

## Evaluation Summary

### 1. Outline of the Project

Country: Federative Republic of Brazil

Project Title: Project for Forest Conservation and Environmental Education in the Eastern Amazon

Issue/Sector: Natural Environment Conservation

Cooperation Scheme: Technical Cooperation Project

Division in Charge: Forestry and Nature Conservation Team II, Group I, Global Environment Department

Total Cost (at the time of evaluation): 178,945,000 yen

Period of Cooperation:

15 January 2004 - 14 January 2007

(R/D signed on 22 December 2003)

Partner Country's Implementing Organization(s):

Science, Technology and Environment of the Para State (SECTAM)

Emilio Goeldi Museum of the Para State (MPEG)

Brazilian Agricultural Research Corporation (EMBRAPA)

Supporting Organization(s) in Japan: Gunma Prefectural Government

Related Cooperation: None in particular

#### 1-1 Background to the Project

Conservation of tropical rain forests in Amazon is a global challenge. It is also a top priority issue in the JICA Country Program for the Republic of Brazil in its one of the focus sector of environmental conservation. In the northern State of Para, deforestation is worsened by logging, and conversion to farmland and pasture under the settlement program. This serious situation highlights the urgent need to diffuse forest conservation techniques and raise public awareness about the importance of forest conservation.

The Gunma Ecological Park (GEP), located in Santa Barbara, Para State (50 kilometers from the state capital of Belem), covers 540 hectares of primeval tropical rain forest. Japan-based Moriwotsukuru-kai and North Brazil Gunma Kenjinkai ("Kenjinkai"), a Belem-based group of Japanese descents, purchased the forest in 1996 to appeal to the world the need for forest protection on a global scale. The two groups raised the fund both in Japan and Brazil.

In January 2002, JICA dispatched a project formulation mission to Brazil with the participation of the Gunma Prefectural Government in Japan. The mission found that GEP, located near the state capital of Belem, would offer excellent potential for demonstrating

forest conservation techniques and environmental education. It recommended that researchers and technical experts from Japan and Brazil disseminate techniques for forest conservation and effective use of forest resources from GEP and that GEP offer opportunities for environmental education. After lengthy discussion, it was decided that JICA should conduct a technical cooperation project that would focus on three aspects: (i) promoting nature and environmental education; (ii) extending afforestation and agroforestry techniques; and (iii) bolstering information dissemination and public relations. JICA was able to win full support from the Gunma Prefectural Government.

In January 2004, JICA launched this Project for a period of three years in cooperation with three major counterpart (C/P) organizations: the Science, Technology and Environment of the Para State (SECTAM); Emilio Goeldi Museum of the Para State (MPEG); and the Brazilian Agricultural Research Corporation (EMBRAPA).

## 1-2 Project Overview

### (1) Overall Goal

Effective forest and natural environmental conservation is promoted in the eastern Amazon areas.

### (2) Project Purpose

Activities of forest and natural environmental conservation are promoted in Para State.

### (3) Outputs

- (i) Activities of environmental education will be promoted in Para State.
- (ii) Extension of afforestation and agroforestry techniques in Para State will be promoted.
- (iii) Distribution of information and public relations regarding Amazon forests in Para State will be strengthened.

### (4) Inputs (by March 2006)

<Japanese side>

Long-term Experts: 3 experts • Short-term Experts: 9 experts  
Trainees received: 4 persons • Equipment: approx. 20,016,000 yen (484,445 reals)  
Local activity expenses: approx. 69,184,000 yen (1,511,222 reals)

<Brazilian side>

- Counterparts: 24 persons
- Local cost: approx. 44,800 reals
- Land and facilities: Project office (within SECTAM)

## 2. Termination Evaluation Team

Members of Evaluation Team

Team Leader Toshio OGAWA Team Director, Forestry and Nature Conservation Team II, Group I, Global Environment Department, JICA  
Forest Conservation Tatsuo SAKO Director, New Policy Division, Planning and Development Department, Gunma Prefectural Government  
Evaluation Analysis Noriko FURUTANI Researcher, Global Link Management, Inc.  
Evaluation Planning Soichiro KASAHARA Forestry and Nature Conservation Team II, Group I, Global Environment Department, JICA

Period of Evaluation

23 (Sun.) April - 20 (Sat.) May 2006

Type of Evaluation: Terminal Evaluation

### 3. Results of Evaluation

#### 3-1 Achievement Level

##### Project Purpose

The Evaluation Team concludes that the Project Purpose has been achieved because activities of forest and natural environmental conservation have been promoted in Para State.

Evidence. As of May 2006, the Project has achieved the target indicator for the Project Purpose. In other words, SECTAM, MPEG, and EMBRAPA have accumulated technology and information on the conservation of the natural environment in Para State. They cover the nature game, forest management techniques, simple soil and plant analysis, the system of extending agricultural techniques, the techniques for basic design of materials exhibition, workshops on museology, the current situation of environmental education in the world, green tourism, and the utilization of tree seeds. Other target groups than these three implementing agencies have also fared well. Agricultural producers around GEP are highly motivated to practice the knowledge they have acquired in seminars provided by the Project, including agroforestry techniques for forest conservation. A school that offers curricula stressing environmental education tried the nature game in some classes, realized its value, and introduced it on a whole school level. Now the school is disseminating the nature game to local communities and other educational institutions. It is even developing a framework for that purpose.

##### Outputs

*Output 1: Activities of environmental education have been promoted in Para State.*

Evidence. The Project has organized a total of 22 workshops as part of the activities of environmental education. Although the number of workshops falls short of the target of 30, a total of 913 people have participated, a little above the target figure of 900. Many of the participants have also participated in the nature game. The target number of seminars will likely be achieved according to the schedule for FY2006 and after.

*Output 2: Extension of afforestation and agroforestry techniques in Para State has been promoted.*

*Evidence.* The indicator for Output 2 has been achieved. The Project has organized a total of 22 seminars, well above the target figure of 18. The participants totaled 481 as against the target figure of 480.

*Output 3: Distribution of information and public relations regarding Amazon forests in Para State have been strengthened.*

*Evidence.* The number of visitors to GEP since the launch of the Project has amounted to some 6,600, far above the target figure of 3,600. As of the end of March, the number of visits to the website of GEP totaled about 800, falling short of the target figure of 2,400. This target will likely be achieved soon or later because this shortfall is largely attributable to a delay in establishing the website.

### 3-2 Implementation Process

- The differences in project budgeting between Brazil and Japan were not fully explained to the Brazilian counterparts at the beginning. This has long affected the consultations on economic matters.
- Communication between the Japanese experts and the three counterpart organizations was insufficient. The establishment of the coordinators' meeting this year has improved coordination among the stakeholders.

### 3-3 Levels of Achievement of the Outputs, the Project Purpose, and the Overall Goal

The Project has achieved both the Outputs and the Project Purpose. It is difficult to estimate the level of achievement of the Overall Goal with the current indicator. As the current indicator stands, the Overall Goal can be characterized as the Super Goal. At any rate, the achievement of the Project Purpose has contributed to that of the Overall Goal. If the Brazilian government builds on the successful results of the Project and continues to promote forest conservation activities, the Overall Goal will likely be accomplished over the long term.

### 3-4 Summary of Evaluation Results

#### (1) Relevance

The Project itself has been highly relevant. It is consistent with the strategic program for forest and environmental conservation of the Brazilian government and relevant to the needs of its target groups. The Project is also part of the ecosystem conservation program under the category of environmental conservation, one of the focus sectors of the JICA Country Program for Brazil. As far as the project design is concerned, however, there is room for improvement. The Project Purpose is not properly aligned with the Overall Goal. As the current indicator stands, it is difficult to achieve the Overall Goal because the effects of the Project Purpose have to be spilt over the entire East Amazon.

## (2) Effectiveness

The Evaluation Team considers the Project highly effective because all the Outputs have contributed to the achievement of the Project Purpose. The most important contributing factor is the geographical advantage of GEP (its easy access to the major city).

## (3) Efficiency

The Evaluation Team considers the Project highly efficient because the inputs from both Japan and Brazil were largely sufficient to produce the expected outputs. On the downside, it was noted that consultations over the expertise of some short-term experts were inadequate and that some equipment inputs were delayed.

## (4) Impact

The impact of the Project is high.

- The publicity of GEP, including the number of enquiries, increased significantly as a result of the media coverage, including TV reports.
- As GEP became more popular, farmers and lumbering companies of Japanese descent and in such cities as Tome-Asu and Castanhal began to approach the Park for possible collaboration in afforestation and other fields.
- In addition to inspection visits for project activities, GEP began to be used as a venue for seminars, a place for practice by universities and high schools, and a field for research for research institutions, and such cases are increasing in number.
- Although MPEG did not target Santa Barbara for research purposes in the past, its study there increased the archeological value of the district.
- As a result of the project activities, GEP was opened to local communities. This in turn allowed them to understand the value of GEP to them.
- A research activity of the Project has discovered two tree species, which are in danger of extinction in the Amazon. Research on these endangered species has started.
- EMBRAPA and EMATER have begun to explore the possibility of collaboration by taking advantage of GEP.
- Kenjinkai has taken steps toward (i) the establishment of a management body for GEP to promote environmental conservation activities that take advantage of the Park; (ii) the designation of its forests as RPPN (Private Natural Heritage Reserve); and (iii) collaboration with organizations other than those of Japanese descent.
- The project had a significant impact on Japan as well. “Kids ambassadors for the green” helped raised the awareness of the population of Gunma Prefecture about GEP and its value. The project had wider ramifications. Kenjinkai received a Global 100 Eco-Tech Award at Expo 2005 Aichi, Japan, held in Nagoya City. Global 100 Eco-Tech Awards were granted for

environmental technologies and techniques that contributed to sustainable development in the world.

No major negative effects have been observed.

#### (5) Sustainability

The Evaluation Team considers the Project as highly sustainable on condition that the ongoing efforts to secure funds bear fruit.

The organizational sustainability of the three counterpart organizations is considered high. First, their roles are clearly defined in the forest conservation policy of the Brazilian government. Second, the Brazilian side has made progress in training providers of hands-on environmental education. Third, the importance of practicing and extending agroforestry techniques is increasingly recognized anew.

Sustainability is considered high at the levels of agricultural producers and the public at large. Farmers who have received training under the Project are highly motivated to practice what they have learned. The target groups, including the counterpart organizations, have accumulated relevant techniques.

At the financial level, the counterpart organizations have taken specific steps to secure funds for their plans to take advantage of GEP. If these efforts are continued, the financial sustainability will likely be ensured.

GEP plays an important role in supporting the continued activities of the counterpart organizations. It is therefore necessary that its owner, Kenjinkai, has a solid financial basis to sustain itself, although the group of Brazilians of Japanese descent is not a direct counterpart organization. As it stands, however, the Evaluation Team believes that the financial base of GEP is solid enough. Kenjinkai and others are now moving to establish an NGO to make the door of GEP open wider to the outside world and further promote environmental conservation activities in coordination and cooperation with other organizations. Such an NGO would provide an avenue for Kenjinkai to perform activities to general revenues--admission fees, accommodation charges, revenues from eco-tours and the sale of produce and other products, for example--in a proactive and efficient manner, while further improving its financial efficiency. Kenjinkai is also looking into the possibility of GEP being registered as RPPN, so that the counterpart organizations will have access to external public funds for their activities at GEP. If these efforts pay off, the sustainability of GEP will likely be ensured.

#### 3-6 Contributing and Inhibiting Factors

There are two major contributing factors.

- *Quality and accessible forests.* GEP includes high-quality primeval forests that are easily accessible from the state capital of Belem.

- *Relevance to the needs.* The Project has offered planning and agroforestry techniques that accommodate the needs of local farmers. Moreover, there was strong demand for hands-on environmental education, as highlighted by the nature game, which was rather unfamiliar to the Brazilians

### 3-7 Conclusion

Knowledge, information and techniques that the counterpart organizations have acquired through the project process are diverse in such fields as environmental education and agroforestry. Because they are now being practiced by these organizations, the relevant knowledge, information and techniques are thought to have been accumulated at the counterpart organizations--the indicator to measure the achievement of the Project Purpose. The Evaluation Team thus concludes that the Project Purpose has been attained.

The impact of the Project is simply significant, including its effects on Japan. The sustainability of the Project is more complicated. The sustainability of the three counterpart organizations is considered high because they have the sufficient capacity and access to federal and state funds for environmental conservation. On the other hand, the sustainability of GEP, which provides these organizations with a place and opportunities for their activities, leaves something to be desired given the limited financial and human resources currently available to the Park. The Evaluation Team can conclude that the sustainability of GEP will likely be ensured if three conditions are met: (i) the establishment of an NGO that would make the management of GEP more efficient; (ii) the registration of GEP as RPPN; and (iii) more involvement of the counterpart and other organizations in GEP, supported by sufficient funds.

### 3-8 Recommendations

#### Measures to be taken by the Project before its completion

The project stakeholder should take the following measures during the project period, so that SECTAM, EMBRAPA, MPEG, and GEP will continue their activities after the completion of the Project:

- 1) Specific measures should be taken to disseminate the project outcomes to the whole area of activity of each counterpart organization, including those to reflect them in government policy.
- 2) The stakeholders should start studying specific indicators that can measure the level of and progress in the achievement of the Overall Goal.

The current indicator for the Overall Goal is a halt to the increasing deforestation rate. It is difficult, however, to ensure that such a halt represents itself in verifiable data in three years after the completion of the Project, when JICA conducts the ex-post evaluation. An indicator that shows the relationship between the residents of the target area and forest conservation activities should be devised to measure the level of achievement of the Overall Goal.

For this reason, the Joint Coordination Committee (JCC) should have substantial consultations and then determine a new indicator. At present, the proposed indicators include:

(i) Environmental education techniques are disseminated outside Para State; and (ii) The agroforestry and forest conservation techniques introduced by the Project are practiced by the counterpart organizations outside Para State.

3) The Project should provide necessary information to establish an NGO that would manage GEP.

4) The organizations concerned should join forces to ensure that GEP will be registered as RPPN so that the counterpart organizations will have easy access to external public funds for their activities at GEP.

#### Measures to be taken after the completion of the Project

The counterpart organizations should make further efforts to obtain funds, from public funds and the private sector, that are necessary to disseminate and build on the project outcomes in other areas in the Eastern Amazon.

#### 3-9 Lessons Learned

(1) Japanese experts should compile their reports in the most common language in the project site or at least in English, so that they are widely shared in the recipient country.

(2) Smooth communication between the Japanese side and the counterpart organizations is crucial.

(3) All the organizations that are designated as counterpart organizations must be involved in the design of the project. Thorough consultations should be held in the process of developing the PDM, including exchanging views on the indicators.

(4) The Project Purpose should be properly aligned with the Overall Goal in the project designing process.