

Country Name	Jalapão Region Ecological Corridor Project
Federative Republic of Brazil	

I. Project Outline

Background	<p>The tropical savannah vegetation zone located in the mid-western part of Brazil, called <i>Cerrado</i>, is has abundant biodiversity, but it is considered as one of the most seriously endangered areas with loss of biodiversity. Jalapão Region is located in the transitional area among an ecosystem characterized by thorny shrubs open forest in a semi-arid area called <i>Caatinga</i>, Amazon tropical forest and <i>Cerrado</i>, where a highly diverse ecosystem has been widely seen across the region. Also, the region has been the source of major rivers such as Parnaíba River, San Francisco River and Tocantins River. On the other hand, since surrounding areas of the Jalapão Region, agricultural development and livestock farming have been expanding, ecosystem management over the whole region by introducing the Ecological Corridor has been required to preserve precious natural resources and river-head areas in the region. The government of Brazil set up three natural protected areas including the Serra Geral of Tocantins Ecological Station (EESGT) and the Upper Rio Parnaíba National Park (PNNRP) in order to protect natures in Jalapão Region. However, it was necessary to strengthen coordination among relevant organizations and establish and manage a council for the Ecological Corridor in Jalapão Region because a cross-regional management system covering the region had not been developed.</p> <p>Under the situation, the government of Brazil requested the government of Japan a technical cooperation project aiming at enhancing institutional capacity of the Institute of Chico Mendes of Biodiversity Conservation (ICMBio) through introduction and implementation of the Ecological Corridor in Jalapão Region.</p>				
Objectives of the Project	<p>Through collection and analysis of necessary information for introduction and implementation of the Jalapão Region Ecological Corridor* (JREC) including buffer zones of natural protected areas, strengthening of organizational coordination among relevant organizations, capacity building of personnel of ICMBio and other relevant organizations, strengthening of collaboration between relevant organizations and local populations and development of strategic plan/guidelines, the project aimed at enhancement of institutional capacity of ICMBio for introduction and implementation of the Ecological Corridor in the Jalapão region thereby enhancing the ecosystem conservation in the Jalapão region.</p> <p>*“Ecological Corridor” is an approach to manage and conserve ecosystems through extensively integrating several protected areas including the national parks to cover broader areas.</p> <ol style="list-style-type: none"> Overall Goal: The ecosystem conservation in Jalapão Region is promoted by introduction of the Ecological Corridor. Project Purpose: A necessary mechanism in ICMBio is strengthened in order to introduce and implement the Ecological Corridor in Jalapão Region. 				
Activities of the Project	<ol style="list-style-type: none"> Project Site: Jalapão Region (the area in between the Serra Geral of Tocantins Ecological Station¹ and the Upper Rio Parnaíba National Park) Main Activities: 1) Establishment of GIS database for collecting and analysing related information and information sharing, 2) Establishment of a coordination mechanism by regular meetings among the relevant organizations at the federal, state and municipal level, 3) Delivery of capacity building trainings/seminars for personnel of ICMBio and the relevant organizations, 4) Delivery of trainings for local people and clarification of their roles, 5) Preparation of strategic document to clarify policies to be shared among the relevant organizations Inputs (to carry out above activities) <table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Japanese Side</p> <ol style="list-style-type: none"> Experts: 7 persons Trainees Received: 6 persons Equipment: GIS data server, GIS software, remote sensing software, two vehicles, etc. </td> <td style="width: 50%; vertical-align: top;"> <p>Brazilian Side</p> <ol style="list-style-type: none"> Staff Allocated: 15 persons Local Cost: Fuel expenses for vehicles and travels expenses, etc. </td> </tr> </table> 			<p>Japanese Side</p> <ol style="list-style-type: none"> Experts: 7 persons Trainees Received: 6 persons Equipment: GIS data server, GIS software, remote sensing software, two vehicles, etc. 	<p>Brazilian Side</p> <ol style="list-style-type: none"> Staff Allocated: 15 persons Local Cost: Fuel expenses for vehicles and travels expenses, etc.
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Project Period	April 2010 – October 2013 (Extended Period: May 2013 – October 2013)	Project Cost	(ex-ante) 350 million yen, (actual) 349 million yen		
Implementing Agency	Instituto Chico Mendes de Conservação da Biodiversidade (ICMBio)				
Cooperation Agency in Japan	Nippon Koei Co., LTD.				

¹ A natural protected area categorized as “full protected areas”, which has been designated by the presidential order issued on September, 2001. The category includes the Jalapão State Park, the Jalapão Natural Protected Area of, the Jalapão Cathedral Private Natural Protected Area in, the Rio Preto Environment Station, the Rio Preto Environment Protected Area, the Rio do Sono Valley Natural Monument across Tocantins State (municipalities of Almas, Ponte Alta do Tocantins, Rio da Conceição and Mateiros) and Bahia State (municipality of Rio Preto). The designated areas of the Ecological Station aim at environment conservation and implementation of scientific researches and activities for environment education are permitted within the areas but entry by tourists in the areas is prohibited.

II. Result of the Evaluation

1 Relevance

<Consistency with the Development Policy of Brazil at the Time of Ex-Ante Evaluation and Project Completion>

The project was consistent with the Brazil's development policies such as "the Sustainable Cerrado Program" (2005), "the Action Plan for Prevention and Control of Deforestation and Forest Fires in Cerrado" (2010) and "the Environment Ministerial Order No.9" (2007), most prioritizing Jalapão Region and focusing on conservation of the Cerrado ecosystem. The development priorities of Brazil were confirmed at the time of ex-ante evaluation and project completion.

<Consistency with the Development Needs of Brazil at the Time of Ex-Ante Evaluation and Project Completion >

While the ecosystem conservation in the transition zone of the ecosystem has been threatened by the production areas for large-scale agriculture, a system to broadly manage Jalapão region had not been established yet. Therefore, the project was consistent with the Brazil's development needs of establishing the feasible mechanism for an effective ecosystem conservation through coordination of efforts for ecosystem by the relevant organizations including ICMBio

<Consistency with Japan's ODA Policy at the Time of Ex-Ante Evaluation>

The project was consistent with Japan's ODA policy, focusing on the five priority sectors including environment, based on the top level agreement between the President of Brazil and the Prime Minister of Japan when the President Lula visited Japan in May, 2005.

<Evaluation Result>

In light of the above, the relevance of the project is high.

2 Effectiveness/Impact

<Status of Achievement for the Project Purpose at the time of Project Completion>

The Project Purpose was achieved by the project completion. For agreement on "the strategic document" for introduction and implementation of JREC (Indicator 1), the document was agreed by the members of Jalapão Mosaic Council at the first Mosaic meeting² held in September 2013. For establishment of a mechanism to promote the biodiversity conservation in Jalapão Region (Indicator 2), all necessary activities were completed and coordination among the relevant organizations was promoted. As a result, "Jalapão Mosaic" was established by the project as a mechanism to introduce and implement an effective Ecological Corridor in Jalapão Region.

<Continuation Status of Project Effects at the time of Ex-post Evaluation>

The project effects have been mostly continued since the project completion. "Jalapão Mosaic" was officially approved as an institution for introducing and implementing JREC by the Environment Ministerial Order No.434 issued in September 2016. At the time of ex-post evaluation, although "the Jalapão Mosaic" has been under institutionalization under the initiative of the Ministry of the Environment (MMA) and "the Jalapão Mosaic" has not started their official activities, including conservation actions such as illegal logging control and wildfire prevention, land use plan, and so on, yet, practical cooperation and activities for the introduction of JREC have been promoted by the relevant organizations of ICMBio, the Tocantins Institute of Nature (NATURATINS), the Bahia State Government Secretariat of Environment (SEMA), the Municipality of Sao Felix Environment office, the municipal governments in Bahia, educational institutions, NGO/social organization, various lobbies, the tourist sector and . private natural protected areas.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

The Overall Goal has mostly been achieved by the time of ex-post evaluation. As mentioned above, "Jalapão Mosaic" has still been under institutionalization and activities for introduction and implementation of JREC have been promoted by the relevant organizations and institutions which had been involved in the project. ICMBio and NATURATINS, as the main implementing bodies and the members of "Jalapão Mosaic", have been adopting the strategic documents/guidelines for introduction and implementation of JREC prepared by the project and have been facilitating ecological conservation in the region.

<Other Impacts at the time of Ex-post Evaluation>

There were positive impacts observed at the time of ex-post evaluation. Through the project, the reporting system among the federal, state and municipality governments was established and the coordination among the relevant organizations has been promoted. After the project completion, the function of the system has been further developed to exchange opinions on comprehensive environment issues. That is beyond the original objective of the project for the introduction and implementation of JREC. In addition, the enhanced coordination among the relevant organizations for connecting protected areas by the introduction of the Ecological Corridor enables to prepare more detailed and clear land use plans among the stakeholders. Furthermore, the environmental education and environmental protection activities carried out by the project have been referred by the governmental officers for their related activities in the target areas and contributed to capacity enhancement of the governmental officers on environmental education and environmental protection activities through implementation of replicated activities. Additionally, promotion of participation of local communities in the environmental activities by the project resulted development of handicraft and cottage industries using indigenous products of the communities and promotion of women's employment and increases in their income as key players of those local industries. No negative impact on natural and social environment by the project was observed.

<Evaluation Result>

In light of the above, the Project Purpose was achieved at the time of project completion, the project effect has mostly been continued and the Overall Goal has mostly been achieved. Furthermore, some positive impacts through the enhancement of coordination among the relevant organizations for introduction and implementation of JREC have been observed. Therefore, the effectiveness/impact of the project is high.

² "The Jalapão Mosaic Council" was established as an operational organization for "Jalapão Mosaic" established by the project.

Achievement of Project Purpose and Overall Goal

Aim	Indicators	Results
(Project Purpose) A necessary mechanism in ICMBio is strengthened in order to introduce and implement the Ecological Corridor in Jalapão Region.	(Indicator 1) Strategic documents/guidelines for introduction and implementation of the Jalapão Ecological Corridor are agreed by the relevant organizations through coordination by ICMBio.	Status of the Achievement: Achieved (Project Completion) • The revised strategic document of “Jalapão Mosaic” was agreed by the member of the Jalapão Mosaic Council at the 1 st Mosaic meeting in September 2013. (Ex-post Evaluation) • To be verified for the level of achievement of the Overall Goal.
	(Indicator 2) Mechanism to promote biodiversity conservation in Jalapão Region is established through coordination by ICMBio.	Status of the Achievement: Achieved (Continued) (Project Completion) • Th mechanism aimed by the project was established as “the Jalapão Mosaic” as a result of completion of all the planned activities. (Ex-post Evaluation) • In September 2016, “Jalapão Mosaic” was officially approved by the Environment Ministerial Order No.434.
(Overall Goal) The ecosystem conservation in Jalapão Region is promoted by introduction of the Ecological Corridor.	(Indicator) Strategic documents/guidelines for introduction and implementation of the Jalapão Ecological Corridor are adopted.	(Ex-post Evaluation) Achieved • “Jalapão Mosaic” was officially approved as an implementing agency for the introduction of JREC and ICMBio and NATURATINS, the main member of “Jalapão Mosaic” have been applying the strategic documents/guidelines prepared by the project and facilitating activities for ecological conservation in the region

Source : Terminal Evaluation Report, Project Completion Report, Questionnaire and interviews with ICMBio Head Office

3 Efficiency

Although the project cost was within the plan (ratio against the plan: 99%), the project period exceeded the plan (ratio against the plan: 117%). The terminal evaluation, which was conducted in April of 2013, pointed out that there had remained concerns about sustainability of “the Municipal Council for Tourism and the Environment/State Council for the Environment” assisted by the project. The coordinating framework based on the “Cooperation Agreement” was expected to be transferred to “Jalapão Mosaic” after the project completion. As a result of discussion between JICA and ICMBio, the project period was extended and the additional activities were implemented. Therefore, the efficiency of the project is fair.

4 Sustainability

<Policy Aspect>

As mentioned above, for introducing and implementing JREC, “Jalapon Mosaic” was approved by the Environment Ministerial Order No.434 (2016), and “Jalapon Mosaic” was legislated as an implementation tool of the Law on the National Environment Protection Unit System (the Law 9.985/2000). Also, MMA has strengthened activities for EESGT leading the operation and management of “Jalapão Mosaic” based on a management plan of EESGT (the Decree No. 4340/2000).

<Institutional Aspect>

[Jalapão Mosaic]

In terms of the mechanism for introducing and implementing JREC, “Jalapão Mosaic” was legislated and institutionalization of “Jalapão Mosaic” has been taken place by MMA. In ICMBio, EESGT and PNNRP have taken responsibilities for the operation and management of JREC and 5 officers and 2 officers have been deployed to EESGT and PNNRP, respectively. There has no institutional change in “Jalapão Mosaic” consisting of the Jalapão State Park, the Jalapão Natural Protected Area, the Jalapão Cathedral Private Natural Protected Area in, the Rio Preto Environment Station, the Rio Preto Environment Protected Area, the Rio do Sono Valley Natural Monument. 5 officers for the Jalapão State Park and 1 officer for each of other protected areas have been deployed to be in charge of operation and management of JREC in each protected area. While necessary activities have been practically conducted, it is desirable to increase the number of officers in order to manage much broader areas.

[Jalapão Mosaic Council]

As mentioned above, the Jalapão Mosaic Council was officially approved in 2016 and coordination and activities have been promoted by ICMBio, NATURANTINS, SEMA, the Sao Felix Environment Offices, the municipal governments of Bahia, educational institutions, NGO/social organizations, various lobbies, the tourism sector and representatives of the Private Natural Protected Areas. It is expected that the official activities of the Council will start within 2017 and their activities will continue.

<Technical Aspect>

The ICMBio officers in charge of the operation and management of JREC has disseminated the environmental education and sustained the necessary knowledge and skills for their activities. For maintenance of the GIS database installed by the project, the database was transferred to the Tocantins State Secretariat of Environment and Water Resources, and managed and utilized by them. Also, participatory environmental protection trainings have been delivered in EESGT and the Jalapão State Park, and, environmental education trainings have been jointly implemented in the Rio do Sono Valley National Monument and San Felix Private Environment Protected Area. Any officers have sustained the necessary knowledge and skills to deliver these trainings. The Jalapão Mosaic Council has implemented seminars to sustain knowledge and skills of the stakeholders.

<Financial Aspect>

[ICMBio]

The budget of ICMBio for management of protected areas in Jalapão region is allocated for each environment station based on the necessary amount for each station after assessing the total necessary amount covering costs of environmental education, wildfire

prevention, maintenance of equipment in total. The allocated budget for each station has been sufficient. While the budget of EESGT had decreased year by year from 690,000 reais in 2014 to 260,000 reais in 2017, the budget of PNNRP increased in 2016 and 2017 because of strategic decision to reinforce activities in PNNRP. The budget of PNNRP had decreased from 41,000 reais in 2014 to 39,000 reais in 2015, but it started to increase in 2016 and reached to 910,000 reais in 2017.

[Jalapão Mosaic Council]

As mentioned above, no budget has been allocated to the Jalapão Mosaic Council by the government of Brazil because the official activities of the Council have not been started yet. However, the introduction and implementation of JREC have been incorporated into the federal government's policy and the federal law so that its budget is expected to be sufficiently secured.

<Evaluation Result>

In light of the above, slight problems have been observed in terms of the institutional and financial aspects of the implementing agency. Therefore, the sustainability of the effectiveness through the project is fair.

5 Summary of the Evaluation

The project has achieved the Project Purpose and mostly achieved the Overall Goal for strengthening necessary mechanism in ICMBio for introduction and implementation of JREC. As for sustainability, although "Jalapão Mosaic" for introduction and implementation of JREC was legislated by MMA and the activities have been practically promoted, the official activities have not been started yet and an increase in the number of officers in each organization has been desired to firmly carry out the activities covering broad areas. As for efficiency, the project period exceeded the plan while the project cost did not.

Considering all of the above points, this project is evaluated to be satisfactory.

III. Recommendations & Lessons Learned

Recommendations for Implementing Agency:

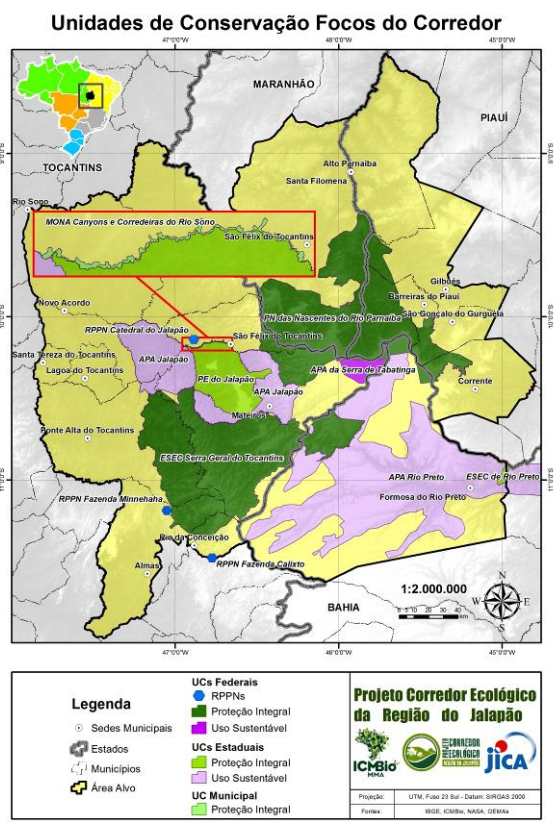
According to the ICMBio Head Office, the key role of operation and management of natural protected areas, in particular Jalapão Mosaic has been in trend to shift to the Head Office MMA after the project completion. On the other hand, ICMBio has compiled specific know-how to operate and manage Jalapão Mosaic and know-how to coordinate target states, municipalities and private institutions. Therefore, it is desirable for MMA and ICMBio to have close coordination and to disseminate and extend the project effects through exercising their joint leadership.

Lessons Learned for JICA:

In case where a technical cooperation aiming at establishment of a system by an approach to promote ecosystem conservation in broad areas, such as the Ecological Corridor, there are various and many stakeholders including administrative organizations from the central to municipal level and private land owners. In this project, proactive contribution by ICMBio to coordination among those various organizations was a key success factor for establishment of Jalapão Mosaic as a mechanism to introduce and implement the Ecological Corridor. Therefore, for broad environment management covering different states in a country with federal system such as Brazil, it is essential to identify stakeholders and their roles in the target country and to set up provisional unit to play roles of coordinator and leader as well as to consider establishment of permanent implementation mechanism to enable broad area management. Also, it is important to consider a project design after clearly assess feasibility of establishment of such permanent implementation mechanism.



Technical Meetings by Stakeholders for Jalapão Mosaic Council



The Target Areas for JREC