the institutions more related to management and exploitation of natural forests will participate within said structure.

Therefore, the Director of Sustainable Rural Development will assume the role of counterpart for the Project, and MAVDT and MADR will designate representatives as sub-counterparts for the Project. Until now, it is expected that the following persons may be designated:

<Counterpart>

Director of the Sustainable Rural Development Direction, DNP

<Sub-counterparts>

- Director Ecosystem, MAVDT (Ministry of Environment, Housing, and Territorial Development)
- Director Productive Chains, MADR (Ministry of Agriculture and Rural Development)

With respect to the functions of this Project's operational structure, the following have been proposed:

- To collaborate with JICA's experts
- To coordinate with JICA in defining project execution plan
- To take a part active in preparation of course subject matters
- To take a part active in screening candidates to the courses
- To schedule the diffusion seminars in Colombia
- To coordinate with the participant actors (institutions and organizations) in the project
- To promote follow-up activities by using learned techniques in the courses
- To give a framework to the project and activities within the PNDF context
- To take a part active in monitoring and evaluation of the Project

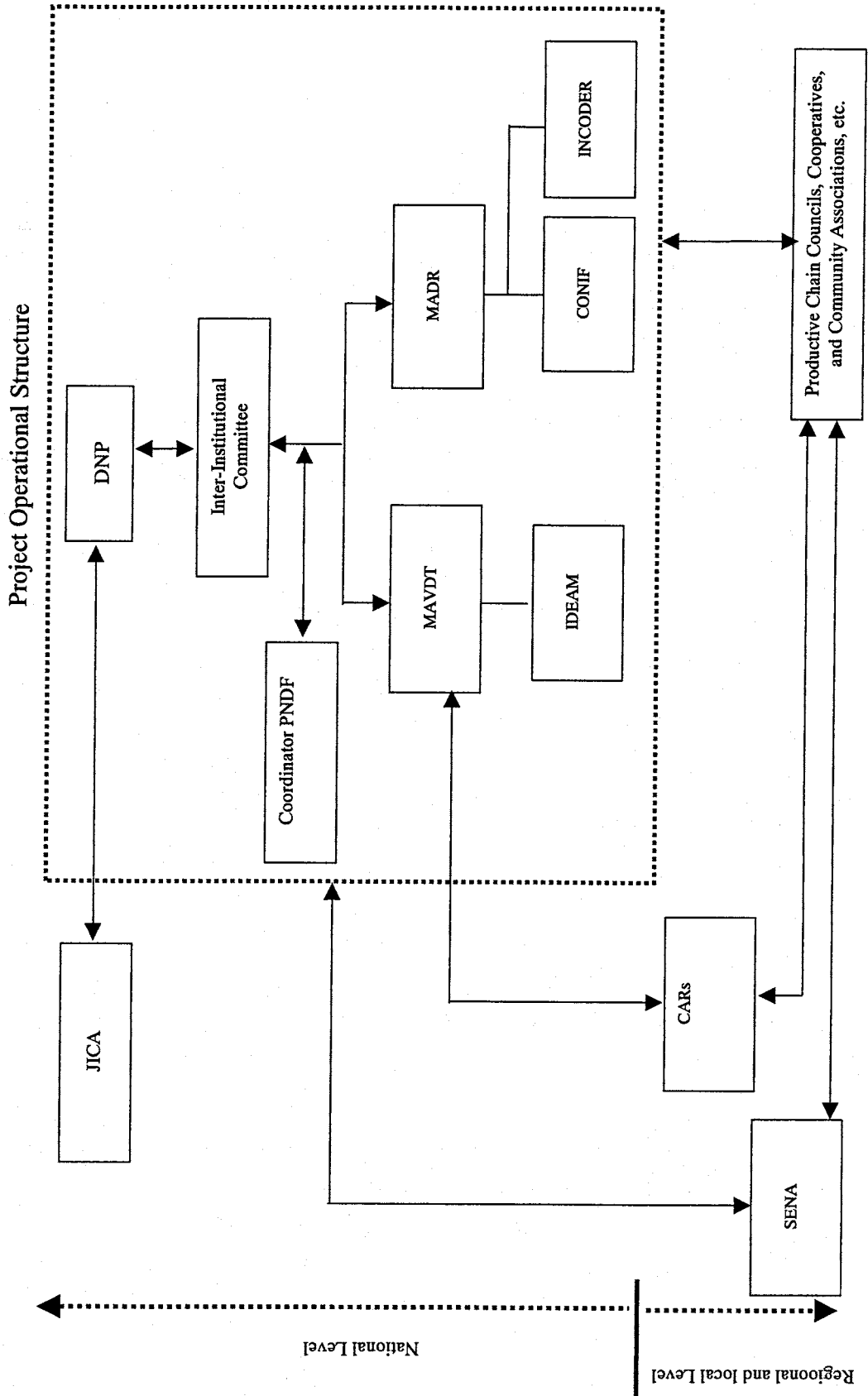


Figure 5. Operational System of the Project (A proposal)

CHAPTER 5. PROJECT GENERAL PLAN

In concordance with strategy for the project described in Chapter 4, super goals, objectives, results, and activities have been established, and a Project Design Matrix (PDM) has been elaborated which is shown in Attachment 1.

The primary target groups of the Project are those technical officers from national and regional governmental entities, investigation and extension institutions, and local communities. The execution period of the Project shall be 5 years.

The PDM is the logical framework of the Project and is useful to describe that, if “Activities” are performed with “Investments”, “Results” are obtained, and with said “Results”, the “Project’s Objective” is achieved. The “Super Goal” is the effect of the development that is expected to materialize after achieving the “Project’s Objective”

5.1 Super Goals

1. To perform practices of sustainable management and use of the natural forests in Colombia.
2. To perform a sustainable management and exploitation of the natural forests and contribute to the improvement of national and regional economy as well as the quality of life of the rural population.

5.2 Project’s Objective

Investments in this Project will be allocated mainly to the training courses in Japan or in any third country, sending short-term experts, and the support for extension activities in Colombia to be conducted by participants in the courses. It is important that said investments are used not only for training individual persons, but also for strengthening institutional capacities and performing some practices of natural forest management. For achieving this, in addition to strengthen institutional capacity of the public sector institutions in aspects such as the forest policies, with this Project it is expected to train institutions and groups of the different levels such as: public sector regional institutions responsible for policies and management of the forest sector at the regional level; investigation and extension institutions; and groups of persons of communities that handle and exploit said resources. In order to achieve objectives outlined for this Project below, the improvement and enhancement of the capacities of both these institutions and human resources would be required:

1. To raise the capacity level for planning and implementing policies, and the management of public affairs regarding the administration and exploitation of natural forests
2. To diffuse techniques and know-how acquired in the training and put into practice them in the different levels.

5.3 Results

1. Target personnel are trained according to the respective needs (at the different levels, such as officers from public sector national and regional institutions; investigation and training institutions; and community groups).
2. The know-how and techniques acquired in the Project have contributed to the improvement of the quality of procedures and activities related to the management and exploitation of natural forests.
3. Techniques, knowledge, and experiences acquired in the courses in Japan and third countries have been disseminated to another persons by means of seminars to be held in Colombia.

5.4 Activities

Activities to be executed in this Project are as follows:

1. To carry out courses in Japan and third countries
2. Monitoring and evaluation of the impact of the training to both improve the quality of the courses and quality of management activities in each institution or community.
3. Training in Colombia conducted by those persons trained in Japan and third countries
 - (1) Preparation of teaching materials to be used in the training seminar
 - (2) Delivering a training seminar by the persons who were trained in the Project

Additionally, with respect to regional level institutions and local and community level organizations and groups, the attendees in the workshop agreed on that is more effective and viable to define 2 or 3 intensive areas for the training, and proposed the following areas as candidates:

- (1) Amazonian Region: Amazonas, Guaviare and Vaupés Departments
- (2) Pacific Region: Valle del Cauca and Chocó Departments
- (3) Middle Magdalena: Santander and Bolívar Departments

It is necessary to identify in a more detailed manner the training needs after determining intensive areas of the Project as well as determining more specifically the subject matters to be taught in the courses in third countries when selecting institution that provides training.

5.5 Investment

1. Japan

- Courses' expenses (installations, materials, trainers, etc.)
- Travel expenses (travel tickets, travel allowances, logistics, etc.)
- Short-term experts
- Training Equipment
- Seminars' expenses in Colombia

2. Colombia

- Target personnel of the training
- Travel expenses around Colombia
- Expenses incurred to get identification documents (passport, etc.)

5.6 Relevant External Factors and Risks

5.6.1 External Factor during the Process from "Activity" to "Result"

The present Project is aimed to contribute to the sustainable management of natural forests through the development of the institutional capacity by using the human resources trained in the courses to be given in Japan or in any third country, and it is considered to be an important external factor the fact that "trained personnel continue to render services in their appropriate positions and may fulfill their duties efficiently". For both avoiding reduction the effect of the project by this factor and increasing the effect of the diffusion of acquired knowledge and techniques in the courses, it would be desirable that some persons selected from an institution or group are trained. Additionally, it is important that persons trained in the courses disseminate said technologies to other persons.

5.6.2 External factor during the Process from "Result" to "Project's Objective"

In the process from "Result" to "Project's Objective", what is intended to achieve is one condition in which "Colombia's forest policy be stable", apart from "trained personnel continue to render services in their appropriate positions and may fulfill their duties efficiently".

The PNDF for the 2000 to 2025 period is recognized to be the official forest policy in Colombia and, therefore, is thought that possibility of changing the forest policy considerably would be low.

5.6.3 External factor during the Process from “Project’s Objective” to “Super Goal of the Project”

After achieving the Project’s objective, concrete activities for the management and exploitation of natural forests shall be performed so as to achieve such a Super Goal of the Project. To attain this, it is necessary to obtain the human and economic resources to carry out the actions, besides that “Colombia’s forest policy be stable”.

5.7 Premise

At present, no premise is being considered for implementing this project.

CHAPTER 6. JUSTIFICATION OF THE PROJECT

6.1 Relevance

6.1.1 Relevance to be a Public Project of Official Development Assistance (ODA)

The super goal of this project is to maintain and/or raise the public usefulness function of forests through sustainable management and exploitation of natural forests, and utilize them as economic resources, but maintaining them healthy, with the purpose of contributing to the improvement of the local communities' life quality, the promotion of regional economy and, consequently, the development of national economy. In short, this project is intended to achieve the forest conservation as public capitals and simultaneously, the sustainable use of the resources that provide economic benefits. Therefore, the Project is has public character and suitable to be considered as a Project of Official Development Assistance.

6.1.2 Consistency with the Japan's International Cooperation Assistance Policy and Program of Execution of Projects in Colombia

JICA has identified the following 3 priority areas of cooperation in Colombia, as follows: (1) social development, (2) conservation of the environment, and (3) strengthening of competitiveness through improvement of the productivity.

The super goal of this Project is the maintenance and/or improvement of the forest function of the public environmental service through the sustainable management of natural forests and the improvement of the local communities' life quality. Therefore, it has consistency with two priority JICA cooperation areas: (1) social development and (2) environment. In addition, "Building Peace" is found to be one of the JICA current priority issues. It may be expected that the Project contributes, as indirect effect, to reduce illicit crops within natural forest areas through the improvement of the life quality of the local communities. Also in this aspect, the project is considered to be suitable to implement according to the cooperation policy for Colombia.

6.1.3 Consistency with Needs of Colombia

In spite of fact that there exist about 64,000,000 hectares of forests in Colombia, the forest sector is not a fundamental factor in the regional or national socioeconomic development. In fact, share of silviculture and timber exploitation sectors in Colombia only accounts for 0.2% of the overall GDP and 1.1% of the

GDP of the agricultural, forest, hunting and fishing sectors as a whole, which demonstrates its low development compared to the other agricultural activities.

Furthermore, in the Colombian natural forest areas, the decrease of forests have become an critical problem because of factors such as the unsustainable use of forests, the expansion of the agricultural and livestock area, the consumption of timber as firewood, forest fires, etc., is causing biodiversity losses which is a fundamental recourse of the country. Over the last years, in addition to decrease the forest area, illicit crops expansion have been causing worsening in the public order (security condition) in such zones.

In view of this situation, within the National Forestry Development Plan (PNDF), which constitutes the long-term national policy for forest sector (2000-2025), issues such as: promotion of national and regional economy through sustainable management of natural forests, conservation of forest environmental functions, and building peace by means of forest activities as an alternative to illicit crops have been identified as priority issues for this sector.

Therefore, in the current administration's National Development Plan (2002-2006) "Towards a Community State", the forest sector is considered to be one of the most important cornerstones for the sustainable development and social well-being.

Additionally, a fact having a great interest in relation to natural forests is that collective ownership of a huge uncultivated area of has been assigned to black and aboriginal communities. The effects of this policy will depend on strategy that is adopted for the management and exploitation of these huge forest resources.

However, Colombia has limited human resources for the management of natural forests, and this fact generates a public entities' weakness in facilitating sustainable exploitation processes for natural forests. This situation is causing the unsustainable activities and illegal exploitations (without pertinent official authorization), thus impairing the well-being of rural people. Therefore, the strengthening of the institutional capacity through training human resources necessary for the adequate management of natural forests is an urgent and essential task.

Accordingly, this project is consistent with both national policy and forest policy in Colombia, and the urgency and need of this issue justifies the execution thereof.

6.1.4 Participatory Planning of the Project

This project basically consists on training courses in Japan or in any third country and the financial support for sending Japanese short-term experts taking into consideration the public order situation in Colombia. Therefore, the workshop focused mainly in defining target actors (institutions and groups) of the courses and identifying the needs of training. In such a workshop, representatives from the following offices and/or institutions took an active part: Sustainable Rural Development Direction of the National Planning Department (DNP) (counterpart entity), the Ministry of Agriculture and Rural Development (MADR), the Ministry of Environment, Housing, and Territorial Development (MAVDT), the Coordinator Office of the National Forestry Development Plan (PNDF), Hydrology, Meteorology, and Environmental Studies Institute (IDEAM), the National Corporation of Forest Investigation and Promotion (CONIF) and the Colombian Institute for Rural Development (INCODER). Participation of regional institutions and organizations of rural people was considered to be desirable and advisable in said workshop, but it was impossible since during execution of this preliminary evaluation study intensive areas were not yet defined in that time. In addition, it would necessary to determine a third country's institution that may provide said training according to needs, and design specifically the courses. Therefore, it would be desirable to prepare detailed subject matters on training to be given in one-third country through participation of the respective actors before or during the initiation of the execution of the project.

6.1.5 Superiority of the Japanese Technology

In Japan, about 70% of the territory is covered with forest covering, and from ancient times, silviculture has been developing. For natural forests, there are techniques specifically developed for the forest management along with silvicultural treatments and the systems of these techniques has been established. In Japan, the majority of important natural forest zones has been assigned to protect forests or protected areas. It is thought that this type of policy and mechanism can be applied in Colombia.

Furthermore, in Colombia, it is necessary to develop the policy-related capacity and the forest public administration system not only for natural forests but also for the entire sector. To this respect, the experiences on forest policy, forest management plan system, and other management issues related to forest public administration as a whole, can serve as an example for Colombia.

In addition, in Japan, the following technologies have a high level of development: investigation on forest public functions; forest information system; diversified use of forest products; processing of woods; which technologies/aspects were discussed in the workshop, and considered to be priority needs to be addressed during the training. Therefore, it may be said that Japanese technology on the Project's subject matters is high.

6.2 Effectiveness

Due to the public order situation (security condition) in Colombia, it is difficult to dispatch long-term Japanese experts. This obliges to structure a project that consists principally of training courses in Japan or in any third country, and sending short-term experts. However, if these activities are scheduled and executed under an organic coordination, an efficient project can be carried out. In this sense, in this project, in addition to perform said training courses, the following activities will be conducted for improving the efficiency of the Project:

- The Colombian counterparts will participate from the preparation stage of scheduling by performing the analysis of the current situation and problems, in order to prepare a training program that includes training issues in agreement with diagnosed needs, the target personnel of training, etc.
- In addition to carry out, in Japan or in any third country, the training courses that are adequate to the participants' level and engaging activities, short-term Japanese experts will be sent in order to support the Project activities during its critical stages.
- Monitoring activities are included as an integral part of the Project's activities, for both improving the quality of the training courses and finding how to apply the results of the courses to the management activities that are conducted in Colombia.

These activities are important to achieve the Project goal. The counterpart in Colombia also recognizes such an importance and they agree on everything. Therefore, there is a high possibility that the Project is carried out.

Furthermore, the management and exploitation of natural forests have a high priority in the Colombia national policies, and a high motivation is perceived within the entities participating in the Project. Because of this, the possibility of achieving such a goal is also high.

There are two external factors -or conditions- that must be fulfilled to achieve the Project's objective, as follows:

- (1) Trained personnel must continue to perform services in their appropriate positions and fulfill their duties efficiently
- (2) Colombia's forest policy must be stable.

However, these factors will not become into fatal limitations for the following reasons:

- (1) During the Project, attempts shall be done in order that plural number of officers or persons will be candidates to the courses from one institution or organization in such away as to increase the effect of the courses and minimize the risk of reduction of said effect because of a withdrawal of trained persons. In addition, a Project's operational structure will be established, which will be responsible for selecting adequate candidates. Also, one of the Project's core activities will be implemented, which is the training of other persons conducted by those persons who have been received training in Japan or in the third country; in this way, acquired techniques and knowledge may be conveyed to another persons during the training provided by the Project.
- (2) The National Forestry Development Plan (PNDF) which covers a 25-year period (from 2000 to 2025) has already been established, therefore, it is low the probability that sudden changes occur in the national forest policy.

6.3 Efficiency

The target groups of the present project are: (1) institutions managing the policies and forest public administration such as the Sustainable Rural Development Direction of the National Planning Department (DNP), the Ministry of Agriculture and Rural Development, the Ministry of Environment, Housing, and Territorial Development, the Coordination Office of the National Forestry Development Plan (PNDF); (2) investigation and promotion institutions such as the Hydrology, Meteorology, and Environmental Studies Institute (IDEAM) and the National Corporation of Forest Investigation and Promotion (CONIF), (3) public sector institutions or extensions of regional level such as Regional Autonomous Corporations (CAR), National Training Service (SENA), Colombian Institute for Rural Development (INCODER), (4) rural organizations such as Regional Councils of Productive Chain, indigenous, rural, and afro-colombian communities, timber producers cooperatives and associations, family Forest Guard.

These target persons of the training, not only will put into practice the acquired knowledge in the training courses, but also disseminate said knowledge to other professionals or local people through seminars and other activities. Therefore, the number of beneficiaries of the project will be greater than the number of persons trained during the courses. Similarly, when applying said knowledge in their duties and personal activities, the number of beneficiaries will be higher. Additionally, with the technical assistance provided by short-term Japanese experts, certain monitoring activities will be performed to promote the application of the acquired knowledge and techniques in order to raise the institutional capacity, thus leveraging the efficiency of the project. Moreover, given the fact that the Project will also be conducted on the basis of training courses to be given in one-third country near to Colombia, the cost-efficiency relation will be raised too.

6.4 Impacts

6.4.1 Possibility of Achieving Super Goal

To achieve the Project super goals, which are to carry out practices of sustainable management of natural forests, improve quality of life of the local communities, and contribute to the development of regional economy, concrete and effective activities should be performed. Also, it will be necessary not only to train persons *per se* but also improve institutional capacity. To achieve this, in this project, the execution of seminars will be scheduled in which trained persons convey acquired knowledge to other persons, with the purpose of raising the effect of multiplication in the respective institutions. Furthermore, through sending the Japanese short-term experts and the evaluation teams, some monitoring activities can be performed during execution of Project so as to evaluate whether training results is being used in practical activities, otherwise, measures to be taken to modify this situation should be defined.

For the application of practices related to forest management of natural forests, it is necessary to allocate a budget to this item, and establish a mechanism of execution. To face these needs, it is expected that Colombian government make its positive decisions, as the importance of the forest sector is recognized within National Development Plan.

6.4.2 Socioeconomic Impacts

6.4.2.1 Political and Institutional Impacts

The National Forestry Development Plan (PNDF), which is a long-term national policy, contains guidelines for the forest sector, but it has not yet established a concrete plan to execute it. According to coordination office of said Plan, to develop this national policy, it is necessary to prepare forest plans at the regional level. Since the present Project is designed to involve within training professionals and technicians from regional entities as well as local communities, the training within the Project can serve as a positive factor that encourage the preparation of regional forest plans. To this respect, the Project has a possibility of contributing to execution of the National Forestry Development Plan.

Furthermore, in Colombia, forest sector-related legal instruments are not yet integrated into a single forest law, e.g., these are included in several laws, codes, etc., and at the present time, the forest general law is undergoing the approval process in the congress. By strengthening, in this project, the capacity of institutions responsible for formulating and managing the policy and public forest administration, this Project will contribute to the application of this new law as well as to the implementation of associated systems.

6.4.2.2 Socio-cultural Impacts

Among representatives of involved institutions who attend the meetings, there had a consensus in the sense that it would be viable to define intensive areas for the execution of the project. As candidate areas, they recommended those areas in which indigenous and Afro-Colombian communities have their own collective lands. Therefore, there is the possibility that Afro-Colombian and indigenous communities will be included among beneficiaries, which communities are known to be a vulnerable population in the country. These communities may receive both direct and indirect benefits, since they are direct targets of the training and will be trained by technicians of the regional public administration sector and extension institutions, who will receive courses in the project.

6.4.2.3 Technical Impacts

The target personnel of the training in Japan and in the third country are those of the involved institutions and organizations such as central government's institutions responsible for policy and public administration, regional institutions, community organizations, among others. When selecting candidates, the effect of the training will be take into account in such a way as to the number of beneficiaries be the highest possible, by using diffusion seminars on acquired knowledge and techniques to be given by the trained persons in the courses. Also, the number of indirect beneficiaries may increase through sending the Japanese experts that is planned for both developing institutional capacity and raising the effect of the courses.

6.4.2.4 Economic Impacts

By performing an adequate management of natural forests through the application of the techniques and knowledge acquired in the training, production of both timber and non timber products may be improved by taking into consideration the sustainability and efficiency principles. This effect will bring economic benefits to the communities owners of the forests and community organizations that perform forest activities.

6.4.3 Negative Impacts

This project basically consists on providing training in sustainable forest management and any activity of construction of infrastructures will not be executed. Consequently, no negative impact will be caused on environment.

However, when selecting candidates to the training courses within community organizations, social mechanism of each community and gender aspect should be taken into account so that the Project does not cause any negative social impact in said communities, and equity is maintained.

6.5 Sustainability

It is expected that sustainability of the project can be expressed in two modalities; the first one is that effective policies and mechanisms are established through the development of the institutional capacity in the central and regional government institutions; and the second is that people of the communities recognizes the usefulness of knowledge and techniques acquired during the training and apply them in a sustainable manner. For the first modality, an Inter-Institutional effect may be expected because of some forest sector-related institutions are participating in the Project and their professionals will constitute the targets of the training and, in this way, the Project could contribute to the implementation of effective policies and mechanisms to this respect. Regarding the second modality, it is very important to make appropriate training programs, so that those trainings deal with the actual needs of the region. Therefore, it is necessary to try to understand always the problems and needs of the region with the purpose of adjusting the courses.

6.6 Conclusions

Out of five evaluation factors, mentioned *supra*, the relevance of the Project is the most important. From the point of view of the relevance, this project is highly justifiable to be executed as a public project of Official Development Assistance, since it coincides with the Japan's international cooperation policy, with the JICA's execution program of projects in Colombia, and with the needs of Colombia.

Currently, in Colombia, the development of the forest sector is one of the priority challenges of the country, and this is included within the National Development Plan. Therefore, there exists a strong motivation within participant entities in the Project such as the National Planning Department, the Ministry of Environment, Housing, and Territorial Development, and the Ministry of Agriculture and Rural Development, which enables the formulation of concrete activities.

Regarding effectiveness of the project, this Project will try to ensure a greater effectiveness than that obtained with a simple training, given that this Project comprises the following components: (1) planning of the training programs in concordance with needs, (2) organic coordination amongst the training course to be given in Japan, the course to be given in the third country, and sending the short-term experts, and (3) execution of monitoring during the critical stages of the Project.

The efficiency of the Project can be raised through the execution of diffusion seminars conducted by the persons trained in the courses. The Project has another advantage: some training courses will be given in the third country, so that it will be more economical.

With respect to the impacts (possibility of achieving the Super Goal) and the sustainability, the strong motivation perceived within institutions participants such as DNP, MAVDT, MADR, among others, is considered to be a positive factor, since the forest sector is regarded as a pillar to the National Development Plan. Therefore, the Project will have a high effect from the point of view of the effects and sustainability, provided that the training courses take into consideration the actual needs of the country and contribute to establish effective policies and mechanisms. Furthermore, it is very important to make training courses conveying knowledge and techniques that rural population can apply in a sustainable manner. This condition may be fulfilled, if the problems and needs of said people will be tried to comprehend at all times of the project period.

By taking into consideration all of the above-mentioned factors as a whole, it can be stated that execution of this project is considered to be highly justifiable.

CHAPTER 7. MONITORING AND EVALUATION

Executors and timing of the monitoring and evaluation activities are scheduled as described below:

- (1) **Monitoring:** This project consists principally on the training, and sending long-term experts is not planned. Therefore, it will be adequate to send short-term experts during the more important stages of this project's execution period in order to perform the required monitoring activities. At the present time, the adequate stages for the sending of experts could be as follows:
 - When performing the first course in the third country
 - About one year after initiation of the Project, when performing the seminar to be given by the trained persons in the courses
 - About three years and a half after the initiation of the Project, when performing the seminar to be given by the trained persons in the courses
- (2) **Intermediate evaluation:** When two years and a half, approximately, have elapsed, a mission sent by JICA will conduct the intermediate evaluation, in concordance with the project evaluation guidelines established by JICA.
- (3) **Final evaluation:** Approximately 6 months before completion of the Project, a mission sent by JICA will conduct the final evaluation, in concordance with the project evaluation guidelines established by JICA.
- (4) **Follow-up Evaluation:** Some years after completion of the Project, a mission sent by JICA will conduct the follow-up evaluation, in concordance with the project evaluation guidelines established by JICA.

ATTACHMENTS

- Attachment 1 Project Design Matrix (PDM) (Draft)**
- Attachment 2 Results of Workshop**
- Attachment 3 Subject Matters of the Courses (Draft)**

Attachment 1. Project Design Matrix

Narrative Summary	Verifiable Indicators of Goals	Verification Way	Important External Factors
<p>Super Goal 1 To perform practices of sustainable management and use of natural forests in Colombia.</p> <p>Super Goal 2 To perform a sustainable management and exploitation of natural forests and contribute to the improvement of the regional economy and life quality of rural population.</p>	<p>Super Goal 1 In some areas or projects, natural forest management pilot practices are carried out, by using techniques learned in this Project.</p> <p>Super Goal 2 By the sustainable management and use of natural forests, the forest sector can contribute to the regional economic development and improvement of life quality in rural areas.</p>	<p>Super Goal 1 Monitoring of natural forest management practices.</p> <p>Super Goal 2 Statistical data</p>	<p>1. Colombia's forest policy should be stable.</p> <p>2. Enough economic and human resources must be available to execute actions.</p>
<p>Project Objective 1 To develop the capacities for policy-making as well as public administration in relation to the management and use of natural forests.</p> <p>Project Objective 2 To diffuse techniques and knowledge acquired in the training and put into practice them in the different levels.</p>	<p>Project Objective 1 Condition of establishment of viable policies and systems for executing the National Forestry Development Plan.</p> <p>Project Objective 2 Application status of techniques imparted in the Project.</p>	<p>Project Objective 1 Monitoring of adopted policies and systems (questionnaires and interviews)</p> <p>Project Objective 2 Monitoring in institutions and fields (questionnaires and interviews)</p>	<p>1. Colombia's forest policy should be stable.</p> <p>2. The trained personnel should continue to render their services in their appropriate positions and perform their duties in a efficient manner.</p>
<p>Result 1 The target personnel are trained according to the respective needs (in different levels such as national and regional public administration entities' officers; research and training institutions; and community groups).</p> <p>Result 2 The knowledge and techniques imparted in the Project have contributed to improve the quality of public administration services and activities related to the management and exploitation of natural forests.</p> <p>Result 3 The techniques, knowledge and experiences acquired in the courses in Japan and third countries have been diffused to other persons through seminars in Colombia.</p>	<p>Result 1 Usefulness of knowledge and techniques imparted in the training.</p> <p>Result 2 Quality of public administration service</p> <p>Result 3</p> <ul style="list-style-type: none"> ➤ Number of participant persons who attend the training seminars. ➤ Other activities of technology transfer. 	<p>Result 1 Monitoring of trained persons</p> <p>Result 2 Monitoring within the respective institutions and with trained persons.</p> <p>Result 3</p> <ul style="list-style-type: none"> ➤ Reports of seminars ➤ Monitoring in the respective institutions and communities 	<p>The trained personnel should continue to render their services in their appropriate positions and perform their duties in a efficient manner.</p>

Attachment 1. Project Design Matrix

<p>Activity 1 To carry out courses in Japan and third countries</p> <p>Activity 2 Monitoring and evaluation of training's effects so as to both improve the quality of courses and quality of the management in each institution or community.</p> <p>Activity 3 Training in Colombia conducted by trained persons in Japan and third countries</p> <p>(1) To prepare teaching materials for training seminars (2) To carry out training seminars to be delivered by trained persons in the Project</p>	<p>Inversion</p> <p>1. Japan</p> <ul style="list-style-type: none"> • Courses' expenses (installations, materials, trainers, etc.) • Travel expenses (travel tickets, allowances, logistics, etc.) • Short-term experts • Equipment for diffusion • Expenses for seminars in Colombia <p>2. Colombia</p> <ul style="list-style-type: none"> • Target personnel of the training • Travel expenses in Colombia • Expenses for getting identification documents (passport, etc.) 	<p>Premise No premise has been considered.</p>
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Attachment 2. Results of Workshop (1)

Name of entity
Main activities related to natural forest
What are the issues you want to be taught in the course of training?
Problems and tasks

Levels of National Policy		
National Planning Department (DNP)	Coordination Office of the National Forestry Development Plan (PNDF)	Ministry of Environment, Housing, and Territorial Development (MAVDT)
<p>Participates in formulation of policies of the sector</p> <ul style="list-style-type: none"> - Planning and management of conservation and merchandizing of natural forests - Methodologies for formulating forest management and exploitation policies - Mechanisms of promotion of conservation and exploitation of natural forests - Methodologies for verifying impact of exploitation and management of natural forests 	<p>Long-term governmental policy</p> <ul style="list-style-type: none"> - Long-term planning (integration of actors) - Development of tools 1. Forest information system 2. Forest networks 3. Knowledge - Forest culture - Forest certification - Monitoring and follow-up of forest plans 	<p>Policy and regulations</p> <ul style="list-style-type: none"> - Implementation, follow-up and evaluation of forest planning and forest conservation and management - Forest public administrative organization - Incentives for sustainable management - Planning, execution and upgrading both natural and planted forest resources - Solution of conflicts on use and exploitation of forests
<ul style="list-style-type: none"> - Lack internal organization for the treatment of forest sector - Absence of an administration model that promotes an adequate management and use of the natural forests 	<ul style="list-style-type: none"> - To implement PNDF to a regional and/or departmental level (specifically, forestry techniques) - Low operational capacity 	<p>Ministry of Agriculture and Rural Development (MADR)</p> <p>Policy and promotion of production</p> <ul style="list-style-type: none"> - Appropriate technologies for the sustainable forest management and use - Definition and management of areas of natural forest to supply timber and other forest products - Diversification of forest production, with farming crops and non-timber products (resins, tannins, latex, medicinal plants, etc.) - Techniques for monitoring and follow-up of activities related to sustainable forest management
		<ul style="list-style-type: none"> - Low technical capacity to address policies of sustainable management of natural forests - Lack of knowledge about low impact techniques in the exploitation of natural forests

Attachment 2. Results of Workshop (2)

Research Institutes		Level regional		
<p>National Corporation of Forest Investigation and Promotion (CONIF)</p> <ul style="list-style-type: none"> - Promotion of sustainable management of both natural and planted forests - R&D of natural forests 	<p>Hydrology, Meteorology, and Environmental Studies Institute (IDEAM)</p> <ul style="list-style-type: none"> - Collection, recording, systematization, generation of forest statistical data and information - Coordination of forest information System 	<p>Regional Autonomous Corporations (CAR)</p> <p>Administration and planning of forests</p>	<p>National Training Service (SENA)</p> <p>Training and technology transfer in fields such as management, exploitation, and primary transformation of forest products</p>	<p>Colombian Institute for Rural Development (INCODER)</p> <p>Executes productive policy set forth by Ministry of Agriculture</p>
<ul style="list-style-type: none"> - Training in new technologies, information system, information networks - Transfer of biotechnology - Forest research techniques and sustainability of forests - New techniques of forest protection and genetic breeding 	<ul style="list-style-type: none"> - Generation and analysis of forest statistical data - Generation of forest databases and its implementation at regional level - Planning and methodology for the execution of the forest national inventory - Geographical information systems and remote sensing technology applied to natural forests - Evaluation and monitoring of the forest covering 	<ul style="list-style-type: none"> - Application of technology for planning and monitoring the use of forest resources - Methodologies for collecting field information and systematization of information - Restoration of degraded forest ecosystems 	<ul style="list-style-type: none"> - Techniques for exploiting forests - Forest enrichment technique with forest species having high value and demand in markets - Labor competencies for natural forests 	<ul style="list-style-type: none"> - How to strengthen and/or create organizations of users of natural forests - New techniques of forest extension and planning - To determine potential of the market of other products from natural forest so as to address its sustainable use
<ul style="list-style-type: none"> - Lack of economic resources for performing forest inventories - Lack of knowledge on technologies for mass production of vegetal material - Lack of qualified personnel in planning and international negotiation - Lack of knowledge on Ignorance advanced models of growth and yield to be applied to natural forests - Management of social and environmental conflicts for management of forest resources - Lack of methodology in forest extension and transfer 	<ul style="list-style-type: none"> - Poor reliability of forest statistical data due to their low representation in national level - Poor and uneven technological development - Low flow of forest information - There is not culture on generation of forest statistical data - Low implementation of the forest information system at regional level - Low investment capacity in financial, technological, and human resource, required for operating the forest information system - There exists no financial capacity to make the forest national inventory and develop methodologies thereto. - There exists no validation and standardization of forest information/statistical data, nor protocols for collecting, storing and managing information - A need exists to develop technical and technological criteria for characterize, assess and monitor forest areas 	<ul style="list-style-type: none"> - Lack follow-up on natural forest exploitation - There exist no forest extension programs about natural forests - 90% of CARs does not have a database system to manage forest information 	<ul style="list-style-type: none"> - Updating of SENNA officers in matters of forest training 	<ul style="list-style-type: none"> - Low operational capacity to perform forest extension - Low budgetary organization for the forest development - Insufficient personnel related in forest sector to attend to regions

Attachment 2. Results of Workshop (3)

Local, community, and individuals level			
Regional Councils of Productive Chains	Indigenous, Afro-Colombian and rural people, communities	Timber producers cooperatives and associations	Plan Colombia Family Forest Guard
<ul style="list-style-type: none"> - Organization of the private and public sectors based on competitiveness agreements - They promote sustainable productive activities and offer assistance for the coordination between public sector and private sector - Processes for organizing forest private sector - Strengthening of forest business culture - Innovation and improvement of efficiency towards the competitiveness - Benefits of the sustainable forest management - Techniques for the sustainable forest management - Negotiation techniques and management of conflicts - To know the potential market of other products from natural forests so as to address their sustainable exploitation 	<ul style="list-style-type: none"> - Forest management and use - Owners of forests (raw materials, timber and non-timber products, environmental services and capitals) - Utilization of efficient and low-impact technologies - Utilization of modern technologies for management, exploitation and transformation - Alternative agriculture production in association with forests - Development of timber and non-timber products - Forest restoration 	<p>They exploit the natural forest and merchandizing their products</p> <ul style="list-style-type: none"> - Operation and maintenance of equipment - Enterprise organization - Improvement of productivity - Integration to markets - Sustainable forest management - Forest certification 	<p>Promotes and encourages productive activities as an alternative to the illicit crops</p> <ul style="list-style-type: none"> - Integration and articulation with the National Forestry Development Plan (PNDF) - Sustainable forest projects
<ul style="list-style-type: none"> - Low organization capacity - Limited knowledge on sustainable forest management - Low commitment of the private sector to assure articulation of the chain 	<ul style="list-style-type: none"> - Training and technology do not reach them 	<ul style="list-style-type: none"> - Lack culture of organization (association) 	

Other Entities

In the workshop carried out for analyzing actors related to management and use of natural forests, following organizations were mentioned. These organizations can directly relate with the project and it is possible that some of them will be involved depending on the selection of intensive areas or from view of the effectiveness of the project.

- Ministry of Commerce, Industry and Tourism
- National Parks
- Environmental Research Institute of Pacific (IIAP)
- Research Institute of Amazonian Region (SINCHI)
- National Administrative Department of Statistics (DANE)
- Law Enforcement Authorities
- Municipal and Provincial Government Offices
- Disasters Attention and Prevention System
- Universities
- Colombian Agricultural Research Corporation (CORPOICA)
- Timber Traders Association (FEDEMADERAS)
- Regional Forest Productive Chains
- Association of Forest Engineers (ACIF)
- Forest Empresas
- Donors and International Cooperation Agencies
- Non-Governmental Organization (NGOs)
- Fund for Environmental Action

Attachment 2. Results of Workshop (5)

Participants in the Workshop

Workshop 1: September 15, 2004

DNP	Andrés Barrera	Advisor, Direction Sustainable Rural Development
MADR	Nelson Lozano	Coordinator, Forest Productive Chains
	Marlene Vásquez	Specialized Professional, Technological Development and Sanitary Protection
MAVDT	Rubén Darío Guerrero	Advisor, Direction of Ecosystems
PNDF	Nicolás Zea	Coordinator PNDF
IDEAM	María Cecilia Cardona	Forestry Professional
CONIF	Guillermo Ulloa	Technical Secretary Productive Chains
	Pedro Roberto Gonzales S.	Forestry Professional

Workshop 2: September 20, 2004

DNP	Andrés Barrera	Advisor, Direction Sustainable Rural Development
MADR	Nelson Lozano	Coordinator, Forest Productive Chains
	Marlene Vásquez	Specialized Professional, Technological Development and Sanitary Protection
PNDF	Nicolás Zea	Coordinator PNDF
IDEAM	María Cecilia Cardona	Forestry Professional
CONIF	Guillermo Ulloa	Technical Secretary Productive Chains
	Pedro Roberto Gonzales S.	Forestry Professional
INCODER	José Dagoberto Gonzalez	Professional, Sub-direction Productive Development

Course in Japan (1)

Name of Course: Strengthening the Capacity on Make Decisions and Implementation of Forest Policy

Target Personnel: Public officials responsible for the formulation and follow-up of the forest policy in national and regional entities

Course's Objective: To raise the technical, management, and making-decision capacity of officials of national and regional entities in order that they may contribute to implementation of forest policy of the country.

Goals to Be Achieved:

1. To understand the forest policy making process and sustainable forest management systems in order to establish effective policies, to implement follow-up activities, and to make evaluation systems that are necessary to execute the National Forestry Development Plan (PNDF)
2. To deepen knowledge on technologies for forest management and use in order to promote the technological development of forest sector in Colombia
3. To deepen knowledge on multiple functions of forests to raise the capacity of public administration in relation to management, use, and conservation of natural forests in Colombia

Training Providing Institutions: Forestry Agency, Forest Training Institute, Forestry and Forest Products Research Institute, Forest Tree Breeding Center, Ministry of the Environment, National Institute of Environmental Studies, Prefectures, etc.

Duration of Course: Approximately 1.5 months (about 26 business days)

Contents of Course:

< Forest Agency / Forest Training Institute > (7 business days)

1. Forest policy in Japan, its making process and management mechanism
2. Forest management planning system (planning and management)
3. Other forest management systems (conservation forest system, systems for national forests such as protected forests, system of forest extension, etc.)
4. Global movements about forests (CDM, forest certification and others)
5. Methodology of the formulation of forest statistics

<Forestry and Forest Products Research Institute / Forest Training Institute / Forest Tree Breeding Center> (8 business days)

1. Forest management technology (management of selective cutting, management of multistratum forests, management of natural forest)
2. Public functions of the forests and forest management taking into consideration such functions
3. New technology in the forest field (utilization of remote sensors, GIS, forest monitoring, biotechnology, genetic improvement, techniques and equipment used for efficient and low-impact forest exploitation, etc.)

4. Market of forest products

<Ministry of the Environment, National Institute of Environmental Studies> (3 business days)

1. Management policy and system of protected areas
2. Conservation, restoration, and monitoring of forest ecosystems
3. Examples of management and forest research taken from other countries

<Prefectures> (3 business days)

1. Regional forest management plan
2. Organization of forest owners and administrators
3. Use and research of non-timber products

<Field tour> (5 business days)

1. Forest management of natural forests through selective and multistratum cutting
2. Protected forest, world natural heritage
3. Protected areas

Course in Japan (2)

Name of Course: Strengthening Technological Capacity of the Forest Sector

Target Personnel: Forest professionals related to forest research, promotion, and management

Course's Objective: To raise the capacity of professionals working for research and promotion institutions in order to contribute to implement a sustainable forest management

Goal to Be Achieved:

To strength the professionals' knowledge and capacity as to the information systems technology, monitoring, basic & applied research, and promotion, and other subjects that may contribute to both formulation of forest policy and execution of a sustainable forest management that are applicable in natural and planted forests in Colombia

Training Providing Institutions: Forest Agency, Forest Training Institute, National Institute of Forest Research, Forest Tree Breeding Center, Ministry of the Environment, National Institute of Environmental Studies, Prefectures, and various private entities.

Duration of Course: Approximately 2 months (about 34 business days)

Contents of the Course:

<Forestry Agency> (3 business days)

1. Forest policy in Japan and related regimes (systems of: forest management plan, conservation forests, national forests such as the protected ones and extension forest)
2. Global movement around forests
3. Methodology of elaboration of forest statistics

<Forestry and Forest Products Research Institute, Forest Training Institute, Forest Tree Breeding Center, private entities> (20 business days)

1. Forest management technology (management by selective cutting, management of natural forests with forest treatments)
2. Functions of forests and forest management consistent with said functions
3. New technologies for the forest field (remote sensors, GIS, forest monitoring, biotechnology, genetic improvement, forest exploitation technology, etc.)

<National Institute of Environmental Studies> (4 business days)

1. Conservation, restoration and monitoring of forest ecosystems

2. Examples of management and forest research taken from other countries

<Prefectures> (2 business days)

- 1. Forest extension**
- 2. Organization of forest owners and administrators**
- 3. Research and use of non-timber products**

<Field Tour> (5 business days)

- 1. Management of natural forests on treatment, management of multistratum forests**
- 2. Protected forests and conservation forests**
- 3. Restoration of forest ecosystems**

Courses in Third Country

Name of Courses: Courses for Strengthening Capacities of Actors Related to Forest Management and Use

Target Personnel: Actors Related to Forest Management and Exploitation such as communities, CARs, SENA, regional councils of production chains, etc.

Objective of Courses:

To strength knowledge and techniques about subjects indicated below, which are to be applied in practices, extension activities, etc. related to forest management and exploitation

Training Providing Institutions: Training institutions located in third countries

Contents of the courses

1. Organization of small-sized producers

Goal to be Achieved: To acquire proficiency in concepts, methodologies and tools of organization and extension of small-sized producers with a focus mainly placed into production chains and community small-sized enterprises

Duration of Courses: approximately 20 business days

Subject Matters:

- Basic concepts on organization
- Integral planning for organization of small-sized producers in rural cooperatives
- Identification of market opportunities.
- Analysis of production chain benefits.
- Designing integral strategy in order to improve competitiveness of chain.
- Negotiation and business agreements
- Techniques for improving productivity and quality
- Cost analysis
- Methodology and tools for extension activities

2. Diversified and sustainable management of natural forests and community development

Goal to be Achieved: To improve knowledge on sustainable management of natural forests taking into consideration the diversity of capitals and services that these provide, and apply them in their activities

Duration of Courses: Approximately 20 business days

Subject Matters:

- Ecological basis for the management
- Silvicultural techniques for the management
- Planning and control of low-impact exploitation
- Forest inventories for the management
- Cost analysis
- Management plans
- Forest certification
- Forest non-timber products
- Environmental functions of forests

3. Mixed models of forestry-agriculture-stock raising

Goal to be Achieved: To improve knowledge about concepts and methodology for the harmonization between agricultural and livestock production and the sustainable use and conservation of forests, and apply them.

Duration of Courses: Approximately 15 business days

Subject Matters:

- Definition and classification of agroforestry-silvopastoral
- Agro-forestry and silvi-pastoral techniques
- Diagnostic and planning of farms
- Cost-benefit analysis
- Techniques of nursery and reforestation (including supplementation of forest)

