

Terminal Evaluation Summary

1. Outline of the Project	
Country: Gabonese Republic	Project Title: Conservation of Biodiversity in Tropical Forest through Sustainable Coexistence between Human and Wild Animals
Issue/ Sector: Natural Environment Conservation	Cooperation Scheme: Technical Cooperation Project (Science and Technology Research Partnership for Sustainable Development : SATREPS)
Division in Charge: Forestry and Nature Conservation Division 2, Forestry and Nature Conservation Group, Global Environment Department	Total Cost: - JICA: Approximately 531.572 million Japanese Yen (projected at the time of evaluation)
Period of Cooperation	(R/D): September 2009 – September 2014 (for five years)
	Country Partner Implementing Organization: Institut de Recherche en Écologie Tropicale (IRET) under Centre National de la Recherche Scientifique et Technologique (CENAREST) of Ministère de l'Enseignement Supérieur et de la Recherche Scientifique (Ministry of Higher Education and Scientific Research)
	(Extension): Supporting Organization in Japan: Kyoto University, Kagoshima University and Chubu Gakuin University
	(F/U) : Related Cooperation: None
1-1 Background of the Project	
<p>The Congo Basin is located at the central Africa and rich in biodiversity, holding the 2nd largest tropical forest in the world after the Amazon Basin. Gabonese Republic (Gabon) occupied large portion of Congo Basin and blessed with high forest coverage. However tropical rainforests around the world are under threat from deforestation from human activities such as clear-cutting for agriculture, slash and burn agriculture, and unsustainable logging for fuel wood. The World Wide Fund for Nature (WWF) warns that 70% of the tropical forest in the basin will be lost by 2040, if no effective measures are taken against deforestation. Moreover deforestation is a particular concern in tropical rainforests because these forests are home to much of the world's biodiversity.</p> <p>The Gabonese Government has taken measures for the conservation of country's rich ecosystems and designated more than 10% of the total landmass as 13 national parks by 2002. To further enhance the biodiversity conservation while ensuring the benefits of local people near the forests, the promotion of ecotourism became one of the key focuses of the Government and other organizations, such as international NGOs.</p> <p>One of the hindering factors to realize the scientific management and conservation of biodiversity was the lack of adequate scientific data about the tropical forest ecosystem in the target areas. Also, the scientific knowledge was needed for controlling zoonosis diseases through human-wildlife interactions and promoting safe ecotourism. Therefore, it was deemed necessary to conduct scientific researches and propose a set of concrete, effective and practical methods to generate necessary scientific data and implement community-based sustainable management of biodiversity through eco-tourism with the objects of forest conservation and conservation of biodiversity as climate control.</p> <p>Since 1950s, Kyoto University promoted the research on the conservation of primates including anthropoid ape in the tropical forest in Africa. IRET under CENAREST of Ministry of Higher Education and Scientific Research and Kyoto University entered into an agreement for undertaking joint research on the primates in the Parc National de Moukalaba-Doudou (PNMD) - one of the 13 national parks in Gabon and known for its rich habitat of primates, including gorillas. The joint research started early 2000s and generated valuable research results.</p> <p>Large primates have become an important icon of ecotourism. The ecotourism development centering the habituated gorilla had display certain success in other African nations, especially in the east Africa - Rwanda, Democratic Republic of the Congo and Uganda, and high priced per person to protect nature and wildlife. Many visitors find high value that they can watch wild gorillas. In addition, it is important to able to observe the gorillas at PNMD to promote ecotourism in Gabon.</p>	

The IRET, in association with Kyoto University and other Japanese prominent research institutions, proposed a technical cooperation project under a facility known as SATREPS, jointly supported by Japan International Cooperation Agency (JICA) and Japan Science and Technology Agency (JST), aiming at the formulation of methods for community-based biodiversity management in PNMD through the preparation of a scientific ecological map, prevention of zoonosis diseases and promotion of ecotourism. During the detailed planning survey in March 2009, Japanese and Gabonese governments agreed on the outline and components of the project, and the Record of Discussions (R/D) was signed by both governments on 19 August, 2009. In September 2009, the Project started.

About 5 months before the project completion, this Joint Terminal Evaluation was conducted as stipulated in the Article V of the R/D.

1-2 Project Overview

(1) Project Period

September 2009 - September 2014 (5 years)

(2) Target Area

Moukalaba-Doudou National Park (PNMD) and surrounding area (Doussala area)

(3) Target Groups

Staff of IRET and local community

(4) Project Purpose

Method for community-based sustainable management of biodiversity is proposed based on scientific data.

(5) Outputs:

- Species, habitats and ecosystems which should be conserved by priority in PNMD, are identified.
- Based on scientific data, safe ways of human contacts with larger mammals, particularly with primates, are proposed.
- Scientific methods for ecotourism, particularly for primates observation, are developed.
- Capacity of local community for biodiversity conservation is reinforced.
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1-3 Project Inputs (at the time of evaluation)

Japanese Side:

- Budget: Approximately 531.572 million Japanese Yen
- The total of 204 (MM) of Japanese experts and coordinators were dispatched as indicated below:
 - 134 Man-Months (MM) of Japanese experts (JICA fund)
 - 16 MM of Japanese experts (JST fund)
 - 54 MM of Project Coordinators (JICA fund)
 - 28 MM of Japanese researchers (other funds)
- Approximately 924 million CFA for the provision of equipment and machines, procurement of consultants and contractors and other local project support cost
- Training in Japan: 8 counterpart (C/P) (JICA fund) and 6 Gabonese personnel (funds from JST and Kyoto University).

Gabonese Side:

- Appointment of Project Director and Project Manager
- Provision of an office space in the campus of IRET, Libreville and in Tchibanga and part of office running cost
- Allocated 8 million CFA as the counterpart fund

2. Overview of Evaluation Team

Members	Japanese Side:		
	JICA Team		
	Name	In Charge	Position and Organization
	Mr. Kazuhiro Goseki	Leader	Executive Technical Advisor to the Director General, Global Environment Department, JICA
Mr. Shinsaku Fukazawa	Cooperation Planning	Advisor, Forestry and Nature Conservation Division 2, Forestry and Nature Conservation Group, Global	

		Environment Department, JICA
Mr. Shinichiro Tsuji	Evaluation Analysis	Senior Consultant, Environmental Science and Engineering Department, Overseas Consulting Administration, Nippon Koei Co. Ltd.
Mr. Masanori Shintani	Ecotour Method Evaluation	President, Ecologic General Incorporated Association
Ms. Naoko Hiramatsu	Interpreter	Japan International Cooperation Center (JICE)
JST Team		
Name	Position and Organization	
Dr. Kotaro Inoue	Principal Fellow, JST	
Ms. Miho Takahashi	Assistant Program Officer, JST	
Gabonese Side:		
Name	Position and Organization	
Mr. Oukham Phiathep	Deputy Director General, Department of Planning and Cooperation, Ministry of Agriculture and Forestry	
Ms. Saymonekham Mangnomek	Deputy Director General, Department of International Cooperation, Ministry of Planning and Investment	
Mr. Phousith Phoumavong	Senior Officer, Department of Agriculture Extension and Cooperative, Ministry of Agriculture and Forestry	
Mr. Bouneua Khamphilavanh	Senior Technical Staff, Department of Planning and Cooperation, Ministry of Natural Resources and Environment	
Period of Evaluation	April 6 – April 27, 2014	Type of Evaluation: Terminal Evaluation
3. Overview of Evaluation Results		
3-1 Achievements		
<p>Inputs: In general, the Inputs were made as per plans, although the timing of some inputs were delayed, such as the first Japanese project coordinator and some equipment, the procurement of which were difficult because of their unavailability in Gabon. The Project Manager (PM)/ National Coordinator (NC) from the Gabonese side was absent for a year. The maintenance of equipment, vehicles and other facilities provided by the Japanese side were utilized and maintained properly in general, although some equipment (such as a buggy and camera traps) were out of order. Therefore, the overall achievement of Inputs was fair.</p> <p>Output 01: All the necessary materials and data had been available already, and the ecological map was under development at the time of Terminal Evaluation. Therefore, the probability of achieving Output 1 was high.</p> <p>Output 02: All the robust data and study results were available for consolidation into a report on the methodology for safe human-animal contact. The study results were presented to the study group consisted of representatives from concerned agencies. The consolidated report was almost completed, referring to international guidelines [e.g., International Union of Conservation of Nature and Natural Resources (IUCN) guideline], and a manual targeting the tourism guides and tourists was also being developed for the safe contact between human and animals at the time of Terminal Evaluation. Therefore, the probability of achieving Output 2 was high.</p> <p>Output 03: Based on the robust scientific data, a manual was being developed at the time of Terminal Evaluation for appropriate observation method for wild animals, especially the primates. The manual was expected to be completed within the project period as it would be integrated into the Output of the research for the safe ways of human contacts with larger mammals, particularly with primates. The habituation of a new gorilla group (Group Eight) would be completed within around 2-4 more years after the project. Therefore, the achievement of Output 3 was fair.</p> <p>Output 04: Because of the project activities in the target villages, the people in the area became more aware of the values of natural resources surrounding them. Their environmental consciousness increased through the influence from the local specialists (trained villagers) developed under the project, although some of the planned environmental education activities could not take place in the absence of research station cum eco-museum at the</p>		

village. Seven local specialists were well-trained, and their skills in tracing the wild animals were developed. The knowledge of local specialists and some villagers were improved remarkably regarding the ecosystems in the park. During the field visit, the villagers' dependency on external assistance was observed. Overall, the achievement of Output 4 was **fair**.

Project Purpose: The approaches and methodologies that were adopted and studied by the project would be compiled into a proposed method for community-based biodiversity management, but how and when they would be consolidated by the project was to be decided at the time of Terminal Evaluation. A document called "PROCOBHA Perspectives" was prepared to present the concept and long-term vision for ecotourism development and biodiversity conservation for PNMD by the Gabonese Organizations - IRET, ANPN and PROGRAM. Therefore, the achievement of Project Purpose was **almost as planned**.

3-2 Summary of Evaluation Results

1) Relevance - **High**

For the proper management and conservation of national parks and natural resources therein, it was important to understand the distribution and interaction patterns of fauna and flora within the protected areas. The most of such an ecological mechanism was unknown before the project. For the scientific management of national parks and natural resources therein, adequate scientists were required. The project had undertaken the researches to reveal the ecological system in PNMD and stressed greatly on the capacity building.

As the ecotourism was promoted, the risks of zoonosis diseases, especially caused by antibiotic resistant bacteria and parasites transmittable from animals to humans or vice versa increased. Also, habituated gorilla groups were needed for research and tourism separately. The generation of incentives for the local population to conserve the protected areas and resources thereat was vital to properly engage the villagers in the conservation activities. The project addressed those issues.

The project was in line with the 2012 rolling plan of the Japanese Government for Gabon. The Gabonese Government promoted a national policy called "Green Gabon", and the focus had been shifting from the promotion of resource-exploitive tourism to the tourism that utilized the conserved natural resources as tourism attraction (ecotourism). The project was in line with such a policy direction.

Both the Japanese and Gabonese governments rectified the Convention on Biological Diversity (CBD). The project would contribute to the achievement of CBD's Aichi Target, especially Target 1, 11, 12 and 19.

2) Effectiveness - **Moderately High**

With extensive support from the Gabonese researchers, meaningful researches were completed using the profound knowledge and rich experiences of Japanese researchers.

The set of approaches and methods that were developed during the project were not yet transformed into a series of manuals, guidelines and field guides as indicated in Outputs and not yet finalized through the consultation with the villager and C/P and Agency for National Park (ANPN). They must be synthesized into a consolidated and comprehensive document for community-based biodiversity management indicated in the Project Purpose, and the project planned to do so as all the major research results in the special edition of "TROPICS". A number of international academic conferences and symposiums were planned also, at which the document/ method would be presented.

Local specialists (research assistants from the villages) and trackers were employed with pay by the project, but the Terminal Evaluation Team observed during the field visit that their affections to gorillas and natural environment were significant.

3) Efficiency - **Moderate**

Most project activities generated robust data and materials to be used for the development of maps, manuals, methods and guidelines, and most of the Outputs were still under development at the time of Terminal Evaluation in the absence of research station. This fact reduced the project efficiency significantly.

Owing the fact that Kyoto University and other partner Japanese research institutions mobilized significant volumes of their own resources for project implementation in addition to the resources from JICA and JST, the project outcomes were scaled up.

The project management was inefficient at times due to the absence/ lack of proper management staff members of the project.

The specifications of items placed at the laboratories developed under the project were appropriate overall, and the equipment were utilized and maintained properly for the research activities by the project researchers. The laboratories developed under the project were utilized by the project and could be utilized more when the researchers return from Japan with doctorate degrees.

The items for the field research were also utilized adequately in general for the project activities. The maintenance of those items was monitored by the field researchers. Some items were damaged and out of order. The cost of maintenance was high, and fund for maintenance was inadequate. Appropriate ecotourism specialists could have been effective for the project if dispatched.

4) Impact - **Moderately High**

The project drew attentions of researchers overseas. Once the research station would be completed, it could accommodate researchers from other places and accelerate the research activities and results.

The ecotourism development through the promotion of habituated gorillas became one of the central programs of the plan, while gorillas had never been considered to play key roles in the development of PNMD before.

The development of similar model in Gabon drew the interests of tour operators, and the project had been receiving inquiry from them.

The data and information collected during the mapping exercise could be used for environmental education, ecotourism and further capacity building of concerned officers and institutions in future.

The project could have advised the Gabonese policy makers to come up with new national policies on ecotourism promotion, village-level ecotourism rules and animal damage control for crops using the research outcomes. It was uncertain whether the method would be adopted by the concerned authorities as official regulations and guidelines. The Gabonese side expressed their keen interests in replicating similar initiatives in other national parks to promote ecotourism based on the scientific researches and data.

Organization of a village-level group (“Femmes Sages”), mainly by the women, through the support to the “Femmes Sages” to manage a communal farm plot as a pilot initiative, the project attempted to strengthen the cohesiveness and effective social mechanisms for mutual support within the communities, in addition to test various wild animal damage control measures. Such a process required long time, and more efforts would be needed after the project.

5) Sustainability - **Moderate**

The Japanese and Gabonese researchers worked together during the project and undertook joint researches. The project contributed to the development of capacity of Gabonese researchers.

The Gabonese researchers for animal ecology or primatology were not available, and the project supported 4 Gabonese researchers to acquire relevant Ph.D. (not by the project budget). Additional 3 researchers to pursue their PhD at Masuku University in Gabon.

Frequent personnel transfer of officers was observed at the concerned ministries, CENAREST, IRET, ANPN and other stakeholders. Hence, it was considered that this trend would continue. The risk of discontinuity of project activities could not be ignored.

During the project period, the decision makers in the Gabonese Government changed relatively frequently. The project experienced that the negotiations with Gabonese decision makers on the financial contribution to the project from the Gabon side needed to be repeated when the officers concerned were transferred or the agency was restructured.

In addition to the effort by the Gabon side to continue research activities with its own budget, the Japanese research institutions would continue their research activities in the area after the project at a smaller scale.

Once completed, the research station and dormitory/ camps attached were expected to generate its own revenue by hosting research projects from international research institutions and other researchers and collecting fees. The guideline for the fee collection and management of research station overall was under development at the time of Terminal Evaluation and was expected to be completed within the project period.

3-3 Factors Positively Affected the Results

Kyoto University had been undertaking the research activities in the target area for years prior to the project. It accumulated basic understanding on the area that was useful for the project implementation. The university and its

researchers had had developed personnel network with researchers and research institutions in the area, which enhanced the project efficiency.

3-4 Factors Negatively Affected the Results

2 PDs and 3 PMs/ NCs were assigned to the project during the 5 years. The concerned policy makers had changed also. The frequent transfers and changes of C/P affected negatively on the project, although the project was able to cope with the difficulties and minimized the negative outcomes.

The dole out mentality of local communities was observed during the field visit. Such excessive dependence on the externally-support projects would not promote adequate participatory biodiversity management methods. The target villages were migrant communities originally for the logging operations before. As a result, they lacked cohesiveness and effective social mechanisms for mutual support within the communities. The project required significant time and efforts to realize the participatory approach and processes in such communities. However lack of adaptation and understanding of new labor contract, it grew labor conflict.

The reasons of incompleteness of research station construction were that construction site was in inconvenient location (it takes 1.5 day from capital city), bad condition of roadway, procurement problem, poor capacity of local consultant and contractor, moreover lack of information sharing between parties involved in a project about site acquisition, procedure of environmental impact assessment (EIA) and design and construction.

3-5 Conclusion

The project was unique in a sense that the renowned international researchers and local communities worked together to build a foundation for proper scientific management of biodiversity in PNMD and beyond. The decades of experiences and advanced research technologies were adopted for the project implementation, and participation of villagers in the target areas were stressed. The data and study results were generated, which could be used for the tools for participatory management of the national park. In addition to the resources from the project, the Japanese universities mobilized their own resources to scale up the research activities

The project provided rare opportunities for the Gabonese researchers to work with prominent Japanese researchers in an intensive manner, and a number of C/P and other concerned stakeholders were able to visit Japan for training and international exposures. Some C/Ps were pursuing their doctoral degrees in Japan, and other young researchers would acquire their Ph.D. in Gabon. The C/P organization as an institution was capacitated also through the establishment of laboratories and provisions of equipment, vehicles and other facilities through the project. The capacity of C/P's staff and organization were developed significantly through the project.

The major drawback of project was the incompleteness of research station construction in the field. The construction was delayed significantly and not yet completed at the time of Terminal Evaluation. It was still uncertain whether the construction could be completed within the project period. Partly because of the absence of field research station, some project activities were delayed, and some expected Outputs had not been finalized.

The methods for participatory management of biodiversity were not yet consolidated or presented in a compiled document. The sustainability of project outcomes would be questionable without the research station.

In view of above (including the five evaluation criteria), it could be concluded that the project could end by September 2014 as originally planned, and the project was implemented as **almost satisfactory** in general. It could have been better if the research station would be completed on time, Outputs and Project Purpose would be fully achieved, and project administration was handled more effectively.

3-6 Recommendations (specific measures, proposals and advice to the project)

<To the Project>

1) Social Safeguard

The negative impact on the livelihoods of villagers who have been employed by the project needs to be minimized when the project ends. Before the end of project, the project should explain clearly how their built capacities can be utilized in future for ecotourism development.

<To Gabonese Side>

2) Promotion of Ecotourism

ANPN and other concerned Gabonese authorities should continue promoting and developing ecotourism at PNMD based on the result of project. For this, ANPN and IRET/ CENAREST should enhance its support for

the habituation of more groups of gorillas and development of other ecotourism products. ANPN and IRET/ CENAREST should discuss with concerned authorities regarding the improvement of basic infrastructure for ecotourism, including access roads and bridges and support ecotourism promotion.

3) Maintenance of Project Outcomes and Inputs

As the project generated baseline data, it is essential that the Gabonese side continue updating the information and monitor the changes in biodiversity. The Gabonese side should continue to invite international collaborators to promote interdisciplinary researches for conservation of biodiversity. IRET/ CENAREST should properly utilize and maintain equipment, vehicles and facilities provided by the project beyond the project period. The damaged items should be repaired or replaced properly by IRET/ CENAREST.

4) Utilization of Human Resources that were Developed through the Project

A number of researchers and research assistants/ local specialists were trained under the project, and IRET/CENAREST should take necessary measures to ensure that they will be engaged in relevant research activities and ecotourism development without frequent transfers or social conflicts.

5) Adequate Budget Allocation

To realize the number of recommendations above, the Gabonese authorities should allocate adequate budget to relevant programs to support the related researches by IRET/ CENAREST and ecotourism development by ANPN.

<To Japanese Side>

6) Administrative Support

JICA should extend its utmost support to complete the research station. JICA may dispatch the Ex-Post Evaluation Mission earlier than usual, maybe within a year after the end of project so that the pending critical issues would be addressed timely.

3-7 Lessons Learned/ Reference to Other Projects

1) Value of Scientific Approach

It was learned that a scientific approach was effective to ensure proper biodiversity management. It was also found that the scientific data, maps and manuals can be useful for the sustainable development of ecotourism products, sites and plans/ strategies. A similar project on environmental conservation and ecotourism development supported by JICA and other donors should have a strong research component.

2) Importance of a Team Mixed with Researchers and Practitioners

Once a research is applied to an actual situation, it influences people's livelihoods. Such an initiative must be implemented by experienced professionals/ practitioners in community development and conservation to ensure appropriate benefits of local people concerned and to alleviate negative impacts. Hence, it is important to have a team consisting of both researchers and practitioners. It is also beneficial to have a group of researchers from wide range of disciplines and backgrounds, both from natural and social sciences. It is additionally found that the execution of applied researches requires significant efforts for management and administration. A research project should have adequate project coordinators and other administrative staff.

3) Importance of Labor Management

It is important to make proper labor contracts with the employers of project and explain repeatedly to them to avoid complication until they fully understand the terms and conditions of their employment.

4) Financial Sustainability of Research Activities

Usually, research activities do not generate short-term economic gains but are vital for long-term benefit to the society and environment. Because the benefits are long-term, research activities usually get meager supports by the authorities financially and administratively, if at all. It is important to integrate a project component/ strategy to develop a resource generation mechanism into a research project.

5) Construction of a Structure in SATREPS

- The responsibilities of parties concerned should be clear and realistic from the beginning. The adequate involvement of C/P organization in the construction is vital.
- The assignments of capable construction specialists should be an integral part of project design from the beginning, and it is indispensable to undertake proper planning and construction supervision by capable international and/ or national specialists.
- It is important to thoroughly investigate the previous performance records of consultants and contractors during the selection.
- It is essential to examine carefully the feasibility/ appropriateness of design, cost estimate and plan/ schedule for the construction from the technical point of view, in consideration of difficulties in transportation and procurement of construction materials and workers.