

max 5

INSTITUTO SOCIAL LACIAL	
Data	1/1/88
Cod.	00000008



MANAGEMENT OF THE TAPAJÓS NATIONAL FOREST
FOR SUSTAINABLE PRODUCTION OF INDUSTRIAL TIMBER

Part I - Legal Context

This project is submitted to the International Tropical Timber Organization in accordance with articles 1 and 23 of the ITTA. The project conforms to the priorities specified in Resolution and meets the requirements of article 23.

Part II - The Project

I. OBJECTIVES

1. General

1.1. Using the acquired experience, guide the sector so as to establish a non-predatory exploitation of the forest in the region and thus maintains the water, pedologic and animal resources.

1.2. Widen and diversify the availability of timber and forest products in the domestic and foreign markets with particular attention to the economic performance of the enterprise.

1.3. Introduce new exploitation technologies, with views to assuring the continued supply of lumber to be sold to industries.

1.4. Develop a demonstration model of management for the sustainable production of timber and non-timber production and conservation.

2. Specific Objectives

2.1. Manage predetermined areas in the sustained system.

2.2. Maximize the use of the substances extracted from the forest, not only of the traditional species but also of the little known ones and the residues.

2.3. Promote the regeneration of forests and the increase of reserves of the more valuable species through natural treatment and replanting.

2.4. Promote the effective integration of resources of the Tapajós National Forest, in the context of the economy of Santarém region, securing the corresponding social benefits.

2.5. Promote the establishment and publicity of adequate technology and the use of new species, as well as for the technical improvement for using the traditional species.

2.6. Facilitate the development of trials, demonstrations, supervisions, management and training, and the strengthening of operational experience, to derive maximum benefit from past and future work.

II. BACKGROUND AND JUSTIFICATION

The Tapajós National Forest was created through Decree number 73.684, on February 19th, 1974, with an area of 600,00 hectares, located in the municipality of Santarém, States of Pará.

IBDF (Brazilian Institute for Forest Development) selected an area of 173,000 hectares, in the Tapajós National Forest, to be the objective of forest management project - TAPAJÓS PROJECT, where a pre-exploitation inventory was undertaken in order to determine its lumber producing potential, well as collect data on the soil, declivity, composition of the sub-forest and other data.

Based on research undertaken in the Tapajós National Forest in silviculture, management and technology, IBDF decided to make the Project Tapajós program into an experiment for the exploitation and management of an area of 5,000 hectares, subdivided into 1,000 hectare blocks, with the objective of testing the results reached up to that time. The Basic Forest Management plan that will guide the operations proposed in this project has been previously prepared by IBDF with the assistance of FAO (See annex 1).

The exploitation undertaken up to this time in Non-Managed Forests is characterized by rudimentary extraction techniques, by a decrease of the economically valuable species, due selectivity and to the lack of replacement. The accentuated extractive nomadism by the autonomous woodcutters and the rest of species is relevant. These facts have become sources of supply that are increasingly distant from industrial units; this, consequently, affects transportation costs, bringing about discontinuity and have losses for the flow of the forest's natural resources.

The execution of management plans in forest areas with sustained output has been singled out as being the viable economic and ecological perspective for the use of the forest resources of the Brazilian Amazon Region.

Following the guidelines established in the Tapajós Forest Management Plan prepared by IBDF and FAO, since 1983, IBDF has been undertaking, in the Tapajós National Forest, the following aiming at the experimental exploitation of a 5,000 hectare area:

1. Topographical study of a 17,000 hectare area, in order to define the exploitation areas.
2. 100% commercial inventory of an area of 4,000 hectares subdivided in four 1,000 hectare blocks, in which all of the trees with a diameter wider than 50 cm (complete enumeration) were measured.
3. Localization of the catalogued trees in a spatial distribution map.
4. Determination of the volume and the amount of catalogued trees.
5. Determination of the volume and amount of the catalogued logs.

6. Estimate of the waste.

7. Selection and marking of seed-bearing matrixes in two exploitation blocks (2,000 hectares)

8. Selection and marking of trees for exploitation in two exploitation blocks (1,000 hectares).

9. Establishment of 15 (fifteen) areas, each containing 1 hectare, for continued inventory in 1,000 hectares.

10. Establishment of 16 km of forest roads for temporary and permanent use, so as to facilitate interventions in cutting, hauling and transport, in an area of 1,000 hectares.

11. Exploitation of 100 hectares.

12. Infra-structure and equipment

12.1. Building an 800m2 central administrative office of the Tapajós National Forest, in the city of Santarém.

12.2. Building and installation of 2 (two) lodgings in the Tapajós National Forest.

12.3. Building and installation of 8 (eight) residential houses in the Tapajós National Forest.

12.4. Equipment

The equipment that has been bought to this date was acquired for the first stages of the consolidation of the Tapajós National Forest, this is to say: demarcation, land regularization, forest inventories, inspections. The most important ones are:

. Mercedes Benz Truck 1113/1982.....	01
. Toyota Bandeirante Jeep/1984.....	02
. Bandeirante Pick-up Truck/1983.....	02
. Ford Pick-up Truck 1000/1982.....	01
. Komby Pick-up Wagon/1981.....	01
. Automobile 1300/1983 (VW bug).....	02
. Automobile Opala (station wagon)/1976.....	01
. Agrale Tractor Model 4.200.....	01
. Agrícola Tractor/8T.....	01
. Dumping wagon.....	01
. Water Truck (10,000 L).....	01
. Motor boat for 30T, with mobile office and radio communications.....	01

The activities being proposed in this project aim at expanding the management operations into a full scale forest management trial and demonstration program.

III. OUTPUTS

Through this Project, we hope to achieve the following:

1. Assure the annual availability of a gross commercial volume of 36 thousand m³ of new and traditional wood species for industrial processing.
2. Obtain, through silvicultural enrichment of the commercially valuable species an annual average increment of 3.6 m³/ha.
3. As of 1994, have the complete necessary infrastructure for the establishment of the experimental program, with an area of 5,000 hectares, so as to determine the feasibility of sustainable forest management for industrial timber production from the Tapajós National Forest.
4. To generate approximately US\$ 3.6 million resulting from the sale by IBAMA of 120,000 m³ to the local industry, an amount that will be used to protect the forest, manage the exploited and additional forest areas.
5. To provide a demonstration model of management for the sustainable production of timber and non timber products including conservation of the ecological functions of the forest.

IV. ACTIVITIES

The activities of this project have as their main line of action the application of management techniques that have already been developed, aiming at the sustained production of the forest's resources.

The expected operational plan for the execution of the indicated tasks initially involves the selection, localization and the demarcation of the experimental blocks.

Experimental exploitation will take place in 1990-1994, encompassing successive and yearly 1,000 hectare areas, made up of ten 100 hectare sub-blocks (1000x1000m), which constitute the exploitation unit.

Of the 5,000 hectares that are expected for the execution of the management and exploitation project, 4,000 hectares have been catalogued, 1,000 hectares already have the necessary infrastructure for the immediate exploitation of the area, 1,000 are ready, lacking only the roads and the establishment of continuous inventory segments, and 2,000 hectares are lacking roads, selection and marking of matrixes and trees for exploitation and the establishment for continuous inventory segments, the last 1,000 hectares and will be composed of ten 100 sub-blocks (1000x1000), that made up the research unit. The blocks and sub-blocks are limited by fences and signs and a map of the general location of the area should be made.

The subsequent operations will be about the drawing up of an inventory of the blocks and about the marking of trees to be uprooted. In this phase, the sub-blocks will be internally limited

In 01 hectare sub-units, by means of fences and signs placed at 100m intervals. In each hectare an adequately intensive inventory will be made, encompassing 30 species, pre-selected as to their minimum cutting diameter. A logistic map will then be made, containing the spatial localization of the trees to be cut down.

The operations for the set up of the infrastructure follows the stage of intervention for the removal of trees from the research units. Operations for the cutting, tracing, hauling, stocking in patios, loading and transport to the industrial units are expected to take place in this stage.

V . INPUT

1 . IBAMA

1.1 Personnel

Forest Engineers (6).....	288 man/month
Technicians (12).....	576 man/month
Field workers (12).....	576 man/month

1.2 Equipment and facilities as described in the background and justification section.

2 . ITTO

2.1 Personnel Service

Foreign Consultants Forest Harvesting... (1)	6 man/month
National Consultants	
Forest Harvesting (1).....	16 man/month
Forest Management (2).....	12 man/month
Forest Ecology (1).....	6 man/month

2.2 Contractual Services

- Forest Roads
- Building of Storage Patios
- Construction of Barracks and Camping Infrastructure

2.3 Costs of travel and DSA of Researchers, Technicians, Consultants and Field Workers.

VII. FRAMEWORK OF EFFECTIVE STAFF PARTICIPATION

The following measures will be taken to effect optimal staff participation:

- IBAMA will assure participation of staff with large experience in the initial phase of the Tapajós inventory and management project.

- Experts from SUDAM, a Federal Agency for the Amazon Region, that is managing a forest in the area, will also be consulted and assist project implementation.

VIII. INSTITUTIONAL FRAMEWORK

The project will be implemented under the orientation and monitoring of a Steering Committee, basically constituted by representatives of ITTO and the Brazilian Government, represented by Ministry of External Relations - MRE and other participant institutions, under the chairmanship of ABC.

The project will be executed by IBAMA which may receive assistance of other national institutions, such as: Brazilian Agricultural Research Company (EMBRAPA), Universities and other institutions interested in participating in the project.

IBAMA should also appoint a Project Director who would be responsible for its administration and will designate counterparts and administer the financial resources of the Project. Technical and administrative assistants may also be appointed.

The staff needed to a supplementary administrative support for project development as well as the staff needed to the preparation and organization of courses and seminars will be provided by IBAMA.

It is due to IBAMA to select consultants for the project. Such selection will be carried out by the Project Director who will communicate his decision to the steering committee.

1. MONITORING REVIEW

The Project will be subject to periodic technical jointly monitoring by, and accordance with, the policies and procedures adapted by the International Tropical Timber Organization - ITTO and the Brazilian Cooperation Agency - ABC.

2. EVALUATION

The Project will be subject to annual evaluation in accordance with the policies and procedures of ITTO and ABC.

The executing agency will present to ITTO and ABC, an inception report one month after the project has become operational and detailed reports every six months thereafter on the progress of work, including statements of expenditures against the budget.

The executing agency will, within two months of the start of the Project, present to ABC and ITTO, detailed plans for activities, inputs and outputs and a budget plan with estimates of

expenditures from ITTO contributions for each six months period of the first year and per year thereafter. It will submit as well a final report three months before the end of the Project.

Progress and final reports will be subject to discussions and analysis by both ITTO and ABC in evaluation meetings.

3. REPORTS

The Project will prepare semi-annual and annual progress reports and a final report.

The Project Director will be responsible for the preparation and submission of these reports.

VI. WORK PLAN

SQUARE NUMBER	SEPARATION OF ACTIVITIES	FORESEEN DURATION BEGINNING/ENDING
	Roads maintenance	2nd Tri/90-1st tri/91
	Stocking courts building	1990/1990
	Camp building	1990/1990
	Marketing	1990/1991
II	Continued Inventory (Annual counting)	1985
	other interventions	3rd tri/90-2nd tri/90
	-elimination of the	
	undesirable species	
	-induction for natural	
	regeneration	
	-planting	

SQUARE NUMBER	SEPARATION OF ACTIVITIES	FORESEEN DURATION BEGINNING/ENDING
	Selection and marking of supporting seeds matrix and exploration trees	Sep/91-Dec/91
	Installation of parcels for a continued inventory	May/92-Jun/92
	Stocking courts building	1993/1993
IV	Camp building	1993/1993
SUB-	Mechanical exploitation	2nd tri/93-1st tri/94
SQUARE	Roads maintenance	2nd tri/94-2nd tri/94
III	Marketing	1983/1994
	Continued Inventory (annual counting	
	Other interventions	
	-elimination of the undesirable species	
	-Induction for natural regeneration	
	-planting	

INSTITUTO ACERVO ISA
 INSTITUTO ACERVO ISA
 INSTITUTO ACERVO ISA

IX - BUDGET

ACTIVITIES	UND	OTD	DISBURSEMENT					TOTAL
			1991	1992	1993	1994	1995	
Maintenance of Logging Roads	RA	74	9,310.00	1,287.50	1,287.50	1,287.50	1,287.50	14,440.00
Commercialization	N	220.500	7,115.38	-	-	-	-	7,115.38
Inventory (Installation)	NA	20	14,131.87	-	-	-	-	14,131.87
Training of Personnel	NA	30	14,000.20	-	-	-	-	14,000.20
Acquisition of Equipment	NA	53	317,092.53	193,880.02	-	-	-	462,472.55
Construction of Labor Camps	N	180	5,000.00	5,000.00	-	-	-	10,000.00
Construction of Artesian Wells	N	200	41,646.67	-	-	-	-	41,646.67
Collection and Marking of Seed-Trees	NA	400	3,420.00	-	-	-	-	3,420.00
Commercial Inventory	NA	100	13,900.00	-	-	-	-	13,900.00
0- Mechanized Logging	NA	4,900	-	21,281.25	21,281.25	21,281.25	21,281.25	85,125.00
1- Inventory (Monitoring)	NA	46	-	3,424.70	3,014.82	4,164.64	3,424.70	14,028.86
2- Establishment of Preservation Area	NA	1,000	-	4,910.00	-	-	-	4,910.00
3- Maintenance and Expansion of Infrastructure	N	1,625	-	19,808.34	-	-	-	19,808.34
4- Acquisition of vehicles	NA	82	-	71,414.80	-	-	-	71,414.80
5- Silvicultural Treatment	NA	5,000	-	38,125.00	38,125.00	38,125.00	38,125.00	152,500.00
6- Installation of Pilot Factory for Concentrated Wood	NA	01	-	20,805.40	-	-	-	20,805.40
7- Marketing Study	+	+	-	2,012.50	1,502.50	2,012.50	1,502.50	4,430.00
8- Publications	NA	04	-	14,500.00	10,500.00	10,500.00	10,500.00	44,500.00
9- Consultants	+	+	24,000	70,500.00	54,500.00	20,500.00	24,500.00	234,000.00
10- Maintenance of vehicles	NA	140	13,350.00	44,642.50	44,642.50	44,642.50	44,642.50	200,000.00
11- Fuel	L	30,820	3,920.21	11,824.20	11,824.20	11,824.20	11,824.20	51,217.11
12- Socio-Economic Survey	NA	400,000	-	-	10,000.00	-	-	10,000.00
13- Evaluation and Monitoring	NA	05	4,400.00	4,400.00	4,400.00	4,400.00	4,400.00	33,000
Total			1,475,304.74	423,434.21	194,137.77	205,057.41	1,148,507.25	11,513,144.0

10



Overseas Development
Administration

11

94 Victoria Street, London SW1E 5JL

Direct Line: 071-917 0274
GTN: 3535 0274

9 April 1992

Mr Richard Sadler
Yorkshire Post
Wellington Street
LEEDS
LS1 1RF

Dear Mr Sadler

Here are the two papers that you asked for:

- i) A listing and brief description of the environment programme projects that ODA is involved in in Brazil.
- ii) A description of the TAPAJOS project that we are supporting through ITTO.

I hope that you have an interesting visit to Brazil.

Yours sincerely

Bill Howard

MR W J HOWARD
Senior Forestry Adviser

INTERNATIONAL TROPICAL TIMBER ORGANIZATION
DRAFT PROJECT DOCUMENT

Title	Management of the Tapajos National Forest for Sustainable Production of Industrial Timber
Serial Number	PD 68/89 Rev.2 (F)
Original	English

Prepared by
Submitted by Government of Brazil
Duration 3 years
Field of Activity Reforestation and Forest Management
Co-operating Governments
Implementing Agency Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA)
Estimated Starting Date
Estimated Project Cost US\$ 3,037,946
Financing Sources and Amount
-ITTO contribution US\$ 1,513,146

Signed

On behalf of ITTO

Date

On behalf of the Brazilian Cooperation Agency

Date

On behalf of Executing Agency - Brazilian Institute for the Environment and Renewable Natural Resources (IBAMA)

Date