

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

B R A Z I L

SUSTAINABLE USE OF THE TROPICAL FOREST IN ACRE

Operation No. ATN/JF-6980-BR
Approved on May 17 , 2000

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EXECUTIVE SUMMARY

Requester:	Centro dos Trabalhadores do Amazônia (CTA)		
Executing agency:	Centro dos Trabalhadores do Amazônia (CTA)		
Amount and Source:	IDB: (JSF)	US\$	750,000
	Local:	US\$	250,000
	Total:	US\$	1.000,000
Terms:	Execution Period:	36	Months
	Disbursement Period:	38	Months
Objectives:	The objective of the Project is to promote the introduction of the new economic alternatives for extractive settlements based on the rational exploitation of the multiple natural resources of the tropical forest, through an appropriate management that will ensure the conservation of environment in these areas.		
Description:	<p>The project consists of four activities, the description of which is presented as follows.</p> <ol style="list-style-type: none"> 1. <u>Sustainable use of timber resources (US\$390,000).</u> This activity will finance the preparation, approval and implementation of a sustainable community-based forestry management plan in one extractive settlement in order to introduce rubber-tapping families to the economic use of timber resources of forestlands under their possession in a collective manner. 2. <u>Fisheries (US\$120,000).</u> The activity considers the implementation in one extractive reserve of three demonstrative units of native fish production utilizing the damming technique. The acquisition of equipment and material will be financed for the installation of the production infrastructure in three areas of one hectare each. Likewise, necessary inputs for the first productive cycle of two years will be purchased. The Project includes technical assistance for the monitoring of the production phase and marketing of output starting in the third year of the project, as well as information gathering regarding costs and associated revenue, ex-post evaluation and the dissemination of this pilot experience to rubber-tapping families. 3. <u>Extraction of copaiba (US\$25,000).</u> This activity includes technical assistance and basic equipment for 90 families for the 		

gathering, processing and marketing of copaiba oil in four extractive reserves. The tasks include demonstrations about drilling techniques on copaiba trees, the extraction of oil resin, traditional techniques for obtaining copaiba oil, and the mechanisms for its later commercialization.

4. Community development (US\$112,000). The objective of this activity is to promote the strengthening of communities in four extractive settlements through the training of its members. The activity includes the execution of courses related to associations, cooperatives, and administration of family businesses, including diagnostic techniques and auto performance models. Likewise, annual meetings in four PAEs will take place for developing methodologies for cooperation. Prior to the execution of the courses, a triennial community development plan will be prepared in which training and orientation tasks will be defined for family members in four extractive settlements.

**Environmental/
Social review:**

The low profitability of natural rubber is pushing rubber-tapping families towards the indiscriminate logging of tropical forest in order to develop economic activities that can compensate the decrease in their income. This situation is generating the environmental degradation of the region. The Project has important environmental benefits since it will allow to diminish the existing pressure over the fragile Amazonian ecosystems, providing the people in extractive settlements the economic utilization of natural resources of the area in a way that is more consistent with the environmental reality of the region.

**Benefits and
beneficiaries:**

At least 200 rubber-tapping families will benefit with the introduction of new productive models capable of reducing the environmental degradation cycle generated by activities such as indiscriminate sale of timber or the low-intensive agricultural exploitation in extractive areas. If profitable, these new productive models can allow rubber-tapping families to expand their options to ensure the economic self-sustainability of these areas. This will permit "seringueiros" to become responsible for the preservation of the Amazonian tropical forests under new models of production consistent with the fragility of their environment.

Risks:

The main risk of the project is the lack of acceptance by rubber-tapping families of the new models of production that are being promoted, due to its low profitability or the difficulties to work collectively. In order to minimize this risk, the Project considers two fundamental actions. First, participation of rubber tappers has been foreseen from the planning process to the output marketing.

This task will be assisted by actions under the Community Development activity. Second, the Project provides support throughout not only the production phase but also the marketing phase, via a market search for the new products.

**Bank's country
and sector
strategy:**

The Bank's strategy in Brazil has the following main elements: (i) to promote and deepen the reforms and the modernization of the public sector at the federal and state levels, (ii) to support Government efforts to improve competitiveness and market access of domestic production, (iii) to support the reduction of social inequalities and poverty levels, and (iv) to assist environmental management and natural resources problems, with emphasis on the protections of vulnerable ecosystems.

The proposed operation is consistent with the action area of assistance to the environment and the natural resources, through the conservation and protection of environmentally fragile zones in the country such as the Amazonian tropical forests.

**Special
contractual
conditions:**

As a condition precedent to first disbursement of Bank funds, a framework agreement of cooperation between the Centro dos trabalhadores da Amazônia (CTA) and the Fundação de Tecnologia do Estado do Acre (FUNTAC) (paragraph 3.18).

As a condition precedent to the acquisition of the equipment considered under the activity Sustainable Use of Timber Resources, the simplified forestry management plan will be approved by the Instituto Brasileiro de Meio Ambiente, Recursos Hídricos e Amazônia Legal (IBAMA) and the Instituto de Meio Ambiente do Estado do Acre (IMAC) (paragraph 3.6).

**Exceptions to
Bank policy:**

None.

I. FRAME OF REFERENCE

A. Situation in the extractive areas of Acre

- 1.1 The State of Acre is located in the extreme west of Brazil, bordering Bolivia and Peru. Its surface is approximately 153,000 km² and it has a population close to 550,000 inhabitants, most of which descend from colonizers from the Northeast area of the country that were attracted to the region by the profitability of natural latex extraction during the rubber boom (1850-1920).
- 1.2 About 35% of the population lives in rural areas, the majority of which still make a living from rubber exploitation. Rubber tappers, or "seringueiros", work in associations or cooperatives along 2.4 million hectares of public lands called Extractive Reserves or Extractive Settlements Projects (PAEs). These lands are classified as open tropical forests, which have a high level of biodiversity, both in terms of flora and fauna. The State of Acre forms part of the western "biological corridor" and it is considered by the environmental authority of the country as a priority state in the conservation of biodiversity in Brazil.
- 1.3 The current socioeconomic situation of rubber tappers is very deteriorated. As a result of the decline of market prices, the production of natural rubber has been decreasing systematically. Between 1986 and 1993, the production was reduced in more than 50%. This situation is having a significant impact on the income level of rubber-tapping families. Although most "seringueiros" complement their income with the sale of Brazil-nuts and with limited low-intensive agriculture or livestock in part of their land, this revenue is insufficient to ensure them an adequate quality of life¹. This fact is pushing many rubber tappers to sell timber illegally and to expand their reserved cropland and pasture land as a means of subsistence, generating indiscriminate logging activities in these areas with the consequent negative impact on the environment. In order to avoid greater environmental damages in the region, rubber tappers require economically viable productive alternatives that are consistent with the fragile ecosystems of the Amazon Basin.
- 1.4 In this regard, many supporting organizations of rubber tappers have proposed initiating pilot experiences of new economic activities complementary to natural rubber extraction based on the sustainable use of the different natural resources in the tropical forest areas of the extractive settlements. For example, one the economic activity with greater potential in these areas is the rational use of timber resources. It is estimated that with an adequate, community-based management plan of these resources the number of marketable tree species can be expanded to increase the actual timber production of 212,000 cubic meters in the State. At

¹ According to a 1995 survey on the socioeconomic profile of four extractive settlements (470 families), it was found that none of these PAEs had access to basic sanitary services. Likewise, 30% of the population was illiterate y an additional 30% had only received fourth-grade instruction.

present, out of 350 marketable species only 60 are being exploited, out of which eight species represent 80% of the sector's gross production value. Other economic alternatives include fisheries, as well as the processing of medicinal plants such as the copaiba (US\$3 per ounce in the United States market). Integrated natural resources management such as timber, fisheries, or medicinal plants can result in new production models for rubber-tapping families, allowing a reduction of the existing pressure over the fragile Amazonian ecosystems. Nevertheless, the viability of integrated natural resources management will depend not only on the assessment of output market conditions but also on the level of know-how that rubber-tapping families can obtain to use these resources efficiently.

B. Relationship of the Program with the Bank's country and sector strategy

- 1.5 The Bank's strategy in Brazil has the following main elements: (i) to promote and deepen the reforms and the modernization of the public sector at the federal and state levels, (ii) to support Government efforts to improve competitiveness and market access of domestic production, (iii) to support the reduction of social inequalities and poverty levels, and (iv) to assist environmental management and natural resources problems, with emphasis on the protections of vulnerable ecosystems.
- 1.6 The proposed operation is consistent with the action area of assistance to the environment and the natural resources, through the conservation and protection of environmentally fragile zones in the country such as the Amazonian tropical forests.
- 1.7 Although this operation is not directly linked to the preparation of a loan of the Bank, the expected results at the end of the execution period will provide relevant information about profitability of multiple-use forest management and the social feasibility of the activities that will assist in the conceptualization and design of the Program "Sustainable Development of Acre"(BR-0313). This Program is expected to be approved in 2001.

C. Bank actions in the sector

- 1.8 In March of 1998, the execution of the project "Support to the Extractive Reserves in the State of Acre" (ATN/TF-3934-BR) was completed. The objective of the project was to improve the living conditions of local communities in four PAEs (São Luís do Remanso, Cachoeira, Santa Quitéria and Porto Dias) through the establishment of basic social infrastructure. Total project beneficiaries were 480 families. The project was executed by the Fundação de Tecnologia do Estado do Acre (FUNTAC), with the assistance of the non-governmental organization Centro dos Trabalhadores da Amazônia (CTA).

- 1.9 To achieve the objective, the project included actions in five areas: education, health, economic and community development, research and institutional strengthening. The total cost of the project was US\$1.5 million, out of which the Bank financed US\$1 million. In the area of education, the objective was to develop basic training programs for adults and children focused on the cultural needs of the communities. A total of US\$204,000 was disbursed to finance minimum infrastructure, community teacher training activities, and the preparation of educational material. In the area of health, the objective was to cover the demand for health services in four PAEs. A total of US\$187,000 was disbursed to finance the construction of seven health posts and the annual training of specialists. In the area of economic and community development, the objective was to improve production and marketing conditions for rubber and Brazil-nuts. A total of US\$300,000 was disbursed to finance the construction of community warehouses, technical training and production equipment. In the area of research, the objective was to develop management alternatives of natural resources for the establishment of an auto-sustainable development model. A total of US\$220,000 was disbursed for the development of different inventories (forestry, flora, fauna and endemic species) and the monitoring of forest cover. Finally, in the area of institutional strengthening, the project assisted the executing agency through equipment acquisition and technical support (US\$244,000).
- 1.10 Originally designed to be executed in three years, this operation was totally implemented in five and a half years due to the budgetary cuts and personnel limitations of FUNTAC. In order to avoid the cease of execution, CTA took over the responsibilities originally assigned to FUNTAC; i.e., contract administration of school construction, health posts and warehouses, as well as the assistance for the development of inventories under the research component. Moreover, an important part of the resources were transferred to CTA to avoid payment delays associated with cumbersome procedures in the executing agency.
- 1.11 Main outputs from this operations can be summarized as follows: (i) project executing capacity of CTA was strengthened; (ii) the level of community participation in the PAEs of the project was increased through specific actions in education, health and marketing of rubber and Brazil-nut; and (iii) knowledge of natural resources in the tropical forests of extractive settlements was extended, recognizing the potential value of products such as timber, fisheries and copaiba. The proposed Project is built upon these outputs, focusing its activities on the introduction of pilot experiences for the rational exploitation of high-valued timber and non-timber products as new economically viable and environmentally friendly alternatives to rubber and Brazil-nuts. The accomplishments in community development achieved under the ATN/TF-3934-BR will support the necessary community work to carry out these pilot experiences in the use of forest products. Likewise, the demonstrated executing capacity of CTA, above that achieved by FUNTAC, for the completion of the operation ensures a successful implementation of this new Project.

II. OBJECTIVE

- 2.1 The objective of the Project is to promote the introduction of the new economic alternatives for extractive settlements based on the rational exploitation of the multiple natural resources of the tropical forest, through an appropriate management that will ensure the conservation of the environment in these areas.
- 2.2 Specific goals of this Project are the following: (i) to implement demonstrative pilot experiences for the management, extraction and marketing of timber and non-timber (fisheries and copaiba) resources of the tropical forest, with the participation of rubber tapping families; and (ii) to increase the managerial capacity of rubber tappers, as well as to continue the strengthening process of community work in extractive settlements.

III. PROJECT DESCRIPTION

A. Activities

- 3.1 The project consists of four activities, the description of which is presented in the next paragraphs.

1. Sustainable use of timber resources (US\$390,000)

- 3.2 This activity will finance the preparation, approval and implementation of a sustainable community-based forestry management plan in one extractive settlement in order to introduce rubber-tapping families to the economic use of timber resources of their forestlands in a collective manner.
- 3.3 The activity is comprised of sequential tasks that will start with the elaboration of a forestry management plan for 3,600 hectares of tropical forests. The Project will provide technical assistance for the elaboration of this sustainable management plan, which includes, among others, the following responsibilities: (i) prepare an inventory of timber resources in the area, which will detail the location, the identification and stock availability of trees with commercial value, key species and potential species for future cut; (ii) identify species that will be cut in each logging area using a logistic map, based on the prepared inventory; (iii) prepare a zoning plan for the area, with its corresponding forestry rotation plan; (iv) prepare an annual cutting plan for each species and identify appropriate environment-friendly logging techniques; (v) analyze models for different exploitation systems and an estimation of detailed operative costs for each case; (vi) evaluate the economic viability of the proposal; (vii) assess the environmental impacts of the forestry plan on the biodiversity level of the area and propose appropriate mitigation measures; and (viii) analyze the social viability of the proposal, emphasizing the expected participation of the community in the productive

process. These responsibilities will be performed with the close participation of rubber-tapping families of the area.

- 3.4 Based on the community-based forestry management plan, an annual simplified forestry management plan will be prepared for 120 hectares per year managed by 12 families (10 hectares per family per year), according to the regulations of the environmental legislation of the country. The selection of these 120 hectares per year will be carried out by the family association of the PAE. The simplified forestry plan, which considers the exploitation of 120 hectares per year, will be submitted for the approval of the Instituto Brasileiro de Meio Ambiente, Recursos Hídricos e Amazônia Legal (IBAMA) and the Instituto de Meio Ambiente do Estado do Acre (IMAC).
- 3.5 Likewise, this activity includes three training courses, the objective of which will be to prepare the selected 12 rubber-tapping families for the subsequent executing work associated with the exploitation of timber resources according to the forestry plan.
 - a. *Use and maintenance of logging equipment.* The objective of the course is to provide training to selected rubber-tapping families members in the use of equipment traditionally utilized in logging tasks (at least 15 people); e.g. chainsaws, tractors, animal traction, transportation trucks. Aspects related to the minimization of environmental impacts in the forest associated with the use of this type of equipment will be emphasized. The course will have a duration of 10 days.
 - b. *Use and maintenance of wood processing equipment.* The objective of the course is to provide training to 10 members of the selected rubber-tapping families in the utilization and maintenance of primary wood processing units. The course will have a duration of one week.
 - c. *Security and first aid.* The course will allow minimizing the traditional risks associated with logging activities. The course will promote the use of protection equipment during the logging activities in the forest, as well as first aid actions in cases of emergency. The course will have duration of seven days and will be targeted to selected rubber-tapping family members (at least 15 people).
- 3.6 Once the management plan is approved by IBAMA and IMAC and the training courses have been completed, logging activities will be executed. The Project will finance technical assistance and equipment for the annual preparation of the forestry management units, task that includes the annual clearing for secondary paths and the subsequent cutting activities. Likewise, technical assistance will be financed for the processing and marketing of wood. **The approval of the simplified forestry management plan by IBAMA and IMAC will be a condition precedent to the acquisition of the equipment considered under this activity.**

- 3.7 The activity also includes technical assistance for obtaining the certification of origin for the wood produced in the project area. To achieve this goal, the management units will have to go under an auditing process by a certified recognized by the International Council of Forestry Management. Likewise, a study on the economic profitability achieved at the end of the activities and an environmental impact assessment of the preparation and logging activities will be prepared.
- 3.8 The results of the community-based planning process, training, use of the timber resources, certification and profitability of this experience will be disseminated to 100 rubber-tapping family members of at least four PAEs, including São Luís do Remanso, through five seminar-workshops of five days each. The objective of these seminar-workshops is both to spread out the achievements of the pilot experience and to evaluate the potential involvement of rubber-tapping families of other extractive areas in logging activities.

2. Fisheries (US\$120,000)

- 3.9 The activity considers the implementation in one extractive reserve of three demonstrative units of native fish production utilizing the damming technique. The Program will finance the acquisition of equipment (transportation tank for younger fish, oxygen equipment, and water quality testing kits) and material (pipelines, and drainage system) for the installation of the production infrastructure in three areas of one hectare each. Likewise, necessary inputs for the first productive cycle of two years will be purchased.
- 3.10 The Project includes technical assistance for the monitoring of the production phase and output marketing starting in the third year of the project, as well as information gathering regarding costs and associated revenue. At the end of the activity, an economic evaluation will be prepared, with projections of net benefits for the next ten years based on the revenue and costs obtained, pointing out the internal rate of return achieved.
- 3.11 The results of the installation and production process, and the corresponding profitability of this pilot experience will be disseminated to 100 rubber-tapping family members of at least four PAEs, including São Luís do Remanso, through five seminar-workshops of five days each. The objectives of these seminar-workshops is both spread out the achievements of the pilot experience and evaluate the potential involvement of rubber-tapping families of other extractive areas in fisheries activities.

3. Extraction of copaiba (US\$25,000)

- 3.12 This activity includes technical assistance and basic equipment for 90 families for the gathering, processing and marketing of copaiba oil in four extractive reserves. The tasks include demonstrations about drilling techniques on copaiba trees, the

extraction of oil resin, traditional techniques for obtaining copaiba oil, and the mechanisms for its subsequent commercialization.

- 3.13 Technical assistance will also include support for information gathering of costs and revenue at the family level, as well as for the socioeconomic evaluation of the activity.

4. Community development (US\$112,000)

- 3.14 The objective of this activity is to promote the strengthening of communities in four extractive settlements through the training of its members. The activity includes the execution of 18 courses of five days each in aspects related to associations and cooperatives, as well as administration of family businesses, including diagnostic techniques and auto performance models. A total of 180 participants of four PAEs are expected to attend. Likewise, 10 annual meetings in four PAEs will take place for developing methodologies for cooperation in order to ensure the participation of the greatest number of rubber-tapping families in the activities related to timber, fisheries and copaiba. As a result of these meetings, a sociological feasibility study will be prepared in which the social viability of these activities will be demonstrated. Prior to the execution of the courses, a triennial community development plan will be prepared in which training and orientation tasks will be defined for 120 family members in four extractive settlements.

B. Cost and financing

- 3.15 The total cost of the Project was estimated at US\$1'000,000, of which the Bank will finance US\$750,000 with resources from the Japan Special Fund for technical cooperation. The contribution of CTA will be US\$250,000, which will consist of logistic support and office space. The detailed budget by investment category is presented in Table 1.
- 3.16 Bank resources will finance, besides project activities, administrative expenses of the Project that will consist of secretarial assistance, external auditing services, communications, and travel expenses for CTA and for other agencies that will collaborate with Project supervision. Counterpart funds will be provided by CTA, FUNTAC, the Conselho Nacional de Seringueiros (CNS) and rubber-tapping families, which will be used to finance expenses associated with logistic support, supervision and financial management of the operation.

Table 1

CATEGORY OF INVESMENT	DURATION	TOTAL
I. Project administration		66,000
II. Activities		647,000
1. Sustainable use of timber resources		390,000
<i>Consulting services</i>		191,000
Coordinator	36 months	53,000
Forest engineer	300 days	48,000
Forest technician	300 days	24,000
Community organization specialist	150 days	11,000
Botanist	96 days	6,000
Economist	4 months	16,000
Environmental specialist	3 months	12,000
Forest auditor	3 months	21,000
<i>Equipment & inputs</i>		197,000
Equipment		168,000
Inputs		9,000
<i>Training</i>		22,000
Services		3,000
Training material		9,000
Travel expenses for participants		10,000
2. Fisheries		120,000
<i>Consulting services</i>		78,000
Fisheries specialist	36 months	60,000
Field assistant	36 months	12,000
Economist	30 days	6,000
<i>Equipment & inputs</i>		42,000
Equipment		10,000
Inputs		32,000
3. Extraction of copaiba		25,000
<i>Consulting services</i>		19,000
Copaiba extraction specialist	80 days	13,000
Economist	30 days	6,000
<i>Equipment</i>		6,000
4. Community development		112,000
<i>Consulting services</i>		65,000
Coordinator	36 months	50,000
Community organization specialist	150 days	12,000
Community plans specialist	60 days	3,000
<i>Training</i>		47,000
Services		10,000
Materials		27,000
Travel expenses for participants		10,000
III. Contingencies		37,000
TOTAL IDB (I+II+III)		750,000
Logistic support		37,000
Contribution from extractive settlements		15,000
Financial specialist	36 months	36,000
Supervisor CTA	36 months	54,000
Supervisor FUNTAC	36 months	54,000
Supervisor CNS	36 months	54,000
TOTAL LOCAL		250,000

C. Execution scheme

- 3.17 The execution of this project will be the responsibility of the Centro dos Trabalhadores da Amazônia (CTA). CTA is a non-profit organization funded in 1983, at the time of the conflict between traditional "seringueiros" and farmers. CTA participated on the establishment of the Extractive Reserves system, putting in the hands of the "seringueiros" the utilization of almost a third of the lands of Acre. From 1987, CTA has focused its efforts in improving life conditions in the Extractive Reserves through the provision of schools and health services, as well as in the creation of more than 30 cooperatives oriented towards marketing of forestry resources. At present, CTA is responsible for the social services network for 50 extractive areas in the region. CTA has a staff of 25 people, 18 of which are professional. Budget expenses of CTA were US\$1 million in 1999, which were financed with resources not only from the public sector, but also from bilateral international agencies.
- 3.18 CTA will be responsible for the administration and technical supervision of the aforementioned activities, in close collaboration with the Fundação de Tecnologia do Estado do Acre (FUNTAC), a state government agency. Responsibilities of CTA as executing agency include, among others, (i) the selection, contracting, technical supervision, output/report analyses and final evaluation of consultants, (ii) the identification, description of technical specifications, procurement process and acquisition of equipment and inputs, (iii) project accounts management and the preparation of disbursement requests, and (iv) the presentation of the Project's completion report and final evaluation report, including a section on main lessons learned. The FUNTAC will collaborate with CTA in the technical supervision of contracts. **The presentation of framework agreement of cooperation between CTA and FUNTAC will be a condition precedent to the first disbursement of the resources of the Bank.** One staff member of CTA will be responsible for the supervisory and administrative tasks of the Project. FUNTAC will provide a staff member to support the technical supervision duties of CTA. For the specific task of project account management and disbursement requests, CTA will provide a financial specialist.
- 3.19 Individual consultants will perform all Project activities. Both the hiring of individual consulting services and the procurement of equipment that will be financed with Bank resources will be done in accordance with Bank procedures in this subject. Indicative terms of reference of consultants, as well as the list of equipment and inputs, that will be financed with this Project are presented in Annex 1.
- 3.20 Timber extraction and fisheries activities described in this Project will take place in the extractive settlement of São Luís do Remanso, located in the Municipality of Rio Branco and Xapuri. This settlement, created on July 30, 1987, has a total extension of 43,200 hectares, of which 1,100 hectares are allocated to permanent

preservation, 2,100 hectares to human activities and the remaining 40,000 hectares can be used for sustainable management activities. The use of these lands has been assigned in concession to 130 families. Around 40% of their income is derived from rubber tapping and nuts gathering, and the remaining 60% from agricultural activities. The selection of this settlement is justified because of its high level of timber resources; the estimated average volume of wood in the area (167 m³/ha), mainly cedar and mahogany, is above that of any other extractive settlement in Acre. São Luís do Remanso is also characterized by its multiple small hydrographic ways affluent of the Acre river, which turns it in an area with potential for fisheries activities. Finally, it is important to mention that in contrast to other PAEs, this settlement has direct access routes for product transportation and it is located at a short distance from the main state markets.

- 3.21 Dissemination tasks of results from the sustainable use of timber and fisheries activities, as well as the copaiba extraction and community development activities, will take place, besides the PAE São Luís do Remanso, in the following PAEs: Cachoeira, Santa Quitéria and Porto Dias. Together with São Luís do Remanso, these PAEs participated on the activities performed under the operation ATN/TF-3934-BR, and have experience on community work in the areas of education, health and marketing of rubber and Brazil nuts. For the implementation of both the copaiba extraction and community development activities, CTA will work in coordination with the Conselho Nacional de Seringueiros (CNS), non-governmental organization created in 1985 that represents interests of rubber tappers and other extractive workers in the amazon area. CNS participation in the project will allow a greater collaboration of the rubber-tapping families in the four selected PAEs. A CNS staff member will support CTA in the technical supervision of both the extraction of copaiba and the community development activities.
- 3.22 The project will have an execution period of 36 months. The following table shows the expected disbursement schedule.

YEAR	IDB	LOCAL	TOTAL
1	250	90	340
2	350	80	430
3	150	80	230
TOTAL	750	250	1,000

- 3.23 A revolving fund will be established with 5% of the total resources financed by the Bank to assist the disbursement related to this Project.

D. Monitoring and ex-post evaluation of the Project

- 3.24 Thirty days before closing of the executing year, CTA will present to the Bank an annual progress report, which will describe execution of Project activities, results

achieved, partial accomplishment of goals, as well as a description of bottlenecks encountered during execution and proposals for their solution. Progress reports will be based upon benchmark indicators of the project indicated in the Logical Framework of the operation (Annex II). The Bank and the executing agency will agree upon any changes or adjustments in the project that can be suggested in the progress reports. The Bank's Field Office in Brasilia will fulfill the required monitoring tasks of this operation in the Bank.

- 3.25 Ex-post evaluation of the project will be performed by CTA based on both the socioeconomic and environmental assessments of the activities that will be done by the corresponding individual consultants. This evaluation will allow measuring the success achieved in terms of the development objectives of the project. The ex-post evaluation report will be submitted to the Bank within 60 days of the end of the executing period.
- 3.26 Likewise, CTA will present to the Bank within 90 days after the last disbursement of bank resources a financial statement related to the Project's expenses made from both Bank and local counterpart funds, judged by independent auditors recognized by the Bank. The expenses of this auditing services will be financed with Bank resources.

IV. BENEFITS AND RISKS

- 4.1 At least 200 rubber-tapping families will receive information about the results of the introduction of new productive models capable of reducing the environmental degradation cycle generated by activities such as indiscriminate sale of timber or the low-intensive agricultural exploitation in extractive areas. If profitable, these new productive models can allow rubber-tapping families to expand their options to ensure the economic self-sustainability of these areas. This will permit "seringueiros" to become responsible for the preservation of the Amazonian tropical forests under new models of production consistent with the fragility of their environment. The following table presents information on rubber-tapping families that will participate in each of the activities of the Project.

ACTIVITY	PARTICIPANTS
Sustainable use of timber resources	100
Fisheries	100
Extraction of copaiba	90
Community development	180

- 4.2 The main risk of the project is the lack of acceptance by rubber-tapping families of the new models of production that are being promoted, due to its low profitability or the difficulties to work collectively. In order to minimize this risk, the Project considers two fundamental actions. First, participation of rubber tappers has been foreseen from the planning process to the output marketing. This task will be assisted by actions under the Community Development activity. Second, the Project provides support throughout not only the production phase but also the marketing phase, via a market search for the new products.