

## Summary of Evaluation Results

### Environmental Conservation in the Brazilian Amazon-Contributions

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## 1. Outline of the Evaluation Study

### 1-1 Objectives and Background of the Study

The Environmental Conservation has been set as one of the important issues (efforts toward global issues) in Japanese ODA mid-term policies, and JICA has extended prioritized its cooperation with priority in this area. The Environmental Conservation Area has been prioritized in the aid for Central and South America. It was also confirmed that assistance for the Environmental Conservation is a priority issue in the policy consultations on the technical cooperation between the Japanese and the Brazilian government, held in January 2001.

The objective of this study is to analyze the efforts of the Brazilian government and its relationships with other aid agencies based on the past cooperation of JICA in the Environmental Conservation Area, and to draw recommendations for future cooperation of JICA for the area.

### 1-2 Framework of the Evaluation

- (1) The relevance of JICA projects from the viewpoints of consistency with the environmental policy of the Brazilian government.
- (2) The efficiency of JICA cooperation based on the aid coordination and comparison with other cooperation projects of donors (especially issues that are relevant to the Pilot Program for the Protection of the Brazilian Tropical Rain Forests, or PPG-7).
- (3) Recommendations from (1) and (2) for the direction of JICA cooperation relevant to the Environmental Conservation in the Brazilian Amazon.

### 1-3 Outline of the Evaluation Team

JICA Brazil Office in Brazil

(commissioned/Commissioned to local consultants; : Ms. Maria Olatz Casas, Mr. Kleber Ramos Alves)

### 1-4 Period of the Study

FY2002

## 2. Methods of the Evaluation

### 2-1 Evaluated Projects

#### (1) Bilateral Technical Cooperation:

Study for the Improvement Improving of the Quality of Life of the Rural People's Livelihoods through Populations in Harmony with the Environment Agricultural Activities and Sound Natural Resources Management in of the State of Amazonas.

(2) Brazilian Amazon Forest Research Project.

(3) Master Plan Study on Recovery of Degraded Areas Land Restoration in the State of Para.

(4) Program for Sustained Agricultural Technological Development Project for Sustainable Agriculture in the Eastern Amazon.

### 2-2 Methods of the Evaluation

(1) Collection, arrangement, and analysis of existing data and reports.

(2) Questionnaire and survey for other aid donors and Brazilian government agencies (including implementing agencies of JICA cooperation issues).

(3) Analysis, evaluation, and recommendations based on (1) and (2).

### 3. Study Results

#### 3-1 Environmental Policies of the Brazilian Government

##### (1) Environmental Problems in Amazon

Most of the Brazilian Amazon is covered by tropical rain forests, and it is a treasury of fauna and flora including those species that have not yet been identified. According to the results of interviews to those who are related to the field of environment, the environmental problems in the Amazon and its causes are recognized as follows: 1) Poverty of the local people was identified as one of the main environmental problems, being a consequence of the shortage of natural resources and the existence of social problems. The shortage of natural resources was identified as a consequence of inappropriate use of the soil, the illegal exploitation of timber and the indiscriminate deforestation, and other factors; 2) The deforestation was identified as a consequence of the expansion of farmland mainly for corn and soy, slash and burn farming by the small-area farmers, and the illegal logging; 3) The chemical pollution of the rivers provoked by the heavy machinery used by timber contractors of high value species, and the development plans including the construction projects of hydroelectric facilities, are considered to be suspicious from the viewpoint of environmental conservation.

##### (2) Environmental Policies at the Federal Level

The Brazilian government has enacted laws on environmental conservation, such as the law on conservation of species and effective use of natural resources since the late 1960s, and the 1988 Federal Constitution that clarified the government's responsibility over balanced environmental conservation.

The federal government has also implemented many programs and projects for environmental management. The main programs and projects are listed below:

##### Pilot Program for the Protection of the Brazilian Tropical Rain Forests (PPG-7)

The PPG-7 is a joint initiative of the countries of the group of the seven most developed countries (G-7) to promote the protection and the rational development of the Brazilian tropical rain forests. It represents the largest donation of multilateral resources for environmental initiatives for a unique country.

This program intends "to maximize the environmental benefits of the Brazilian tropical forests by focusing the sustainable development that contributes to the continued reduction of the deforestation rate, in a consistent way with the development objective of Brazil". Specifically the Pilot Program seeks to:

- 1) the sustainable development with better quality of life;
- 2) the conservation of the biodiversity;

- 3) the reduction of the emissions of carbons; and
- 4) the exemplary cooperation.

The first resources were disbursed in 1995 and, until the end of 2002, a total of US\$ 280 million will be disbursed. At the moment, the second phase of the Program is being negotiated.

Japan contributed with financial resources equivalent to US\$ 6.8 million at the beginning of the Program and as well as through its bilateral cooperation projects, such as the "Brazilian Amazon Forest Research Project", the "Master Plan Study on Degraded Land Restoration in the State of Para Recovery of Degraded Areas in the State of Para Project" (already concluded), and "Program for Sustained Agricultural Technology Development in the Eastern Amazon".

#### Biological Diversity National Program (PRONABIO)

The PRONABIO, coordinated by the Ministry of the Environment (MMA), promoted partnerships between the public agencies and the civil society for the conservation of the biological diversity, the production and dissemination of information, and the training of human resources. This program includes the Conservation and Sustainable Use of the Brazilian Biological Diversity Project (PROBIO) and so on, as its internal financial mechanisms.

#### Program of Monitoring and Controlling for the Legal Amazon (Operation Macaú)

The Operation Macaú was launched in 1997 under the purpose of executing the National Environmental Policy, implementing actions aiming to preserve and the rational use of the natural resources. This program includes Amazon Protection System (SIPAM) and Amazon Information and Surveillance System (SIVAM) as a part of its study functions.

#### Program for the Prevention and Control of the Burnings and Forest Fires in the Arch of the Deforestation (PROARCO)

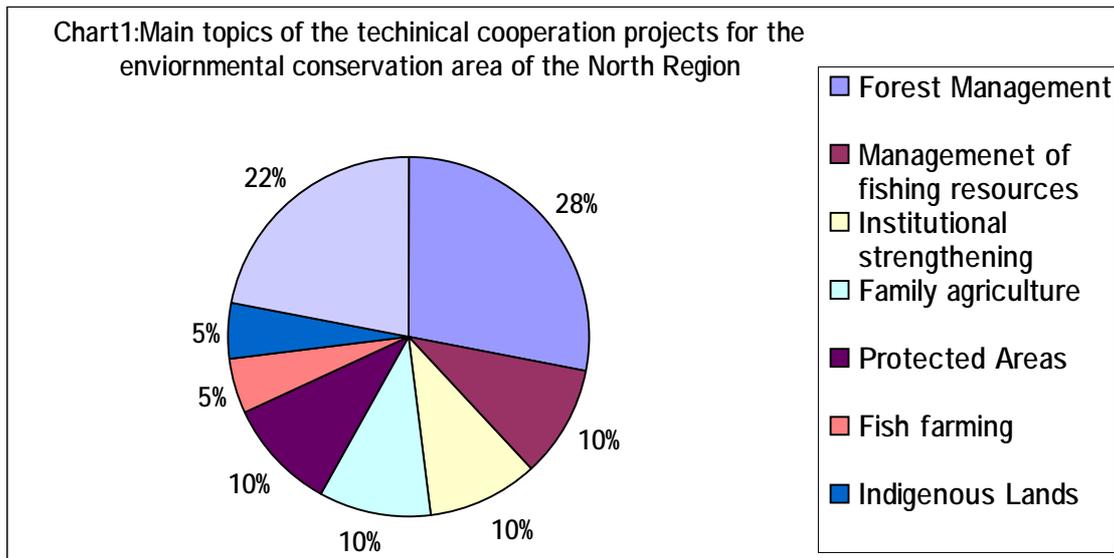
The PROARCO, created in 1998, promotes the integration of the agencies of the different governmental levels and the society in the execution of preventive actions, enforcement and control of the burnings and combating of the forest fires.

#### Program for the Ecotourism Development in the Legal Amazon (PROECOTUR)

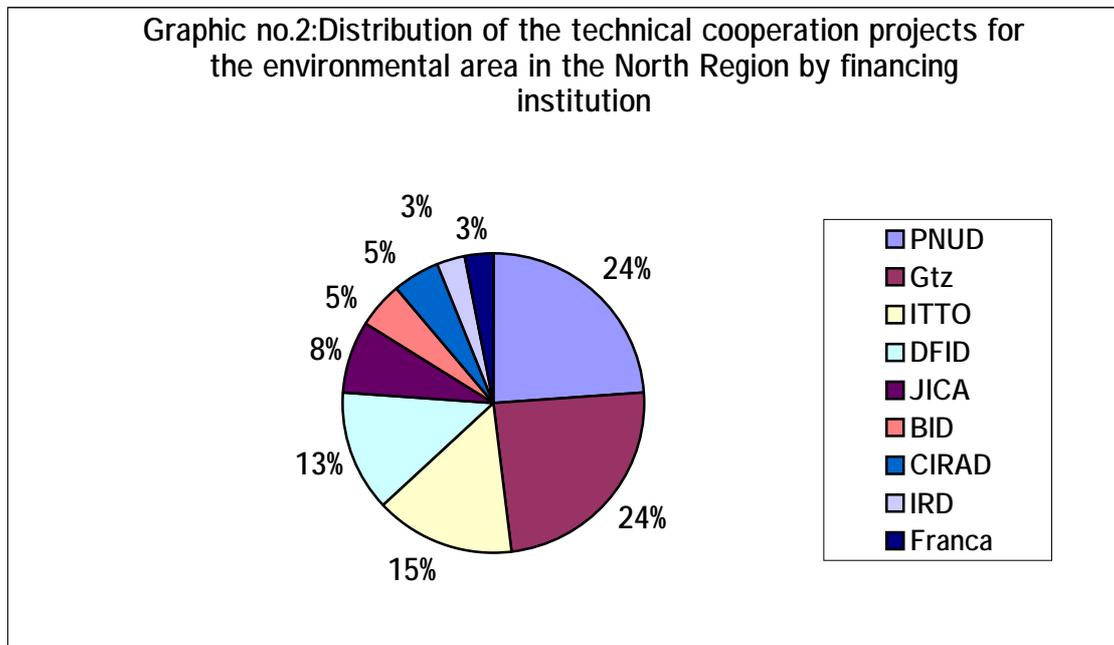
The PROECOTUR has been established through several research programs and institutes, and implemented projects aimed at the preservation of species.

### 3-2 Present state of the International Technical Cooperation

There are 40 environmental conservation projects in execution, in preparation and in negotiation in the North Region at the federal level. The forest management was the topic with a larger representation among those projects, 28% percent of the projects was were carried out in that area, and 42% percent of the total was focused on the management of natural resources including the management of fishing resources, as shown in the Chart.1.



Also, Chart 2 shows the distribution of the technical cooperation projects for the environmental area in the North Region in relation with to financing institutions.



3-3 Present state of the International Financial Cooperation with Brazilian Non-Governmental

## Organizations

For financial cooperation, the Interamerican Development Bank is the main financier of projects (37%), followed by the World Bank (30%). Related to PPG-7, Germany (17%) and Rain Forest Trust Fund (RFT) (6%) have also contributed.

For Non-Governmental Organizations, a study was conducted in 1996 and reported that there were 55 organizations acting in the North Region. The governmental resources are the PPG-7 and the National Fund for the Environment (FNMA), and the resource of the national private foundation is the Brazilian Fund for the Biodiversity (FUNBIO).

#### 4. Evaluation Results

Evaluation of relevance and efficiency of JICA cooperation for the Amazon was not possible because of the insufficient conditions for implementing evaluation. The main reason for this was that there was only one project (Amazon Forest Research Project) at the time of this evaluation.

The past JICA projects in the environmental area did not aim at responding to the plans and strategies to solve environmental problems systematically (Recovery of Degraded Areas in the State of Para Project). Rather, they responded to the requests for immediate solution for the problems that the Brazilian government faced at the time. Such projects were very important for improving knowledge to conduct sustainable management of the forests in the Amazon watershed. However, they were not sufficient to consistently evaluate the JICA performance in the complex circumstance where many different programs are deployed for the Amazon watershed.

As a result of the study, it became clear that there were NGOs that did not know about JICA or those that ignored JICA. There are many cases where, even though they know about JICA, they only had the knowledge about agricultural improvement in the Savannah area (Cerrado), not about the activities in the environmental area.

## 5. Recommendations: Guidelines for the Japanese Technical Cooperation in the Environmental Area for the Amazon Region

Japanese cooperation in the Brazil Savannah (Cerrado) has helped increment the agricultural production. In addition, the improvement of the agricultural production technology and the competitiveness attained through the project continues to be important for the relationships of JICA and Brazil. Since the year of 2002, the Federal Government has launched the Program “Avanca Brazil” with the budget of US\$ 140 billion. The main goal of this program is to restructure the existent national transportation axes and to construct new ones in order to strengthen economic relationship among regions. A number of non-governmental organizations and institutes pointed out the risks of this governmental program on the environment in Amazon. In particular, it is expected that the lower costs of production and commercialization in the Aguaia-Tocantins will motivate the expansion of the agricultural border. Therefore, it is considered that the areas of Aguaia-Tocantins are the most appropriate target areas in future JICA cooperation.

JICA should consider carefully the possible consequences in advance that can be derived from the eventual financial incentives and the technical cooperation to large- scale agricultural projects. JICA should also start incorporating the requirement of compensatory elements, for the support of such projects in developing large- scale agricultural systems with the relocation of the residents, in order to minimize of possible negative impacts.

Considering the experiences that JICA has accumulated through the cooperations on in agricultural development in countries with low social indicators, JICA should place its focus on the following issues in a systematic manner:

- Agro-forest management, with emphasis on the agricultural techniques of low environmental impact and the recovery of degraded areas;
- Research and development for reincorporating the degraded areas in the productive process with the fixation of the small farmers in exhausted areas;
- Control of the contamination with by mercury;
- Improvement of the health and hygiene services in the residential area; and
- Improvement of the literacy rate of the families of the small-area farmers in Amazonia, among others.

On April 8, 2002, in Brasilia, JICA held a Meeting of Experts with the participation of professionals from the federal and state environmental agencies and non-governmental organizations that were active in this region. As a result of the meeting, the selection criteria of the projects were proposed as follows:

- 1) For the period of the project, it is necessary to secure the room for setting it mid- to long-term (4 to 6 years), or for giving cooperation in several phases, when necessary. Having research

institutions including federal and non-governmental organizations participate in the project is crucial.

- 2) When NGOs are involved, it is necessary to reconfirm the needs of the counterpart.
- 3) It is necessary to expedite the participation in the cooperation by requesting agencies at the earlier stages (at the planning phases) of the project.

In the Meeting, the acting areas listed below were proposed for future JICA cooperation:

- 1) To consolidate the already open agricultural border
  - Development, implementation and divulgation of the technology for the recovery of the altered areas
  - Verticalization of the production and aggregation of value
  - Silviculture
- 2) To create development models more appropriate for the region
  - Use of forest resources (timber and nontimber)
  - Community forest management
  - Recomposition of the legal reserve
- 3) To support the consolidation of the protected areas (conservation units, indigenous lands and ecological corridors)
  - Valorization of the culture of the traditional populations
  - Elaboration and implementation of management plans
  - Economic alternatives for the populations
- 4) To support the administration of the hydrographic basins or micro-basins
  - Definition of a adequate model for the region
  - Programs of basic sanitation
  - Monitoring of the impact activities (agro-toxic, mining activities, etc.)
- 5) To strengthen the capacity of performance of the civil society
  - Training
  - Institutional strengthening
  - Economic auto sustainable projects
  - Support to the indigenous mobilization
- 6) To generate the knowledge for sustainable economic alternatives
  - Training
  - Applied research
  - Appropriate technology
- 7) To strengthen the environmental administration
  - Infrastructure and equipment for environmental agencies

- Technical training
- Land use planning
- Support to the deforestation control and monitoring (similar to the system established in the State of Mato Grosso)

8) To promote economic instruments for the conservation

- Divulgation
- Training