

EX-POST EVALUATION REPORT

ITTO Project PD 94/90 Rev.3 (I)

**The Integration of Forest-based Development in the
Western Amazon - Phase II - Technology for
Sustainable Utilization of Raw Forest Materials
(Brazil)**

Prepared for the ITTO

by

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Acronyms

ABC	Brazilian Agency of Cooperation
ASF	Antimary State Forest
FUNTAC	State of Acre Technology Foundation
IADB	Inter- American Development Bank
ITTA	International Tropical Timber Agreement
ITTC	International Tropical Timber Council
ITTO	International Tropical Timber Organization
RIL	Reduced Impact Logging
SEANP	Protected Areas Regulation System

Table of Contents

Executive Summary

Main Text

1. Introduction

2. Evaluation Scope, Focus and Approach

3. Project Facts

4. Findings, Lessons Learned

4.1. Findings

4.1.1. Achievements

4.1.2. Sustainability

4.2. Process of Project Formulation and Implementation

4.2.1. Stakeholder Involvement

4.2.2. Appropriateness of the Project Design

4.2.3. Efficiency and Operational Aspects

4.2.4. Effectiveness

4.3. Lessons Learned

5. Conclusions and Recommendations

5.1. Conclusions

5.2. Recommendations

Appendix I Terms of Reference for Ex-post Evaluation

Appendix II Programme for Evaluation Mission

Executive Summary

The Project PD 94/90 Rev.3 (I) was approved by the Tenth Session of the ITTC on May 1991 in Quito Ecuador, and the first disbursement was made in August 1993. The main objective of the project in the long term was to motivate and promote the development based on the forests of Western Amazon as part of one integrated policy of land use in the area, using the state of Acre as model. This development was based on the management of forest resources for sustainable production in order to elevate the level of life of the rural population, the economic prosperity of the State of Acre and the wealth of the area, with means adapted to the environmental and economic aspects.

The Committee on Economic and Market Intelligence and the Committee on Forest Industry (CEIMI-CFI), through the International Tropical Timber Council at its Thirty-eight Sessions in May 2006 decided that an ex-post evaluation of the completed project PD 94/90 Rev.3 (I) "Integrated Development of the Western Amazonia based in the Forest resources Phase II. Technology to sustained uses of forest raw materials" should be carried out to establish how well the project served its purposes and to draw up recommendations for future action.

As part of the evaluation, the consultant Ms. Erika Del Rocío López Rojas, master in Cooperation and International Economic Relations visited Rio Branco, State of Acre from March 28 to April 6 of 2009. During the visit, she met with Mrs. Tânia Guimarães, Technical Director of FUNTAC and other members of the project team and held meetings with community representatives. A visit to the Extractive settlement PAE Limoeiro and the Productive Base Unit "First Point" in the Floresta Estadual do Antimary (Antimay State Forest) was also held for in- depth review.

The initial timeframe of the project was 36 months with an overall budget of USD\$3,425,000 of which ITTO contributed USD \$1,875,000. The actual duration of the project was 128 months, from April 1993 to April 2004 with an increase of 10% in the budget (additional ITTO funding for US\$84,155).

MAIN TEXT

1. INTRODUCTION

The Committee on Economic Information and Market Intelligence and the Committee on Forest Industry (CEIMI-CFI), through the International Tropical Timber Council at its Thirty-eight Session in May 2006 decided that an ex-post evaluation of the completed project PD 94/90 Rev.3 (I) "Integrated Development of the Western Amazon based in the Forest resources Phase II Technology to sustained uses of forest raw materials" should be carried out to establish how well the project served its purpose and to draw up recommendations for future action.

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The Government of Brazil through the State of Acre Technology Foundation (FUNTAC) implemented the project initiating on August 1993 and ending April 2004. The original project timeframe was 36 months and overall cost of US\$ 3'425,000. The actual duration was 128 months.

2. EVALUATION SCOPE, FOCUS AND APPROACH

This ex-post evaluation seeks to look at operational aspects, inputs as well as outputs, activities carried out and tangible products in terms of both efficiency and effectiveness, with emphasis on the impact and effects on the forest situation in Brazil.

The primary purpose of the evaluation is to provide an in-depth diagnosis of the project so as to point out the successful and unsuccessful outcomes, the reasons for successes and failures, and the contribution of the projects towards the achievement of

ITTO's Objective 2000, and to draw lessons that can be used to improve similar projects in the future. The scope of the ex-post evaluation includes:

- i. Assess the project design and contribution to the achievement of its respective objectives.
- ii. Assess the achievement of the project's outputs and specific objectives.
- iii. Evaluate the impact and relevance of the project, detailing its impact on development and specific objectives as stated in the project documents.
- iv. Determine the effectiveness of technology transfer to target groups.
- v. Assess the overall post-project situation for the project, including the conditions of its intended direct or indirect beneficiaries.
- vi. Define and assess unexpected effects and impacts, either harmful or beneficial, and present the reasons for their occurrences.
- vii. Analyze and assess implementation efficiency, including the technical, financial and managerial aspects.
- viii. Assess the overall sustainability of the project after completion, and include appropriate recommendations to safeguard the continuing of its positive impacts, and enhance utilization of the technologies (if applicable) and other results developed by the project.
- ix. Make an overall assessment of the project's relative success or failure, to summarize the key lessons learnt; and identify any issues or problems which should be taken into account in designing and implementing similar projects in future.
- x. Assess the overall cost of the project with original budget provisions, and their respective linkage with the overall results.
- xi. Assess the project's contribution to the relevant ITTA objectives (1994) and relevant ITTO Action Plan.

The Terms of Reference also indicates that the work shall be conducted in such way as to answer the questions identified in the ex-post evaluation checklist provided in the ITTO Manual for Project Monitoring, Review and Evaluation, third edition. In addition to the above, the consultant was requested to make an in-dept analysis of the outputs of the project and its actual intended situation after project completion, with particular emphasis on:

- The elaboration and implementation of the integral forest management plan for the ASF, assessing how well it has serve its function and the impacts produced

up to date;

- The different market studies produced by the project, and how these were integrated into a real strategy for better marketing timber and non-timber forest products;
- The establishment of a participatory system with the forest communities for the planning and execution of project activities;
- The monitoring system of the effects of different land uses and its results in the management of the ASF;
- The non establishment of an industrial line for the processing of Brazil nuts;
- The transfer of technology acquired with the ITTO funds to the communities, determining if they are still being properly used by their beneficiaries; and
- Whether the ASF forest has become a model for sustainable management for the State of Acre in particular and for the Amazon Region in general.

As part of the evaluation, the consultant Ms. Erika Del Rocío Lopez Rojas, master in Cooperation and International Economic Relations visited Rio Branco, State of Acre from March 28 to April 6 of 2009. During the visit, she met with Mrs. Tânia Guimarães, Technical Director of FUNTAC and other members of the project team and held meetings with community representatives. A visit to the Extractive settlement PAE Limoeiro and the Productive Base Unit "First Point" in the Antimary State Forest was also held for in- depth review.

The evaluation presented in this report was based on a combination of desk research, field visits and discussion with stakeholders, beneficiaries and authorities dealing with the forestry sector.

The information obtained came from the following sources:

- Documents relating to the project provided by ITTO Secretariat (Project Document, ITTO Project Completion Report, Sustainable Forest Management in the Brazilian Amazon, Audit Report, *Plano de manejo de Uso Múltiplo Da Floresta Estadual Do Antimari-AC* [Management Plan for Multiple use of the Antimary Forest State], Study Marketing & Sales Products Strategies Industrialization investment & Budgets Training, *Relatorio de Atividades de Exploracao e Beneficiamento Dos Produtos Nao Madeireiros Na Floresta Estadual Do Antimari* [Report of Activities towards exploration and benefits of Non-timber forest products in the Antimary Forest State]) and documents

provided by officials during discussions held in Acre, Brazil i.e. *Manejo de Precisão em Florestas tropicais: Modelo Digital de Exploração Florestal* [Digital model of forest exploration: Management and precision of tropical forest]; *Manejo e monitoramento de Fauna Silvestre em Florestas Tropicais* [Management and monitoring of Wildlife in Tropical Forest]; and *Atlas do Estado do Acre* [Atlas of Acre State].

- Discussion with officials, community, and other stakeholders during the Ex-post evaluation visit from March 28 - April 6, 2009.
- Inputs provided by the Technical Director of FUNTAC, Mrs. Tânia Guimarães pertaining to the project.
- Field visit to the Antimary State Forest.

3. PROJECT FACTS

The State Government was determined in adopting a new development model based on sustainable forest production, integrating land use and socio-economic considerations. The Antimary State Forest (ASF) was chosen due to its location and favorable natural characteristics; it represents an area of high biodiversity, having been studied thoroughly during the accomplishment of Phase I.

The initial timeframe of the project was 36 months with an overall budget of USD\$3,425,000 of which ITTO contributed USD \$1,875,000. The actual duration of the project was 128 months, from April 1993 to April 2004 with an increase of approximately 10% of the budget (additional funding for US\$84,155 was provided by ITTO).

The specific objective of the project was to develop and implement techniques for the sustained management of the different forests in the Antimary State Forest according to the ITTO guidelines, by extrapolating the results in the project area and in the State; evaluate the feasibility of incorporating integrated forest industries into the sustained management of the resources by studying the potential outputs, wood properties and the marketing and industrialization possibilities; to establish a follow-up and evaluation system so as to verify the effectiveness of the management techniques in the forest and the land use trends, including the deforestation in the State; to contribute to the development of a state land use policy, with special emphasis on the conservation and utilization of forest resources; development of personnel and institutions in the State, Brazil and neighboring countries.

The following results were expected in Phase II: an integrated management plan, a participatory system with local community for planning and implementation of the activities, access roads, market strategies for timber and non timber products from ASF, establishment of cooperatives for the production and marketing of non-timber products (chestnut and natural rubber), integrated logging primary and secondary timber processing operations, local latex and Brazil chestnuts processing units, monitoring system of ASF products, series of permanent plots to monitor effects of forest utilization on productivity and the natural environment, social services improved for the population that live and work in ASF and two workshops for the presentation of results.

4. FINDINGS, LESSONS LEARNED

4.1. Findings

4.1.1. Achievements

Outputs Achieved

Output 1: An integrated Management Plan for the Antimary State Forest (ASF)

This output was achieved. The Multiple-Use Forest Management Plan was approved by IBAMA. This plan made possible to harvest trees and non timber forest products in ASF; a polycyclic forest management system has been adopted without a basal reduce area.

During the Ex-post Evaluation visit the consultant was able to observe sustained harvested areas within the ASF visited.

Output 2: A system for the participation of the local community, and other communities that have a direct interest in the utilization of the ASF, in the planning and implementation of the activities

This output was achieved with the establishment of a Consulting Council close to the community for monitoring project activities and to give transparency to the actions carried out by FUNTAC in the ASF. This Council was established since the first phase

of the project for monitoring purposes related to the project, as well as to provide training on communication and social organization aspects. An Executive Secretariat was also created for monitoring activities funded by the Project.

In 2002 the Council and the local community agreed on issues concerning SFM and decided the following: the local rubber tappers would autonomously determine the areas to be harvested and the boundaries of their settlements; include all families settlements at the time of the project disregarding their permanence in the area; payment in cash to each rubber tapper for every tree harvest; through the State housing program for low income families houses were provided; protection against cutting and damage for all rubber and brazil nut tree.

Community-base sustainable forest management was not executed by decision of the community since back then they were not interested to engage in these activities. However, towards the end of the project after the increasing relationship between the local community and harvesting activities, the community manifested its interest to the establishment of sustainable forest management in the area.

During the evaluation visit the consultant was introduced to some local rubber tappers, whom confirmed this participatory system.

Output 3: Access roads to the ASF

The output was achieved. In 2003 planning and implantation of secondary forest roads were concluded for an area of 4,000 ha. The Government of the State of Acre performed maintenance activities in over 35 km of access road and forest roads, 14 km of secondary forest roads, 9 bridges, 31 drainpipes and 8 log yards within the Antimary State Forest. During 2004 activities were repeated. At the time of the visit the roads were fairly accessible.

After the completion of the project, State Government of Acre has taken over the maintenance of the roads.

Output 4: Market strategies for timber and non timber products from the ASF

A preliminary study of local and national markets for rubber wood, brazil nut, bamboo and medicinal plants, was developed and presented at conclusion of the First Phase of the project.

Additionally as a result of this project two studies were concluded: one on technical subsidies for the elaboration of a marketing strategy for wooden goods and another for market for timber products produced in the State of Acre.

The study was concluded, however products are under research and development phase, market distribution is soon expected.

Output 5: Establishment of cooperatives for the production and marketing of timber products, chestnuts and natural rubber

Training and monitoring actions were developed. The establishment process of the Cooperative began in 1996 with the creation of the *Associação de Seringueiros da Floresta Estadual do Acre* [Association of Tappers of AFS]. Later due to a greater maturity of the community, they promoted the creation of a Cooperative. In 2004 the Cooperative aggregated 37 associates from the local community which had a constant trade flow of latex, brazil nut and surplus from the agricultural production, as well as timber in log or sawn. Two rubber tapper's association and one cooperative of agro-extractivist producers were established.

At the time of the visit the Cooperative was still in operation.

Output 6: Integrated logging, primary and secondary timber processing operations and the production of components for timber houses

A five years Operational Plan for the ASF was elaborated with the Multiple-Use Forest Management Plan as basis.

A harvesting plan was elaborated for an area of 4,000 ha, the plan included crew training. In 1999, FUNTAC sent 4 project technicians for training at the TFF headquarter in Belem, which in 2002 started a period of training on RIL techniques for employees working at the bidding winner firms.

In 2000 all necessary facilities such as hangars for energy and fuel were built. The sawmill was supplied with the following equipment and machines: one (1) horizontal saw, one (1) four face planer, one (1) mechanical winch for logs; one (1) energy generator (diesel) with 127 kva capacity, all to be used by ASF community.

As for the housing FUNTAC develop a technical project of non marketable species, and built five houses for the community.

As part of the ex-post field visit, the consultant was taken to PAE Limorero, which was harvested in 2002. At the site, low impact harvesting techniques, recovery of harvested areas, regeneration of extraction roads and recovery of patio areas were clearly observed.

It was also possible to observe from a distance the existence of the facilities built since it was said that currently they were used on a temporary basis; good maintenance of facilities was observed.

As for the houses built for the low income families with FUNTAC technology it was confirmed that they remain in good condition and inhabited; cement pilot technology has been successful, and the non commercial timber used has demonstrated durability properties.

Output 7: Local processing units for latex and brazil chestnuts

The completion report indicates output as achieved since the activities described hereinafter were performed.

Equipment for the latex industrial plant were identified and purchased.

In the case of brazil nut, considering the low extraction volume (approximately 1404 kg annually) from ASF, no proper industrial line was identified to provide benefits for the cooperative associates. A hangar was built to install the Cooperative latex processing plant with electric and hydraulic system.

In partnerships with the community, school courses were provided on handicraft topics. Although no minutes or dissemination materials were made available to the consultant at the time of the visit.

The production of copaiba oil was initiated. The oil was filtrated and packed in synthetics containers, however the quality control and the non existence of a processing system, made it difficult to commercialize this product. Improvement options are been explored along with alternative uses for copaiba oil such as in soaps, shampoos and medicinal products. The products are still being tested.

During the visit FUNTAC exhibited for the consultant the products developed and those on which tests are been conducted such as soaps, shampoos, insect repellent, preservatives, among others.

Output 8: A monitoring system for ASF products

A technical report on the monitoring system for products coming from ASF was elaborated and reported at the first phase. Through the structural analysis of the market, the main results obtained as the identification of industry behavior made possible to improve the understanding of public policies that promote the best use of the forests through the sustainable forest management.

A trademark was created and registered for ASF products.

Output 9: A series of permanent plots to monitor the effects of forest utilization on productivity and the natural environment

In order to evaluate the effects of logging a group of bio-indicators (primates) were selected and monitored in four permanent plots. At the end of the study, it was possible to evaluate the logging impact over the abundance of the selected species, of which results indicated low impact.

The primates are considered good indicators of disorder since they occupy different vegetation stratum and have different sizes and diets, being that the latter factors are associated with the related life area of the species (John, 1997).

Output 10: Improvement of the social services for the population that live and work in the ASF, including primary and secondary education services, health and communication services

The establishment of three schools for the Antimary community and alphabetization of adults were accomplished. Since 1995 the use of didactic material for regular teaching, supply of the electoral services and the creation of an Electoral Session in the ASF began.

Once a year the Forest Platoon executes an environment inspection visit and other services related to the proper use of the local forest resources.

Health agents were hired by the State Secretary of Health to render medical and odontological services to the community once a year, and also provided material, drugs and vaccines.

The Completion Report indicated that a rural phone was established, at the time of the visit the phone was still functioning.

Output 11: Two workshops, the first with local participants and the second with international participants, for the presentation and evaluation of project results

The closing workshop was held in Rio Branco during April 26-28 2004, with a participation of over 200 researchers, forest professionals, and policy makers directed to sustained use of tropical forests.

However no documentation was made available to the consultant on such workshops.

Impact and Effects

Post – project situation

The post-project intended situation was to have a regional development model, based on Multiple-Use Forest Management implemented in ASF, which would raise the living standards of rural population and the wealth of the State of Acre in an environmentally and economically sound way.

After the project was concluded the State of Acre based on experience gained during the implementation of two phases of the Antimary Project, gradually developed new mechanisms to facilitate the development of the State taking into consideration the need to improve socio economic conditions of the population, while at the same time implemented policies to protect forests and to regulate its use, as the law 1426 from December 2001, that defines the preservation and conservation of forests in the State and establishes a State system for natural protected areas; Law 1361 from December 2000, that defines the policy of incentives for industrial activities in the State.

The traditional model for exploitation of the Amazon's natural resources was based on extraction of a single product in vast areas, with prices and working conditions unfavorable to forest labors.

The difference between the current and previous situations can be highlighted with the following action: the community of Acre is now aware that a sustained managed forest can provide opportunities for economic development, the local community's income has raised due to the end of intermediary agents, to the use of new forest products and the resources generated by the "bid" model of timber extraction. The community have also benefited from a wider access to services such as health, housing and education. The work performed in Antimary State Forest has become a recognized model of sustainable forest management and other natural products implemented through a social inclusion process.

Specific and Development Objectives

The completion document reported the specific objectives as achieved as reduced impact techniques were implemented; training in planning performed; contributed to the development of the state land-use policy with special emphasis on the conservation and utilization of forest resources; integrated forest industries into the sustained management of the forest resources by studying the potential outputs, wood properties and the marketing and industrialization possibilities.

The contribution of the project towards the development objective was to motivate and promote the development based on the forests of Western Amazon, as part of a policy of the integrated land use inside of the area, using the State of Acre as model. It was also reported that the project contributed significantly for the development and implementation of the forest policies of the State of Acre, it facilitated the establishment

of public and private partnerships through the Public Competition in the bidding modality that is the basis for definition of forest concessions in the State.

Overall the project had a positive impact on the Brazilian Forest sector, although a closer examination showed that some activities met only partial success, and one output was unable to be achieved. Another favorable impact has been the generation of vast production of forest information on ASF, and the community's awareness of the importance of SFM and the multiple use of forest.

Unexpected Effects and Impacts

While implementing the project the main difficulties encountered were the conciliation of the activities of sustainable forest management with the ASF community, due to the small understanding from the community and the delay on the access infrastructure originated by government changes, as pointed out by the project.

Forest management activity was to be carried out by the community; however the community decided they had no interest in engaging in this activity. Information on the community's interest and general knowledge were not available at project design, which also raises the question on the extent on how the community was involved in the project design process. It is essential that the intended beneficiaries be actively involved since the project design and their interest taken into account.

It should be mentioned here that among the public policy developed by the Acre Government other mechanisms were developed, such as, a forest fund for sustainable management processing activities, environment liabilities adjustments in private lands, economic incentive for community and private sector forest management, pro-forestiana fund, state forest concession law, deforestation norms, industry norms, protected areas regulation System (SEANP), strategy for land use.

4.1.2. Sustainability

After Project completion the Government of the State of Acre through FUNTAC took over the management of the project; at the time of the evaluation this situation prevails. At the end of the project the Consulting Council which was a result from output 2, was an important factor in the continuity and administration of ASF.

A forest based economy requires more than vision, good technology and trained work force, and even more than political will, which nowadays Acre posses in abundance. History does repeat itself; Antimary was declared twice public forest. In 1911 was the first time, and then forgotten according to some authors; eighty years later Antimary was again declared public forest. Therefore, institutional and political stability aligned with the long-term cycles of the forest is needed, and of course the demonstrated success in extracting economic benefits from managed forests is imperative.

A series of independent pro-forest institutions will help to insulate the forest from politics.

4.2. Process of Project Formulation and Implementation

4.2.1. Stakeholder Involvement

The executive agency FUNTAC was successful in engaging the community resulting in the implementation of resources and maintenance of community facilities. The direct beneficiaries were the population composed of 389 people the community of Antimary State Forest, although the Community of Acre has also benefited from policy-work.

Under this project the community could look to the future with more certainty. Each of the 109 families in the forest received a document granting them rights over approximately 300- 400 has of forestland, whom decided how to use their land.

Another important process of involvement that should be mentioned here is the creation of the Consulting Council which propitiated an accompaniment and supervision of the activities executed by FUNTAC in the ASF, verifying the impact in the community.

4.2.2. Appropriateness of the Project Design

The initial proposal was designed in accordance with ITTO requirements for project formulation. Although not very detailed, the project proposal included in very general terms elements required in the ITTO project formulation manual.

In light of the new ITTO project formulation manual, recommendations are directed to the importance of the Logical Framework Matrix (LFM) and measurable indicators of success. The project design lacks important necessary information as reference when

evaluating the results accomplished. The LFM is a performance framework that captures the project strategy and set out the project's objective(s), outputs, indicators, assumptions and expected outcomes.

It is important to mention that the word "objective" is used in a confusing manner in the project document. It is indicated a development objective, six specific objectives and 8 immediate objectives included in the list of results and activities which leads to a confusing document in terms of logical structure.

Every project should look towards the future. The document lacks of the intended situation after project completion, a post-project perspective and the risks associated to the project. The project constitutes a first stage in a longer process needed; the project proposal should contain an overview of what a follow-up phase could be and the strategy through which the project activities are transferred to beneficiaries so they can ensure continuity of the structures as factors of development and better well-being.

Although the design was unclear, the outcomes were not compromised. The project design can be improved, particularly by designing more precise progress indicators and a logical framework matrix with clear assumptions and a post project perspective. The inclusion of beneficiaries in designing the project would have identified clear indicators and their capacity to develop the expected outputs.

Recommendations for future projects would refer to identifying direct and indirect participant institutions, clearly define their function, and expectations of beneficiaries. It would also be important to establish a monitoring program for the family income, and to promote the continuity of programs towards the understanding of the forest producers in relation to rational use of the forest resources, the market, the quality of the product and the valuation of the labor.

4.2.3. Efficiency and Operational Aspects

While the project was designed for thirty-six months duration, numerous delays resulted due to government changes during the execution of the project, causing serious problems from discontinued activities, alterations in technical priorities (previously established), alterations in methodology and changes in the technical project team. The above situation seriously harmed the achievement of the goals and

consequently the objectives of the project, as well as the participation of the community and the financing institutions.

It appears that the project team was very optimistic in planning the activities and did not identify possible risks or unexpected situations when implementing the project. Over the course of the project some changes in the work plan were reviewed by the Steering Committee, which agreed that due to value and economic viability, the project would not purchase heavy equipment for harvesting; although chain saws, among others were purchased and rental or used equipment under third parties were scheduled. Additional funding was requested in order to hold the closing workshop, and as to fund an additional research in the ASF and publish the studies achieved by the project.

With regard to finances, the audit reported that funds were used for the purposes intended. The Project Completion gave a satisfactory account of the projects financial performance, standard practices have been adopted in technical, financial and accounting matters and were all in order as confirmed by audit reports.

The project was collaboratively governed, a Steering Committee had a significant role in the actions implemented in the ASF, when monitoring and evaluating the activities of the project executed by FUNTAC.

A Consulting Council monitored the project activities close to the community, and provided training on social and communitarian organizational aspects since Phase I of the project. The Council was compounded by representatives from local non-governmental organizations. In 2003 in order to evaluate activities, meetings with the Council were held.

Despite the delays and little understanding from the local community of the Sustainable Forest Management activities at the beginning, the project was well managed by a team of committed and professional personnel whom managed to achieve the outputs, with the exception of a complete monitoring system during the period of the project.

4.2.4. Effectiveness

The project was intended to incentive and promotes development based on SFM of Western Amazon forest, as part of a policy of integrated land use inside the region. This new development model of sustained production was supposed to take into

account the specific aspects of the region from the beginning of the planning process benefiting from the results of the Phase I, which would have led to a better understanding of the various interest groups and more precision on the perceptions and expectations of beneficiary community.

Over the course of the project, it was observed that more information was needed from the beneficiaries. The time of understanding and the community's maturation, occurred out of tune with the periods established for the activities scheduled for this project, resulting in the consideration that the sustainable forest management was an activity totally unknown and innovative by ASF rubber tappers. Although previously unclear, Sustainable Forest management is now well understood and fully appreciated by the community.

In the social ambit it promoted the improvement of the conditions of health, education, community organization and housing for population of the Antimary State Forest. It fomented the development of traditional production introducing techniques for rubber industrial process, nuts, copaiba oil extraction, timber certification and management of forest seeds with the objective of adding value to those products. In terms of infrastructure, it enlarged highways and access extension besides the improvement of the transport in the Antimary river and enabled the transport by road into ASF.

Transformation, value adding, use of technology and local labor became an important strategy in the forest policy. The Acre Government became aware that forest cannot produce the economic returns needed to justify its survival if logs are merely cut and floated down the river to be processed elsewhere, resulting in the prohibition of shipping logs out of the state without at least primary processing. Important actions were taken as for example, the installation of the Polo Mueblerio and the incentives to cooperatives for industrial processing.

At the time of the ex-post evaluation visit to ASF and the city of Rio Branco, it was possible to observe community awareness of SFM, Cooperative maturity and important policies and development institutions that accompanied the community in their improvements; an example is the Porto Mueblerio, which is a major asset in government development.

4.3. Lessons Learned

The project contributed to public policies of the state of Acre as well as to join value to the timber and non timber forest products coming from the ASF and consequently to provide social and economic benefits.

Projects that develop actions in inhabited areas should give more importance to the community subjects. As occurred in this project. The project envisaged people in the forest as partners in a common enterprise. It demonstrated how forest management can directly benefit local people and their participation through autonomous decisions as to how to better use their land. The community was trained on reduced impact logging techniques and how to harvest other forest products, such as oil, seeds and fruit, techniques to improve the quality of latex and better ways to store Brazilian nuts were also included. The aim was a multiple use of ASF products.

Long term institutions aligned with the long-term cycles of the forest itself is needed, and of course the demonstrated success in extracting economic benefits from managed forests is imperative. A series of independent pro-forest institutions will help to insulate the forest from politics.

The overall impacts of the project demonstrated positive outcomes achieved for the target beneficiaries. Although specific objectives should have been more concrete and the indicators were not helpful measure of success. Recommendations are directed to the importance of the Logical Framework Matrix and measurable indicator of success. The LFM is a performance framework that captures the project strategy and set out the projects objective outputs, indicators, assumptions and expected results.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. Conclusions

The Antimary project went through three important moments and produced positive results. The implementation of the physical and social infrastructure was done in a second moment and was completed with organization of the local community in two rubber tapper's association and one cooperative of agro-extractivist producers. During the project development, training was provided which focused on improvement on processes for the production of timber and non-timber products.

The project was a landmark in bringing forth the rational use of forest resources and promoting development policies based on sustainable forest production as part of one integrated policy of land use in the area.

Community forest projects as ASF has created a great deal of interest for social scientists, environmentalists, researchers and academicians whom such experiences offer invaluable lessons in rural development, poverty eradication and natural resource conservation.

It can be said that Antimary State Forest is important as the pioneer experience of a contract of forest concession to the beginning of the certification process, going by community forest concession, research activities and pilot area for the development and implementation of the technological package of SFM system integrated to be adopted at all state forests.

5.2. Recommendations

For the implementing agency:

- Set concrete targets to evaluate achievements within a time set horizon and a clear monitoring follow-up program.
- Continue capacity strengthen of the community for the understanding of the producers in relation to rational use of the forest resources, for the market, the quality of the product and the valuation of labor.

For ITTO:

- ITTO should disseminate the results of ASF experiences in Acre, including potentials and the obstacles presented during its implementation.

Appendix I

Terms of Reference for Ex-post Evaluation

PD 94/90 Rev.3 (I) "The integration of Forest-based Development in the Western Amazon – Phase II – Technology for Sustainable Utilization of Raw Forest Materials"

I. Background

The International Tropical Timber Organization (ITTO) is an intergovernmental organization promoting the conservation and sustainable management, use and trade of tropical forest resources. Its 60 members represent more than 80% of the world's tropical forests and 90% of the global timber trade.

The Committee on Economic and Market Intelligence and the Committee on Forest Industry (CEIMI-CFI), at their Thirty-eight, Thirty-nine, and Fortieth Sessions in May 2006, November 2006 and June 2007 decided that an ex-post evaluation for PD 94/90 Rev.3 (I), PD 46/97 Rev.3 (I) should be carried out to establish how well the projects served their purposes and to draw up recommendations for future action. The background information on these projects is outlined in the Annex to the terms of reference.

II. Terms of Reference for Ex-post Evaluation

The primary purpose of the evaluation is to provide an in-depth diagnosis of the projects so as to point out the successful and unsuccessful outcomes, the reasons for successes and failures, and the contribution of the projects towards the achievement of ITTO's Objective 2000, and to draw lessons that can be used to improve similar projects in the future.

- i. To assess the project design and contribution to the achievement of its respective objectives.
- ii. To assess the achievement of the project's outputs and specific objectives.
- iii. To evaluate the impact and relevance of the project, detailing its impact on development and specific objectives as stated in the project document.
- iv. To determine the effectiveness of technology transfer to target groups if applicable.
- v. To assess the overall post-project situation, including the conditions of their intended direct or indirect beneficiaries.
- vi. To define and assess unexpected effects and impacts, either harmful or beneficial, and present the reasons for their occurrences.
- vii. To analyze and assess implementation efficiency, including the technical, financial and managerial aspects.
- viii. To assess the overall sustainability of the project after completion, and include appropriate recommendations to safeguard the continuing of its positive impacts, and enhance utilization of the technologies (if applicable) and other results developed by the projects.
- ix. Taking into account the results of the evaluation, make an overall assessment of the project's relative success or failure, to summarize the key lessons learnt;

and identify any issues or problems which should be taken into account in designing and implementing similar projects in future.

- x. To assess the overall cost of the projects with original budget provisions, and their respective linkage with the overall results.
- xi. To prepare the evaluation report in accordance with the references for the Project Evaluation Report, as contained in the ITTO Manual for Project Monitoring, Review and Evaluation.
- xii. To assess the project's contribution to the relevant ITTA objectives (1994) and relevant ITTO Action Plan.
- xiii. To prepare one or more articles for each project, for possible publication in the ITTO Tropical Forest Update (TFU), in consultation with the editor, containing an overview of the projects and summarizing the lessons learned from the evaluation work. Appropriate photographs should be provided, if possible.

The evaluation work shall be conducted in such way as to answer the questions identified in the ex-post evaluation checklist provided in the ITTO Manual for Project Monitoring, Review and Evaluation (page 29), including an executive summary, and a power point presentation to members of ITTO at one of the sessions of the International Tropical Timber Council.

In addition to the above, the consultant is requested to make an in-dept analysis of the outputs of the project and its actual intended situation after project completion, with particular emphasis on:

PD 94/90 Rev.3 (I) "The integration of Forest-based Development in the Western Amazon – Phase II – Technology for Sustainable Utilization of Raw Forest Materials" (Brazil):

- The elaboration and implementation of the integral forest management plan for the ASF, assessing how well it has served its function and the impacts produced up to date;
- The different market studies produced by the project, and how these were integrated into a real strategy for better marketing timber and non-timber forest products;
- The establishment of a participatory system with the forest communities for the planning and execution of project activities;
- The monitoring system of the effects of different land uses and its results in the management of the ASF;
- The failure of establishing an industrial line was established of the processing of Brazil nuts;
- The transfer of technology acquired with the ITTO funds to the communities determining if they are still being properly used by their beneficiaries;
- Whether the ASF forest has become a model for sustainable management for the State of Acre in particular and for the Amazon Region in general; and
- How the impacts and results of the project serve to improve the forest public policy.

Appendix II

Programme for Evaluation Mission

Actividad – Objetivos	Fecha	OBS
Arrival to Rio Branco	7/3	
FUNTAC - Floresta Estadual do Antimary – FEA		
Travel to 'Colocação Primeiro Ponto' Institutional presentation of FUNTAC; presentation of the public policies of the State of Acre. (review of the agenda and objectives of the visit) Meeting with the Project team: presentation of the Project activities and outcomes achieved. Lodging at 'Colocação Primeiro Ponto'	9/3	Departure from the Hotel: 6:30h
Visit to the camping area 'PAE Limoeiro' Visit to the facilities built with ITTO funds Visit to one of the houses built by the project and meeting with the forest owner Visit to a Forest Management Unit as result of the project – area certified by FSC Visit to a communitarian seeds collector (native species)	10/3	Departure from 'Colocação Primeiro Ponto': 7:00h
Return to Rio Branco		Return to Rio Branco 15:00h
		Revision and analysis of the publications of the project and feedback.

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