

INTERNATIONAL TROPICAL TIMBER ORGANIZATION

ITTO

PROJECT PROPOSAL

TITLE	COMMUNITY FOREST PRODUCT PROCESSING IN THE PUERTO DIAS EXTRACTIVE RESERVE
SERIAL NUMBER	PD 46/97 Rev.3 (I)
COMMITTEE	FOREST INDUSTRY
SUBMITTED BY	GOVERNMENT OF BRAZIL
ORIGINAL LANGUAGE	SPANISH

SUMMARY

To implement a forest product processing programme through the training of the communities living in the Puerto Dias Extractive Reserve in order to ensure the management and implementation of an industrial unit for the production of small objects and pre-fabricated houses on the basis of the Multiple-Use Management Plan currently in place.

EXECUTING AGENCY	AMAZON WORKERS' ASSOCIATION (CTA) IN COORDINATION WITH ABC
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DURATION	12 MONTHS
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APPROXIMATE STARTING DATE	UPON APPROVAL
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BUDGET AND PROPOSED SOURCES OF FINANCE	Source	Contribution in US\$
	ITTO	#62,090.00
	Gov't of Brazil	80,000.00
	TOTAL	542,090.00

PART I. CONTEXT OF THE FOREST COMMUNITY CONCEPT

A. RELEVANCE TO ITTO

1. Compliance with ITTO objectives

This project is consistent with the objectives stipulated in Article 1 of the International Tropical Timber Agreement (ITTA) as follows:

- c) To promote and support research and development with a view to improving forest management and wood utilization;
- e) To encourage increased and further processing of tropical timber in producing member countries;
- g) To improve marketing and distribution of tropical timber exports of producing members;
- h) To encourage the development of national policies aimed at sustainable utilization and conservation of tropical forests and their genetic resources, and at maintaining the ecological balance in the regions concerned.

The proposal, which involves the development of a production unit, is aimed at improving both existing activities and techniques and efficiency in the furniture and other product manufacturing industries.

2. Compliance with ITTO criteria

This project proposal is consistent with the five stipulated ITTO criteria, to wit:

- a) The project is related to the production and utilization of industrial tropical timber;
- b) It will yield benefits to the tropical timber economy as a whole and be relevant to producing as well as consuming members;
- c) As indicated in item b above, this project is related to the maintenance and expansion of the international tropical timber trade;
- d) The project offers reasonable prospects for positive economic returns in relation to costs based on the concept of forest community, in addition to increasing production value through product industrialization;
- e) This project, involving a forest community living in an Extractive Reserve and focused on forest management, will make maximum use of existing research institutions and will help to ensure the involvement of public agencies as an adequate development model for the Amazon Region.

3. Relationship to ITTO Action Plan and Priorities

This proposal is consistent with ITTO action plan and is related to the priorities established by the Committee on Forest Industry, particularly in relation to the following activities:

- Projects in selected strategic locations to promote the integrated development of sustainable forest management and industrial use;
- The evaluation of training needs and formulation of strategies; support for training in planning and management of forest industries; vocational training for wood industries.

B. RELEVANCE TO NATIONAL POLICIES

1. Relationship to sectoral policies affecting tropical timber

This project is consistent with the national policy guidelines and current legislation that provide for the use of forest resources based on a sustainable timber and non-timber product management plan within a direct use conservation unit known as Puerto Dias Extractive Reserve, where the main objective is the utilization of existing forest resources.

2. Relationship to subsectoral aims and programs

In the last 10 years, Acre has pursued a sustainable forest resource utilization policy. The specific characteristics of the region, such as a large moist tropical forest cover and the high degree of organization amongst social groups that depend on forest resources for their livelihood [rubber tappers, "ribeirinhos" (riparian communities), Indians] have prompted the State Government to take several actions aimed at incorporating forest resource utilization into the sustainable development process.

These actions include:

- The establishment of FUNTAC (Technology Foundation of the State of Acre), a forestry agency devoted to the development of forest product harvesting and production technologies;
- The promulgation of the State Science, Technology and Environment Systems Act;
- The establishment of the State Council for Science, Technology and Environment (CEMACT);
- The establishment of the Environmental Institute of Acre to issue licences for forest management projects;
- The economic-ecological zoning proposal (Acre Project);

The State of Acre has also been the focus of attention of the federal government, with the establishment of 1,745,300 hectares of extractive reserves to be managed by the local communities and considered as priority areas for the sustained use of forest resources.

In addition to the establishment of extractive reserves, the federal government is currently implementing a Pilot Program for the Protection of Brazilian Tropical Forests, with the support of the international community through the cooperation of the G7 countries.

3. Institutional and legal framework

The Puerto Dias Extractive Reserve is a conservation unit linked to INCRA's National Land Reform Programme and as such it is regulated by specific legislation which stipulates that multiple-use management plans must be developed by a non-governmental institution, the CTA, through an inter-institutional agreement. This constitutes an innovative partnership approach for the administration of a sustainable management plan in an Extractive Reserve in the Amazon Region and in Brazil. The Reserve was established on 23 December 1987 by virtue of Decree No. 95,577, with a view to ensuring the settlement of producers and sustained forest resource utilization through a management plan based on scientifically proven techniques.

PART II: THE PROJECT

1. Origin

The development of the State of Acre has historically been based on rubber (*Hevea brasiliensis*) extractivism and the colonization of lands has been concentrated in the areas of distribution of this species. These settlements were established in large areas known as "cauchales" (rubber plantations/estates), where the organizational structure of rubber production involved a rubber management centre, known as "barracão", where all the rubber produced was taken, and production centres known as "colocações", where each rubber tapper harvested an average of 3 rubber tree "estradas" (units). These "estradas" were located in the areas of distribution of rubber trees within the forest; each "estrada" could have up to 190 trees and they were tapped on a daily basis for the extraction of latex (rubber).

Since the 1970's, the introduction of extensive cattle-raising and the clearing of forests for pasture lands have led to irrational timber exploitation with the removal of a few species of commercial interest and the burning of the remaining trees. After 20 years, this process has resulted in the deforestation of approximately 5% of the forest cover in the state of Acre, where some municipalities under greater deforestation pressure such as Rio Branco, Senador Guiomard and Plácido de Castro already have less than 50% of their original forest cover.

In response to this unsustainable development model, organized citizens' groups proposed the establishment of extractive reserves for the conservation of forest resources. These extractive reserves, established through INCRA or IBAMA, are located in deteriorating old rubber estates, and local communities are granted land use rights and are responsible for the development and implementation of natural resource utilization models.

Despite the progress made in many areas, such as adjustment to environmental requirements, community participation and resolution of the land tenure problem, these extractive reserves have produced limited income for the traditional communities. This is due to the fact that the extractive products that have so far been harvested (rubber and Brazil nut) have not been sufficient to guarantee the economic viability of the enterprise.

2. Project objectives

2.1 Development objective

To demonstrate the economic, social and environmental viability of forest utilization and its significance as part of a suitable development model for the Amazon Region.

2.2 Specific objectives

- To implement a programme for the processing of forest resources from the Puerto Dias Extractive Reserve through the establishment of an industrial unit for the production of small wooden objects and pre-fabricated houses of wide market acceptance.
- To train the local community in logging techniques, timber preservation/drying and forest product processing.
- To promote the incorporation of this experience in municipal policies.

3. Project justification

3.1 Problem to be addressed

Traditionally, forests have always been considered as obstacles that had to be overcome in order to implement large scale agricultural practices, based on mistaken concepts of regional development models. Even the local timber industry has based its operations on predatory forest resource utilisation practices, constantly moving to new areas after the depletion of the species of commercial interest in another area.

The need to ensure that the utilisation of forest resources results in the generation of income and the protection of the rights of the traditional forest communities in the state of Acre, has led to the search for initiatives that will combine existing positive experiences in the sustainable utilisation of forest resources with successful community management practices.

The establishment of extractive reserves since 1988 has been a significant step towards the solution of financial problems, offering social and environmental stability for the region. However, the harmonization of economic viability and forest sustainability still constitutes a major challenge that we hope to overcome through this project.

3.2 Characteristics of the area

The Puerto Dias Extractive Reserve is located in the western part of the Brazilian Amazon Region, in the Municipality of Plácido de Castro on the Bolivian border. It is situated along the banks of the Abuná River, at 100 km from Rio Branco, capital of the State of Acre. It covers a total area of 22,145 hectares with a population of 500.

3.3 Other relevant aspects of "pre-project situation"

A Rubber-Tappers Association was established in the Reserve five years ago with the participation of families living in the south-western part of the area. Timber loggers exert a strong pressure on this area because of its proximity to road infrastructure. Given the lack of production alternatives, several rubber tappers have already started selling timber at prices of less than US\$10.00 per tree, while others are gearing their economic activities towards agricultural operations.

Through an IDB Project it has been possible to implement an education and health programme, which resulted in the construction of two schools, the establishment of two health posts, the acquisition of a 10-ton boat, the installation of radio equipment, the conduction of several surveys (forest and wildlife inventory, socio-economic and ethno-botanical surveys) and the development of a management plan.

In 1994 it was possible to implement the management plan up to the stages of harvesting and primary processing with the support of the Pilot Programme for Tropical Forest Protection and resources donated by the G7 countries and administered by the World Bank.

The aim of this project is to carry out secondary processing so as to add value to the products and therefore ensure the economic viability of management.

The local community members have offered their counterpart contribution through their participation in community construction work, while their Association will be responsible for the management and operation of activities. Teachers, health care workers, extension officers and community leaders are being trained by the CTA and were all selected by the community and the Association members themselves, and virtually all of them are working on a voluntary basis.

3.4 Intended situation after project completion

The community members, through their association, are able to produce small wooden objects and pre-fabricated houses, as well as managing the entire production process. The municipal prefectures will be in a position to incorporate the community forest management plan into their public policies.

3.5 Target beneficiaries and others affected

The direct beneficiaries will be the 500 people living in the area. At the State level, we will have a development model for the sustainable use of forest resources on a sustainable basis that may be applied in the existing 25 indigenous territories and in another 5 extractive reserves.

3.6 Project Strategy

3.6.1 Reasons for selection

This project is consistent with ITTO's aims and Year 2000 Objective. Support is therefore requested to facilitate the successful implementation of a pioneer initiative such as this.

3.6.2 Lessons drawn from past evaluations

Experience has shown that the community management of extractive reserves will give the local communities the possibility to meet their urgent need for economic, social and environmental sustainability.

3.6.3 Technical and scientific aspects

The management plan has been developed based on current techniques and in accordance with legal regulations. The fact that it has been approved by IBAMA is a proof of its efficiency. The figures below show the forest resources available according to the results of the forest inventory carried out in the Reserve.

3.6.4 Economic aspects

The objective is to increase the average family income of the local communities through the utilisation of timber resources for which there are existing markets and local value-added processing in processing units established in the area and managed by the Association of Producers.

The price per cubic metre of timber in the Amazon region ranges from a reported minimum value of US\$3.70 to US\$2,921.00, depending on who sells the product and the degree of value added to the timber resource. This implies a variation of 78946% (seventy-eight thousand nine hundred and forty-six per cent). For example, a model aeroplane designer will pay close to US\$6,000/m³ for small parts and components. This illustration - although somewhat extreme - serves to show the economic viability of forest management as all figures and levels of activities involved must be taken into account.

According to the results of the "Sawmilling Industry Diagnosis in the State of Acre", carried out by the Acre State Technology Foundation (FUNTAC), 45% of companies direct their entire production to the local market and 55% direct part of their production to the national and international markets.

This same diagnosis has revealed that in terms of volume, most of the production (58.73%) is absorbed by the local market (building sector, carpentry uses, re-sellers, etc.) and the remaining 41.27% is directed to the national and international markets. The national market is concentrated in the states of São Paulo, Rio de Janeiro, Paraná, Minas Gerais, Santa Catarina, Rio Grande do Sul, Amazonas, Rondônia and Brasília. International consumer markets include United States, Canada, England and the Netherlands.

The products consumed include planks, squared timber, pre-cut timber, timber boards, rulers, wainscoting, furniture, etc., and the main species used are Angelin (*Himenolobium excelsum*), Cumarú de Ferro (*Dipteryx odorata*), Jatoba (*Hymenaea coubaril*), Cedar (*Cedrela odorata*), Cerejeira (*Torresea acreana*), Mogno (*Swietenia macrophylla*), Freijó (*Cordia goldiana*) and Sucupira (*Bowdichia* sp.).

The above diagnosis has also revealed that timber residues account for nearly 48% of the total volume of timber raw material used in the sawmills, i.e. a total of 124,515 m³ (FUNTAC, 1992). Seventy-five per cent of this total can be used by carpentry workshops and furniture factories, in the production of small decorative objects, ornaments, domestic uses and other small timber objects. It can also be exported as "short" (sawnwood waste over 80.00 cm long).

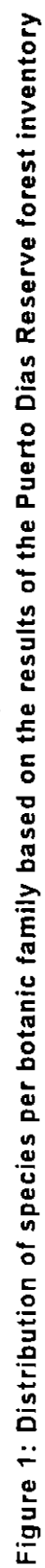


Figure 2: Distribution of individuals per botanic family based on the results of the Puerto Dias Reserve forest inventory

Table: Volume of harvestable trees in m³/ha/species/area in 1997, Puerto Dias Reserve.

Common names	Total	Bom Jardim	Brasília	Centro Seco	Floresta	Limoeiro	Olho D'água 1	Olho D'água 2	Palestina	Palhal	São Pedro
Amarelo	15,74	3,64						3,55		8,55	
Angico-vermelho	21,95						7,15				14,80
Aroeira	36,15	8,27		19,66					4,71		3,50
Bálsamo/Bálsamo-amarelo	5,26		3,16					2,11			
Cedro/Cedro-vermelho	18,62		4,53				3,55	2,84			7,69
Cerejeira/Cumaru-de-cheiro	75,48	15,04	5,48	4,30		4,91			32,11		13,63
Cumaru-cetim	259,44	22,02	45,33	13,03	76,12	12,92	30,55	10,95		26,89	21,64
Cumaru-ferro	149,89	8,64		34,88		18,23	13,08	22,87	46,98		5,22
Fava-orelhinha	11,75							4,91		6,84	
Faveia-preta/Angelim-da-mata	1,93									1,93	
Guariúba-amarela	17,71						8,93			8,78	
Inharé/Inharé-preto	6,92									6,92	
Itaúba/Itaúba-amarela	9,32				6,90					2,42	
Jatobá/Jatobá-açu	14,59					8,63				1,85	4,11
Maçaranduba	12,41			8,54							3,87
Marupá/Pará-pará	8,95				8,95						
Morotó	2,70									2,70	
Pau-alho	10,77			10,77							
Pau-d'arco-amarelo	91,23	26,17	6,57			29,02	7,63		4,65	3,58	13,62
Pau-d'arco-roxo	31,25	8,57		4,80		5,80	3,44	5,37			3,25
Quaruba	4,10									4,10	
Roxinho	8,26		6,53							1,73	
Samaúma-verdadeira	44,26		24,82			19,44					
Sucupira-amarela	6,18									6,18	
Tauari	78,41	5,64		6,06	8,21		26,55		11,68	17,26	3,01
Total	943,26	97,99	96,42	102,05	100,17	98,94	100,88	52,60	100,14	99,72	94,36

It should also be pointed out that 30% of the timber from felled trees is wasted, i.e. these residues are left behind in the forest and are not utilized. However, these timber residues could and should be used by carpentry workshops and furniture factories in the production of plywood, doors, windows and small wooden objects (ashtrays, trays, jewelry boxes, etc.).

Every year, the small wooden objects market is increasingly attracting the interest of companies in this sector. This is due to an increasing demand that has been reported by research institutions in the various states of the country.

The feasibility of the production of these products will be determined not only by the availability of timber residues, but also by the production chain including raw materials, skilled labour, equipment suitable to the activities to be implemented, and finally the consumer markets in relation to which 3 basic questions should be asked: who are the target consumers, where to produce and how to produce.

In order to define the target markets, the Forest Product Research Coordinating Unit of the National Amazon Research Institute (INPA) carried out a research study in the State of Amazonas collecting information and identifying the needs of the various sectors involved in the small wooden objects manufacturing process so as to find possible alternatives for the utilization of timber residues which are practically being left unused.

A survey was undertaken on the frequency with which a total of 44 wooden objects (products) were found in various retail shops, and the results were as follows: cutting boards, 66.66%; wooden spoons, 66.66%; picture frames, 50%; trays, 50%; spatulas, 50%; beaters, forks, rolling pins and pencil cases, 33%; key holders, envelope holders, spice racks, scissors holders, coasters, knife blocks, plate and pot racks, squash rackets, combs and board games, 16.66%. Most companies work on the basis of orders received, while a minority operate on a mass production basis.

Another interesting result of this market research is that most of the wooden objects that are currently marketed are not manufactured by companies from the northern region of the country. Thus, almost all these products are "imported" from other regions including the southern region, 50%; south-east region, 37.5%; northern region, 12.5%. Another aspect revealed in this market research was that the price of wooden objects depends on the sales system, including product brand, type of retail establishment, target consumers and marketing. For example, the price of picture frames ranges from US\$4.10 to US\$5.99, and a cutting board can cost from US\$2.70 to US\$34.00.

The last part of this survey on small wooden objects markets involved interviews with men and women of an average 30 years of age and families of approximately 4 members. The table below shows a list of wooden objects used in the daily life of the interviewees expressed as a percentage:

<i>wooden spoons</i>	94.1%	<i>napkin holders</i>	17.6%
<i>cutting boards</i>	80.4%	<i>board games</i>	15.7%
<i>coat hangers</i>	60.8%	<i>coasters</i>	15.7%
<i>picture frames</i>	41.2%	<i>magazine racks</i>	15.7%
<i>trays</i>	39.2%	<i>serving forks</i>	13.7%
<i>rolling pins</i>	39.2%	<i>TV stands</i>	13.7%
<i>meat beaters</i>	33.3%	<i>toilet paper holders</i>	13.4%
<i>book ends</i>	21.6%	<i>VCR stands</i>	11.7%
<i>pot/pan racks</i>	19.6%	<i>lamp bases</i>	9.8%
<i>ashtrays</i>	19.6%	<i>wine bottle racks</i>	9.8%
<i>pencil cases</i>	19.6%	<i>salt shakers</i>	7.8%
<i>shoe racks</i>	19.6%	<i>CD racks</i>	7.8%
<i>cooking spatulas</i>	17.6%	<i>cassette cases</i>	7.8%
<i>match boxes</i>	17.6%	<i>rubbish bins</i>	7.8%

A total of 66.6% of the people interviewed indicated a preference for wooden objects. With regard to prices, 27.4% of the interviewees felt that wooden objects were more expensive than other materials; 37.2% believed wooden products were the same price as other materials, and 23.5% thought timber products to be cheaper than other materials.

Manufacturing processes can vary a great deal according to the various small wooden objects. Thus, their production can be considered to be a realistic alternative for the utilization of available resources with potential for marketing, great consumer acceptance and in most cases equipment and manpower already available.

Furthermore, the National Industrial Training Service (SENAI) through the Timber and Furniture Technology Center (CETEM) is in the process of establishing a program aimed at promoting industrial development in the State of Acre, training qualified human resources and providing technical assistance to the various industrial sectors involved in timber and furniture production.

With regard to pre-fabricated houses, there is in Rio Branco, the capital city of the State of Acre, a housing shortage of 30,000 houses that could reach 40,000 by the year 2000. In this context, timber housing is regarded as a low cost alternative that could cover this shortage. Timber houses cost 50% less than brick houses.

In the last few years, the Government of Acre has invested in the area of housing on the basis of forest product utilization. A total of 2,300 low-cost houses were built using local low-cost technology. The results of this program were quite satisfactory.

Moreover, there is only one company in Rio Branco that is currently supplying the States of Acre and Rondônia. Therefore, this is an increasing market with virtually no competition.

3.6.5 Environmental aspects

- Harvesting intensity levels in the operations to be carried out by producers' families (10 - 20 cubic metres per hectare) are below those stipulated by research institutions.

3.6.6 Social aspects

The main component of this project is its social nature, where management based on the training of the local population is the basic principle for the implementation of activities. The cost-benefit ratio must be balanced, as 10% of the income generated will be re-directed to the cooperative fund.

3.6.7 Managerial aspects

The project will be implemented by the CTA. The Center will hire an expert with experience in the management of projects of this nature and a thorough knowledge of the Amazon region to be the Project's Executive Director. This professional should hold a Forest Engineering degree or equivalent. The Executive Director will be responsible for the coordination of the work plan approved by the Steering Committee. The Project Director and CTA General Coordinator will be responsible for the financial and administrative management of the project and they will both approve the disbursement of project funds by countersigning cheques. The duties of the project's key staff will be as follows:

Personnel	Duties
CTA General Coordinator	Recruiting the Executive Director and in cooperation with him/her be responsible for the financial administration of the project.
Project Executive Director	Responsible for the coordination of the work plan according to the guidelines of the Steering Committee. In coordination with the CTA General Coordinator, the Project Director will hire experts and make payments.
Executive Secretary	Responsible for secretariat services, typing and organization of various events including courses and seminars.
Forest Engineer	Responsible for the technical coordination of the project in the Puerto Dias Reserve. He/she will act in the Project Director's position in the absence of the latter.
Forest Industry Consultant	Responsible for the assessment, lay-out, installation and operation of equipment.
Marketing Consultant	Outlining the Puerto Dias logotype and marketing strategy.
Regional Public Relations Consultant	Drafting of document with all regulatory and legal requirements for the incorporation of this experience into state and municipal policies.
Field Assistant	Responsible for the coordination of project field activities in cooperation with the Forest Engineer.

With regard to the capacity of the implementing agency to coordinate and implement project activities, some relevant aspects on the executing agency's background are described below so as to facilitate a better understanding of the CTA's project management capability.

The Amazon Workers' Association (CTA) started its activities with an Education Programme for the communities living in the forests, particularly in the Extractive Reserves. Currently, there are over 38 schools, nearly 40 *seringueiros* (rubber tappers) trained as teachers and 970 students under the responsibility of CTA. CTA efforts have been recognised by the World Bank (IBRD), which has entrusted the Association with the conduction of an educational diagnosis in extractive reserves throughout the Amazon Region.

Since 1988, CTA, at the request of the forest communities, has been implementing a health programme similar to the educational project, i.e. focusing on the training of health care workers among the seringueiros living in the communities to provide health services in emergencies and for simple treatments. There are now 35 trained health workers and 26 health posts in this programme.

Also in 1988 the first extractive reserve units were established, and at that time CTA started to design a Community Economic Development Programme aimed at ensuring the economic viability and sustainability of forest communities. This programme includes seedling production units and agroforestry plots. In 1994, 225 rural producers were trained, work tools and seedlings were distributed, and technical assistance was provided for the implementation of 225 agroforestry systems. In the field of fish farming, 45 community ponds were established to produce fish stocks for the local market.

The Community Economic Development Programme is also responsible for beekeeping training and implementation, building of warehouses in extractive reserves, and training on timber and non-timber resource management and administration.

In order to carry out these activities, CTA had to be structured in such a way so as to meet infrastructure and human resource requirements. CTA currently has:

- Headquarters in Rio Branco (central office), with a built area of 600 square metres, including 12 compartments and an auditorium for 60 people;
- Offices in the Xapuri Municipality (support office);
- Offices in the Municipality of Sena Madureira (support office);
- A 3-ton boat;
- A 40HP motor boat;
- A Land Rover truck;
- A motor vehicle (VW Golf);
- A desk-top scanner;
- Twelve computers (486 model);
- A medicinal plant laboratory.

This infrastructure is serviced by 40 officers, with a total of 20 staff members holding university degrees in the fields of Forest Engineering, Agricultural Engineering, Fisheries, History, Physics, Forest Policy (MSc), Rural Planning, Tropical Forest Management (MSc), Cooperatives and Associations, Natural Resource Management, and a PhD student in Forest Economics.

CTA staff also includes 4 middle-level technicians (two agricultural and two forest technicians). The rest are support personnel, transport personnel, switchboard operator, secretary, cleaners, and caretakers, among others.

A list of activities is given below as significant indicators of performance.

- 1983 - 1997: 38 schools built in extractive reserve areas (RESEX) in the state of Acre, with 970 students enrolled in 1997. 40 seringueiros trained as instructors.
- 1983 - 1997: 26 health posts established in RESEX areas in the state of Acre. 35 seringueiros trained as health care officers.
- 1988 - 1997: 17 seedling production areas and agroforestry systems established in the Chico Mendes Extractive Reserve (12) and in the Puerto Dias Extractive Reserve (5).
- 1994: 225 ha of agroforestry systems established in 8 municipalities in the Acre and Purus River Valley areas.
- 1994: 45 community dams established in 8 municipalities in the Acre and Purus River Valley areas in the State of Acre.
- 1993: Establishment of Rubber Tappers' Association in the Puerto Dias Extractive Reserve.
- 1993: Building and installation of warehouses in the Puerto Dias Extractive Reserve.
- 1995: Consultancy study carried out for the World Bank. Economic potential survey in 8 indigenous areas located in the State of Rondônia.
- 1996: Training courses for seringueiros on multiple-use forest management.
- 1997: Establishment of small scale non-timber product processing plants in the Puerto Dias and San Luis de Remanso Extractive Reserves.

- 1992 - 1997: Training courses on administration, management, cooperatives and associations for seringueros and rural producers.
- 1996 - 1998: Implementation of Project on Multiple-Use Forest Management under Community Harvesting Regimes.

In addition, CTA publishes an "Series of Articles". Past issues in this series include "Timber Production in Extractive Reserves", "Multiple-Use Forest Management", "The Only Sustainable Alternative for Extractive Reserves" and "Wildlife Management in Extractive Reserves".

3.7 Reasons for ITTO support

3.7.1 ITTO aspects

ITTO would be supporting an initiative of processing forest products from an extractive reserve under the management of the forest communities themselves.

3.7.2 Relationship to relevant actions supported by other donors

The World Bank, the Inter-American Development Bank and the G7 have carried out efforts towards the viabilization of this community management experience.

3.8 Risks

The possible risks that could hinder the implementation of this project are of a social nature, if the community cannot establish a sound management structure within the stipulated period of time; of an economic nature, if no markets are found for products of this nature; of an environmental nature, if the environmental impact exceeds the limits established within the Plan causing environmental damages that are difficult to repair.

4. OUTPUTS

OUTPUT 1

Preparation and implementation of a training programme in the fields of forest logging, timber preservation/drying, and forest product processing techniques, for the members of the Rubber Tappers' Association in the Puerto Dias Extractive Reserve.

OUTPUT 2

Development and installation of a forest product processing industry in the Puerto Dias Extractive Reserve.

OUTPUT 3

Preparation and development of a logotype for the Puerto Dias Extractive Reserve products.

OUTPUT 4

Records of the Rubber Tappers Association's experience in the Puerto Dias Extractive Reserve regarding community management and implementation for possible incorporation into public policies.

5. ACTIVITIES AND INPUTS

- 5.1 Related to Output 1:

Activity 1.1: To prepare terms of reference and to select and hire the Project Executive Director.

Activity 1.2: Preparatory meeting with the Project Executive Director and the Forest Engineer to be involved in the project so as to discuss basic guidelines for the training programme.

Activity 1.3: Meeting of project technicians to outline activities and allocate work for the development of the training programme.

Activity 1.4: To develop the contents of each training programme component.

Activity 1.5: Meeting of project technicians for the presentation and consolidation of the training programme.

Activity 1.6: Subcontracting printers for the printing of the training programme.

Activity 1.7: Selection of rubber tappers to participate in the various training courses.

Activity 1.8: Implementation of the first training course on forest logging (module I).

Activity 1.9: Implementation of first training course on timber preservation/drying (module I).

Activity 1.10: Implementation of first training course on forest product processing (module I).

Activity 1.11: Implementation of second and last course module on forest logging.

Activity 1.12: Implementation of second and last course module on timber preservation/drying.

Activity 1.13: Implementation of second and last course module (II) on forest product processing.

5.2 Related to Output 2:

Activity 2.1: Meeting with the Puerto Dias Rubber Tappers' Association to identify a site for the establishment of the processing plant.

Activity 2.2: To develop an architectural design for the forest product processing plant.

Activity 2.3: Transport of timber for building construction where the processing plant will be installed.

Activity 2.4: Building of warehouse to house industrial equipment and machinery.

Activity 2.5: Requesting quotes for the acquisition of various forest product processing machines and equipment.

Activity 2.6: Acquisition of machinery and equipment required for forest product processing.

Activity 2.7: Transport of machinery and equipment to the Puerto Dias Extractive Reserve.

Activity 2.8: Installation of machines and equipment in identified site.

5.3 Related to Output 3:

- Activity 3.1: Meeting with project executive director and the forest engineer to discuss the logotype model.

Activity 3.2: Preparation of terms of reference and selection and recruitment of consultant in forest product marketing.

Activity 3.3: Presentation and selection of logotype models prepared by the consultant.

Activity 3.4: Hiring of publicity agency to launch a logotype promotion campaign.

5.4 Related to Output 4:

Activity 4.1: Preparation of terms of reference and selection and recruitment of consultant in public forest sector policies.

Activity 4.2: Submission of policy document by the consultant, and analysis, discussion and approval of document by project executive director and technical team.

Activity 4.3: Sub-contracting of printers for the printing of activity records.

Activity 4.4: Printing of document containing a report of community efforts by the Puerto Dias Rubber Tappers' Association.

Activity 4.5: Distribution of document to all forest sector government and non-government institutions in the Brazilian Amazon Region.

6. **Logical framework worksheets**

Outputs/activities	Inputs
Output 1 Preparation and implementation of ...	
Activities	
1.1 To prepare terms of reference ...	1) 0.5 m/m - CTA General Coordinator 2) 0.5 m/m - Executive Secretary 3) Postal and other services
1.2 Preparatory meeting with ...	1) 0.25 m/m - Project Executive Director 2) 0.25 m/m - Executive Secretary 3) 0.25 m/m - Forest Engineer 4) Consumable materials
1.3 Meeting of project technicians ...	1) 0.25 m/m - Project Executive Director 2) 0.25 m/m - Forest Engineer 3) 0.25 m/m - Executive Secretary 4) Consumable materials
1.4 To develop the contents ...	1) 0.25 m/m - Project Executive Director 2) 1.0 m/m - Forest Engineer

Outputs/activities	Inputs
	3) Consumable materials
1.5 Meeting of project technicians ...	1) 0.25 m/m - Project Executive Director 2) 0.25 m/m - Forest Engineer 3) 0.5 m/m - Executive Secretary 4) Consumable materials
1.6 Subcontracting printers ...	1) 0.25 m/m - Project Executive Director 2) 0.5 m/m - Executive Secretary 3) Printing services
1.7 Selection of rubber tappers ...	1) 0.5 m/m - Project Executive Director 2) 0.5 m/m - Forest Engineer
1.8 Implementation of first training course ...	1) 0.5 m/m - Project Executive Director 2) 1.0 m/m - Executive Secretary 3) 1.0 m/m - Technical team/CTA 4) Transport and meals for participants
1.9 Implementation of first training course ...	1) 0.5 m/m - Project Executive Director 2) 1.0 m/m - Executive Secretary 3) 1.0 m/m - Forest Engineer 4) Transport and meals for participants
1.10 Implementation of first training course ...	1) 0.5 m/m - Project Executive Director 2) 1.0 m/m - Executive Secretary 3) 1.0 m/m - Forest Engineer 4) Transport and meals for participants
1.11 Implementation of second course ...	1) 0.5 m/m - Project Executive Director 2) 1.0 m/m - Executive Secretary 3) 1.0 m/m - Forest Engineer 4) Transport and meals for participants
1.12 Implementation of second ...	1) 0.5 m/m - Project Executive Director 2) 1.0 m/m - Executive Secretary 3) 1.0 m/m - Forest Engineer 4) Transport and meals for participants
1.13 Implementation of second and last ...	1) 2.0 m/m - Project Executive Director 2) 2.0 m/m - Executive Secretary 3) 1.0 m/m - Forest Engineer 4) Transport and meals for participants
Output 2 Development and installation of ...	
Activities	
2.1 Meeting with ...	1) 0.5 m/m - Project Executive Director 2) 0.5 m/m - Executive Secretary 3) Postal and other services 4) Transport and meals for participants

2.2 To develop an architectural design ...	1) 2 m/m - Expert in forest industries 2) 2 m/m - Forest Engineer 3) Consumable materials 4) 0.25 m/m - Project Executive Director
2.3 Transport of timber ...	1) 1 m/m - Forest Engineer 2) 2 m/m - Field Assistant
2.4 Building of warehouse ...	1) 6 m/m - Field team 2) Consumable materials 3) 0.25 m/m - Project Executive Director
2.5 Requesting quotes ...	1) 0.5 m/m - Expert in forest industries 2) 0.5 m/m - Project Executive Director 3) 0.5 m/m - Executive Secretary
2.6 Acquisition of machinery ...	1) 0.5 m/m - Project Executive Director 2) 0.5 m/m - Executive Secretary 3) Acquisition of machinery.
2.7 Transport of machinery ...	1) 0.5 m/m - Executive secretary 2) 4.0 m/m - Field team 3) 0.25 m/m - Project Executive Director
2.8 Installation of machines ...	1) 2 m/m - Expert in forest industries 2) 4 m/m - Field team 3) 0.25 m/m - Forest Engineer 4) 0.25 m/m - Project Executive Director
Output 3 Preparation and development ...	
Activities	
3.1 Meeting with project executive director...	1) 0.5 m/m - Project Executive Director 2) 0.5 m/m - Executive Secretary 3) 0.5 m/m - Forest Engineer
3.2 Preparation of terms of reference ...	1) 0.5 m/m - Project Executive Director 2) 0.5 m/m - Executive Secretary
3.3 Presentation and selection of logotype ...	1) 0.5 m/m - Marketing Expert 2) 0.5 m/m - Forest Engineer 3) 0.5 m/m - Project Executive Director
3.4 Hiring of publicity agency ...	1) 0.5 m/m - Executive Secretary 2) Publicity services
Output 4 Records of the Rubber Tappers Association's experience	
Activities	
4.1 Preparation of terms of reference ...	1) 0.5 m/m - Project Executive Director 2) 0.5 m/m - Executive secretary

4.2 Submission of policy document...	1) 2 m/m - Expert in public policy 2) 0.5 m/m - Project Executive Director 3) 0.5 m/m - Forest Engineer
4.3 Sub-contracting of printers...	1) 0.5 m/m - Project Executive Director 2) 0.5 m/m - Executive Secretary
4.4 Printing of document ...	1) 1.0 m/m - Project Executive Director 2) 1.0 m/m - Executive Secretary 3) Printing services
4.5 Distribution of document ...	1) 0.75 m/m - Project Executive Director 2) 1.0 m/m - Executive Secretary 3) Postal services

7. Work Plan

Outputs /Activities	Responsible Party	SCHEDULE (in months)											
		1	2	3	4	5	6	7	8	9	10	11	12
Output 1													
Activities													
1.1	CTA General Coord.												
1.2	Project Executive Director												
1.3	Project Executive Director												
1.4	Forest Engineer												
1.5	Project Executive Director												
1.6	Project Executive Director												
1.7	Project Executive Director												
1.8	Forest Engineer												
1.9	Forest Engineer												
1.10	Forest Engineer												
1.11	Forest Engineer												
1.12	Forest Engineer												
1.13	Forest Engineer												
Output 2													
Activities													

8.2 Future operation and maintenance

Any basic infrastructure established is to be maintained with part of the revenue generated through the marketing of products, including transport, schools, animal farming, opening of roads, health care posts, etc.

8.3 Key staff

The permanent project key staff will include the Project Executive Director, an Executive Secretary, a Forest Engineer, and a team of 4 field assistants (CTA staff members) in the areas of community education, health and development.

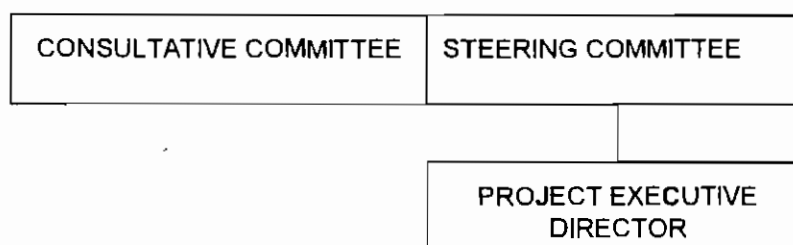
9. PRIOR OBLIGATIONS AND PREREQUISITES

The actions required prior to the implementation of this project, which have already been taken, are the legal procedures necessary to regulate the management plan with IBAMA.

10. POSSIBLE FUTURE ACTIONS

It may be necessary to develop a marketing strategy for future sale of products.

PROJECT ADMINISTRATIVE AND ORGANIZATIONAL STRUCTURE



PART III. MONITORING, REPORTING AND EVALUATION

1. Arrangements for reporting

Regular progress reports will be submitted in accordance with the annual Steering Committee meetings. Since the project will be implemented over a period of 12 months, two financial and operational reports will be prepared upon project completion. These reports will be sent to ABC, who will then submit them to ITTO.

2. Arrangements for ITTO monitoring and review

Two monitoring visits are proposed during project implementation, one at the beginning of the project and the other after the completion of project activities.

3. Evaluation

- At a Steering Committee's meeting to be held at the end of the project, a project evaluation will be carried out with the participation of the entire Consultative Committee.

4. Proposed training courses and unit cost of duty travel (US\$40/day)

The various courses envisaged in this project will be held in Rio Branco, the capital city of the State of Acre, and in the Puerto Dias Extractive Reserve.

The courses have been divided into two modules so as to facilitate the understanding of the subject matter being dealt with. Thus, the first module on Forest Logging will focus only on the theory while the second module will concentrate on practical aspects. The course on Timber Preservation and Drying will be organised with the participation of technicians from the Wood Technology and Furniture Sector of the National Industrial Service (SENAI), and the infrastructure available at this Service will also be used for the running of courses.

The modules of the course on Forest Product Processing will also be held in Rio Branco, and SENAI facilities and furniture factories will be used for the implementation of the practical component.

The unit costs of these courses have been carefully revised in an attempt to eliminate any unnecessary expenses. Unfortunately, it has not been possible to identify any unnecessary costs. The total cost per person per day is given below:

Hotel	US\$22.00
Meals:	
Lunch	US\$9.00
Dinner	US\$9.00
Total	US\$40.00/day

PART IV. BUDGET

4.1 Project budget by component - ITTO contribution

OUTPUTS/ ACTIVITIES	PROJECT PERSONNEL	SUB-CONTRACTS	DUTY TRAVEL	CAPITAL ITEMS	CONSUMABLE ITEMS	MISCELLANEOUS	MONITORING & EVAL.	GRAND TOTAL
Output 1:								
Activities								
1.1.	1) 2,500.00	3) 500.00	-	-	-	-	-	3,000.00
1.2.	1) 1,250.00	-	-	-	4) 600.00	-	-	1,850.00
1.3.	1) 1,250.00	-	-	-	4) 600.00	-	-	1,850.00
1.4.	1) 1,250.00	-	-	-	3) 600.00	-	-	1,850.00
1.5.	1) 1,250.00	-	-	-	4) 600.00	-	-	1,850.00
1.6.	1) 1,250.00	3) 9,000.00	-	-	-	-	-	10,250.00
1.7.	1) 2,500.00	-	-	-	-	-	-	2,500.00
1.8.	1) 2,500.00	-	4) 12,000.00	-	-	-	-	14,500.00
1.9.	1) 2,500.00	-	4) 12,000.00	-	-	-	-	14,500.00
1.10.	1) 2,500.00	-	4) 12,000.00	-	-	-	-	14,500.00
1.11.	1) 2,500.00	-	4) 12,000.00	-	-	-	-	14,500.00
1.12.	1) 2,500.00	-	4) 12,000.00	-	-	-	-	14,500.00
1.13.	1) 2,500.00	-	4) 12,000.00	-	-	-	-	14,500.00
Sub-total	26,250.00	9,500.00	72,000.00	-	2,400.00	-	-	110,150.00
Output 2:								
Activities								
2.1.	1) 2,500.00	3) 400.00 4) 1,500.00	-	-	-	-	-	4,400.00
2.2.	1) 10,000.00 4) 1,250.00	-	-	-	3) 800.00	-	-	12,050.00
2.3.	-	-	-	-	-	-	-	-
2.4.	3) 1,250.00	-	-	-	2) 5,000.00	-	-	6,250.00
2.5.	1) 2,500.00 2) 2,500.00	-	-	-	-	-	-	5,000.00
2.6.	1) 2,500.00	-	-	3) 177,500.00	-	-	-	180,000.00
2.7.	3) 1,250.00	-	-	-	-	-	-	1,250.00
2.8.	1) 10,000.00 4) 1,250.00	-	-	-	-	-	-	11,250.00
Sub-total	35,000.00	1,900.00	-	177,500.00	5,800.00	-	-	220,200.00

Cont...

OUTPUT/ ACTIVITIES	PERSONAL PROYECTO	SUB-CONTRATO	VIAJES SERVICIO	BIENES CAPITAL	BIENES FUNGIBLES	VIARIOS	CONTRERVALUACION	TOTAL GLOBAL
Output 3:								
Activities								
3.1	1) 2,500.00	-	-	-	-	-	-	2,500.00
3.2	1) 2,500.00	-	-	-	-	-	-	2,500.00
3.3	1) 2,500.00 3) 2,500.00	-	-	-	-	-	-	5,000.00
3.4	-	15,000.00	-	-	-	-	-	15,000.00
Sub-total	10,000.00	15,000.00	-	-	-	-	-	25,000.00
Output 4:								
Activities								
4.1	1) 2,500.00	-	-	-	-	-	-	2,500.00
4.2	1) 10,000.00 2) 2,500.00	-	-	-	-	-	-	12,500.00
4.3	1) 2,500.00	-	-	-	-	-	-	2,500.00
4.4	1) 5,000.00	3) 6,000.00	-	-	-	-	-	11,000.00
4.5	1) 3,750.00	3) 400.00	-	-	-	-	-	4,150.00
4.6	-	10,000.00	10,000.00	-	-	-	-	20,000.00
Sub-total	26,250.00	16,400.00	10,000.00	-	-	-	-	52,650.00
Total	97,500.00	42,800.00	82,000.00	177,500.00	8,200.00	-	10,000.00	418,000.00
ITTO Administrative costs (5.5%)								22,990.00
GRAND TOTAL						440,990.00		

Note: The numbers 1), 2), 3), 4), etc. correspond to the inputs indicated in Section 6. Activities and Inputs.

4.2 Project budget by components - CTA Contribution

OUTPUTS/ ACTIVITIES	PROJECT PERSONNEL	SUB-CONTRACTS	DUTY TRAVEL	CAPITAL ITEMS	CONSUMABLE ITEMS	MISCELLANEOUS	MONITORING & EVAL.	GRAND TOTAL
Output 1:								
Activities								
1.1.	2) 1,500.00	-	-	-	-	-	-	1,500.00
1.2.	2) 750.00 3) 750.00	-	-	-	-	-	-	1,500.00
1.3.	2) 750.00 3) 750.00	-	-	-	-	-	-	1,500.00
1.4.	2) 1,500.00	-	-	-	-	-	-	1,500.00
1.5.	2) 750.00 3) 1,500.00	-	-	-	-	-	-	2,250.00
1.6.	2) 1,500.00	-	-	-	-	-	-	1,500.00
1.7.	2) 1,500.00	-	-	-	-	-	-	1,500.00
1.8.	2) 1,500.00 3) 1,500.00	-	-	-	-	-	-	3,000.00
1.9.	2) 1,500.00 3) 3,000.00	-	-	-	-	-	-	4,500.00
1.10.	2) 1,500.00 3) 3,000.00	-	-	-	-	-	-	4,500.00
1.11.	2) 1,500.00 3) 3,000.00	-	-	-	-	-	-	4,500.00
1.12.	2) 1,500.00 3) 3,000.00	-	-	-	-	-	-	4,500.00
1.13.	2) 3,000.00 3) 3,000.00	-	-	-	-	-	-	6,000.00
Sub-total	38,250.00	-	-	-	-	-	-	38,250.00
Output 2:								
Activities								
2.1.	2) 1,500.00	-	-	-	-	-	-	1,500.00
2.2.	2) 6,000.00	-	-	-	-	-	-	6,000.00
2.3.	1) 3,000.00 2) 1,000.00	-	-	-	-	-	-	4,000.00
2.4.	1) 3,000.00	-	-	-	-	-	-	3,000.00
2.5.	3) 1,500.00	-	-	-	-	-	-	1,500.00
2.6.	2) 1,500.00	-	-	-	-	-	-	1,500.00
2.7.	1) 1,500.00 2) 2,000.00	-	-	-	-	-	-	3,500.00
2.8.	2) 2,000.00 3) 750.00	-	-	-	-	-	-	2,750.00
Sub-total	23,750.00	-	-	-	-	-	-	23,750.00

Cont...

OUTPUTS/ ACTIVITIES	PROJECT PERSONNEL	SUB-CONTRACTS	DUTY TRAVEL	CAPITAL ITEMS	CONSUMABLE ITEMS	MISCELLANEOUS	MONITORING & EVAL.	GRAND TOTAL
Resultado 3:								
Activities								
3.1	2) 1,500.00	-	-	-	-	-	-	3,000.00
3.2	3) 1,500.00	-	-	-	-	-	-	1,500.00
3.3	2) 1,500.00	-	-	-	-	-	-	1,500.00
3.4	1) 1,500.00	-	-	-	-	-	-	1,500.00
Sub-total	7,500.00	-	-	-	-	-	-	7,500.00
Output 4:								
Activities								
4.1	2) 1,500.00	-	-	-	-	-	-	1,500.00
4.2	3) 1,500.00	-	-	-	-	-	-	1,500.00
4.3	2) 1,500.00	-	-	-	-	-	-	1,500.00
4.4	2) 3,000.00	-	-	-	-	-	-	3,000.00
4.5	2) 3,000.00	-	-	-	-	-	-	3,000.00
Sub-total	10,500.00	-	-	-	-	-	-	10,500.00
Total	80,000.00	-	-	-	-	-	-	80,000.00
GRAND TOTAL			80,000.00					

Note: The numbers 1), 2), 3), 4), etc. correspond to the inputs indicated in Section 6. Activities and Inputs.

4.3 Project budget by year and by source

CONSOLIDATED YEARLY PROJECT BUDGET (US\$)		
DISBURSEMENTS	TOTAL	
BUDGET COMPONENTS	CTA	ITTO
1. Project personnel	80,000.00	97,500.00
2. Sub-contracts	--	42,800.00
3. Duty travel	--	92,000.00
4. Capital items	--	177,500.00
5. Consumable items	--	8,200.00
6. Miscellaneous	--	--
SUB-TOTAL	80,000.00	418,000.00
7.1 Monitoring & evaluation	--	20,000.00
7.2 ITTO admin., monit. & eval. (5.5%)		24,090.00
GRAND TOTAL	80,000.00	462,090.00

It has not been possible to reduce the overall budget, in particular on duty travel and capital items, for the following reasons: IBAMA and ABC monitoring and evaluation are essential activities as these institutions are the project's co-implementing agencies and their offices are located in Brasilia. Thus, the technical staff responsible for monitoring and evaluation activities will need to travel to the city of Rio Branco and subsequently to the Puerto Dias Extractive Reserve. It should be pointed out that the project will be located in the northern region of Brazil and fast access to this area can only be ensured by air via a route that is serviced by only one company so the cost of the air fare is fairly significant.

With regard to a reduction in capital items, the project technical team has analysed the various items included in this budget component in an attempt to eliminate any unnecessary equipment items without jeopardising the achievement of project objectives. Unfortunately, this has not been possible as all the items listed under "capital items" are necessary components to fulfill project objectives.

4.4 Breakdown of personnel costs

PERSONNEL	Quantity	Duration (in months)	CTA	ITTO
Executive Director	01	12	--	60,000.00
CTA General Coordinator	01	0.5		2,500.00
Executive Secretary	01	12	36,000.00	--
Consultant - Forest industries	01	4.5	--	22,500.00
Consultant - Marketing	01	0.5	--	2,500.00
Consultant - Public policy	01	02	--	10,000.00
Forest Engineer	01	12	36,000.00	--
Field Assistant	04	04	8,000.00	--
TOTAL			80,000.00	97,500.00

4.5 Breakdown of Sub-contracts costs

ACTIVITY	Sub-contract description	Quantity	Unit	Duration (in months)	Unit cost (US\$)	TOTAL (US\$)
Selection of Project Coordinator	Postal services	1	month	--	--	500.00
Training materials	Printers	6	course	--	1,500.00	9,000.00
Meeting with Association	Postal services	1	--	--	--	400.00
Meeting with Association	Accommodation & meals	--	--	03	500.00	1,500.00
Marketing	Publicity agency	--	--	--	--	15,000.00
Printing of policy documents	Printers	1000	unit	--	6.00	6,000.00
Distribution of document	Postal services	1	month	--	--	400.00
External audit	Monitoring & evaluation	1	unit	--	10,000.00	10,000.00
TOTAL						42,800.00

4.6 Breakdown of Duty Travel Component

ACTIVITY	Number of particip.	Duration (in days)	Unit cost (US\$)	TOTAL (US\$)
Implementation of 1st course on f.l. (module I)	20	15	40.00	12,000.00
Implementation of 1st course on t.p/d (module I)	20	15	40.00	12,000.00
Implementation of 1st product processing course (module I)	20	15	40.00	12,000.00
Implementation of 2nd course on f.l. (module II)	20	15	40.00	12,000.00
Implementation of 2nd course on t.p/d (module II)	20	15	40.00	12,000.00
Implementation of product processing course (module II)	20	15	40.00	12,000.00
ABC/IBAMA monitoring and evaluation	02	15	5,000.00	10,000.00
Auditing services	01	unit	10,000.00	10,000.00
TOTAL				92,000.00

4.7 Breakdown of capital items component

Description	Unit cost	Quantity	TOTAL US\$
Horizontal lathe	3.500,00	4	14.000,00
Vertical lathe	4.200,00	1	4.200,00
Circular saw/squaring bench	5.200,00	1	5.200,00
Band saw	5.480,00	1	5.480,00
Boring machine	1.534,00	1	1.534,00
Shaper	4.200,00	1	4.200,00
Hewer	4.064,00	1	4.064,00
Straightening machine	5.057,00	1	5.057,00
Band sander	2.020,00	1	2.020,00
Compressor	1.600,00	1	1.600,00
Paint gun	250,00	2	500,00
Portable tools (drill, screwdriver, etc.)	250,00	3	750,00
Portable band saw	80.000,00	1	80.000,00
Mortiser	2.800,00	1	2.800,00
Planer - 4 faces	25.000,00	1	25.000,00
Tools and accessories	6.000,00	1	6.000,00
Safety equipment and materials	2.500,00	1	2.500,00
Computer + printer	3.000,00	2	6.000,00
Number puncher	38,16	2	76,32
Waterproof logbook	16,12	5	80,60
Bark gage	60,00	4	240,00
Log hoist	54,90	10	549,00
Tirfor	1.105,00	5	5.525,00
Tape measure - 30 m	25,00	5	125,00
TOTAL			177.500,00

ANNEXES

- 1. LOGICAL FRAMEWORK MATRIX

PROJECT ELEMENTS	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
Development objective To demonstrate the economic, social and environmental viability of forest utilization...	Experience in community management by the Puerto Dias Extractive Reserve communities. Improvement of living conditions for communities benefiting from forest management.	Forest development model applied in other direct use conservation areas. Assessment of family incomes before and after the implementation of forest management.	Greater market value for products obtained from tropical forest management. Managers' awareness of the importance of forest sustainability.
Specific objective 1 To implement a programme for the processing of forest resources...	Programme developed, implemented and operational through forest processing unit established in the Puerto Dias Extractive Reserve.	Review visit by independent experts.	Greater community awareness of the value of previously untapped forest resources.
Specific objective 2 To train the local community...	Puerto Dias community's management and operation of model for community utilization of identified forest products.	Review visit by independent experts.	Community members are trained and in a position to implement the model on their lands.
Specific objective 3 To promote the incorporation of this experience ...	Various government and non-government organizations understand and incorporate this experience as an economic development model.	Review visit by technicians from various institutions.	Political will to implement forest management. Specific credit mechanism for forest management.
Output 1 Preparation and implementation of a training programme...	Implementation of 3 training courses for the Puerto Dias community through the training programme developed by the Project technical team. Community involvement in project management and administration.	Review and evaluation visit in project area. Records of implemented course programmes. List of participants' attendance.	Puerto Dias community members are trained in community management and business administration.
Activities			
1.1 To prepare terms of reference and to select and hire the Project Executive Director	Terms of reference prepared and Executive Director selected.	Records of terms of reference. Contract signed with executive director.	
1.2 Preparatory meeting with the Project Executive Director and the...	Meeting of project executive director and technical team held.	Minutes of meeting in CTA files.	The training programme is clearly outlined and understood by the Project Executive Director and technical team.
1.3 Meeting of project technicians to outline ...	Meeting of project technicians held.	Tasks identified and allocated to project technicians.	Fair distribution of tasks for programme development.

PROJECT ELEMENTS	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
1.4 To develop the contents of each training programme component	Work meetings of project technicians to discuss and outline specific issues related to the programme.	Minutes of meetings in project files. Document prepared.	The training programme is realistic.
1.5 Meeting of project technicians for the presentation and consolidation of the training programme	Submission and consolidation of developed programme.	Minutes of meetings in project files. Training programme document prepared.	The training programme is realistic.
1.6 Subcontracting printers for the printing of the training programme	Printers identified and hired. Training programme printed.	Contract document in project files. Document copies filed.	
1.7 Selection of rubber tappers to participate in the various training courses	75 rubber tappers selected for each course.	Minutes of meeting held in the area with CTA technical team.	Rubber tappers' commitment to undertake course. Wise selection of beneficiaries.
1.8 Implementation of the first training course on forest logging (module I).	First module on forest logging implemented.	Participants attendance list.	Assimilation of 70% of course contents.
1.9 Implementation of first training course on timber preservation and drying (module I).	First module on timber preservation and drying implemented with the participation of 25 rubber tappers.	Participants attendance list. Course report prepared by instructors and filed.	Assimilation of 70% of course contents.
1.10 Implementation of first training course on forest product processing (module I).	First module on processing implemented with the participation of 25 rubber tappers.	Participants attendance list. Record of students' evaluation. Activity report by instructors.	Assimilation of 70% of course contents.
1.11 Implementation of second and last course module on forest logging	Second module on forest logging implemented with the participation of 25 rubber tappers.	Participants attendance list. Record of students' evaluation. Activity report by instructors.	Assimilation of 70% of course contents.
1.12 Implementation of second and last course module on timber preservation and drying	Second module on timber preservation and drying implemented with the participation of 25 rubber tappers.	Participants attendance list. Record of students' evaluation. Activity report by instructors.	Assimilation of 70% of course contents.
1.13 Implementation of second and last course module (II) on forest product processing.	Second module on processing implemented with the participation of 25 rubber tappers.	Participants attendance list. Record of students' evaluation. Activity report by instructors.	Assimilation of 70% of course contents.
Output 2 Development and installation of a forest product processing...	Forest product processing industry installed.	Visit of technicians to project area.	The plant should be installed in accordance with established technical standards.

PROJECT ELEMENTS	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
		Records of final report on installation.	Successful plant installation.
Activities			
2.1 Meeting with the Puerto Dias Rubber Tappers' Association to identify...	Meeting of technical team and Puerto Dias Association held.	Minutes of meeting in CTA files.	Selected venue should be clearly identified.
2.2 To develop an architectural design for the forest product processing plant.	Architectural design prepared.	Submission of architectural design to project executive director. Design records filed.	
2.3 Transport of timber for building construction where the processing plant will be installed.	Transport of timber for building construction by the community.	Review visits to site where industrial plant is to be installed.	Effective participation of Association members.
2.4 Building of warehouse to house industrial equipment and machinery	Warehouse/building built by community.	Review visits to site where industrial plant is to be installed.	Work done in accordance to specifications for the installation of machinery and equipment.
2.5 Requesting quotes for the acquisition of various forest product processing machines and equipment.	Research on various specialized companies carried out.	Phone contacts. Catalogues of machinery and equipment. Quotes from specialized companies.	
2.6 Acquisition of machinery and equipment required for forest product processing.	Purchase of machinery and equipment.	Sale invoice for machinery and equipment purchased. Visit to industrial site.	The machinery acquired will meet community's timber utilization needs.
2.7 Transport of machinery and equipment to the Puerto Dias Extractive Reserve.	Machines and equipment transported to Puerto Dias Extractive Reserve.	Machinery transport/delivery invoice. Visit to factory site.	
2.8 Installation of machines and equipment in identified site.	Machinery and equipment installed in Puerto Dias Extractive Reserve.	Review visit to factory site.	Installation should be in accordance with specified standards.
Output 3 Preparation and development of a logotype for the Puerto Dias Extractive Reserve products.	Forest products logotype designed and developed.	The Puerto Dias Extractive Reserve products are identified with seal of community management area.	Investment on production improvement. Higher value added for forest products.
Activities			
3.1 Meeting with project executive director and the...	Meeting with project executive director and technical team held.	Minutes of meeting in project files.	
3.2 Preparation of terms of reference and selection and	Terms of reference prepared; consultant selected and	Record of terms of reference in files.	

PROJECT ELEMENTS	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	IMPORTANT ASSUMPTIONS
recruitment ...	recruited.	Contract signed by consultant.	
3.3 Presentation and selection of logotype models prepared by the consultant.	Puerto Dias forest products logotype designed and selected.	Minutes of meeting. Logotype model in files.	The logotype should be easily identified.
3.4 Hiring of publicity agency to launch a logotype promotion campaign.	Publicity agency recruited. Logotype promotion campaign carried out.	Submission of legal documents for agency recruitment. Records of dissemination campaign through videos and other communication media.	Mass consumer awareness campaign. Increase of value added for Puerto Dias forest products. Market guarantees for forest products.
Output 4 Records of the Rubber Tappers Association's experience in...	Records of community experience.	Document in project files.	This experience is replicated in other Amazon areas.
Activities			
4.1 Preparation of terms of reference and selection and recruitment of consultant in public forest sector policies.	Terms of reference prepared. Specialized consultant selected and recruited.	Submission of terms of reference document. Contracts with consultant.	
4.2 Submission of policy document by the consultant, and analysis, discussion and approval of document by project coordinator and technical team.	Policy document prepared and approved by project coordinator and technical team.	Submission of final document in Portuguese and official language. Records of executive report by consultant.	The document is disseminated throughout the Amazon Region. The document will serve as the basis of the implementation of similar projects in both government and non-government sectors.
4.3 Sub-contracting of printers for the printing of activity records	Hiring of printers for document printing.	Copies of contract in files.	
4.4 Printing of document containing a report of community efforts by the Puerto Dias Rubber Tappers' Association.	Printed records of Puerto Dias experience.	Submission of document in Portuguese and official language.	The document is disseminated throughout the Amazon Region. The document will serve as the basis for the implementation of similar projects in both government and non-government sectors.
4.5 Distribution of document to all forest sector government and non-government institutions in the Brazilian Amazon Region.	Distribution of document to all relevant institutions in the region.	Project progress report. Postal invoices.	The document serves as the basis for public forest sector policies in the Amazon Region.

2. Additional information on the submitting institution

AMAZON WORKERS CENTRE (CTA)

The Amazon Workers' Centre (Centro de Trabajadores de la Amazonia - CTA) is non-profit, non-governmental institution considered to be of public interest at the municipal and state levels. On 28 May 1994, the institution completed eleven years of activities. Undoubtedly, this brief account is not enough to provide the readers with a full understanding of the history of this organization.

Firstly, the CTA developed an Education Program for forest dwellers. This program was aimed at establishing an educational model, including teaching guidelines, books, brochures and training material, based on the living conditions in the rubber estates and with a view to strengthening the utilization and conservation of forests.

Today the CTA is directly involved in over 40 schools throughout the extractive reserve areas of the Acre and Purús River Valleys regions, offering training for nearly sixty rubber tapper leaders living in the areas and elected by their communities. This work merited the recognition of the World Bank (IDB), which entrusted the CTA with the implementation of an education diagnosis in the Amazon Extractive Reserves.

Since 1987, the CTA has been assisting these forest communities. It started a Health Program following the same approach used in the educational program, i.e. by training local rubber tappers as health officers for emergency treatment and simple first aid attention. This program currently has 27 trained officers and 20 health care posts established.

With the establishment of the first extractive reserve areas by the turn of 1988, the CTA started to define its Community Economic Development Program, with the aim of ensuring the economic viability and sustainability of the forest communities. This Program made significant progress and today has 20 seedling production units and agroforestry systems established in rubber estates. With regard to forest utilization, the CTA concentrated its efforts on the raising of funds for the implementation of multiple-use forest management.

It is clear that in order to take such a comprehensive program of action to the forests, where the public administration has always been absent, CTA needs technical equipment and infrastructure to support its activities. The CTA team is made up of 20 people, including 11 senior technicians, 5 middle level technicians and 4 support officers. Working facilities are installed in the central office in Rio Branco and the support branch in Xapuri.

Maintaining these facilities in operation and complying with the established objectives is a constant challenge. CTA develops, negotiates and implements projects and receives funding from various institutions. A large number of funding agencies provide support to CTA and believe in its work. Many of these are non-governmental institutions that collect donations from Europe and North America, including some Catholic and Protestant church institutions.

After ECO '92 and the recognition of the work done by non-governmental organizations, the Government of Brazil provided opportunities to meet CTA's financial requirements.

What are exactly the operational and management mechanisms of an institution of this kind? What political interventions and other pressures must face this type of organization? CTA is an actual example of the extensive work that the communities can carry out. A group of people -currently 17- are members of CTA. In their meetings, they agree on institutional guidelines and elect a Board of Directors made up of five members, who are responsible for implementing the decisions taken at the meetings. Neither the members nor the Board of Directors receive any remuneration for their involvement. The Board of Directors selects and hires three Coordinators, who are responsible for the administrative management of the institution. The institution has no political or partisan affiliation. The institution's guidelines are established by its members based on their experience. Thus, CTA membership profile is closely linked to Amazon development.

CTA goes a long way in the pursuit of self-financing. In 1992, it established a micro business, Poronga Ediciones & Comunicaciones Ltda. In the medium term, the profits of this company will finance the programs implemented by the institution. CTA brings a third party to the present debate on public and private sector efficiency, the civil society, with an entrepreneurial concept based on the objective of providing better living conditions for the forest communities.

APPENDIX

DRAFT

TERMS OF REFERENCE FOR PROJECT EXECUTIVE DIRECTOR

1. Introduction

An ITTO-funded project is being implemented by the Amazon Workers Center (CTA) under an agreement with the Brazilian Institute for the Environment (IBAMA) and the Institute for Colonization and Land Reform (INCRA). The objective of this project is the execution of a forest product processing and industrialization program based on the Multiple-Use Management Plan under implementation.

2. Work objectives

The recruitment of the consultancy covered by these terms of reference shall be carried out in accordance with the provisions of the Project Document PD97 approved at the Session of the International Tropical Timber Council.

The Project Executive Director shall coordinate all activities envisaged in the Work Plan, taking into account the guidelines of the Steering Committee.

3. Work methodology

The work methodology will be developed in conjunction with the CTA General Coordinator.

The activities to be implemented by the Project Executive Director will be determined on a case-by-case basis in accordance with the Work Plan previously established and approved by the Steering Committee.

4. Outputs

The Project Director shall produce the following outputs:

- 4.1 Preparation of progress and financial reports to be submitted to ABC;
- 4.2 Preparation of TOR for the recruitment of project consultants;
- 4.3 Establishment of Project Steering Committee and Consultative Committee;
- 4.4 Upon project completion, an overall report and an executive summary shall be submitted, including all activities implemented and envisaged in the project with a description of the methodology used in the implementation of each activity.

5. Duration

The Project Executive Director will be recruited for a period of 12 months.

6. Consultant Profile

In order to comply with the objectives and goals established in these terms of reference, a Project Executive Director shall be appointed, who in cooperation with the CTA General Coordinator, will define the work methodology to be used in the implementation of the activities scheduled in the work plan.

To this end, the Project Executive Director shall hold a Forest Engineering Degree or equivalent, and shall have experience in the management of international projects or similar initiatives and a thorough knowledge of the Amazon region.

7. Final considerations

The CTA will be responsible for the drafting of work contracts and other related duties. The financial resources for this consultancy shall be provided by ITTO and paid by CTA on a monthly basis.

DRAFT

TERMS OF REFERENCE FOR REGIONAL PUBLIC RELATIONS CONSULTANCY

1. Introduction

An ITTO-funded project is being implemented by the Amazon Workers Center (CTA) under an agreement with the Brazilian Institute for the Environment (IBAMA) and the Institute for Colonization and Land Reform (INCRA). The objective of this project is the execution of a forest product processing and industrialization program based on the Multiple-Use Management Plan under implementation.

2. Work objectives

The recruitment of the consultancy covered by these terms of reference shall be carried out in accordance with the provisions of the Project Document PD .../97 approved at the Session of the International Tropical Timber Council.

The consultants shall review all production processes and legal procedures required to incorporate this experience into municipal and state policies.

3. Work methodology

The work methodology will be jointly developed by the Project Executive Director and the CTA General Coordinator.

Reference materials will include all available files and records containing project reports, as well as official state and municipal records for the incorporation of the project experience into public policies.

4. Outputs

The consultants shall produce the following outputs:

- 4.1 Preparation of document on all regulatory and legal procedures required for the incorporation of the project experience into state and municipal policies.
- 4.2 Executive summary focusing on the methodology used and the process of incorporating the project experience into public policies.

5. Duration

It is expected that the total duration of this consultancy will be 60 days, excluding the submission of the executive summary.

6. Consultant Profile

In order to comply with the objectives and goals established in these terms of reference, two consultants shall be appointed, who shall address the methodological concept with the Project Executive Director and the CTA General Coordinator.

To this end, the consultants shall hold a social science degree or equivalent, and shall have experience in municipal and state legislation work and a thorough knowledge of regional public policies.

7. Final considerations

The CTA will be responsible for the drafting of work contracts and other related duties. The financial resources for this consultancy shall be provided by ITTO and paid by CTA as follows: 50% upon signing of agreement and the remaining 50% after the approval and acceptance of outputs by CTA.

DRAFT

TERMS OF REFERENCE FOR FOREST INDUSTRY CONSULTANCY

1. Introduction

An ITTO-funded project is being implemented by the Amazon Workers Center (CTA) under an agreement with the Brazilian Institute for the Environment (IBAMA) and the Institute for Colonization and Land Reform (INCRA). The objective of this project is the execution of a forest product processing and industrialization program based on the Multiple-Use Management Plan under implementation.

2. Work objectives

The recruitment of the consultancy covered by these terms of reference shall be carried out in accordance with the provisions of the Project Document PD97 approved at the Session of the International Tropical Timber Council.

The consultant shall review all Puerto Dias Reserve products to be processed in order to assess, install and put into operation the equipment/machinery to be purchased.

3. Work methodology

The work methodology will be jointly developed by the Project Executive Director and the CTA General Coordinator.

The framework of reference will be all the products to be processed and managed by the community of the Puerto Dias Extractive Reserve.

4. Outputs

The consultant shall produce the following outputs:

- 4.1 Definition and assessment of machinery and equipment;
- 4.2 Industrial plant lay-out;
- 4.3 Installation and operation of industrial machinery and equipment;
- 4.4 Preparation of operation manual for industrial machinery operators;
- 4.5 Preparation of manual on industrial standards and procedures;
- 4.6 Executive summary focusing on the methodology used and an analysis of the industrial potential of the products to be processed.

5. Duration

It is expected that the total duration of this consultancy will be 135 days (4.5 months), including the submission of the executive summary.

6. Consultant Profile

In order to comply with the objectives and goals established in these terms of reference, one consultant shall be appointed, who shall address the methodological concept with the Project Executive Director and the CTA General Coordinator.

To this end, the consultant shall hold a forest engineering degree or equivalent, and shall have experience in forest industry establishment and management in the Amazon region.

7. Final considerations

The CTA will be responsible for the drafting of work contracts and other related duties. The financial resources for this consultancy shall be provided by ITTO and paid by CTA as follows: 50% upon signing of agreement and the remaining 50% after the approval and acceptance of outputs by CTA.

DRAFT

TERMS OF REFERENCE FOR FOREST PRODUCTS MARKETING CONSULTANCY

1. Introduction

An ITTO-funded project is being implemented by the Amazon Workers Center (CTA) under an agreement with the Brazilian Institute for the Environment (IBAMA) and the Institute for Colonization and Land Reform (INCRA). The objective of this project is the execution of a forest product processing and industrialization program based on the Multiple-Use Management Plan under implementation.

2. Work objectives

The recruitment of the consultancy covered by these terms of reference shall be carried out in accordance with the provisions of the Project Document PD97 approved at the Session of the International Tropical Timber Council.

The consultant shall review all products to be processed/industrialized by the community of the Puerto Dias Extractive Reserve in order to design a logotype and a marketing strategy.

3. Work methodology

The work methodology will be jointly developed by the Project Executive Director and the CTA General Coordinator.

The framework of reference will be all products to be processed/industrialized and managed by the community of the Puerto Dias Extractive Reserve. The research will include regional, national and international consumer markets, focusing on the markets of sustainably managed forest products.

4. Outputs

The consultant shall produce the following outputs:

- 4.1 Design of a Puerto Dias forest products logotype.
- 4.2 Development of a marketing strategy for the products to be processed/industrialized by the community of the Puerto Dias Extractive Reserve.
- 4.3 Preparation of executive summary focusing on the methodology used and an analysis of potential regional, national and international consumer markets.

5. Duration

It is expected that the total duration of this consultancy will be 15 days, excluding the submission of the executive summary.

6. Consultant Profile

In order to comply with the objectives and goals established in these terms of reference, one consultant shall be appointed, who shall address the methodological concept with the Project Executive Director and the CTA General Coordinator.

To this end, the consultant shall hold a forest engineering degree or equivalent, and shall have experience in forest product marketing and a thorough knowledge of the Amazon region.

7. Final considerations

The CTA will be responsible for the drafting of work contracts and other related duties. The financial resources for this consultancy shall be provided by ITTO and paid by CTA as follows: 50% upon signing of agreement and the remaining 50% after the approval and acceptance of outputs by CTA.