INTERNATIONAL TROPICAL TIMBER ORGANIZATION

ITTO

PROJECT PROPOSAL

TITLE:	EXTENDING THE AREA UNDER SUSTAINABLE FOREST MANAGEMENT IN THE FOREST LANDS OF THE EMBERÁ-WOUNAAN COMARCA, DARIEN, PANAMA
SERIAL NUMBER:	PD 405/06 Rev.3 (F)
COMMITTEE:	REFORESTATION AND FOREST MANAGEMENT
SUBMITTED BY:	GOVERNMENT OF PANAMA
ORIGINAL LANGUAGE:	SPANISH

SUMMARY:

This project proposal has been developed in response to the recommendations of an ITTO evaluation team after its visit to the headquarters of the Emberá-Wounaan General Congress in August 2004. The team emphasised the need to extend the forestlands under management in the territories of the Embera-Wounaan Comarca, Province of Darien, Panama. To date, an area of only 26,720 hectares, or just 6.21% of the total 430,000 hectares of the Comarca (Indigenous Territory), is under a management plan. The project seeks to contribute to the achievement of the objectives of the International Tropical Timber Council (ITTC) by increasing the competitiveness of the forest sector in Panama and ensuring the supply of timber raw materials from forests managed in accordance with ITTO Criteria and Indicators and in the process of obtaining voluntary certification, with the participation of community groups organised as business enterprises.

The strategy selected for project implementation is based on "strengthening the capacity and knowledge of indigenous communities in Darien to manage forest lands within their territory as an alternative to ensure a continuous supply of raw material and a means of curbing illegal logging in the forests of Darien". Furthermore, it seeks to develop productive partnerships with the forest industry and national and international markets. It includes a strong business management component for indigenous community members, and fosters forest trade. This approach facilitates the direct involvement of the communities as suppliers of raw material from sustainably managed forests to Panama's forest industries, while ensuring better prices and contractual relations with buyers. Both forest industries and forest contractors will apply reduced impact logging (RIL) practices. Thus, the project provides for a strong, ongoing involvement of forest industries in partnership with the indigenous communities of the Emberá-Wounaan Comarca (the producers).

The implementation of this project is expected to reverse the ever decreasing trend in the supply of raw material from natural tropical forests and the practices that lead to illegal logging and degradation of forest ecosystems in the Darién region of Panama. The proposal is submitted to the International Tropical Timber Organization by the National Environmental Authority and the implementation of the project will be under the responsibility of the WWF. WWF is currently arranging the legal establishment of a local WWF office in Panama in support of sustainable forest management in the region of Darien on the basis of a Memorandum of Understanding signed with the General Congress of the Comarca.

EXECUTING AGENCY:	WORLD WIDE FUND FOR NATURE, WWF-CENTRAL AMERICA
DURATION:	24 MONTHS
APPROXIMATE STARTING DATE	UPON APPROVAL

BUDGET AND PROPOSED SOURCES OF FINANCE:

Source	Contribution in US$
ITTO	**520,992**
Communities	108,400
WWF-CA	195,800
ANAM	142,800
TOTAL	**967,992**

EXTENDING THE AREA UNDER SUSTAINABLE FOREST MANAGEMENT IN THE FOREST LANDS OF THE EMBERÁ-WOUNAAN COMARCA, DARIEN, PANAMA

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PART I: CONTEXT

1. Origin

In June 2004 the WWF started the development of the first Sustainable Forest Management Model for the Emberá-Wounan Comarca (Indigenous Territory) in Darién, Panamá, covering an area of 26,720 hectares. The first phase of this development project was implemented with financial support from USAID and the institutional support of the National Environmental Authority – ANAM, which modified certain forest and environmental legislation regulations for the approval of sustainable management plans over areas larger than 2,000 hectares.

This first model was implemented in 5 indigenous communities located along the Tupiza River (Nuevo Belén, Punta Grande, La Pulida, La Esperanza and Barranquilla) in the district of Cémaco. However, the Comarca comprises 40 communities and covers an area of 401,892 hectareas, of which at least 80% are forest lands. Thus, only 6.5% of the territory is currently under a sustainable forest management plan.

The first phase of the project was developed as a result of the experiences of WWF in other countries of Central America, especially in the forest concessions of Petén, Guatemala, progress achieved in forest management in the Honduran and Nicaraguan Mosquitia, the scope of forest policies and forest product marketing of Costa Rica and the community forest 'ejidos' of Quintana Roo, Mexico, among others.

This proposal is also the result of the August 2004 evaluation by the ITTO mission, when the outputs of the first phase of the project were presented. One of the direct recommendations of the evaluation team was: "To extend the forest management actions to the Cémaco and Sambú districts in the Emberá-Wounaan Community" as a priority action for the country's forest development[1].

More importantly, the proposal has been developed on the basis of the ITTO report published in 1989 under the title 'No Timber Without Trees', emphasising the need to bring production forests under management as an alternative for social and economic development. In particular, the development of the proposal was based on the guidelines of the ITTO Yokohama Action Plan 2002-2006 as a framework of reference to guide the project, especially in relation to its third objective.

Finally, this proposal stems directly from the authorities of the Comarca, who during several General Congresses held in the year 2000 decided to implement a sustainable forest management system in their forest lands. ***Table 1*** *describes these events and initiatives undertaken by indigenous authorities.*

Table 1 General Congress decisions to define a strategy for sustainable forest management in the E-W Comarca.

YEAR	*Resolutions and Events in chronological order*	*Location*
2000	***Resolution Embera-Wounaan General Congress***	Puerto Indio
2003	***Resolution Embera-Wounaan General Congress***	Lajas Blancas
2003	***CEMACO, PDSD Land management system plan***	Cémaco
2003	***First contact with WWF***	CATIE, CR
2004	***Launch of first MCFR model in Tupiza***	Rio Tupiza
2005	***Ratification of the SFM Tupiza model, Embera-Wounaan General Congress***	Nuevo Vigia

It should be emphasised that the project will be mainly focused on the training of indigenous communities who lack the resources and knowledge required for the application of sustainable forest management techniques in order to replicate the Tupiza model in a larger area of forest within the Comarca and thus ensure the supply of raw materials from well-managed forests.

One of the strengths of this project is the involvement of craftswomen who will make sustainable use of chunga (Astrocayum standleranuma), nahuala and guágara palm leaves to manufacture craft products. In other words, this is an integrated planning model for the management of forest lands with timber and non-timber forest products.

[1] ITTO, 2004 "Achieving ITTO Objective 2000 and sustainable forest management in Panama. Report of Diagnostic Mission".

The problem tree and the objectives were defined during a workshop that took place in the city of Metetí, province of Darién, Panama in September 2005, which included the country's forest sector (communities, contractors, industrialists, environmental NGOs) and National Environmental Authority (ANAM) officials.

In brief, the proposal submitted to ITTO seeks to extend the Tupiza model to two community blocks in the Embera-Wounaan Comarca (**Figure 1**): a) Communities living along the Tuqueza River, which include Marragantí, Bajo Chiquito and Villa Caleta; and b) three communities living along the Chucunaque River, including El Salto de Chucunaque, Mongote and Peña Vijagual. The first block would include some 30,000 hectares of tropical forests, while the second block would cover some 15,000 hectares (45,000 additional hectares).

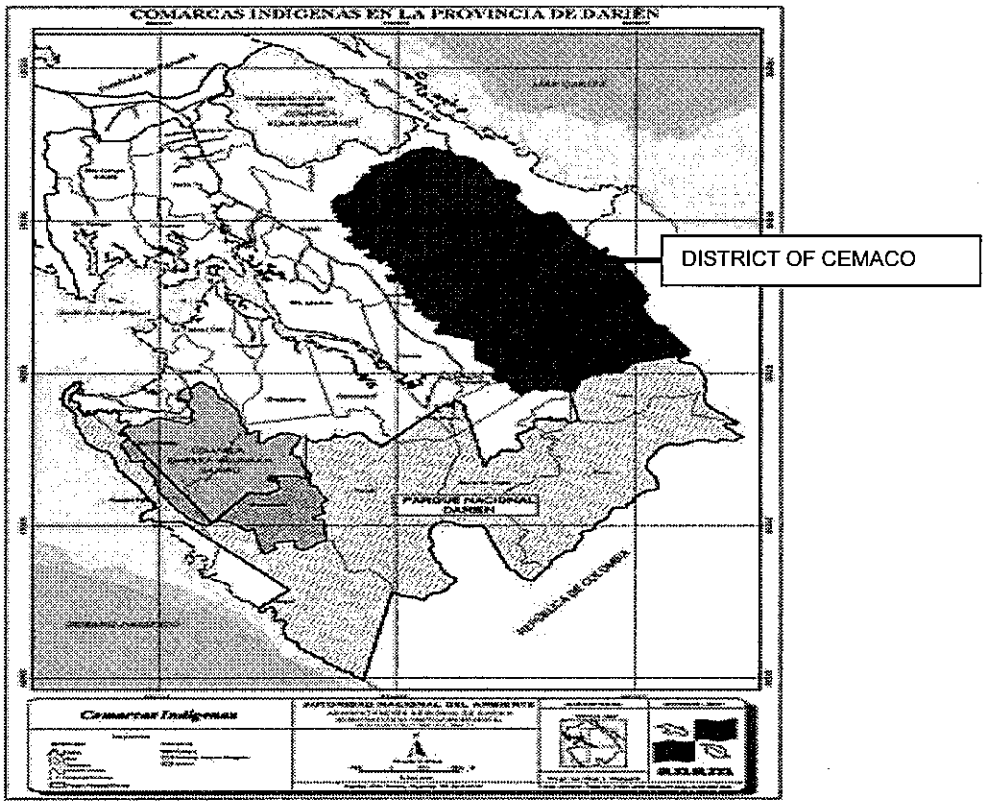


Figure No. 1 Location of the Cémaco district, Emberá-Wounaan Comarca, Darién.

2. Sectoral Policies

The forest policy framework of Panama is based on *Act No. 1 of 3 February 1994*, which provides as follows: "State objectives include protecting, conserving and increasing existing forest resources in the country and promoting their sustainable management and use. They also include harmonising national production and development plans and projects through the utilisation and conservation of forest resources".

Similarly, one of the paramount legal provisions in the area of sustainable management of the natural resources of Panama is *article 1 of Act No. 41 of 1 July 1998*, which states that: "Environmental administration is a duty of the State; therefore, basic principles and standards are established for the protection, conservation and restoration of the environment, promoting sustainable use of natural resources". The National Environment Authority - ANAM was established under this mandate, as the competent body for the administration of the country's natural resources.

Furthermore, in 1999[2] the *National Environmental Strategy* was drafted as a result of the commitments arising from the General Environmental Law No. 41, with a view to formulating clear, consistent policies for environmental goals, guaranteeing adequate protection for the environment and thus improving the living conditions of the population in Panama. This Strategy aims to empower the State to develop an effective short, medium- and long-term environmental programme, with clear goals, objectives and priorities agreed by consensus among the various sectors of civil society. The National Environmental Strategy has set its Vision 2020 as follows: to achieve the organisation and management of forest resources as a strategic projection with a view to the sustainable development of communities residing in the forest reserves of the rural area of the country.

The National Environmental Strategy also provides framework decisions for the fair valuation of environmental goods and services provided by forest resources and for their integrated and efficient utilisation by society in general. The National Environmental Strategy provides for various actions including strengthening of sustainable organisation and development of the country's tropical forest reserves, establishing measures for the protection, restoration and use of this resource base.

Notwithstanding the forest and environmental legislation currently in force, it is imperative that we move towards a definition of operating mechanisms for these policies and strategies in accordance with the evolution of the country's social, political and economic processes. Weaknesses in the area of sustainable forest management, independent certification and the use of environmental services are all issues of particular importance. Therefore, to reverse the trend in land use changes and practices associated with illegal forest uses, it is necessary to promote concrete, long-term efforts to develop socially, economically and environmentally successful experiences.

3. Programmes and Operational Activities

Until 2005 the following projects have received financing from ITTO in Panama:

- Management, Conservation and Development of the Mangroves of Panama; PD 128/91 Rev.2 (F).
- Forest Management, Community Development and Sustainable Use of the Forests of the Punta Patiño Forest Reserve, Darién, Panama; PD 35/93 Rev.4(F) Phases I and II.
- Technical Assistance for the Formulation of a Mapping and Inventory Project of the Forest Resources with a view to their Sustainable Management; PPD 15/96 Rev.1(F).
- Forest Development Plan for the Sustainable Management of the Forests of the District of Donoso, Panama; PPD 6/95 Rev.1 (F)
- Master Plan for the Modernisation of the Forest Industrial Infrastructure of Panama; PD 15/97 Rev.2 (I)
- Management of Cativo Forests and Non-Timber Products with the Participation of Rural and Indigenous Communities, Darién, Panama; PD 37/95 Rev.2(F).
- Establishment of a Forest Statistics Information System; PD 44/96 Rev.2(M)
- Sustainable Management of the Forests of the Corregimiento de Narganá, Kuna Yala, Panama; PD 1/96 Rev.3 (F)
- Institutional Strengthening of the Geographic Information System (GIS) of the National Environmental Authority (ANAM) for the Monitoring and Evaluation of Panama's Forest Resources with a view to their Sustainable Management; PD 54/98 Rev.1 (F).
- . Conservation and Reforestation of Threatened Mangrove Forest Areas along the Pacific Coast of Panama; PD 156/02 Rev. 1 (F), currently under implementation.
- Technical Assistance for the Development of a Project Proposal on Institutional Strengthening for Forest Fire Prevention, Mitigation and Management in the Natural and Planted Forests of Panama" PPD 72/03 Rev. 1(F); implementation about to begin.

Furthermore, and with the financial support of other international cooperation organisations, the following forest projects were in progress in Panama as at 30 June 2005:

- *Responsible Forest Management and Trade in the Emberá-Wounaan Comarca in Darién, Panama.* Executed by WWF from June 2004 to June 2005.

[2] In 1998 the Government of Panama developed the National Environmental Strategy; this was approved by Cabinet Resolution No. 36, of 31 May 1999. The National Environmental Strategy stipulates major guidelines for environmental and natural resource policies and programmes.

- Support for the Formulation of the National Plan for Sustainable Forest Development and implementation of the National Forest Policy, with support from FAO. 2005.

PART II: THE PROJECT

1. Project Objectives

The main objectives of the implementation of the project *"EXTENDING THE AREA UNDER SUSTAINABLE FOREST MANAGEMENT IN THE FOREST LANDS OF THE EMBERÁ-WOUNAAN COMARCA, DARIEN, PANAMA"* are as follows:

1.1 Development Objective

Increase the national level of production and marketing of timber products from sustainably managed tropical forests with a view to obtaining international certification.

1.2 Specific Objective

Increase the area and production volume of tropical timber species through the development of two sustainable forest management plans for the Emberá-Wounaan Comarca territories in the province of Darién.

2. Justification

2.1 Problem to be addressed

The problem that the project will attempt to resolve is the continued lack of raw material supply for Panama's forest industry from sustainably managed forests through their long-term management.

Current forest cover and deforestation status

The provinces with the largest forest cover in Panama are: El Darién, Panamá, Bocas del Toro and the Emberá-Wounaan Comarca; these account for 62% of remaining natural forests in Panama. Most of these forests are situated on the Atlantic side, since the Pacific side has a history of intense human activity.

The annual deforestation rate in Panama is around 47,000 hectares, with the greatest impact in the provinces of Darién and Panama; the former has the largest forest cover area in the country. Of the Territories, the Ngnobe-Bugle is the most affected by deforestation (Table No. 2). Despite these alarming data for the above regions, the Embera-Wounaan territory targeted by this proposal shows the lowest deforestation rates and, therefore, is a valuable national reservoir of tropical forest species.

According to the GEO 2004 report, the encroachment of agriculture has been identified as the main cause of deforestation in Panama. Such expansive increase in deforestation in Darién arises from a lack of planning in development and a lack of consistency in sectoral policies, especially those that promote conversion of forests into agricultural crops and pasturelands, such as land title and soft loan policies.

Furthermore, another important cause of deforestation is the lack of valuation and security of forest resources caused by the absence of forest management models involving forest owners and generating sufficient income through their link to other members of the production chain (contractors, forest industry and markets).

Table No. 2 Present deforestation status in Panama, 1992-2000.

Province	Forest Cover		Net Annual Deforestation (ha)	Restored Area	
	1992 (ha)	2000 (ha)		Total (ha)	Annual (ha)
TOTAL	3,695,161	3,364,591	41,321	46,698	5,838
Bocas delToro	352,252	342,191	1,258	87	11
Cocle	69,115	65,422	462	7,158	895
Colon	284,472	260,626	2,981	5,462	683
Chiriqui	104,941	121,112	2,021	16,448	2,056
Darien	990,737	853,125	17,201	0	0
Herrera	10,225	9,321	113	710	89
Los Santos	21,230	27,971	843	6,871	859
Panama	567,053	497,832	8,652	5,911	739
Veraguas	301,905	283,053	2,356	2,985	373
Comarca Kuna Yala	215,564	212,342	403	0	0
Embera-Wounaan	401,892	397,614	535	1,066	133
Ngobe-Bugle	375,775	293,982	10,224	0	0

Source: Final report of forest cover and land use in Panama. 1992-2000. ITTO-ANAM, 2003.

A current 2004 cover map was obtained from the study of satellite images and the estimation of cover areas and land use in Darién (Figure 2). This map clearly shows the encroachment of agriculture and livestock farming into areas running parallel to the Inter-American Highway. However, there is evidence of conservation of compact forest areas within the territories, particularly the Embera-Wounaan and Wargandi territories.

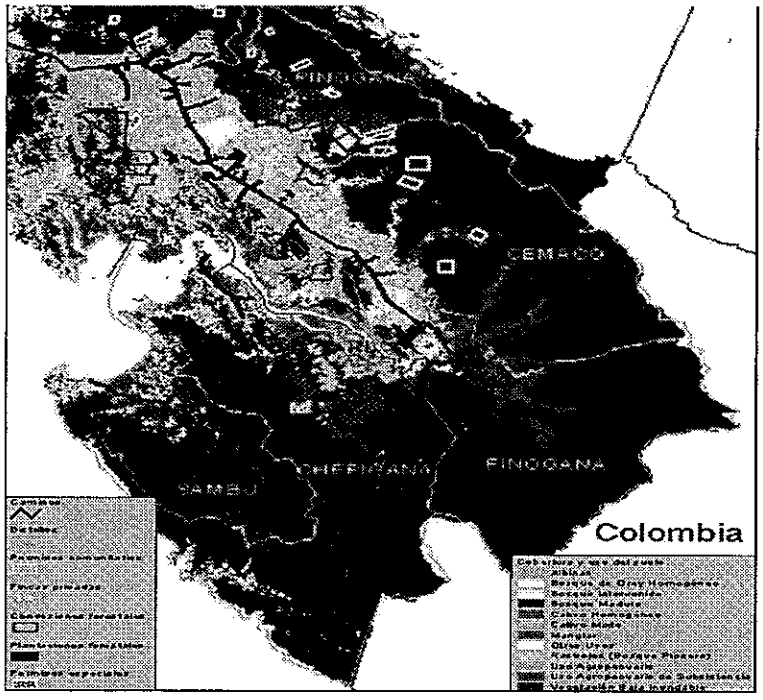


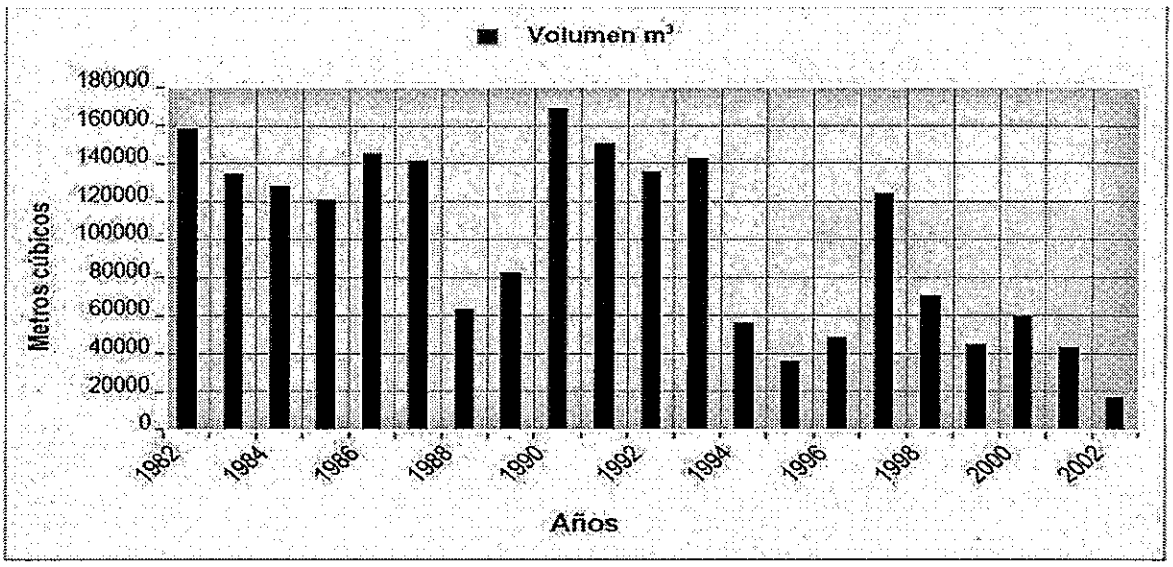
Figure No. 2 Map of current forest cover in the province of Darién, Panama 2004.

On the other hand, although forest concessions have established what could be called a basic access infrastructure which, in some cases, has contributed to the encroachment of agriculture, historical records indicate that these concessions and their relationship with forest cover have not promoted a radical change in forest land use. The significant difference with deforestation is the introduction of the agricultural land use model, and the establishment of grazing lands.

Timber production in the forests of Darién

According to 20-year statistics (1982-2002) shown in Figure 3, timber production in Panama has been an important sector for the country's economy. For comparison, the largest roundwood production was recorded in 1990 with an estimated 165,000 cubic metres, compared to less than 20,000 cubic metres

in 2002; and this trend has continued into 2005. The supply of raw material for the country's forest industry has become increasingly scarce, and the remnants of natural forest are relegated to the remotest provinces; this substantially increases transport costs and, as a consequence, production and manufacturing processes become less competitive.



Fuente: ANAM, Servicio Nacional de Desarrollo y Administración Forestal. 2003.

Figure No. 3 Roundwood flow per year. 1982-2002.

According to the National Forest Programme (ANAM/FAO, 2003), the official production was significantly lower in the 2000-2002 period (on average only 45,000 m³ in roundwood per year), after a decreasing trend which began in the mid-nineties. However, there is no certainty that this official reduction actually reflects an equal decrease in forest logging in the field. According to the background document of the Darién Sustainable Development Programme (PDSD, 1998a), this downward trend in official production may be related to considerable 'under-reporting of timber logging since (i) this reduction is not very consistent with the timber traffic on the Pan-American Highway during the logging season, and (ii) logging with subsistence permits, community permits and private property permits among others, shows a much greater tendency to be under-reported. This eventually has compensated for the drop in concession production.[3]

Furthermore, personal contact with the managers of major forest industries in Panama (Selloro SA, Playwood Orozco, and JDS Hardwoods Inc) confirmed that most industries are working below 30% of their installed capacity, as a direct consequence of the lack of raw material. According to statistics kept by ANAM's National System of Forest Administration (SENADAF), at least 70% of forest industries in the country have stopped operating. In short, most industries in Panama state that the main reason for their low level of production and competitiveness is the lack of a continuous, reliable supply of raw material.

In these circumstances, it is obvious that the production and processing capacity of the forest sector of Panama is undergoing considerable degradation and, therefore, its impact and contribution to the country's economy is also gradually decreasing. According to the estimates in the GEO 2004 report, the forest sector contribution to the GDP is around 0.3%. This situation appears to be chaotic when considering that forest management and harvesting operations contribute to a considerable number of jobs and other sources of income for an important sector of Panama's society (contractors, freighters, operators, etc.), particularly in rural areas as well as workers in urban areas.

[3] As indicated in Section 7, after the year 2000 no new concessions were granted and only six were still current in 2001. At present no concession is being authorised.

Current status of forest management and authorisations

Historically, Panama has used four different types of forest harvesting permits (Brown, 2005b): (i) community permits, (ii) private property permits, (iii) individual permits or subsistence permits, and (iv) forest concessions. Other types of permits such as special permits and 100-hectare permits, have not been issued since 1997 because of the untoward uses they were generating (Gutiérrez, 2002a). Similarly, no new forest concessions have been granted since 2000 (Gutiérrez, 2002a), which has led to a gradual reduction in production from this type of permit (there are no current concessions). **Table No. 3** summarises official logging figures per type of permit for the 1998-2000 period.

Table No. 3 Official timber production per type of permit from 1998 to 2000 (m^3 of roundwood).

Year	Concessions	Permits in Private Property	Community Permits	Subsistence Permits	Total
1998	25,951	6,953	2,427	11,046	46,377
1999	49,480	20,047	7,004	31,877	108,408
2000	41,071	16,657	5,813	26,459	90,000
2001	5,512	4,552	7,278	27,687	45,029
2002	251	2,624	5,595	15,622	24,092
Total	122,265	50,833	28,117	112,691	313,906
Annual average	20,377.5	8,472.17	4,686.17	18,781.83	52,317.67
% Total	39	16	9	36	100

Source: Gutiérrez, 2002a; ANAM, 2004c.

Currently, according to Del Gatto (2005), between 75 and 80% of timber logged from the country's natural forests comes from El Darién. However, according to the consultancy firm Dames & Moore (1998), the level of compliance with forest management practices in this region only reaches 12%. **This confirms the conclusion that to date, most of the timber used by major forest industries in Panama comes from forest harvesting operations that are not being sustainably managed in accordance with international forest land-use planning criteria, thus seriously endangering the sustainability of the country's remaining forests, particularly in areas with the greatest forest resource potential.**

Regarding independent forest certification, according to public reports from certifying bodies as well as ITTO reports, up until March 2007 Panama did not have any natural tropical forests certified in accordance with international standards.

In this context, the (public and private) forest sector of Panama and international cooperation agencies agree that the management of forest lands in the territories of the Embera-Wounaan Comarca could potentially ensure the supply of raw materials from sustainably managed forests for the local forest industry.

Therefore, the scope of this proposal includes replicating the experiences of other ITTO-financed projects in the region under the same methodology and ITTO Criteria and Indicators. It would be of particular importance to have information on the experiences of the following projects: a) Trade promotion of certified timber and timber products in Guatemala, b) Conservation and reforestation of endangered mangrove forest areas of the Panamanian Pacific Region, c) progress made in the Sustainable Management and Trade Project implemented by WWF in the Tupiza River communities in the province of Darien, Panama.

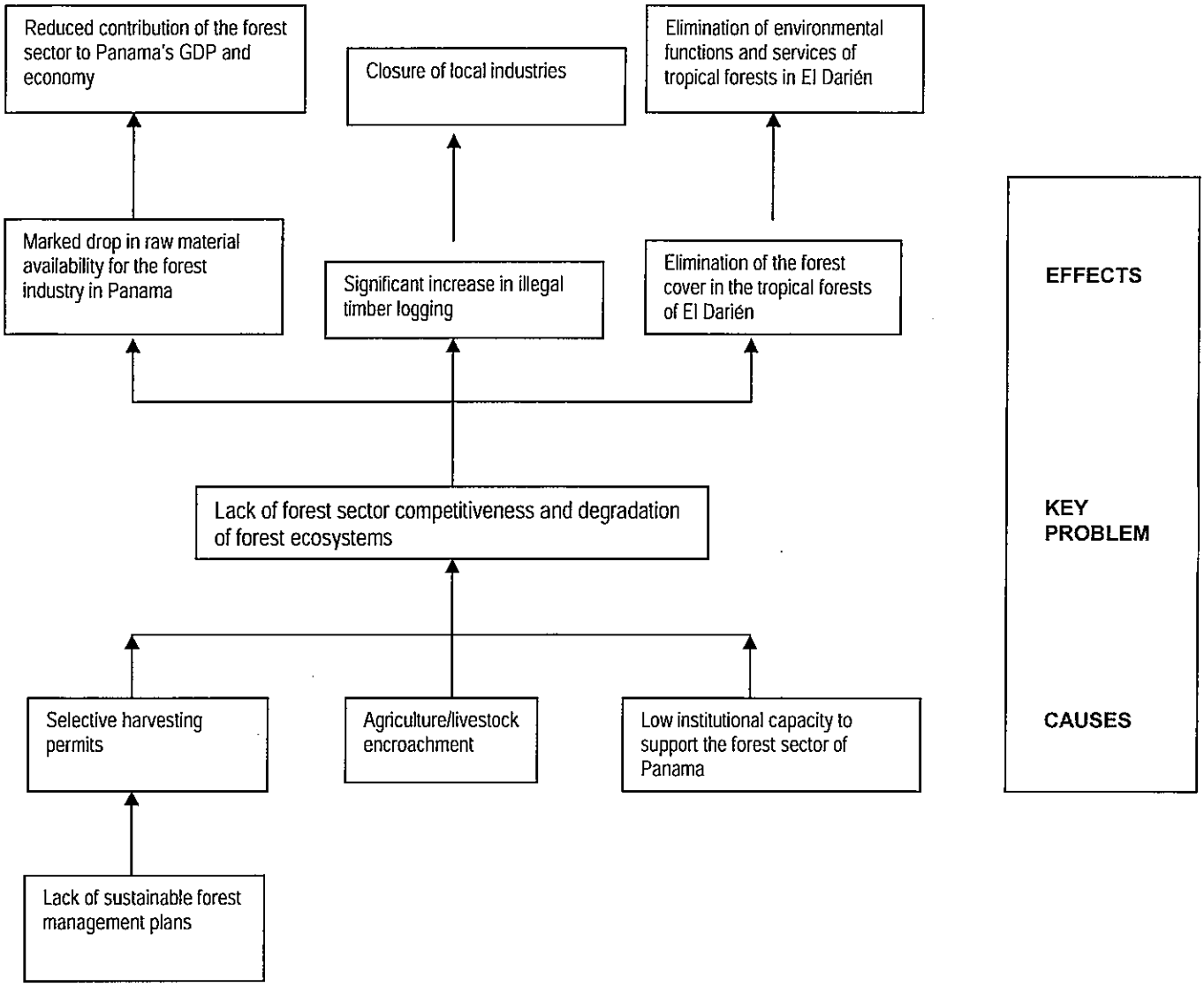


Figure 4 Problem Tree - MCFR Project in the Embera-Wounaan Comarca.

2.2 Intended situation after project completion

After two years of implementation, the project will have achieved the following:

1. **The lands under sustainable forest management** in the Emberá-Wounaan Comarca, and more specifically in the Cémaco district, will increase from 26,720 hectares to 72,000 hectares (an increase of 45,000 hectares). This increase will provide for the incorporation of at least 2,880 hectares in annual harvesting plans with an average production of 40,000 cubic metres of tropical timber.

2. Furthermore, two additional Community Forest Enterprises will be established: Empresa Forestal Comunitaria del Río Tuqueza (EFC-Tuqueza) and Empresa Comunitaria del Río Chucunaque (EFC-Chucunaque). Additionally, two craftswomen enterprises will be established, one per watershed area of the aforementioned rivers, which will be linked to the Tupiza River Craftswomen Enterprise, thus substantially increasing the production of crafts derived from well-managed forests.

3. At least 6,720 temporary jobs will be created in the two geographic areas, during the planning, harvesting and management phase, for the members of the communities, and the Emberá-Wounaan General Congress will strengthen its executive structures and its strategies for the extension of the forest management model to other communities in the Cémaco and Sambú districts and will have a Forest Strategy for the entire Comarca including the two districts of Cémaco and Sambú.

4. By the end of the two-year period, two new trade partnerships will have been consolidated between community forest enterprises and Panama's forest industries, thus increasing the production volume of tropical species and opening new industrialization and marketing opportunities in international markets, with the direct support of ITTO.

5. The output with the greatest impact will be the management of at least 45,000 hectares of tropical forests in indigenous territories, which will be improved and in the process of obtaining independent certification. Therefore, the certification of these forest lands will will be left to the landowners and their sustainable harvesting will respond to market requirements.

6. Finally and as a result of this increase in the sustainable forest management area, the conservation of biodiversity and other environmental features associated with forest ecosystems (fauna, flora, soil and water) will be ensured. This initiative will promote compliance with ANAM policies on the fight against illegal logging and forest fires.

2.3 Project Strategy

This ITTO-supported project will address the "planning and management of forest lands in indigenous territories" with a view to increasing the area under sustainable forest management, thus ensuring the ongoing flow of sufficient raw material from well-managed tropical forests to Panama's forest industries.

The strategy chosen for the implementation of the project is based on the "development of capacities (providing the means) and knowledge required by indigenous communities to sustainable manage their forest lands" with the direct participation of the National Forest Secretariat of the National Environmental Authority – ANAM, and applying the ITTO Criteria and Indicators.

The utilisation of forest resources will be performed by Private Initiative (Forest Contractors and Industries), which will set up sale contracts with the indigenous communities for improved timber logging, covering all necessary expenses for primary logging. These expenses have not been quantified in the budget tables.

In the advanced stage of the process, it is expected that local communities will be directly involved in primary sawmilling processes of some species for the production of sawnwood or squared logs. This scheme offers the following comparative advantages: a) improvement in financial efficiency of the operation with the transport of squared timber and leaving forest by-products that are not used by industries in the city of Panama, b) substantial boost to job creation by increasing the involvement of community members in the sawmilling process, c) reduction of risks related to timber scaling since conventional rules for this process would be applied, and d) reduction of the risk of sanctions imposed by the Ministry of Public Works and Transport (MOP) when transporting sawnwood.

Throughout its execution, the project will be based on the following strategic elements: a) strengthening of tenure and utilisation of forest lands under the Organic Law and Charter 22 of the Emberá-Wounaan General Congress, b) development of an induction process for sustainable forest management based on similar experiences in the country and the region, c) application of standard forest planning methodologies (forest inventories, management plans, environmental impact studies and annual operational plans design) that are widely used in Central America by WWF, d) strengthening of community institutions and enterprises, emphasising the involvement of the National Environmental Authority (ANAM) in the reduction and control of illegal logging.

2.4 Target beneficiaries

- **Emberá-Wounaan General Congress and local communities**

The direct beneficiaries of the project will be all the participating communities of the sub-watershed areas of the Tuqueza river (Nuevo Vigía, Marragantí, Villa Caleta and Bajo Chiquito) and the Chucunaque river (El Salto, Mongote and Peña Vijagual), within the administrative area of the Cémaco District, Emberá-Wounaan Comarca. It is estimated that these seven communities have a population of 1,310 including men and women.

Another direct project beneficiary will be the Embera-Wounaan General Congress, which will be able to develop its management policies for the forest lands of the Comarca. The Congress is the supreme decision-making and body of the Embera-Wounaan people; its main objectives are protecting the

Comarca's cultural and natural heritage and ensuring the fair administration and involvement of the 40 communities that make up its territory.

The expected direct benefits for these community groups will include: a) the direct income to be derived from the sale of timber (roundwood and/or sawnwood), b) the generation of employment during the planning and production phases, and c) the achievement of competitive prices for the sale of their (timber and non-timber) forest products.

- **ANAM**

The experience of the project will be very useful to ANAM in the processes of replicating this model in other territories or private lands in Panama, as a sustainable forest management policy and as a preparatory step in the achievement of voluntary certification for their forests.

- **The Panamanian forest industry**

The Panamanian primary and secondary processing forest industries will benefit from the steady flow and supply of raw materials derived from well-managed forests, thus justifying the investment in capital, equipment and machinery and consequently improving the competitive capacity of the sector and the access to new market lines at the national and international levels. Contractors working in forest harvesting operations and transport activities in the Darien region will also be potential beneficiaries of the project.

In addition, it should be pointed out that forest management is one of the major temporary employment sources during the summer season in Darién. Therefore, the implementation of two yearly harvesting plans for a period of 25 years would generate a significant number of jobs, during both the production and processing phases, with a positive social impact on the country as a whole.

- **Domestic and international markets**

Because of the shortage of raw material, both the domestic and international markets have undergone a reduction in trade flows. It is expected that the implementation of the project will provide a secure source of raw materials for joineries and cabinet-makers, as well as raw material for the building industry.

Furthermore, the secondary processing industry in Panama, represented by industries manufacturing doors, flooring, mouldings and fine furniture, has seen a sharp increase in the demand from international markets. In this respect, continuous and reliable supplies of raw material will also stimulate the demand from international markets.

2.5 Technical and scientific aspects

This project is consistent with ITTO's field of action related to Reforestation and Forest Management, and is particularly focused on the achievement of Goal 2 of the ITTO Yokohama Action Plan 2002-2006 regarding the promotion of the sustainable management of tropical forest resources and especially actions 2, 6, 8 and 10. Similarly, ITTO Guidelines for the Sustainable Management of Natural Tropical Forests (ITTO Technical Series No. 5) will be considered, particularly with regard to the principles set out in Part 3 (Forest Management), Item 3.1 (Forest Planning). Specifically the Project will focus on compliance with the following principles:

Principle 12: Implementation of the static and dynamic inventory - A general inventory will be carried out, focusing on quantities of timber of current and potential tree species of the forest for future timber production. In order to measure forest dynamics, the project will establish a representative series of permanent sample plots.

Principle 14: Setting of management objectives - Management objectives will be set so as to allow forest managers to respond flexibly to the present and future physical, biological and socio-economic variations of management units and community groups.

Principle 15: Size of planned units - The size of planned units will be a function of the felling cycle, the average harvested volume per hectare and the annual timber outturn target of community groups and the demand of the Panamanian forest industry.

Principle 16: Choice of silvicultural concept - The choice of silvicultural concept will be aimed at sustainable yield at minimum cost, so as to ensure sustainable timber harvesting.

Principle 17: Yield regulation, Annual Allowable Cut (AAC) - A conservative Annual Allowable Cut (AAC) will be set in the absense of reliable data on the regeneration and growth dynamics of tree species, especially with regard to diameter increment and response to the effect of logging on trees and soil.

The Annual Allowable Cut stipulates that the harvesting intensity in any given production unit should not be greater than the quantity of forest products that the forest can regenerate in the same area over an established period of time. The silvicultural potential is established on the basis of the distribution of the remaining natural regeneration of species below the minimum felling diameter and taking into consideration the natural growth and regeneration rate of the forest as well as the natural mortality rate.

Principle 21: Harvesting - Harvesting operations will be carried out in accordance with established silvicultural practices and with the implementation of directional felling practices, so as to prevent negative effects on the environment and biodiversity.

Principle 23: Roads - Design, planning, location and construction of roads, bridges, causeways and fords will be done so as to minimize environmental damage.

Principle 24: Extraction - Given that extraction operations require the use of heavy machinery and equipment, appropriate measures will be taken to avoid causing irreversible damage to the environment. As far as possible, the use of articulated tractors such as "Skidders" will be made compulsory for primary skidding and transport operations.

Furthermore, the project will duly take into account the revised ITTO Criteria and Indicators for the Sustainable Management of Tropical Forests, Including Reporting Format (ITTO Policy Development Series No. 15), with special emphasis on the implementation of the seven Criteria of the Organization.

A fundamental issue to be considered in the later management of tropical forests in Darién will be the identification of autogamous (self-pollinating) and allogamous (cross-pollinating) species, in order to avoid collecting only from "mother" or seed bearing trees. Some species such as Bálsamo (*Myroxilum balsamum*), Cativo (*Proaria copaifera*) and others, have shown high levels of allogamy and, therefore, there is a risk of causing genetic erosion when implementing a sharp logging intensity only on seed bearing (female) trees or eliminating significant numbers of pollen bearing (male) trees.

2.6 Economic aspects

The incorporation of these additional 45,000 hectares under sustainable forest management in the Cémaco district communities will provide the opportunity of having at least 2,880 hectares per year in the annual harvesting plans, estimating a 25-year logging cycle. Starting from an average production of 14 m^3 per hectare, which is similar to the production of the Tupiza communities, there would be an estimated annual volume of 40,000 cubic metres (25,000 m^3 from the new project and 15,000 m^3 from Tupiza).

Furthermore, the development of integrated sustainable forest management plans will also ensure the harvesting of non/timber products such as chunga and nahuala, used for the manufacturing of arts and crafts, with the direct participation of indigenous women.

Table No. 4 gives estimates of the potential income generated through the implementation of the project.

Table No. 4: Average annual gross income from the sale of timber and non-timber products and employment generation

Product	Quantity	Average unit cost in US$	Scenario 1 Sale of roundwood (100%) US $	Scenario 2: Sale of timber (lumber 75% and sawnwood 25%)
Roundwood 100%	40,000 m3	15	600,000	0
Roundwood 50%	30,500 m3	15	0	450,000
Lumber 50%	10,000 m3	30	0	300,000
Employment generation (4 months, 8 persons /7 communities)	6,720 workers	10	67,200	67,200
Production of crafts 50 crafts/12 months/7 communities	4,200 units	20	84,000	84,000
Other forest services			0	0
TOTAL			**751,200**	**901,200**

The implementation of the project will not only maintain the benefits derived by the direct project beneficiaries through the harvesting of forest resources, but will also improve the availability of these resources and hence income levels throughout the whole timber production chain in the medium and long terms.

An important aspect of this project is the possibility of ensuring a minimum implementation horizon of 25 years (according to the logging cycle) for a production activity that has a high impact on the economy of the indigenous communities, the forest industry and the country in general.

The following tools will be used for the implementation of the project, the development of accounting records and the general organisation of the project:

a. *Organisational and managerial system for responsible forest trade, Autonomous Region of the North Atlantic Coast of Nicaragua. Technical Series No. 7 WWF-CA, 2004.*
b. *Business accounting system. Certified Forest Management Units (SCONEF). Technical Series No. 2 WWF-CA, 2004.*
c. *Strategic Plan for Community Forest Administration in Layasiksa. Autonomous Region of the North Atlantic Coast of Nicaragua. Technical Series No. 8 WWF-CA, 2004.*

2.7 Environmental aspects

The project will have a positive impact on forest resources and on flora and fauna biodiversity in general. By proposing the establishment of a rotation logging cycle system and annual allowable cut areas, the project will guarantee the gradual regeneration of the forest cover logged over every year. The proposed management plans divide the forest into 25 logging sectors (annual logging areas) where improved logging methods will be used in accordance with the regulations of the Forestry and Environmental Law of ANAM.

The following mitigating measures will be considered to ensure the balance of the ecological and production functions of the forest:

- Environmental impact assessments according to ANAM regulations;
- Forest inventory and management plan developed in compliance with the environmental legislation of Panama;
- Yearly Plans of Operation designed following a methodology aimed at reduced-impact road layout and practices to ensure the conservation of water and soil resources;
- The GMP and EIA include a chapter describing potential impacts and corresponding mitigation measures;
- Establishment of permanent sample plots to monitor forest response to management practices.
- Equipment operators and timber cutters will be trained in low impact techniques and in the use of maps and diagrams of areas under utilisation.
- High Conservation Value Forests (HCVF) will be identified

It should be pointed out that the forest planning and harvesting system will take into consideration international recognised management standards so as to prepare these units for voluntary forest certification in the future.

2.8 Social aspects

The active participation of the community is a critical factor in the development and achievement of project objectives. To this end, the project's schedule of activities envisages the organisation of meetings and induction workshops with the communities interested in participating in decision making regarding important issues such as the demarcation of boundaries of management plots. In addition, the project also envisages the participation of these communities in forest inventory activities, annual commercial surveys and the formulation of annual logging plans. The direct participation of community members in these activities will ensure the generation of employment opportunities for these communities.

Number of beneficiary families

The project will directly benefit a total of 1,310 indigenous families. **Table No. 5** shows an itemised view of the community group, ethnicity and gender of the current population that will be directly involved in the implementation of the Project in the Cémaco District.

Table No. 5 Demographic description of communities participating in the project submitted to ITTO.

River	*Communities*	*Ethnic Group*	*Men*	*Women*	*Total*
	Marraganti	Embera	240	192	432
TUQUEZA	Villa Caleta	Embera	130	110	240
	Bajo Chiquito	Embera	110	87	197
	El Salto	Embera	143	128	271
CHUCUNAQUE	Mongote	Embera	37	33	70
	Peña Bijagual	Embera	55	45	100
	TOTAL No. of PEOPLE		**715**	**595**	**1310**

As indicated in the Table above, these are eminently indigenous communities of the Emberá ethnic group and they are settled along the Tuqueza and Chucunaque rivers.

Given the conditions of extreme poverty of these communities, agricultural activities represent the potential solution for ensuring their subsistence. This is the basic cause for the expansion of the agricultural frontier, which exerts ongoing pressure on natural resources.

Furthermore, a study carried out on the socio-economic development of regions in Panama (Herrera, L. 2003) found that one of the main problems facing the Embera Comarca is malnutrition which is estimated at a rate of 60.1%[4]. Furthermore, the study indicates that in the year 2000 there were three districts (all three with a predominantly indigenous population) that could be classified as having a very low standard of living: Cemaco and Sambu in the Embera-Wounaan Comarca and the Kuna Yala Comarca.

Another important characteristic is the age distribution of the population. The population in the Cemaco district is relatively young, as 81% of the total population is made up of persons of less than 45 years of age, with a predominance of males (54.6%) in the community; furthermore, 54.2% of this young population is made up of persons under 18 years of age.

[4] Herrera Ligia, 2003. Socio-economic Development Regions of Panama. Changes occurred over the past three decades 1979-2000. Page No. 82.

Production activities

The traditional patterns of economic activities are centred around agriculture, an activity where all family members participate, sometimes involving the whole community working together (e.g. in site preparation, planting and harvesting activities), complementing this with fishing and hunting activities. However, in the Cemaco area the indigenous communities have commercial crops such as bananas, rice and corn, all products that are very important to their diet. This activity is carried out without any type of machinery or agro-chemicals, using only machetes and the natural fertility of soils.

The production of craftworks, in addition to being an activity that highlights some of the cultural traditions of these ethnic groups, is also one of the economic alternatives that assists in the subsistence of these families. The main natural resources used for the production of crafts are Naguala, Guagara and Cocobolo. Although both ethnic groups (Embera and Wounaan) are, without any doubt, excellent craftsmen, the Wounaan people give a better finish to their products.

Both the sustainable harvesting of timber products and the sustainable production of crafts are valuable production alternatives for the communities and can at the same time ensure the conservation and management of resources in accordance with the forest management plan for the area.

2.9 Risks

The main risks involved in the project are determined by the social and political conditions prevailing in Darién, which are typical of this transboundary region. Furthermore, some changes or eventual adjustments in the organic structures of the General Congress and its associated communities to suit the innovative forest management model may cause some uncertainty. Some of the potential risks and the measures to be implemented to reduce or eliminate them are presented hereunder.

- **The threat of illegal logging:** Illegal forest logging is a common practice in Darién; unfortunately, it competes unfairly with responsible forest management practices because it evades taxes, does not comply with technical and legal specifications and in one sense or another, it is one of the major causes associated with deforestation in the region. According to Del Gatto (2005), tax evasion associated with unauthorised logging causes significant losses to the public treasury, particularly with respect to the payment of logging permits and income taxes. Some estimates from this author indicate that the annual value would range from US$0.7 to 1.3 million. Project implementation requires direct involvement of the Government of Panama to stop and reduce illegal, unsustainable forest logging, thus improving compliance with current legal provisions on forest production.

- **Uncertainty of community groups regarding the MCFR model:** Despite the implementation of an ongoing information and communication program on project scope during the first phase, most of the communities indicate some uncertainty regarding this innovative model of forest planning. Basically, the uncertainty derives from the fact that some community leaders who are used to the dynamics of logging on the basis of community individual or subsistence permits, in which forest operations are carried out under "limited control" by a few community members and industry contractors, are to move to a more orderly administration and management system.

- **Transboundary location with respect to Colombia:** The province of Darién, and more specifically, the transboundary forest areas shared with Colombia, are sporadically visited by insurgent groups that come into Panama when escaping the pressure of Colombian military forces. However, the latest incursion into this area occurred a few years ago and no recent incursions have been recorded in the area. In this respect, the Government of Panama has reinforced surveillance in these areas with a view to maintaining the integrity of its national borders.

In these circumstances, the project, from its inception, provides for the implementation of a strong communication and information campaign at all Congress and Comarca organisational levels, to provide information on the economic, social and environmental advantages of this new model of forest planning. Furthermore, the project provides for the implementation of an intensive training package on administrative and management aspects with a view to developing community business management skills.

3. Outputs

Following the recommendation of the 33rd Expert Panel, a 7th output has been added to the proposal regarding the application of C&I at the forest management unit level, both at the start and at the end of the project, in order to assess the progress towards sustainable forest management (SFM) in the project area. The required activities have been incorporated into the work plan.

3.1 Specific Objective 1

Increase the area and production volume of tropical timber species through the development of two sustainable forest management plans for the Emberá-Wounaan Comarca territories in the province of Darién.

Output 1.1 Definition and demarcation of two forest polygons: Two forest polygons will be demarcated for the implementation of two forest management plans in the Tuqueza and Chucunaque River communities, covering 30,000 and 15,000 hectares respectively.

Output 1.2 Training on forest management and community organisation: Workshops will be implemented to outline project actions and two community forest enterprises will be set up with equal involvement of participating communities and legal capacity obtained by the enterprises.

Output 1.3 Forest management and planning: Development of two inventories, two general management plans, two environmental impact assessments and two yearly plans of operation for each forest polygon in the Tuqueza and Chucunaque River communities.

Output 1.4 Forest harvesting in sustainably managed forests: Two forest harvesting operations implemented in well-managed forests, with production estimated at 25,000 cubic metres.

Output 1.5 Marketing of forest products: Marketing of 25,000 cubic metres of timber from the first two operational plans (Annual Coupes).

Output 1.6 Institutional Strengthening: The National Environmental Authority has a strategy to minimise the adverse effects of illegal logging.

Output 1.7 Evaluation of progress towards SFM: Based on ITTO's C&I reporting format, 3 project progress evaluations will be carried out – one at the beginning (baseline), one mid-term and one at the end of the project in the forest management units.

4. Activities

Output 1.1 Definition and demarcation of two forest polygons: Two forest polygons will be demarcated for the implementation of two forest management plans in the Tuqueza and Chucunaque River communities, covering 30,000 and 15,000 hectares respectively.

Activity 1.1.1 Organisation of two general information and consultation workshops for both community groups to define land boundaries of the community polygons.

Activity 1.1.2 Demarcation of two forest management units (FMU) to implement a structured plan of sustainable forest management, including physical demarcation and mapping.

Activity 1.1.3 Training of 40 people from both geographical groups in community organisation for production and management.

Output 1.2 Training on forest management and community organisation: Workshops will be implemented to outline project actions and two community forest enterprises will be set up with equal involvement of participating communities and legal capacity obtained by the enterprises.

Activity 1.2.1 Organisation of ten training workshops on community organisation and business development.

Activity 1.2.2 Organisation of two Community Forest Enterprises, one per geographical region, until they obtain legal capacity and develop their strategic plans.

Activity 1.2.3 Organisation of two Craftswomen Enterprises for the production of chunga, nagual and guágara crafts.

Activity 1.2.4 Organisation of 8 training workshops on administrative and management aspects relating to contract systems, labour administration, accounting, investment plans and decision making.

Output 1.3 Forest management and planning: Development of two inventories and two environmental impact assessments for each forest polygon in the Tuqueza and Chucunaque River communities.

Activity 1.3.1 Organisation of four training events on forest planning and Environmental Impact Assessments involving at least 20 community members and local technicians in each workshop.

Activity 1.3.2 Development of two general inventories and two management plans, one per geographical region, up to their technical and legal approval.

Activity 1.3.3 Development of two environmental impact assessments for each geographical region, according to the guidelines of ANAM's current legislation, up to their technical and legal approval.

Activity 1.3.4 Development of two trade surveys and yearly plans of operation according to ANAM's current legislation, including non-timber products.

Activity 1.3.5 Establishment of 4 permanent forest research plots in each project region and evaluation of plots according to ANAM methodology.

Output 1.4 Forest harvesting in sustainably managed forests: Two forest harvesting operations with production estimated at 25,000 cubic metres in accordance with ITTO Criteria and Indicators. [5].

Activity 1.4.1 Training of 20 people in reduced impact logging (RIL) practices through a workshop held at each site.

Activity 1.4.2 Implementation of two forest harvesting operations by groups of producers in two management units covering an area of 1800 hectares.

Activity 1.4.3 Training of 42 craftswomen in the production of craft products based on sustainable utilisation of chunga (*Astrocaryum standleranuma*), nahuala and guágara (6 per community).

Activity 1.4.4 Training of 20 community members in timber scaling and recording of logged and dispatched timber.

Output 1.5 Marketing of forest products: Marketing of 25,000 cubic metres of timber from the first two operational plans.

Activity 1.5.1 Identification of buyers and participating industries for the establishment of partnerships with community members.

Activity 1.5.2 Signing of timber purchase and sale contracts between community forest enterprises and two forest industries of Panama.

Activity 1.5.3 Development of two business plans for the Tuqueza and Chucunaque river community forest enterprises.

[5] The project will participate only in an advisory and trainig capacity. Forest harvesting operations will be implemented by Darién contractors and forest companies in cooperation with community enterprises.

Output 1.6 Institutional Strengthening: The National Environmental Authority has a strategy to minimise adverse effects of illegal logging.

Activity 1.6.1 Development of a strategy and plan for the prevention and institutional monitoring of illegal timber logging in Darién.

Activity 1.6.2 Establishment of a communication and information program to provide regular information on the progress made by the ITTO-supported Project.

Output 1.7 Evaluation of progress towards SFM: Based on ITTO's C&I reporting format, 3 project progress evaluations will be carried out – one at the beginning (baseline), one mid-term and one at the end of the project in the forest management units.

Activity 1.7.1 Initial project progress evaluation (baseline) based on reporting format at the FMU level.

Activity 1.7.2 Final project progress evaluation based on reporting format at the FMU level.

5. LOGICAL FRAMEWORK WORKSHEETS

COMPONENT	INDICATORS	MEANS OF VERIFICATION	ASSUMPTION
DEVELOPMENT OBJECTIVE Increase the national level of industrialisation and marketing of timber products from sustainably managed tropical forests so as to contribute to the social and economic development of the forest sector in Panama.	1- Export volume increases by 80% with respect to current values. 2- By the end of the second year of the project, its contribution to GDP is 3%. 3. Income levels in the communities improve by at least 20%.	Records and reports of secondary processed timber product export volumes. Government of Panama's economic reports in the timber product export portfolio. Community accounting records	The State maintains its policy of support for conservation and sustainable use of natural resources and implements the Forest Strategy.
SPECIFIC OBJECTIVE 1 Extend the area under sustainable forest management by adding 45,000 hectares of natural forest in the forest lands of the Emberá-Wounaan Comarca so as to ensure a regular supply of raw material for the local forest industry.	1- Production of 25,000 additional cubic metres of timber raw material derived from broadleaved forests.	Reports and records of timber shipments. ANAM waybills and mid-term and final reports	Tuqueza and Chucunaque river communities, with the approval of the EW General Congress, are willing to replicate the sustainable forest management model.
Output 1.1 Definition and demarcation of two forest polygons: Two forest blocks will be demarcated for the implementation of two forest management plans in the Tuqueza and Chucunaque River communities, covering 30,000 and 15,000 hectares respectively.	1- Land management system defines the different management categories: forest, agricultural and conservation.	1 - Satellite images with the location of the polygons and different land-use strata.	There are sufficient areas with remaining broadleaved forest to define community polygons
Activity 1.1.1 Organisation of two general information and consultation workshops for both community groups to define land boundaries of the community polygons.	7 executive boards and general assemblies informed and consulted on the demarcation of land boundaries.	List of community members, executive boards and technicians participating in consultation workshops.	The communities reach a consensus regarding the outlining of forest polygons.
Activity 1.1.2 Demarcation of two forest management units (FMU) to implement a structured plan of sustainable forest management, including field demarcation and mapping.	Two clearly defined and demarcated forest polygons of 25,000 and 15,000 hectares respectively.	Satellite images and maps define the different forest strata.	Selected forest areas show good production potential
Activity 1.1.3 Training of 40 people from both geographical groups in community organisation for production and management.	40 community members trained in production and management.	Reports of training workshops with the list of participants by age and gender.	Community participants can read and write
Output 1.2 Training on forest management and community organisation: Workshops will be implemented to outline project actions and two community forest enterprises will be set up with equal involvement of participating communities, and legal capacity will be obtained by the enterprises.	Two community organisations obtain legal capacity	Record of registration with the Ministry of Government and Justice of Panama and copy of legal capacity documents.	Communities and institutions provide legal support

COMPONENT	INDICATORS	MEANS OF VERIFICATION	ASSUMPTION
Activity 1.2.1 Organisation of ten training workshops on community organisation and business development.	250 people trained in sustainable forest management and organisation issues	Lists of workshop participants and reports on each workshop	No relevant assumption
Activity 1.2.2 Organisation of two Community Forest Enterprises, one per geographical region, until they obtain legal capacity and develop their strategic plans.	Two community forest enterprises obtain legal capacity.	Legal capacity of each organisation set up in each geographical area	The communities and General Congress signal their approval of a joint organisation.
Activity 1.2.3 Organisation of two Craftswomen Enterprises for the production of chunga, nagual and guágara crafts.	Two craftswomen organisations obtain legal capacity	Legal capacity of two craftswomen enterprises.	Women from both rivers express their willingness to organise and produce crafts products.
Activity 1.2.4 Organisation of 8 training workshops on administrative and management aspects relating to contract systems, labour administration, accounting, investment plans and decision making.	35 community members trained on administration and accounting issues.	List of trainees and proceedings of training workshops.	Communities maintain their interest in participating in the project.
Output 1.3 Forest management and planning: Development of two inventories and two environmental impact assessments for each forest polygon in the Tuqueza and Chucunaque River communities.	45,000 hectares of tropical forest under sustainable forest management.	ANAM grants technical and legal approval for forest planning documents	Sufficient forest areas to establish forest management plans.
Activity 1.3.1 Organisation of four training events on forest planning and Environmental Impact Assessments involving at least 20 community members and local technicians in each workshop.	80 community members trained on sustainable forest management and administration issues.	Lists of participants and reports for each workshop	Community members are interested in forest management issues and are motivated to participate.
Activity 1.3.2 Development of two general inventories and two management plans, one per geographical region, up to their technical and legal approval.	Two general inventories and two management plans developed for each geographical region	ANAM administrative resolutions approve two forest management plans.	ANAM provisions and regulations allow sustainable forest management in areas over 2,000 hectares
Activity 1.3.3 Development of two environmental impact assessments for each geographical region, according to the guidelines of ANAM's current legislation, up to their technical and legal approval.	Two environmental impact assessments, one per selected geographical region	ANAM administrative resolutions approve environmental impact assessments	ANAM administrative provisions approve EIA in areas over 2,000 hectares
Activity 1.3.4 Development of two trade surveys and yearly plans of operation according to ANAM's current legislation, including non-timber products.	Two yearly plans of operation developed	ANAM administrative resolutions authorise the first two operational plans.	No relevant assumptions
Activity 1.3.5 Establishment of 4 permanent forest research plots in each project region and evaluation of plots according to ANAM methodology.	4 permanent forest research plots have been established	Evaluation reports on permanent plots	No relevant assumptions
Output 1.4 Forest harvesting in sustainably managed forests: Two forest harvesting operations with production estimated at 25,000 cubic metres in accordance with ITTO Criteria and Indicators.	At least 25,000 cubic metres of timber from tropical forests have been harvested	Documents of authorisation for the harvesting and transport of forest products	Authorisations available for the harvesting of timber products.
Activity 1.4.1 Training of community members in reduced impact logging (RIL) practices through a workshop held at each site.	35 people (five from each community) trained in reduced impact logging	Lists of participants and training report	Planning documents are approved in time by ANAM
Activity 1.4.2 Implementation of two forest harvesting operations by groups of producers in two management units covering an area of 1800 hectares.	Two operational plans are implemented on 1,200 and 600 hectares respectively	Reports and records of timber logging and transport.	Technical and legal documents for logging and transport authorised in time
Activity 1.4.3 Training of craftswomen in the production of chunga (*Astrocaryum standleranuma*), nahuala and guágara crafts (6 per community).	42 female community members trained in sustainable use of chunga	Lists of female participants and training reports.	Craftswomen participate in training.
Activity 1.4.4 Community members trained in timber scaling and recording of logged and dispatched timber.	21 community members trained in timber scaling and timber records	Lists of community members trained and workshop reports	Community members are familiar with timber scaling techniques.
Output 1.5 Marketing of forest products: Marketing of 25,000 cubic metres of timber from the first two operational plans	25,000 cubic metres of timber marketed	Invoices and statements of sale of marketed timber.	Compliance with sale contract terms and conditions

COMPONENT	INDICATORS	MEANS OF VERIFICATION	ASSUMPTION
Activity 1.5.1 Identification of buyers and participating industries for the establishment of partnerships with community members.	Two partnerships established between Community Forest Enterprises and forest industries of Panama	Documents of partnerships between communities and forest industries of Panama.	Compliance with partnership terms.
Activity 1.5.2 Signing of timber purchase and sale contracts between community forest enterprises and two forest industries of Panama.	Two contracts for the sale of forest products established.	Contracts for the sale of forest products	Compliance with contract terms and conditions
Activity 1.5.3 Development of two business plans for community forest enterprises.	Two business plans for Community Forest Enterprises	Business plan document for timber forest products	No relevant assumptions
Output 1.6 Institutional Strengthening: The National Environmental Authority has a strategy to minimise adverse effects of illegal logging.	Current illegal logging levels in Darién are reduced by 20%	Records of legal timber trade show 80% increase	ANAM establishes appropriate institutional mechanisms to fight against illegal timber logging
Activity 1.6.1 Development of a strategy and plan for the prevention and institutional monitoring of illegal timber logging in Darién.	Strategy and plan for the prevention of and fight against illegal timber logging	Strategy document for the prevention and control of illegal logging in Panama	Public and private sectors are actively involved in the fight against illegal logging
Activity 1.6.2 Establishment of communication and information program.	Communication and information system implemented	Announcements and reports from various media	Selected media are suitable to inform their audience on project advantages
Output 1.7 Evaluation of progress towards SFM: Based on ITTO's C&I reporting format, 3 project progress evaluations will be carried out – one at the beginning (baseline), one mid-term and one at the end of the project in the forest management units.	A final comparative evaluation report showing the progress towards sustainable forest management in the lands of the Comarca.	Document with the comparative results of the project's initial and final evaluations.	The appropriate legal, institutional, environmental and social conditions exist for the management of forest lands.
Activity 1.7.1 Initial project progress evaluation (baseline) based on reporting format at the FMU level.	Baseline study based on ITTO C&I showing status at the beginning of the project.	Baseline document showing status at the beginning of the project.	Availability of the necessary information to apply the seven ITTO criteria and indicators.
Activity 1.7.2 Final project progress evaluation based on reporting format at the FMU level.	Final report on project progress evaluation.	Final report document on project status.	Changes to and impacts on the management of forest lands take place with the involvement of communities and the General Congress and with the support of ANAM.

6. WORK PLAN

OUTPUT/ACTIVITIES	RESPONSIBLE PARTY	SCHEDULE (in Months)																							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Output 1.1 Definition and demarcation of two forest polygons: Two forest blocks will be demarcated for the implementation of two forest management plans in the Tuqueza and Chucunaque River communities, covering 30,000 and 15,000 hectares respectively.	Expert in sustainable forest management and trade and WWF participating in the project																								
Activity 1.1.1 Organisation of two general information and consultation workshops for both community groups to define land boundaries of the community polygons.	Sociologist and project director																								
Activity 1.1.2 Demarcation of two forest management units (FMU) to implement a structured plan of sustainable forest management, including field demarcation and mapping.	Foresters																								
Activity 1.1.3 Training of 40 people from both geographical groups in community organisation for production and management.	Project personnel and communities																								
OUTPUT/ACTIVITIES	**RESPONSIBLE PARTY**	**SCHEDULE (in Months)**																							
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Output 1.2 Training on forest management and community organisation: Workshops will be implemented to outline project actions and two community forest enterprises will be set up with equal involvement of participating communities, and legal capacity will be obtained by the enterprises.	Forest Expert WWF																								
Activity 1.2.1 Organisation of ten training workshops on community organisation and business development.	Project Coordinator																								
Activity 1.2.2 Organisation of two Community Forest Enterprises, one per geographical region, until they obtain legal capacity and develop their strategic plans.	Sociologist and consultants																								
Activity 1.2.3 Organisation of two Craftswomen Enterprises for the production of chunga, nagual and guágara crafts.	Consultant																								

Activity 1.2.4 Organisation of 8 training workshops on administrative and management aspects relating to contract systems, labour administration, accounting, investment plans and decision making.	Sociologist and legal adviser																									
OUTPUT/ACTIVITIES	**RESPONSIBLE PARTY**	**SCHEDULE (in Months)**																								
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**
Output 1.3 Forest management and planning: Development of two inventories and two environmental impact assessments for each forest polygon in the Tuqueza and Chucunaque River communities.	Coordinator, Forest Eng. and Foresters																									
Activity 1.3.1 Organisation of four training events on forest planning and Environmental Impact Assessments involving at least 20 community members and local technicians in each workshop.	Foresters and project coordinator																									
Activity 1.3.2 Development of two general inventories and two management plans, one per geographical region, up to their technical and legal approval.	Foresters																									
Activity 1.3.3 Development of two environmental impact assessments for each geographical region, according to the guidelines of ANAM's current legislation, up to their technical and legal approval.	Local consultant																									
Activity 1.3.4 Development of two trade surveys and yearly plans of operation according to ANAM's current legislation, including non-timber products.	Foresters																									
Activity 1.3.5 Establishment of 4 permanent forest research plots in each project region and evaluation of plots according to ANAM methodology.	Foresters and project coordinator																									
OUTPUT/ACTIVITIES	**RESPONSIBLE PARTY**	**SCHEDULE (In Months)**																								
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**
Output 1.4 Forest harvesting in sustainably managed forests: Two forest harvesting operations with production estimated at 25,000 cubic metres in accordance with ITTO Criteria and Indicators.	Local forest industry and contractors																									
Activity 1.4.1 Training of community members in reduced impact logging (RIL) practices through a workshop held at each site.	Consultant and foresters																									

Activity 1.4.2 Implementation of two forest harvesting operations by groups of producers in two management units covering an area of 1800 hectares.	Communities and forest industries																								
Activity 1.4.3 Training of craftswomen in the production of chunga (*Astrocaryum standleranuma*), nahuala and guágara crafts (6 per community).	Sociologist																								
Activity 1.4.4 Community members trained in timber scaling and recording of logged and dispatched timber.	Forest engineer and foresters																								
OUTPUT/ACTIVITIES	**RESPONSIBLE PARTY**	**SCHEDULE (in Months)**																							
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**
Output 1.5 Marketing of forest products: Marketing of 25,000 cubic metres of timber from the first two operational plans	Expert in forest management and trade																								
Activity 1.5.1 Identification of buyers and participating industries for the establishment of partnerships with community members.	Expert in forest management and trade																								
Activity 1.5.2 Signing of timber purchase and sale contracts between community forest enterprises and two forest industries of Panama.	Expert in forest management and trade																								
Activity 1.5.3 Development of two business plans for community forest enterprises.	Consultant																								
OUTPUT/ACTIVITIES	**RESPONSIBLE PARTY**	**SCHEDULE (in Months)**																							
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**
Output 1.6 Institutional Strengthening: The National Environmental Authority has a strategy to minimise adverse effects of illegal logging.	Consultant and project coordinator																								
Activity 1.6.1 Development of a strategy and plan for the prevention and institutional monitoring of illegal timber logging in Darién.	Consultant																								
Activity 1.6.2 Establishment of communication and information program.	Communications expert																								

OUTPUT/ACTIVITIES	RESPONSIBLE PARTY	SCHEDULE (in Months)																						
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Output 1.7 Evaluation of progress towards SFM: Based on ITTO's C&I reporting format, 3 project progress evaluations will be carried out – one at the beginning (baseline), one mid-term and one at the end of the project in the forest management units.																									
Activity 1.7.1 Initial project progress evaluation (baseline) based on reporting format at the FMU level.	Project Coordinator and International Expert in Forest Management																								
Activity 1.7.2 Final project progress evaluation based on reporting format at the FMU level.	Project Coordinator and International Expert in Forest Management																								

7. BUDGET
7.1 Consolidated yearly and overall project budget

Code	Budget components	UNIT COST	UNIT	YEAR 1	YEAR 2	TOTAL
10	Project Personnel					
	11. National experts					
	Project coordinator 1/24 months (Forest Engineer)	1,600	month	19,200	19,200	38,400
	1 Forest engineer –Regional Director, ANAM Meteti 1/24 months	600	month	7,200	7,200	14,400
	1 Environmental engineer 1/12 months	500	month	3,000	3,000	6,000
	1 Accounting/Finance Officer 1/24 months	400	month	4,800	4,800	9,600
	1 Administrator – ANAM regional office 1/24 months	300	month	3,600	3,600	7,200
	1 Forester 24 months @ $700	700	month	8,400	8,400	16,800
	12. National consultants					0
	1 Sociologist 1/24 months	1000	month	12,000	12,000	24,000
	13. Other labour					0
	Service labourers 1/24	300	month	3,600	3,600	7,200
	1 motor-boalt skipper 1/24 months (ANAM supervision)	300	month	3,600	3,600	7,200
	Labourers for harvesting operations 20/4 months/2 years	300	month	24,000	24,000	48,000
	Secretary 1/24 months (assigned to the project)	600	month	7,200	7,200	14,400
	14. Fellowships and training					0
	15. International experts					0
	Expert in accounting and financial administration 24 months	1,500	month	18,000	18,000	36,000
	Expert in directional felling and low impact logging	4,000	Consultant	4,000		4,000
	Communications expert 24 months	1,000	month	12,000	12,000	24,000
	Expert in forest management and trade 24 months	2,000	month	24,000	24,000	48,000
	16. International consultants					0
	Development of business plan 4 weeks ($2,000/week)	2,000	week	8,000		8,000
	19 Component Total			162,600	150,600	313,200
20	Subcontracts					
	Incorporation of legal entities	3,000	subcontract	3,000		3,000
	Forest inventory labour and costs	18,000	subcontract	18,000		18,000
	Commercial surveys labour and costs	18,000	subcontract	18,000		18,000
	Installation of permanent sample plots	3,600	subcontract		3,600	3,600
	Development of environmental impact assessments	16,000	subcontract	16,000	0	16,000
	Illegal logging prevention strategy	16,000	subcontract		16,000	16,000
	29. Component Total			55,000	19,600	74,600
30	Duty Travel					
	31. DSA 24 months – Project activities	1500	month	18,000	18,000	36,000
	32. DSA 24 months – ANAM personnel	500	month	6,000	6,000	12,000
	33. International travel 24/ expert in RFMT (15=I & 9=E)	800	fare	9,600	9,600	19,200
	34. International travel – Expert in financial account. & admin., 6 fares	600	fare	1,800	1,800	3,600
	35. Local transport costs 24 months - local	1000	month	12,000	12,000	24,000
	36. Local transport costs, ANAM personnel 24 months	500	month	6,000	6,000	12,000
	37. Local transport costs – EW Congress 24 months	800	month	9,600	9,600	19,200
	39. Component Total			63,000	63,000	126,000

Code	Budget components	UNIT COST	UNIT	YEAR 1	YEAR 2	TOTAL
40	Capital Items					
	41. Local office space – ANAM 300 m2 $ 1000/office	500	month	6,000	6,000	12,000
	42. Local office space – EW Congress 100 m2 $500/month	500	month	6,000	6,000	12,000
	43. Local office – WWF Panama $600/month	600	month	7,200	7,200	14,400
	44. Canoe and motor 2	2,500	canoe	5,000		5,000
	45. Set of chainsaws for directional felling 2	2,500	chainsaw	5,000		5,000
	46. Service of ANAM vehicles 24 months	500	month	6,000	6,000	12,000
	47. Capital equipment (computers, printers and forestry equipment)	s/n	eq. unit	13,500	13,500	27,000
	49. Component Total			**48,700**	**38,700**	**87,400**
50	**Consumable Items**					
	51. Raw materials 24 months	800	month	9,600	9,600	19,200
	52. Spares 24 months – project activities	500	month	6,000	6,000	12,000
	53. Fuel /utilities 24 months – project activities	1,500	month	18,000	18,000	36,000
	54. Office supplies 24 months - project	1,500	month	18,000	18,000	36,000
	55. Spares 24 months – ANAM vehicles	500	month	6,000	6,000	12,000
	56. Fuel /utilities 24 months – ANAM activities	500	month	6,000	6,000	12,000
	57. Office supplies 24 months - ANAM	500	month	6,000	6,000	12,000
	59. Component Total			**69,600**	**69,600**	**139,200**
60	**Miscellaneous**					
	61. Sundry 24 months	1500	month	18,000	18,000	36,000
	62. Auditing 1 per year	5,000	audit	5,000	5,000	10,000
	63. Contingencies 24 months	1500	month	18,000	18,000	36,000
	64 Publications 24 months	1000	month	12,000	12,000	24,000
	69. Component Total			**53,000**	**53,000**	**106,000**
70	**Executing Agency Management Costs**					
	71 Project administration costs 24 months	2,000	month	24,000	24,000	48,000
	79. Component Total			**24,000**	**24,000**	**48,000**
	SUBTOTAL			**420,900**	**398,900**	**894,400**
80	**ITTO Administration, Monitoring and Evaluation**					
	81. ITTO Monitoring and review costs ($ 10,000 /year)					20,000
	82. ITTO Ex-post evaluation ($ 15,000 at the end of the project)					15,000
	83. Programme support costs - 8% of total ITTO costs					38,592
	89. Component Total					**73,592**
90	Refund of pre-project costs					
100	**GRAND TOTAL**					**967,992**

7.2 Overall project budget by activity

	BUDGET COMPONENTS (in US $)							
OUTPUTS/ACTIVITIES + NON-ACTIVITY BASED EXPENSES	10. Project Personnel	20. Sub-Contracts	30. Duty Travel	40. Capital Items	50. Consumable Items	60. Miscellaneous	Quarter	GRAND
							Year	TOTAL
Output 1.1 Definition and demarcation of two forest polygons								
Activity 1.1.1 Organisation of two general information and consultation workshops for both community groups to define land boundaries of the community polygons.	6500 (I) 1500 (A) 1500 (E) 2500 (C)		2000 (I) (A) 1500 (E) 1000 (C)	1000 (I) 2000 (A) 2000 (E) 800 (C)	2500 (I) 1000 (A) 1000 (E) 800 (C)	2500 (I) 1000 (A) 1000 (E) 1000 (C)	Q1	33,100
Activity 1.1.2 Demarcation of two forest management units (FMU) to implement a structured plan of sustainable forest management, including field demarcation and mapping.	8,000 (I) 2000 (A) 1000 (E) 3,000 (C)		3,000 (I) 1500 (A) 1000 (E) 1500 (C)	1500 (I) 2500 (A) 1500 (E) (C)	3,000 (I) 1500(A) 800(E) 1000(C)	2,000 (I) (A) 2000 (E) 1200 (C)	Q1	38,000
Activity 1.1.3 Training of 40 people from both geographical groups in community organisation for production and management.	6500 (I) 1500(A) 1000(E) 2000(C)		2500 (I) (A) 1200 (E) (C)	800 (I) 1500 (A) 1000 (E) 1000 (C)	2800 (I) 1500 (A) 1200 (E) (C)	2,000 (I) 1000 (A) (E) (C)	Q1, Q5	27,500
subtotal 1	**37,000 (I+A+E+C)**	**0**	**15200 (I+A+E+C)**	**15,600 (I+A+E+C)**	**17,100(I+A+E+C)**	**13,700 (I+A+E+C)**		**98,600**
Output 1.2 Training on forest management and community organisation								
Activity 1.2.1 Organisation of ten training workshops **on community organisation and business development** in each community.	8000 (I) 1000(A) 3000(E) 3000(C)		3,000 (I) (A) 1000 (E) 1600 (C)	800 (I) (A) 1200(E) 1200(C)	2500 (I) 2000 (A) 2000 (E) (C)	2400 (I) 1000 (A) 1500 (E) 800 (C)	Q1, Q2, Q3, Q4	36,000
Activity 1.2.2 Organisation of two Community Forest Enterprises, one per geographical region, until they obtain legal capacity and develop their strategic plans.	12000 (I) 1000 (A) 1500 (E) 2500 (C)	3000 (I)	3500 (I) 2000 (A) 1000 (E) 1000 (C)	1000 (I) (A) (E) 800(C)	3200 (I) 2000 (A) 1800 (E) 1000 (C)	2000 (I) 1000 (A) 1000 (E) (C)	Q4	40,300
Activity 1.2.3 Organisation of two Craftswomen Enterprises for the production of chunga, nagual and guágara crafts.	8,000 (I) 1000 (A) 1500 (E) 2000 (C)		2000 (I) (A) (E) 1000 (C)	1500 (I) (A) (E) 800 (C)	2800 (I) 1500 (A) 1800 (E) 1000 (C)	2000 (I) (A) 1000 (E) 1000 (C)	Q5	28,900
Activity 1.2.4 Organisation of 8 training workshops on administrative and management aspects relating to contract systems, labour administration, accounting, investment plans and decision making.	6000 (I) 1500 (A) 2500 (E) 3000 (C)		1500 (I) (A) 1500 (E) 800 (C)	1000 (I) (A) 2000(E) 1600(C)	3500 (I) 2000 (A) 2000 (E) (C)	3,000 (I) (A) (E) 700 (C)	Q2,Q4	32,600
subtotal 2	**57500 I+A+E+C)**	**3,000 (I)**	**18,900(I+A+E+C)**	**11900 (I+A+E+C)**	**29,100 (I+A+E+C)**	**17,400 (I+A+E+C)**		**137,800**

OUTPUTS/ACTIVITIES + NON-ACTIVITY BASED EXPENSES	BUDGET COMPONENTS (in US $)							
	10. Project Personnel	20. Sub-Contracts	30. Duty Travel	40. Capital Items	50. Consumable Items	60. Miscellaneous	Quarter	GRAND
							Year	TOTAL
Output 1.3 Forest management and planning								
Activity 1.3.1 Organisation of four training events on forest planning and Environmental Impact Assessments involving at least 20 community members and local technicians in each workshop.	10000 (I) 2000 (A) 1500 (E) 3000 (C)		3800 (I) 1000 (A) 1500 (E) 1200 (C)	1500 (I) (A) 2000(E) 800(C)	2700 (I) 2000 (A) 1600 (E) (C)	2000 (I) 1200 (A) 1200 (E) (C)	Q1 & Q2	**39,000**
Activity 1.3.2 Development of two general inventories and two management plans, one per geographical region, up to their technical and legal approval.	15000 (I) 2000 (A) 4000 (E) 3500 (C)	18000 (I)	4500 (I) 1500 (A) 1500 (E) 1600 (C)	1000 (I) 1500(A) 2500 (E) 1000 (C)	3500 (I) 3000 (A) 2000 (E) 1200 (C)	2000 (I) 1000 (A) 2000 (E) 1100 (C)	Q3	**73,400**
Activity 1.3.3 Development of two environmental impact assessments for each geographical region, according to the guidelines of ANAM's current legislation, up to their technical and legal approval.	45000 (I) 2200 (A) 1500 (E) 1000 (C)	16000 (I)	3000 (I) 1500 (A) (E) (C)	800 (I) (A) 1000 (E) (C)	2800 (I) 2000 (A) 1200 (E) (C)	2400 (I) (A) 1500 (E) (C)	Q3	**41,400**
Activity 1.3.4 Development of two trade surveys and yearly plans of operation according to ANAM's current legislation, including non-timber products.	12000 (I) 2000 (A) 2500 (E) 3400 (C)	18000 (I)	2500 (I) 1500 (A) 1500 (E) 1600 (C)	800 (I) 1500 (A) 2000 (E) 1000 (C)	3500 (I) 2500 (A) 2000 (E) 1000 (C)	2000 (I) 1200 (A) 2000 (E) 1200 (C)	Q3	**65,700**
Activity 1.3.5 Establishment of 4 permanent forest research plots in each project region and evaluation of plots according to ANAM methodology.	8000 (I) 2500 (A) 2000 (E) 3000 (C)	3600 (I)	3500 (I) 3000 (A) (E) (C)	1000 (I) (A) (E) (C)	3000 (I) 3000(A) (E) (C)	2200 (I) (A) (E) (C)	Q5 & Q6	**34,800**
subtotal 3	**85600 (I+A+E+C)**	**55600 (I)**	**34700 (I+A+E+C)**	**18400 (I+A+E+C)**	**37,000 (I+A+E+C)**	**23,000 (I+A+E+C)**		**254,300**
Output 1.4 Forest harvesting in sustainably managed forests								
Activity 1.4.1 Training of community members in reduced impact logging (RIL) practices through a workshop held at each site.	4700 (I) 1500 (A) 2500 (E) 3000 (C)		3600 (I) 2000 (A) 1300 (E) 1200 (C)	1500 (I) 2000(A) 2000(E) 800(C)	3000 (I) 1500 (A) 1200 (E) 1000 (C)	2200 (I) 1300 (A) 1000 (E) (C)	Q3	37,300
Activity 1.4.2 Implementation of two forest harvesting operations by groups of producers in two management units covering an area of 1800 hectares.	8000 (I) 1500 (A) 3000 (E) 6000 (C)		4,000 (I) 1000 (A) 1000 (E) 3500 (C)	600 (I) (A) 1000 (E) 1400 (C)	3200 (I) 3500 (A) (E) 3000 (C)	2000 (I) 1000 (A) 800 (E) 1000 (C)	Q4	45,500
Activity 1.4.3 Training of craftswomen in the production of chunga (Astrocaryum standleranuma), nahuala and guágara crafts (6 per community).	6000 (I) (A) 2000 (E) 2000 (C)		1500 (I) (A) 1200 (E) (C)	500 (I) 1800(A) 1600(E) 800(C)	2500 (I) (A) 1600 (E) 2000 (C)	2000 (I) 1500 (A) 1500 (E) 1000 (C)	Q3 & Q5	29,500
Activity 1.4.4 Community members trained in timber scaling and recording of logged and dispatched timber.	8500 (I) 2000 (A) 1800 (E) 2000 (C)		3200 (I) 1000 (A) 1000 (E) 1200 (C)	800 (I) 2000(A) 1600(E) (C)	3500 (I) 1500 (A) 1200 (E) (C)	1600 (I) 1000 (A) 1200 (E) (C)	Q3	35,1000
subtotal 4	**54500(I+A+E+C)**		**26700(I+A+E+C)**	**18400 (I+A+E+C)**	**28700 (I+A+E+C)**	**19,100 (I+A+E+C)**		**147,400**

OUTPUTS/ACTIVITIES + NON-ACTIVITY BASED EXPENSES	BUDGET COMPONENTS (in US $)							
	10. Project Personnel	20. Sub-Contracts	30. Duty Travel	40. Capital Items	50. Consumable Items	60. Miscellaneous	Quarter	GRAND
							Year	TOTAL
Output 1.5 Marketing of forest products								
Activity 1.5.1 Identification of buyers and participating industries for the establishment of partnerships with community members.	4500 (I) 1000 (A) 1500 (E) 2500 (C)		2000 (I) 1500 (A) 1000 (E) 1000 (C)	1000 (I) (A) 1000(E) (C)	2500 (I) (A) 1500 (E) (C)	2000 (I) 1500 (A) 1500 (E) (C)	Q4	26,000
Activity 1.5.2 Signing of timber purchase and sale contracts between community forest enterprises and two forest industries of Panama.	6000 (I) 1600 (A) 2000 (E) 2000 (C)		3600 (I) 1000 (A) 1000 (E) 1000 (C)	600 (I) 1500 (A) 1000 (E) (C)	2500 (I) 1500 (A) 1000 (E) (C)	1500 (I) 2000 (A) 1500 (E) 1000 (C)	Q3 & Q5	32,300
Activity 1.5.3 Development of two business plans for community forest enterprises.	8000 (I) 1000 (A) 1500 (E) 1600 (C)		2000 (I) (A) (E) (C)	500 (I) 1500(A) 2000(E) (C)	3000 (I) (A) (E) (C)	1800 (I) 1800 (A) 1000 (E) (C)	Q4	25,700
Subtotal 5	**33200 (I+A+E+C)**		**14100 (I+A+E+C)**	**9100 (I+A+E+C)**	**12000 (I+A+E+C)**	**15,600 (I+A+E+C)**		**84,000**
Output 1.6 Institutional Strengthening								
Activity 1.6.1 Development of a strategy and plan for the prevention and institutional monitoring of illegal timber logging in Darién.	7000 (I) 3000 (A) 2200 (E) 2000 (C)	16000 (I)	4,000 (I) 4,000 (A) 1000 (E) (C)	1600 (I) 4000(A) 2000(E) (C)	4,000 (I) 4000 (A) 1300 (E) (C)	2500 (I) 2000 (A) 1500 (E) (C)	Q3 & Q4	62,100
Activity 1.6.2 Establishment of communication and information program.	10000 (I) 1500 (A) 6000 (E) 1200 (C)		1900 (I) 1000 (A) (E) (C)	200 (I) (A) 500(E) (C)	2500 (I) (A) (E) (C)	1400 (I) 2000 (A) 1300 (E) (C)	Q1 to Q8	28500
Subtotal 6	**32900 (I+A+E+C)**	**16,000 (I)**	**11900 (I+A+E+C)**	**8300 (I+A+E+C)**	**11800 (I+A+E+C)**	**10700 (I+A+E+C)**		**91,600**
Output 1.7 Evaluation of progress towards SFM. Based on ITTO's C&I reporting format, 3 project progress evaluations will be carried out – one at the beginning (baseline), one mid-term and one at the end of the project in the forest management units.								
Activity 1.7.1 Initial project progress evaluation (baseline) based on reporting format at the FMU level.	4000 (I) 1000 (A) 1000 (E) 500 (C)	(I)	1500 (I) 1000 (A) (E) (C)	1000 (I) 1100(A) 1000(E) (C)	2000 (I) (A) (E) (C)	1500 (I) 1250 (A) 1000 (E) (C)	Q1	27,850
Activity 1.7.2 Final project progress evaluation based on reporting format at the FMU level.	4000 (I) 500 (A) 1000 (E) 500 (C)	(I)	1500 (I) 500 (A) (E) (C)	1000 (I) 1100(A) 500(E) (C)	1500 (I) (A) (E) (C)	1000 (I) 1250 (A) 500 (E) (C)	Q2	24,850
Subtotal 7	**12500 (I+A+E+C)**	**(I)**	**4500 (I+A+E+C)**	**5700 (I+A+E+C)**	**3500 (I+A+E+C)**	**6500 (I+A+E+C)**		**32,700**
TOTAL – ACTIVITY-BASED EXPENSES	**313,200**	**74,600**	**126,000**	**87,400**	**139,200**	**106,000**		**846,400**

	BUDGET COMPONENTS (in US $)							
OUTPUTS/ACTIVITIES + NON-ACTIVITY BASED EXPENSES	10. Project Personnel	20. Sub-Contracts	30. Duty Travel	40. Capital Items	50. Consumable Items	60. Miscellaneous	Quarter	GRAND
							Year	TOTAL
NON-ACTIVITY BASED EXPENSES								
1. Project administration costs								48,000
2. ITTO monitoring and evaluation ($ 10,000 /year)								20,000
3. ITTO ex-post evaluation ($ 15,000 /pr. end)								15,000
4. Programme support costs - 8% of ITTO total								38,592
Component Total	0	0	0	0	0	0		121,592
ITTO Subtotal								
ANAM Subtotal								
WWF and EWGC Subtotal								
GRAND TOTAL								**US$ 967,992.00**

(I) ITTO
(A) ANAM
(E) WWF
(C) COMMUNITIES

7.3 Detailed budget by component and financing source (ITTO, WWF, Communities and ANAM)

Code	Budget components	UNIT COST	UNIT	ITTO	WWF	COM	ANAM	TOTAL
10	Project Personnel							
	11. National experts							
	Project coordinator 1/24 months (Forest Engineer)	2,000	month	38,400				38,400
	1 Forest engineer –Regional Director, ANAM Meteti 1/24 months	600	month				14,400	14,400
	1 Environmental engineer 1/12 months	500	month				6,000	6,000
	1 Accounting/Finance Officer 1/24 months	900	month	9,600				9,600
	1 Administrator – ANAM regional office 1/24 months	300	month				7,200	7,200
	1 Forester 24 months @ $700	700	month	16,800				16,800
	12. National consultants							0
	1 Sociologist 1/24 months	1000	month	24,000				24,000
	13. Other labour							0
	Service labourers 1/24	300	month			7,200		7,200
	1 motor-boalt skipper 1/24 months (ANAM supervision)	300	month				7,200	7,200
	Labourers for harvesting operations 20/4 months/2 years	300	month				48,000	48,000
	Secretary 1/24 months (assigned to the project)	600	month	14,400				14,400
	14. Fellowships and training							0
	15. International experts							0
	Expert in accounting and financial administration 24 months	1,500	month	24,000	12,000			36,000
	Expert in directional felling and low impact logging	4,000	Consultant	4,000				4,000
	Communications expert 24 months	1,000	month	12,000	12,000			24,000
	Expert in forest management and trade 24 months	2,000	month	24,000	24,000			48,000
	16. International consultants							
	Development of business plan 4 weeks ($2,000/week)	2,000	week	8,000				8,000
	19 Component Total			175,200	48,000	55,200	34,800	313,200
20	Subcontracts							
	Incorporation of legal entities	3,000	subcontract	3,000	0	0	0	3,000
	Forest inventory labour and costs	18,000	subcontract	18,000	0	0	0	18,000
	Commercial surveys labour and costs	18,000	subcontract	18,000	0	0	0	18,000
	Installation of permanent sample plots	3,600	subcontract	3,600	0	0	0	3,600
	Development of environmental impact assessments	16,000	subcontract	16,000	0	0	0	16,000
	Illegal logging prevention strategy	16,000	subcontract	16,000	0	0	0	16,000
	29. Component Total			74,600	0	0	0	74,600
30	Duty Travel							
	31. DSA 24 months – Project activities	1500	month	24,000	12,000			36,000
	32. DSA 24 months – ANAM personnel	500	month				12,000	12,000
	33. International travel 24/ expert in RFMT (15=I & 9=E)	800	fare	12,000	7,200			19,200
	34. International travel – Expert in financial account. & admin., 6 fares	600	fare	3,600				3,600
	35. Local transport costs 24 months - local	1000	month	24,000				24,000
	36. Local transport costs, ANAM personnel 24 months	500	month				12,000	12,000
	37. Local transport costs – EW Congress 24 months	800	month			19,200		19,200
	39. Component Total			63,600	19,200	19,200	24,000	126,000

Code	Budget components	UNIT COST	UNIT	ITTO	WWF	COM	ANAM	TOTAL
40	Capital Items							
	41. Local office space – ANAM 300 m2 $ 1000/office	500	month				12,000	12,000
	42. Local office space – EW Congress 100 m2 $500/month	500	month			12,000		12,000
	43. Local office – WWF Panama $600/month	600	month		14,400			14,400
	44. Canoe and motor 2	2,500	canoe	5,000				5,000
	45. Set of chainsaws for directional felling 2	2,500	chainsaw	5,000				5,000
	46. Service of ANAM vehicles 24 months	500	month				12,000	12,000
	47. Capital equipment (computers, printers and forestry equipment)	s/n	eq. unit	12,000	15,000			27,000
	49. Component Total			**22,000**	**29,400**	**12,000**	**24,000**	**87,400**
50	Consumable Items							
	51. Raw materials 24 months	800	month	12,000	7,200			19,200
	52. Spares 24 months – project activities	500	month	12,000				12,000
	53. Fuel /utilities 24 months – project activities	1,500	month	24,000	6,000	6,000		36,000
	54. Office supplies 24 months - project	1,500	month	18,000	12,000	6,000		36,000
	55. Spares 24 months – ANAM vehicles	500	month				12,000	12,000
	56. Fuel /utilities 24 months – ANAM activities	500	month				12,000	12,000
	57. Office supplies 24 months - ANAM	500	month				12,000	12,000
	59. Component Total			**66,000**	**25,200**	**12,000**	**36,000**	**139,200**
60	Miscellaneous							
	61. Sundry 24 months	1500	month	12,000	6,000	6,000	12,000	36,000
	62. Auditing 1 per year	5,000	audit	10,000				10,000
	63. Contingencies 24 months	1500	month	12,000	8,000	4,000	12,000	36,000
	64 Publications 24 months	1000	month	12,000	12,000			24,000
	69. Component Total			**46,000**	**26,000**	**10,000**	**24,000**	**106,000**
70	Executing Agency Management Costs							
	71 Project administration costs 24 months	2,000	month	0	48,000	0	0	48,000
	79. Component Total				**48,000**	**0**		**48,000**
	SUBTOTAL			**447,400**	**195,800**	**108,400**	**142,800**	**894,400**
80	ITTO Administration, Monitoring and Evaluation							
	81. ITTO Monitoring and review costs ($ 10,000 /year)							20,000
	82. ITTO Ex-post evaluation ($ 15,000 at the end of the project)							15,000
	83. Programme support costs - 8% of total ITTO costs							38,592
	89. Component Total							73,592
90	Refund of pre-project costs							
100	GRAND TOTAL							967,992

7.4 Yearly project budget by source – ITTO

CODE	Budget Components	YEAR 1	YEAR 2	TOTAL
10	**Project Personnel**	93,600.00	81,600.00	**175,200.00**
20	**Subcontracts**	55,000.00	19,600.00	**74,600.00**
30	**Duty Travel**	31,800.00	31,800.00	**63,600.00**
40	**Capital Items**	22,000.00	0.00	**22,000.00**
50	**Consumable Items**	33,000.00	33,000.00	**66,000.00**
60	**Miscellaneous**	23,000.00	23,000.00	**46,000.00**
70	**Project administration costs**			
	SUBTOTAL 1	**258,400.00**	**189,000.00**	**447,400.00**
80	**ITTO Administration, monitoring & evaluation**			
	81. ITTO monitoring & review costs ($ 10,000 /year)			20,000
	82. ITTO Ex-post evaluation costs			15,000
	83. Program support costs (8% of total ITTO costs)			38,592
	89. Component Total			**73,592**
90	Refund of pre-project costs			
	ITTO TOTAL			**520,992.00**

7.5 Yearly project budget by source – WWF

CODE	Budget Components	YEAR 1	YEAR 2	TOTAL
10	**Project Personnel**	24,000.00	24,000.00	**48,000.00**
20	**Subcontracts**			**0.00**
30	**Duty Travel**	9,600.00	9,600.00	**19,200.00**
40	**Capital Items**	14,700.00	14,700.00	**29,400.00**
50	**Consumable Items**	12,600.00	12,600.00	**25,200.00**
60	**Miscellaneous**	13,000.00	13,000.00	**26,000.00**
70	**Executing agency management costs**	24,000.00	24,000.00	**48,000.00**
	SUBTOTAL	**97,900.00**	**97,900.00**	**195,800.00**

7.6 Yearly project budget by source – Communities

CODE	Budget Components	YEAR 1	YEAR 2	TOTAL
10	**Project Personnel**	27,600.00	27,600.00	**55,200.00**
20	**Subcontracts**			**0.00**
30	**Duty Travel**	9,600.00	9,600.00	**19,200.00**
40	**Capital Items**	6,000.00	6,000.00	**12,000.00**
50	**Consumable Items**	6,000.00	6,000.00	**12,000.00**
60	**Miscellaneous**	5,000.00	5,000.00	**10,000.00**
70	**Executing agency management costs**	0.00	0.00	**0.00**
	SUBTOTAL	**54,200.00**	**54,200.00**	**108,400.00**

7.7 Yearly project budget by source – ANAM

CODE	Budget Components	YEAR 1	YEAR 2	TOTAL
10	**Project Personnel**	17,400.00	17,400.00	**34,800.00**
20	**Subcontracts**			**0.00**
30	**Duty Travel**	12,000.00	12,000.00	**24,000.00**
40	**Capital Items**	12,000.00	12,000.00	**24,000.00**
50	**Consumable Items**	18,000.00	18,000.00	**36,000.00**
60	**Miscellaneous**	12,000.00	12,000.00	**24,000.00**
70	**Executing agency management costs**			**0.00**
	SUBTOTAL	**71,400.00**	**71,400.00**	**142,800.00**

7.8 Project budget by year and by source

Budget Components	YEAR 1				YEAR 2				TOTAL (US$)
	ITTO	ANAM	WWF	COM	ITTO	ANAM	WWF	COM	
10. Project personnel	93,600	17,400	24,000	27,600	81,600	17,400	24,000	27,600	313,200
20. Subcontracts	55,000	0	0	0	19,600	0	0	0	74,600
30. Duty travel	31,800	12,000	9,600	9,600	31,800	12,000	9,600	9,600	126,000
40. Capital items	22,000	12,000	14,700	6,000		12,000	14,700	6,000	87,400
50. Consumable items	33,000	18,000	12,600	6,000	33,000	18,000	12,600	6,000	139,200
60. Miscellaneous	23,000	12,000	13,000	5,000	23,000	12,000	13,000	5,000	106,000
70. Executing agency management costs			24,000				24,000		48,000
Subtotal 1	**258,400**	**71,400**	**97,900**	**54,200**	**189,000**	**71,400**	**97,900**	**54,200**	**894,400**
80. ITTO administration, monitoring & evaluation									
81. ITTO monitoring & review ($ 10,000 /year)									20,000.00
82. ITTO ex-post evaluation									15,000.00
83. Program support costs (8% of total ITTO costs)									38,592.00
89. Component Total									73,592.00
90. Refund of pre-project costs									0
GRAND TOTAL									967,992.00

PART III: OPERATIONAL ARRANGEMENTS

1. Management structure

The Project is submitted to the International Tropical Timber Organization (ITTO) by the National Environmental Authority – ANAM and its implementation will be under the responsibility of the local office of the World Wide Fund for Nature (WWF) – Central America, Panama, in close coordination with the authorities of the Emberá-Wounaan General Congress and the National Environmental Authority – ANAM.

A description of the role and responsibilities of each participating institution in the implementation of the project is given below:

A. ANAM: The implementation of this project will strengthen the vision of the National Environmental Strategy, which stipulates the achievement of forest resource management by the year 2020 as a strategic objective for the sustainable development of the communities living in forest reserves in the rural areas of the country. Furthermore, this Strategy establishes framework decisions to ensure the fair valuation of environmental goods and services provided by tropical forests and the integrated and efficient harvesting of tropical forest resources with the participation of society as a whole. Thus, in compliance with the provisions of *Act No. 1 of 3 February 1994* and *Article 1 of Act No. 41 of 1 July 1998*, as well as the provisions and commitments set out in the *National Environmental Strategy*, ANAM will have the following roles and responsibilities:

- Ensure the legal and technical approval of management plan documents, environmental impact assessments and yearly plans of operation.
- Instruct technicians and professionals to carry out regular evaluations and inspections in selected sites (Forest Management Units – FMU) under the project.
- Authorise the transport of timber forest products from areas under management.
- Make its installed capacity (infrastructure, logistic support and professional team) available to the project at its regional office in Meteti (province of Darien).
- Provide institutional support to project actions for forest land use planning and sustainable timber product production.
- Provide financial support to project actions as stipulated in this project document.
- Adjust the rules and regulations of the current forest legislation so as to ensure the viability of sustainable forest management in Panama.

A project-liaison office is expected to be established at the beginning of the project at ANAM's facilities in Meteti (province of Darien).

B. Emberá-Wounaan General Congress: In accordance with Act. No. 22 of 8 November 1983 and its Constitutional Charter, the EW General Congress, as the body responsible for the management of forest lands in the Comarca territories, will have the following roles and responsibilities:

- Ensure the authorisation of forest polygons within the area of the Comarca for the implementation of two management plans (45,000 hectares).
- Provide institutional support for the development of community forest enterprises.
- Provide support in the administrative and institutional procedures to be followed with Panamanian authorities for the approval of management plans, environmental impact assessments and yearly plans of operation.
- Develop a forest strategy for the Comarca so as to standardise a sustainable forest management model throughout the Territory.
- Participate in production and marketing processes so as to ensure competitive market transactions.
- Regularly disseminate the economic, social and environmental benefits of sustainable forest management among the 40 communities of the Comarca.
- Provide for the contribution of participating communities to support project implementation.

C. WWF-Central America: The regional office of WWF, and specifically its Panama office, will be responsible for the implementation of the project. Both forest planning activities and the organisation of community groups for production and marketing will be carried out on the basis of the experience gained by WWF and the Emberá-Wounaan Congress in the development of the fist forest management plan for the Tupiza River communities. WWF's roles and responsibilities will be as follows:

- Contribute to the project with its leadership skills and the experience gained with indigenous community groups in Central America (Mayas, Miskitu and Kekchies), particularly its experiences with Emberá and Wounaan communities in Darien.
- Provide financial support to the project as stipulated in the budget tables for counterpart contributions.
- Arrange with ANAM and other public institutions the approval of technical and legal documents as required for the development of sustainable forest management in two community areas of the territory of the Comarca.
- Ensure the technical execution of project actions regarding forest land use planning, sustainable production and marketing of forest products.
- Submit regular reports on project progress as stipulated by ITTO.
- Hire suitable personnel to implement project actions as scheduled.

In brief, the interrelationship and synergies between these institutions for the implementation of this ITTO project will be as follows: a) WWF and the E-W General Congress will carry out community workshops to define the boundaries of forest polygons; b) WWF will carry out induction workshops on sustainable forest management and will organise local exchange tours and launch the development of Community Forest Enterprises (CFE); c) WWF and the local communities will carry out a reconnaissance of polygon boundaries and will submit a draft to ANAM for technical approval; d) WWF and the local communities will implement forest inventories, management plans and environmental impact assessments; e) ANAM will approve the technical documents after relevant inspections and field consultations; f) WWF, the EW Congress and the local communities will simultaneously follow the procedures for the legalisation of CFEs; g) after the technical and legal approval of management plans, a well-structured marketing process will take place, identifying potential buyers; h) WWF, the General Congress, the CFEs and ANAM will participate in the buyer selection process; i) ANAM will approve the first yearly plans of operation; and j) all participating organisations will initiate sustainable forest harvesting activities.

In order to ensure the participation of the main institutions involved in the implementation of this project, the signing of a cooperation agreement is proposed between WWF, the Embera-Wounaan General Congress and ANAM so as to define and ensure the commitment of these three organisations and their participation (roles and responsibilities).

2. Operational structure

The involvement of the following professional staff is proposed in order to achieve the project's expected outputs:

1. NATIONAL COORDINATOR. Project coordination will be under the responsibility of a national coordination unit directed by a full-time Project Coordinator. He/she should be a professional specialised in forest management or related fields and should be recruited in accordance with WWF's labour standards and with the approval of the Steering Committee. The National Co ordinator will be reponsible for the planning, implementation and monitoring of proposed actions and expected outputs, as well as the selection and recruitment of the executing team and consultants, forest and social technicians, and partnerships with local organisations. He/she will report to WWF's Forest Director and the Steering Committee on project progress and results. In addition, the National Coordinator will be responsible for the budget administration in coordination with the administrative officer and for the preparation of technical reports and submission of technical and financial reports to the financing institution (ITTO) as well as the Steering Committee members.

2. ADMINISTRATIVE OFFICER. A full-time professional specialised in administration. He/she will be responsible for the management, control and distribution of the project's financial and material resources. The Administrative Officer will work under the supervision of the National Coordinator and will report to the Regional Finance Director of WWF. He/she will be in charge of preparing and submitting the project financial reports, stocktaking and accounting statements to the Project Coordinator.

3. FIELD TECHNICAL STAFF. The following staff will be recruited for the implementation of field activities and in coordination with users and consultants in specific technical activities:

a. Foresters (2), on a full-time basis and field-based.
b. Sociologist, on a full-time basis and field-based.

The above staff will be supervised and supported by the National Coordinator and will be recruited in accordance with WWF-Central America's regulations.

4. OUTSOURCING. To complement specific technical/scientific work, external specialised consultants and/or resource personnel from WWF's global network will be recruited on a part-time and ad-hoc basis. Some of the issues to be addressed in this manner include marketing, markets, financial auditing, certification, etc.

The national and field team will receive technical assistance from the regional forest director and administrative manager of WWF, who will fulfil the following specific duties:

a. Forest Director. An expert in sustainable forest management and trade will provide technical assistance to the local project coordinator and the field technicians. To this end, he/she will use global resources of WWF and ITTO, drawing on existing experiences and information on the subject and supporting the implementation of forest program activities.
b. Finance Director. An expert in administrative and financial management will provide technical assistance and follow-up to the local coordinator and administrative officer in project financial management, monitoring and reporting. He/she will provide guidance and training in the implementation of WWF standards regarding financial controls in compliance with the requirements of the financing source (ITTO).

5. SUPPORT COMMITTEES. Civil society bodies responsible for ensuring compliance with the project technical and strategic actions at the national and regional levels.

a. National consultative committee: This committee will represent Panamanian civil society groups concerned with sustainable forest management. It will play a role of strategic guidance for project actions and will suggest improvements related to technical and practical issues. Its decisions will not be binding but it will ensure improved communication and identification with this initiative at the national level. This committee will meet once a year approximately 30-45 days before the start-up of the yearly work plan and its recommendations will be referred directly to the steering committee.

b. Local consultative committee: Consultation body representing forest management stakeholders at the local level (Darién). Its role will be to review and guide the activities of the yearly work plan and suggest improvements based on its thorough knowledge of the local area and the culture of its population. Its decisions will not be binding but it will offer the possibility of promoting transparency in the decisions taken by local representatives at the steering committee meetings, where its recommendations will be referred to. It will meet once a year after the meeting of the national consultative committee and approximately 30-45 days before the start-up of the yearly work plan.

c. Steering Committee: This will be the highest coordination and decision-making body of the project and will be responsible for ensuring adequate project implementation in general. It will be made up of 1 representative from ANAM (National Forest Director), 1 representative from WWF – Central America (Regional Forest Director) and 1 representative from the Emberá-Wounaan General Congress (General Chief or Chairman of the Board of Directors). Its role will be to guide project actions from a technical and strategic point of view, review and approve the yearly work plan and budget, review and evaluate the results of the implementation of activities in the previous cycle, and evaluate the achievement of progress indicators and annual impacts. Furthermore, the Steering Committee will supervise and evaluate the general performance of the Project Director and his/her team, review and evaluate the results of external technical and financial audits, and propose changes within the project framework. This committee will meet in Panama every 6 months or as required.

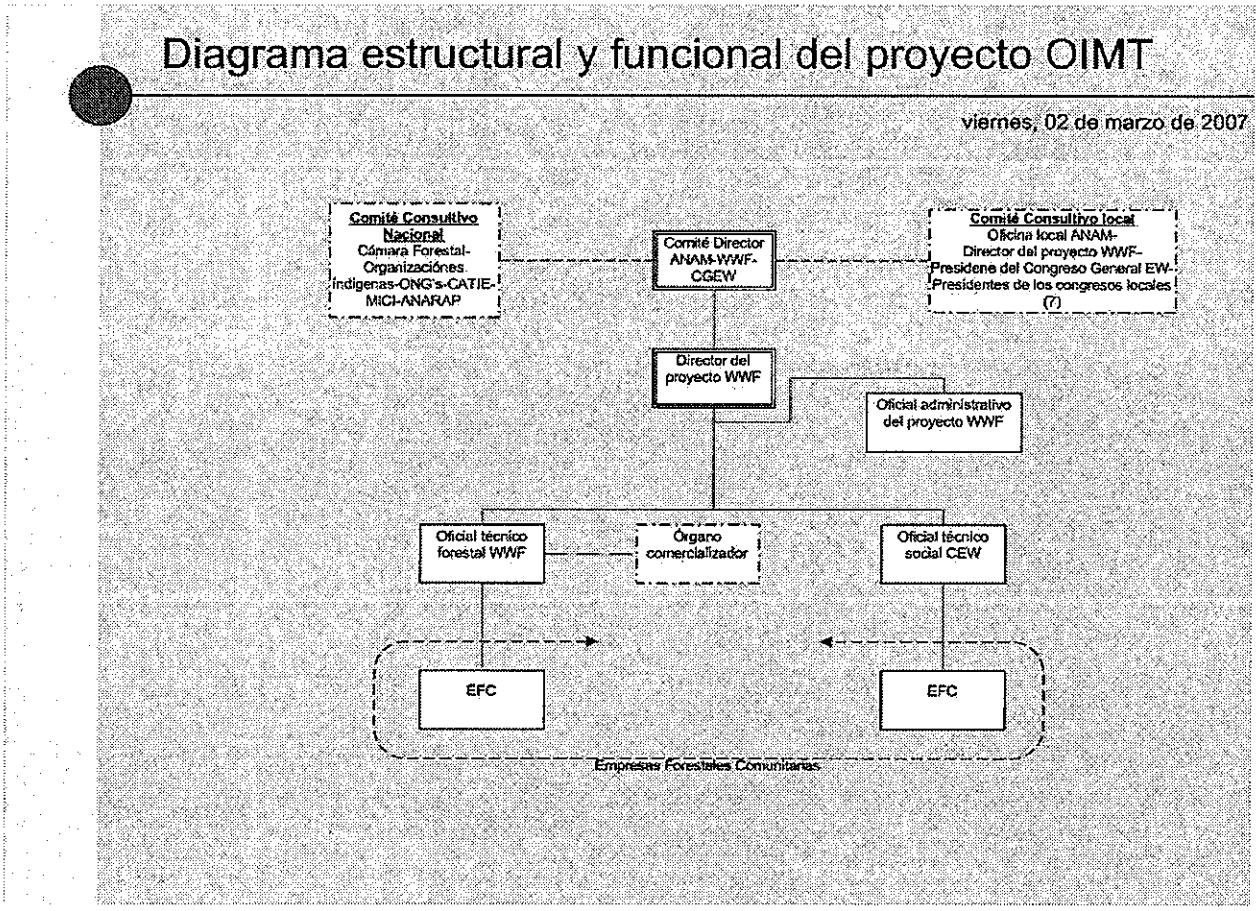


Figure 4 **Project structural and operational flowchart**

3. Monitoring, reporting and evaluation

(a) Project progress reports: Six-monthly progress reports will be prepared (four (4) in total) to report on project progress. Such reports will be submitted in a special format that will help measure the progress achieved in the activities according to the schedule of compliance with outputs and the proposed indicators. These progress reports will be available at least four weeks before the date planned for the monitoring visit and two months before the International Tropical Timber Council Session.

(b) Project completion report - This report will be submitted within three months of project completion. The six-monthly progress reports and the project completion report will be prepared by the Project Coordinator.

(c) Technical project reports – In addition to the six-monthly reports, technical progress reports will be prepared on the implementation of activities and the gradual achievement of outputs. The final project report will be based on the final technical report. All communication material as well as technical manuals and forest management documents (Management plans, Operational Plans, Environmental Impact Assessments) and administrative and trade management documents (business plans, strategic plans) and other documentation will be made available to International Tropical Timber Organization officials in hard copy and electronic files.

(d) Steering Committee monitoring and review visits – Implementation of the Project will be subject to monitoring and evaluation by ITTO Steering Committee officials every six months; therefore, it will be necessary to prepare six-monthly reports at least four weeks before such visits.

(e) Evaluation – The dates for evaluation of compliance and progress of project outputs and activities will be jointly determined by the Project Coordinator and ITTO Steering Committee officials.

4. Future Operation and Maintenance

Upon project completion, the foundations will be established for responsible forest management and trade in the Emberá-Wounaan Territory. The mission of this proposal is to empower the Embera-Wounaan General Congress and its executive structures (General Chief, Regional Chief and Nokoras) and leaders (Board of Directors, Natural Resources Commission, Planning Commission and Lands and Borders Commission) to pursue the administration and development of the project. The Embera-Wounaan General Congress, in its capacity as the Administrator of Territory Lands, will keep the legal and organisational mandate over responsible forest management and trade project actions throughout the Territory.

Furthermore, the implementation of the proposal involves the development of two new legal and trade structures: Tuqueza River Community Forest Enterprise (EFC-Tuqueza) and the Chucunaque River Community Forest Enterprise (EFC-Chucunaque). These two enterprises will be set up under the same principles as the first community forest enterprise, Empresa Forestal Comunitaria del río Tupiza (EFC-Tupiza), developed with technical assistance from WWF-CA. The aim of establishing these enterprises is to promote the managerial and business skills of indigenous communities so as to ensure mid- and long-term continuity of forest management activities. Forest management initiatives in the Territory will have the legal support of the Organic Charter and Law 22 of the General Congress, as well as National Environmental Authority laws and regulations.

It should be pointed out that with the support of other cooperation agencies, the General Congress of the Comarca is developing its own Forest Strategy for the management and administration of forest lands in the Comarca territories, which will ensure the continuity and implementation of project actions.

PART IV: TROPICAL TIMBER FRAMEWORK

1. Compliance with ITTA, 1994 Objectives

This project complies with the objectives and purposes of the International Tropical Timber Organization (ITTO) as set out in the International Tropical Timber Agreement, 1994. The project is related to the following ITTA objectives:

c. to contribute to the process of sustainable development. The establishment of local criteria and indicators sets the basis for sustainable forest management and thus contributes to the sustainable development of the country.

The development of sustainable forest management plans will make a significant contribution to the forest management process in the Emberá-Wounaan Territory and will therefore lead to social and economic benefits for community members. The forest management strategy in indigenous community lands and the incorporation of other production chain components (industries and markets) will provide a real alternative for conservation and social and economic development in the country. This component will be achieved through the replication of WWF-CA generated experiences - such as forest concessions of Guatemala, forest management in Nicaragua's and Honduras' Mosquitias and the more recent experiences in the Tupiza river communities - in other indigenous communities throughout the region.

d. To enhance the capacity of members to implement a strategy for achieving exports of tropical timber and timber products from sustainably managed sources by the year 2000.

The implementation of this proposal is aimed at promoting the export of (timber and non-timber) forest products from sustainably managed forests. The production of timber includes a high degree of involvement of downstream processing industries, while marketing non-timber products such as chunga and guágara crafts will be carried out through the participation of women's groups.

e. To promote the expansion and diversification of international trade in tropical timber from sustainable sources by improving the structural conditions in international markets, by taking account, on the one hand, a long-term increase in consumption and continuity of supplies, and, on the other, prices which reflect the costs of sustainable forest management and which are remunerative and equitable for members, and the improvement of market access.

The proposal includes the participation of the Global Network for Certified Forest Products - GFTN, an organisation associated with the trade policies of WWF and the Meso-American and Caribbean Network of

Certified Forest Products - Jagwood+. The aim of these two bodies is to promote the development of marketing policies and strategies so as to promote a link between producer groups and the market.

f. To promote and support research and development with a view to improving forest management and efficiency of wood utilization as well as increasing the capacity to conserve and enhance other forest values in timber producing tropical forests.

Sustainable forest management will be applied as a precondition for forest certification. This approach will ensure the integrated use of tropical forests. It will also ensure the integrated use of forest resources and other services associated with tropical ecosystems.

l. To encourage members to develop national policies aimed at sustainable utilization and conservation of timber producing forests and their genetic resources and at maintaining the ecological balance in the regions concerned, in the context of tropical timber trade.

The design of this proposal provides for a specific component aimed at the development of policies to reduce illegal logging, and the implementation of the country's policy strategy and guidelines for the promotion of sustainable forest ecosystem use.

2. Compliance with ITTO Action Plan

This project is consistent with ITTO priorities and ITTO Yokohama Action Plan 2002- 2006. Two major goals have been established in this Plan for each area of action. A description of the main ITTO Action Plan goals and actions to which the project is particularly relevant is given below:

A. Forest Information and Market Intelligence

GOAL 1: Improve transparency of the international timber market
GOAL 2: Promote tropical timber from sustainably managed sources

B. Reforestation and Forest Management

GOAL 1: Support activities to secure the tropical timber resource base
GOAL 2: Promote sustainable management of tropical forest resources

C. Forest Industry

GOAL 1: Promote increased and further processing of tropical timber from sustainable sources
GOAL 2: Improve industry's efficiency of processing and utilization of tropical timber from sustainable sources

As the project is mainly focused on the sustainable management and use of tropical forest resources in the Darien Region as well as the promotion of marketing strategies for international markets, this proposal is particularly related to the following ITTO goals and actions:

A. Forest Information and Market Intelligence

GOAL 1: Improve transparency of the international timber market

Action 6: Compile and disseminate information on the marketing of lesser-known (or lesser-used) species and the development of markets for them.

GOAL 2: Promote tropical timber from sustainably managed sources

Action 5: Examine the market and product requirements that may have to be met in order to develop exports of added-value products.

Action 7: Encourage members and assist them, where appropriate, to: Develop and promote wider use of their tropical timber, both primary and added-value products.

B. Reforestation and Forest Management

GOAL 1: Support activities to secure the tropical timber resource base

Action 1: Support the effective enforcement of forest laws and regulations that ensure sustainable forest management and secure the production base.

Action 4: Promote the conservation, rehabilitation and sustainable management of threatened forest ecosystems, *inter alia* mangroves, in collaboration with relevant organizations.

Action 7: Encourage members and assist them, where appropriate, to:

- Assess the current and potential productivity of major tropical forest types, taking into account the need to promote future growth and effective regeneration;
- Secure the forest resource base through the implementation of forest policy, legislation and associated strategies, revised and updated where appropriate;
- Identify and prevent irregular forestry activities.

GOAL 2: Promote sustainable management of tropical forest resources

Action 1: Promote the implementation of ITTO guidelines and C&I and review and improve these as necessary.

Action 2: Promote the implementation of sustainable forest harvesting, including reduced impact logging (RIL).

Action 3: Develop and promote the implementation of guidelines for the management of secondary tropical forests, the restoration of degraded tropical forests and the rehabilitation of degraded forest land.

Action 10: Encourage members and assist them, where appropriate, to:

- Improve the formulation and implementation of plans for sustainable forest management, with particular emphasis on harvesting limits;
- Implement appropriate forest harvesting, including RIL, as a component of sustainable forest management;
- Improve the productive capacity of natural forests, where appropriate, through intensified silvicultural practices, better utilization of lesser-used species, the promotion of non-timber forest products, guided natural regeneration, enrichment planting and reforestation;
- Implement research and development activities in the management of secondary tropical forests, restoration of degraded tropical forests and rehabilitation of degraded forest land, taking into consideration ITTO guidelines;
- Test and enhance examples of collaborative forest management for tropical production forests;
- Establish and manage forests for multiple uses in close cooperation with local forest owners and communities living in forest areas;
- Strengthen training institutions and intensify training of forestry personnel and other stakeholders in silviculture, RIL and resource assessment, and in the management of both natural forests and timber plantations.

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ANNEX A: PROFILE OF WWF-CENTRAL AMERICA

The World Wide Fund for Nature - WWF is one of the most experienced independent conservation organisations in the world. WWF has approximately 5 million members and a network of offices in over 100 countries.

Since its inception in 1961, it has achieved countless conservation successes. Today, WWF is carrying out some 1,300 projects, with over 3,800 officials throughout the world.

Mission and priorities

WWF's mission is to arrest the degradation of the planet's natural environment and to build a future in which humans may live in harmony with nature by:

- ensuring the conservation of the world's biological diversity;
- ensuring that the sustained use of renewable natural resources; and
- promoting the reduction of pollution and wasteful consumption.

To achieve its mission, WWF:

- Works in partnership with governments, local communities, international agencies, and companies and industries, identifying realistic solutions to the most pressing environmental problems.
- Reinforces its programme of field projects with policy work and campaigns designed to address some of the underlying causes of ecological degradation.
- Uses a rational, science-based approach which focuses on a number of key conservation issues and priorities.
- Carefully monitors all funds received and endeavours to obtain maximum conservation value for these donations through the support of partner organisations.
- Promotes the replication of its conservation achievements through education and local capacity building, in partnership with other organisations and through communication activities throughout the world.

Thanks to its global conservation programme, WWF has made a significant contribution to the development of the global conservation movement and to sustainable development at a time of enormous pressure over the natural resources of the entire planet.

To carry out its work, WWF works in partnership with organisations such as UN, IUCN, development agencies such as the European Commission, USAID and the World Bank. With the World Bank, WWF has formed a Formal Partnership to deal with forestry issues.

WWF International, as the headquarters in Switzerland is called, receives resources from foundations such as "*1001: A Nature Trust*", established in 1970 by Prince Bernard of the Netherlands, to cover the organisation's basic administration costs.

The WWF network receives **funding** from private donations (60%), governments and cooperating agencies (21.6%), foundations (6%), corporations (5.4%), and other sources (7%).

Programmes
WWF's international campaigns have helped draw attention to vitally important environmental issues and have influenced political decision-making at the national and international levels.

In order to maximise its impact on conservation, WWF has decided to focus its efforts on thematic and geographic areas known as "200 Global Priorities". The geographical areas comprise the **"200 eco-regions"**, i.e. those areas of the planet that have been identified by WWF scientists as the most biologically significant places on Earth.

WWF also works according to global areas or issues:

a) **Three biomes**: forests, freshwater ecosystems and oceans/coasts.
b) **Representative species**, such as the giant panda, Asian and African rhino, sea turtles, whales, tigers and manatees.
c) The discharge of **toxic** chemicals.

d) The threats of **climate change**.

In its efforts to implement activities that deal with Global Priorities, WWF has adopted two central approaches: Target Driven Programmes (TDP) and Eco-region Action Programmes (EAP).

Each approach manages conservation methods such as campaigns and lobbying, environmental education and strategic partnerships (with governments, different business and industry sectors, civil society groups and indigenous peoples throughout the world, etc.).

WWF on Internet

www.panda.org was launched in 1995 by WWF International. Since then, it has become one of the most popular international environmental sites on the World Wide Web. The address in Central America is: www.wwfca.org.

WWF's global presence

Offices in: Central Africa (Libreville, Gabon), Southern Africa (Harare, Zimbabwe), West Africa (Abidjan, Cote d'Ivoire), East Africa (Nairobi, Kenya), Germany, Central America (San José, Costa Rica), Australia, Austria, Belgium, Bolivia, Brazil, Bhutan, Cameroon, Canada, China, Colombia, Danube-Carpathians (Vienna, Austria), Denmark, Spain, United States, Philippines, Finland, France, Greece, Guyana, The Netherlands, Hong Kong, Hungary, Indochina (Hanoi, Vietnam), India, Indonesia, Italy, Japan, Madagascar, Mediterranean (Rome, Italy), Mexico, Malaysia, Nepal, Norway, New Zealand, South Pacific (Suva, Fiji), Pakistan, Peru, European Policy Office (Brussels, Belgium), United Kingdom, Russia, South Africa, Sweden, Switzerland, Thailand, Tanzania.

Associates: Argentina (Fundación Vida Silvestre), Ecuador (Fundación Natura), Nigeria (Nigerian Conservation Foundation), Venezuela (Fudena).

President WWF International:
H. E. Chief Emeka Anyaoku

President Emeritus:
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ANNEX B: PROFILE OF THE EMBERA-WOUNAAN GENERAL CONGRESS

A. BACKGROUND

Law No. 22 of 8 November 1983 divided the province of Darién into two geographical areas or districts: Cémaco and Sambú; together these form the ***"Comarca Embera de Darién" (Darién Embera Territory).*** With respect to its administration, the law recognised indigenous people's traditional and cultural mechanisms. This Congress is structured as a Board of Directors chaired by the General Chief of the Comarca; two regional chiefs administer the 28 communities in the Cémaco district and 12 communities in the Sambú district. Each community has a Local Congress chaired by a Board of Directors and its Noko. These communities are situated along the rivers forming the Chucunaque, Tuira and Sambú river basins. in addition, and for Government of Panama purposes, two indigenous municipalities and one 'comarca' government have been established.

A-1. Constitutional and Legal Frameworks:

The establishment of the General Congress and its 'Comarca' (Territory) administration system are based on the following sections and decrees:

- Sections 5, 86,120 and 23 of the National Constitution of Panama
- Law 22 of 8 November 1983, which establishes the Embera Wounaan Territory
- Executive Decree No. 84 of 9 April 1999 which organises the administration of the Embera Wounaan Territory
- International treaties relating to the protection of indigenous peoples' rights in the world: the American Convention on Human Rights, ILO Convention number 107, and the Convention on Biological Diversity.

A-2. Geographic and Demographic Frameworks:

The 'Comarca' covers an area of 3,100. Km^2. There are two geographically distinct municipal councils (Cémaco and Sambú). These include valleys, steep mountains, rivers crossing the rainforest, and headwaters feeding the Darién water system. Biophysical aspects are important to maintain the genetic reserve and to conserve natural resources in this region inhabited by two language groups: a) the Embera and b) the Wounaan. According to the latest census of 2000, there are 8,100 inhabitants in 40 communities in the Emberá-Wounaan territories. Under law 22, this territory is a collective heritage area for family, individual and communal use, as well as for the protection and conservation of natural resources. The majority of the population works in agricultural production and there is a very tentative sustainable management of forests, as is the case with the Tupiza sustainable forest management model supported by WWF.

B. ORGANISATION AND ADMINISTRATION SYSTEM

B-1. Embera-Wounaan General Congress

Law No. 22 of 8 November 1983 established the Congress as the supreme traditional authority foi decision making and expression of the Embera Wounaan peoples. It also established regional and local congresses and acknowledged the traditional authority of the chiefs and Nokoras.

B-2. Operational Structure

For decision-making and policy-making purposes, and for other tasks inherent in the administration of indigenous territories, there are three hierarchical levels of organisation:

1. Higher or policy and decision making level
2. Executive level
3 Operational level

1 Higher or policy and decision making level

This includes the general assembly of the Embera Wounaan peoples who are the members of the General Congress plenary. This General Assembly is formed by delegates selected at the local congress of each one of the 40 communities. These delegates have the right to vote at meetings called by the Congress. The characteristics of this level include:

- It is the main arena for representation of organised communities.

- It meets every two years as convened by a Board of Directors. Extraordinary meetings may also be called to discuss urgent matters or extreme situations.
- It defines policies and resolves disputes relating to Embera and Wounaan peoples performance.
- It establishes links with State, private and international cooperation bodies.
- Its Board of Directors has five members who are selected every five years.

2 Executive level

This is a much smaller structure and includes members of the General Congress' Board of Directors and traditional authorities (General Chief, Regional Chief and Nokoras). Its main responsibilities include:

- Establishment of a Congress executive arena and traditional authorities.
- It is the authority level where operational directives are decided.
- It is in charge of promoting compliance with regulations and development of policies that are approved by the General Congress.
- It deals with institutional matters.

3. Operational level

- This level includes the General Administration and the technical directorates of the Congress, which provide assistance and technical support to the communities in the implementation of projects.
- It resolves specific situations relating to the administration of territory lands.
- It negotiates with State authorities for the approval of plans and projects.
- It maintains contact with local governments in each community.
- It reports to various authorities/institutions on Congress actions and projects.
- It manages the administration of the Congress.

C. OBJECTIVE AND MISSION OF THE ORGANISATION

- ❑ To protect the cultural heritage of the 'Comarca' (Territory).
- ❑ To ensure the participation of the population in the development of the 'Comarca'.
- ❑ To strengthen the organisational structure and traditional authorities.
- ❑ To generate the means for political and technical capacity.
- ❑ To promote respect for the Embera-Wounaan people's rights.
- ❑ To promote the sustainable use of natural resources.
- ❑ To protect and defend its rights before non-indigenous individuals and organisations, including the National Government.
- ❑ To ensure the legal protection of its collective property and territory.

D. MAJOR THRUST OF CONGRESS WORK

- ❑ To promote sustainable management of natural resources and the environment
- ❑ To ensure the integrity of 'Comarca' lands
- ❑ To ensure social and cultural security of the Emberá and Wounaan peoples
- ❑ To promote the development of projects and programmes for social and economic development of its communities
- ❑ To provide technical assistance and institutional management
- ❑ To supervise programmes and projects
- ❑ To develop programmes aimed at strengthening and maintaining indigenous traditions and culture
- ❑ To ensure the national identity and unity of the Indigenous Peoples of Panama.

Annex C. CURRICULA VITAE OF THE KEY STAFF (TO BE IDENTIFIED)

Annex D. TERMS OF REFERENCE FOR THE KEY STAFF

1. PROJECT COORDINATOR: The Project Coordinator should be a professional with experience in forest management, preferably with expertise in the use of CATIE's simplified guide to Central American tropical forest management. Furthermore, the Project Coordinator will have recognised experience in the design of forest inventories and formulation of sustainable forest management plans. He/She will need to have wide-ranging experience in community organisation and production chain integration processes.

The candidate should have at least ten years experience in the aforementioned fields. Furthermore, he/she should have at least a master's degree in a related area.

Main duties:

- To coordinate project personnel and provide technical and administrative guidance for the implementation of planned activities.
- To develop annual work plans and their related budgets.
- To plan and coordinate the implementation of the project, in coordination with ANAM's National Natural Heritage Directorate (Dirección Nacional de Patrimonio Natural).
- To advise on the selection of consultants and to supervise their work.
- To ensure timely fulfilment of project outputs and objectives.
- To supervise financial expenditure of the project.
- To monitor project activities and supervise the preparation of progress, monthly and other technical and administration reports on the project.

Remuneration: Monthly payments including statutory benefits; amounts to be determined by the Steering Committee.

2. RESPONSIBLE FOREST MANAGEMENT AND TRADE EXPERT: The candidate should have at least fifteen (15) years experience in the formulation of Responsible Forest Management and Trade projects for the tropical forests of Central America and with the participation of community groups. For the purposes of this position, the candidate should have a Master's degree in tropical forest management and wide-ranging experience in this field and in community organisation.

Main duties:

- To design, in cooperation with the Project Coordinator, the Work Plan for the development of two Responsible Forest Management and Trade Programmes, in a similar manner to the Tupiza river community project, in close coordination with the Embera-Wounaan General Congress.
- To define and demarcate, in conjunction with the rest of the project team, the polygons and areas for sustainable forest management and to define the dasometric and silvicultural variables for the development of inventories and management plans.
- To prepare, in conjunction with the project team, the indicators for sustainable tropical forest management.
- To identify and propose harvesting and development activities that are compatible with the sustainable use of tropical forests
- To prepare, in conjunction with the project team, trade surveys and annual trade plans for the sustainable harvesting of (timber and non-timber) forest resources.
- To make relevant recommendations for the establishment of Community Forest Enterprises (Empresas Forestales Comunitarias/EFC-River).
- To prepare the terms of reference for the evaluation of forest management units with a view to forest certification.

Remuneration: Payments will be determined by the Steering Committee and will depend on the period of time spent by the expert in the project area.

3. **EXPERT IN COMMUNITY DEVELOPMENT(SOCIOLOGIST):** This candidate should have at least five (5) years experience in rural development. Furthermore, he/she should have at least a Bachelor's degree in Agricultural Economics and/or Sociology.

Main duties:

- To review and evaluate information on socio-economic aspects of the project area and advise the project team on this matter.
- To collaborate with the project team in the preparation of community training and organisation strategies.
- To prepare, jointly with the project team, strategies to promote the adoption of sustainable development practices that last beyond the completion of the project.

Remuneration: Payments will be determined by the Steering Committee, and will depend on the period of time spent by the expert in the project area.

4. **ADMINISTRATION AND ACCOUNTING EXPERT:** This candidate should have extensive experience in finance management and training skills to provide training to field personnel in the area of accounting.

Main duties: Expert in financial and administrative management. He/she will provide technical assistance and follow-up to the local coordinator and administrative officer in project financial management, monitoring and reporting. In addition, he/she will provide guidance and training in the implementation of WWF global standards regarding financial controls in compliance with the requirements of the financing source (ITTO) and other participating institutions.

5. **FORESTERS:** Forest technicians with experience in tropical forest inventories and community training on silvicultural and environmental impact issues. Vast knowledge of sustainable forest harvesting and planning actions also required.

Annex E: MEASURES FOR THE DISSEMINATION OF PROJECT RESULTS

1. An information workshop will be held at the beginning of the project with the participation of forest sector stakeholders, ANAM, NGOs and communities, so as to provide information on project scope and objectives to Panama's society as a whole.
2. As Project outputs are achieved, they will be incorporated into the ANAM and Meso-American and Caribbean Network of Certified Forest Products, JAGWOOD+ websites, with a view to providing access to users and the general public. The presentation of producers on the Jagwood+ and GFTN websites will be of capital importance for the process.
3. Project reports and outputs will be published and made available to the forest sector of Panama, ITTO and other interested parties.
4. Upon project completion, two (2) workshops will be organised to evaluate and disseminate project results.
5. There will be regular presentations of the Project progress and outputs in the main media of the country and particularly on Darién radio stations.
6. The communications department of WWF-Central America will develop a communications strategy to disseminate project outputs.

ANNEX F: Comparative table of recommendations of the 33rd ITTO Expert Panel and modifications made

Expert Panel Recommendations	Modifications made according to the 33rd Expert Panel's recommendations
A. Overall assessment	
The Panel noted that this project is a priority for Panama, particularly as regards achieving participatory sustainable forest management in the Embera-Wounan Indigenous Territories in the Darien Region. It further noted that the revised proposal had made an effort to incorporate all of the Panel's recommendations. However, the Panel still noted that some aspects of the proposal still required further clarifications, particularly as regards the precise specific objective of the proposal, the application of ITTO's C&I at the Forest Management Unit Level, and roles and responsibilities of each of the institutions involved in the implementation of the project.	Both objectives have been revised, defining the national and/or global impact of the Development Objective: "**Increase the national level of production and marketing of timber products from sustainably managed tropical forests with a view to obtaining international certification"** through sustainable land-use planning throughout the Comarca by **"increasing the area and production volume of tropical timber species through the development of two sustainable forest management plans for the Emberá-Wounaan Comarca territories in the province of Darién"**. In addition, the recommendations of the Expert Panel regarding the application of ITTO C&I (progress reports) at the Forest Management Unit level have been incorporated so as to assess progress towards sustainable forest management. The roles and responsibilities of each of the main institutions involved in the project have been detailed in Part III of the proposal.
B. Specific recommendations	
1. Provide for a consistent Development Objective and Specific Objective throughout the text of the proposal, as the Development Objective is referred to as the Specific Objective in point 3.1 of the document	The development objective has been defined as a generator for change in the national production and economic processes and improvement of forest industrial sector image at the macroeconomic level with a view to forest certification according to international standards and curbing of illegal logging. The specific objective, on the other hand, has been defined in terms of technical forest management actions (sustainable forest management plans) in two community areas along the Tuqueza and Chucunaque rivers, resulting in an increase in the area under sustainable forest management and in the production volumes of tropical forest species in the territories of the Embera-Wounaan Comarca. The text of the proposal has been revised to highlight the benefits of land-use planning and management in the territories of the Comarca and their impact on production and economic processes and on the reduction of illegal logging.
2. Apply ITTO's C&I at the Forest Management Unit level, both at the start of and at the end of the project, in order to ascertain the overall progress towards sustainable forest management (SFM) in the project area (i.e. utilize ITTO's C&I reporting format as a tool to periodically assess progress towards SFM). Include the application of ITTO's C&I as an additional output of the project and develop and incorporate the required activities into the work plan	A 7th output and corresponding activities have been incorporated regarding the use of ITTO C&I: **Output 1.7 Evaluation of progress towards SFM:** Based on ITTO's C&I reporting format, 3 project progress evaluations will be carried out – one at the beginning (baseline), one mid-term and one at the end of the project in the forest management units. **Activity 1.7.1** Initial project progress evaluation (baseline) based on reporting format at the FMU level. **Activity 1.7.2** Final project progress evaluation based on reporting format at the FMU level.

	In addition, Activity 1.6.2, which included this Expert Panel requirement in a very general manner, has been removed and integrated into activities 1.7.1 and 1.7.2. No changes were made to the original budgets. The budgets of all participating institutions still remain as specified in the previous version of the proposal.
3. Clearly describe the specific roles and responsibilities of each of the institutions involved in the implementation of the project as related to the project's activities and outputs (i.e. ANAM's role and responsibility in expeditiously approving the management plans, environmental impact assessments, etc.), and the interrelationship and synergies between these. If possible, provide a flow chart	The recommendations of the 33rd Expert Panel regarding the roles and responsibilities of participating institutions have been incorporated in the form of bullets in Chapter III of the proposal. A description has also been included indicating the main steps to be followed for the implementation of the proposal and identifying the interrelationship and synergies between participating institutions (ANAM, Embera-Wounaan Congress and WWF-Central America). In addition, the organisational flowchart has been improved to directly illustrate the different roles of each organisation in the administrative and operational aspects of the proposal. Consultative Committees have been incorporated at the national and local levels so as to provide guidance from a national and Darien province perspective to ensure the viability of the project.

Note: The modifications and adjustments made throughout the text in response to the 33rd ITTO Expert Panel's recommendations have been shaded in grey.