Annex 2 Project Design Matrix (PDM)

(1) PDM original version

Project Name: Coastal Wetland Conservation in Yucatan Peninsula in the United Mexican States
Implementing Agency: CONANP
Target Area: Ria Celestún Biosphere Reserve (RBRC)
Duration: from 1 March 2003 to 28 February 2008
Target Group: Counterparts, Residents of RBRC and other relevant personnel participating in the Project

Narrative Summary	Objectivity Verifiable Indicators	Means of Verification	Important Assumption
Super Goal: Conservation of wetland ecosystem in Yucatan Peninsula is improved.	1. Habitat of flamingo is expanded.	1. Ecological survey report of flamingo	- National environmental conservation policy continues
Overall Goal: Conservation of wetland ecosystem of RBRC is improved.	1. RBRC is registered as a site of RAMSAR Convention 2. RBRC is registered as a site of MAB program 3. External funding is acquired.	1. Certificate by RAMSAR Convention bureau 2. Reports of UNESCO 3. RBRC office annual report	- Wetland ecosystem of other areas does not get worse.
Project Purpose: The RBRC office conducts comprehensive environmental management activities properly.	1. Income of the RBRC office increase enough to support a proper office management 2. Approval of RBRC residents for the activities of the RBRC office is increased.	1. RBRC office annual report 2. Questionnaire survey for residents of RBRC	- Large-scale natural disaster does not occur. - Fishing efforts for coastal resources are not increased largely - Environmental pollution is not expanded largely
Outputs: 1. Information necessary for environmental management is obtained.	1.1 Integrated database system for environment (GIS and simulation) is established. 1.2 Information contained in the database is disclosed through internet and/or publications. 1.3 Environment maximum capacity of tourism is clarified.	1.1 Manual of database system 1.2 RBRC office annual reports 1.3 Technical report on maximum capacity	- Policy, structure and budget of CONANP are not changed largely. - Regulation of user's fee is implemented.
2. Ability to plan and execute measures of RBRC is improved.	2.1 RBRC staff are trained. 2.2 Surveillance routes and surveillance frequency are increased. 2.3 Eco-tourism is diversified. 2.4 Number of UMA is increased.	2.1 Report of training 2.2 Surveillance report 2.3 Eco-tourism program of RBRC office 2.4 UMA registration report of SEMARNAT	
3. Ability to provide technical advice and assistance against negative environmental impacts is improved.	3.1 Damaged mangrove are restored. 3.2 Manuals and guidelines of low-impact construction are elaborated. 3.3 Municipalities adopt measures against pollution recommended by the RBRC office.	3.1 Report on mangrove rehabilitation 3.2 Manuals and guidelines prepared 3.3 Annual report of municipalities	

4. Ability concerning implementation of environmental education is acquired.	4.1 Environmental education manuals are elaborated. 4.2 Eco-tour guides are grown-out 4.3 Local school teachers are trained on environmental education 4.4 Environmental courses for tourists are implemented.	4.1 Prepared manuals 4.2 - 4.4 Report of environmental education and questionnaire survey to participants.	

(PDM Original version)

Activities: 1.1 Carry out basic research and investigation 1.2 Establish environmental information system 1.3 Carry out adequate monitoring 1.4 Examine environmental maximum capacity of RBRC. 2.1 Make available appropriate management plan 2.2 Establish measures to strengthen the regulation system of illegal activities 2.3 Encourage sustainable utilization of natural resources 2.4 Promote establishment of necessary facilities 3.1 Implement possible restoration of natural environment 3.2 Provide technical advice and possible support against pollution generated by community 4.1 Provide environmental education for local residents 4.2 Provide environmental education for persons of tourism industry 4.3 Provide environmental education for tourists	**Inputs:** [Japanese side] 1. Personnel (1) Long-term experts 1) Chief Advisor / Wetland Management 2) Coordinator/ Environmental education (2) Short-term experts Will be dispatched when necessary 2. C/P training in Japan 3. Equipment necessary for the implementation of the Project 4. Local cost Part of expenses for project activities	[Mexican side] 1. Personnel (1) Project Director (2) Project Manager (3) Counterparts Staff of the RBRC office Staff of the RBRL office (4) Secretary (5) Administrative staff 2. Equipment including vehicles 3. Land, Buildings and Facilities including office for Japanese experts 4. Local cost Necessary budget for project activities	- C/P work continuously at the office - Procurement of equipment and services is not delayed largely. **Preconditions:** - Necessary number of C/P is available. - Office for Japanese experts is prepared.

(2) Revised PDM Version 2

Project Name: Coastal Wetland Conservation in Yucatan Peninsula in the United Mexican States
Implementing Agency: CONANP
Target Area: Ría Celestún Biosphere Reserve (RBRC)
Duration: 5 years from 2003
Target Group: Counterparts, Residents of RBRC and other relevant personnel participating in the Project

Narrative Summary	Objectivity Verifiable Indicators	Means of Verification	Important Assumption
Super Goal: Conservation of wetland ecosystem in Yucatan Peninsula is improved.	1. Habitat of flamingo is sustained/enhanced. 2. Conseved areas are increased in Yucatan Peninsula	1. Ecological survey report of flamingo 2. Report of CONANP	- National environmental conservation policy continues
Overall Goal: Conservation of wetland ecosystem of RBRC is improved.	1. RBRC is registered as a site of RAMSAR Convention 2. RBRC is registered as a site of MAB program 3. External funding is acquired.	1. Certificate by RAMSAR Convention bureau 2. Reports of UNESCO 3. RBRC office annual report	- Wetland ecosystem of other areas does not get worse.
Project Purpose: The RBRC office conducts comprehensive environmental management activities properly.	1. Income of the RBRC office increase enough to support a proper office management 2. Approval of RBRC residents for the activities of the RBRC office is increased.	1. RBRC office annual report 2. Questionnaire survey for residents of RBRC	- Large-scale natural disaster does not occur. - Fishing efforts for coastal resources are not increased largely - Environmental pollution is not expanded largely
Outputs: 1. Information necessary for environmental management is obtained.	1.1 Integrated database system for environment (GIS and simulation) is established. 1.2 Information contained in the database is disclosed through internet and/or publications. 1.3 Environment maximum capacity of tourism for each ecosystem is clarified.	1.1 Manual of database system 1.2 RBRC office annual reports 1.3 Technical report on maximum capacity	- Policy, structure and budget of CONANP are not changed largely. - Regulation of user's fee is implemented.
2. Ability to plan and execute measures of RBRC is improved.	2.1 RBRC staff are trained. 2.2 More five surveillance routes are established and surveillance are carried out each week. 2.3 Until final of project more three eco-tourism are enhanced. 2.4 More four UMA are authorized and operated.	2.1 Report of training 2.2 Surveillance report 2.3 Eco-tourism program of RBRC office and questionnaire survey for tourists. 2.4 UMA registration report of SEMARNAT	
3. Ability to provide technical advice and assistance against negative environmental impacts is improved.	3.1 The restoration means of mangrove are established. 3.2 Manuals and guidelines of low-impact construction for sanitary infrastructure are elaborated. 3.3 Municipalities adopt measures against pollution recommended by the RBRC office.	3.1 Report on mangrove rehabilitation 3.2 Manuals and guidelines prepared 3.3 Annual report of municipalities	

4. Ability concerning implementation of environmental education is acquired.	4.1 Environmental education programs are elaborated. 4.2 Degree of understanding of the environment of residents is elevated. 4.3 Local primary, junior and high school adopt classes for environmental education and carried out the activity environmental conservation by school.	4.1 Prepared environmental education program 4.2 Questionnaire survey for residents of RBRC 4.3 Guideline and timetable of school 4.4 Type and number of the activity on environmental conservation by school.	

(PDM version 1)

Activities: 1.1 Carry out basic research and investigation 1.2 Establish environmental information system 1.3 Carry out adequate monitoring 1.4 Examine environmental maximum capacity of RBRC. 2.1 Carry out training for RBRC's staff 2.2 Make available appropriate management plan. 2.3 Establish measures to strengthen the regulation system of illegal activities 2.4 Promote establishment of necessary facilities 3.1 Implement possible restoration of natural environment 3.2 Provide technical advice and possible support against pollution generated by community 4.1 Provide environmental education program in cooperation with related organization 4.2 Provide environmental education for local residents 4.3 Provide environmental education in school education (Please refer Plan of Operation for detailed activities)	**Inputs:** [Japanese side] 1. Personnel (1) Long-term experts 1) Chief Advisor / Wetland Management 2) Coordinator/ Environmental education (2) Short-term experts Will be dispatched when necessary 2. C/P training in Japan 3. Equipment necessary for the implementation of the Project 4. Local cost Part of expenses for project activities	[Mexican side] 1. Personnel (1) Project Director (2) Project Manager (3) Counterparts Staff of the RBRC office Staff of the RBRL office (4) Secretary (5) Administrative staff 2. Equipment including vehicles 3. Land, Buildings and Facilities including office for Japanese experts 4. Local cost Necessary budget for project activities	- C/P work continuously at the office - Procurement of equipment and services is not delayed largely due to insufficiency of budget allocation for VAT. **Preconditions:** - Necessary number of C/P is available. - Office for Japanese experts is prepared.

(3) Revised PDM Version 2 (only Spanish version is made)

Nombre del Proyecto: Proyecto Conservación de Humedales de la Costa de la Peninsula de Yucatán
Area: Reserva de la Biosfera de Ria Celestún (RBRC)
Entidad ejecutora: RBRC-CONANP
Grupo meta: RBRC-CONANP, Residentes de RBRC y otras personas involucradas que participant en el Proyecto
Duración: 5 años a partir de 1 de marzo de 2003

Resumen Narrativo	Indicadores objetivamente verificable	Medios de verificación	Consideraciones Importantes
Objetivo Superior: Se mejora la conservación del ecosistema de humedales costeros en la Peninsula de Yucatán.	1. Se mejora y mantiene el habitat del flamenco. 2. Se aumentan las areas conservadas en la Peninsula de Yucatán.	1. Reporte de investigación en monitoreo de flamenco 2. Reporte de la CONANP	- Continúan los esquemas de política ambiental nacional
Objetivo Global: Se mejora el estado de conservación del ecosistema de humedales costeros en la RBRC.	1. Reduce actividades ilegales por residents (caza y pesca ilegal, tira de basura) 2. Se mejora o mantiene población de flamenco en RBRC 3. Se conserva la vegetación de manglar y peten en RBRC.	1. Informe annual de RBRC 2. Resultado de monitoreo de flamenco 3. Mapa de vegetación y uso de suelo por análisis de fotos aereos y imagines de satélite	- La condición de otros ecosistemas en otras áreas no empeora.
Propósito del Proyecto: La dirección de la RBRC conduce las acciones de manejo de manera adecuada.	1. El presupuesto de la dirección de la RBRC incrementa lo suficiente para soportar un manejo adecuado. 2. Se incrementa la aprobación por parte de los residents sobre las actividades de manejo por la dirección de RBRC.	1. Reporte anual de la RBRC 2. Encuesta a los habitantes de la RBRC	- No ocurre un desastre natural de grandes proporciones - Prresión pesquera no aumenta de manera importante - La contaminación ambiental no se expande de manera importante
Resultados: 1. Se reduce el área afectada por siniestros y actividad humana en la Reserva, y se promueve restauración ecológica.	1.1 Aumenta conocimiento de residentes sobre prevención y control de siniestros. 1.2 Aumenta area donde se realizó reforestación de mangles en subzone de restauración o otras zonas criticas. 1.3 Se elabora programa de mejoramiento de tratamiento de residuos solidos y aguas residuals para Celestún con la coordinación de organizaciones relacionadas. 1.4 Se aumenta número de familia que realize composta y separación de basura.	1.1 Infrorme de campaña de prevención y control de siniestros 1.2 Programa de restauración de manglares 1.3 Informe sobre conservación y restauración de manglares por RBRC 1.4 Programa de mejoramiento de tratamiento de residuos solidos y agua residuales 1.5 Encuesta a hogar	- Las politicas de la CONANP, la estructura y su presupuesto no cambian de manera abrupta. - Se implementa la regulación para en cobro de derechos a visitantes

2. Se fomenta la investigación aplicada y el monitoreo dirigidos al manejo de la Reserva	2.1 Se elabora programa de prioridades de investigación y plan de monitoreo 2.2 Número de organizaciones y grupos de residents que participant en el monitoreo 2.3 Se establece un sistema integral de based de datos 2.4 Clase y número de sobre información ambiente por publicación o internet.	2.1 Lista de investigaciones prioritarias y plan de monitoreo 2.2 Informe sobre monitoreo por RBRC 2.3 Manual de sistema de base de datos 2.4 Publicación sobre información ambiental	
3. Aumenta el conocimiento y se incrementan las capacidades de la población a través de la educación ambiental, sobre la importancia de la consesrvación de la Reserva.	3.1 Se establece program de educación ambiental 3.2 Se realiza las actividades de educación ambiental adecuadamente 3.3 Se eleva el grado importancia de reserve y conservación de medio ambiente de residentes	3.1 Programa de educación ambiental elaborado 3.2 Informe sobre ejecución de actividades fuera de escuela para los estudianes 3.3 Número de los folletos, materiales y textos elaborados 3.4 Estudio de encuesta a los residentes en RBRC	
4..Se incrementa las oportunidades de las comunidades rurales y/o grupos vulnerables para la aplicación de prácticas y proyectos sustentables.	4.1 Antes de la culminación del Proyecto comienza más de 4 tipos de ecorourismos 4.2 Aumenta número de grupos de producción que genera nuevos ingresos y no afecta al ecosistema.	4.1 Informe sobre desarrollo de ecoturismo por RBRC 4.2 Informe de evaluación económica de los grupos de producción por RBRC	
5. Se fortalece la presencia institucional	4.1 Se elaboran y colocan más de 50 postes indicadores y letreros antes de marzo de 2006. 4.2 Se construye estación de campo para RBRC que posee laboratorio, sala de capacitación a residentes etc. Hasta marzo de 2006.	5.1 Informe sobre establecimiento de señalización por RBRC 5.2 Informe de culminación de construcción por la constructora	

(PDM version 2)

Actividade:	**Inputs:**		- Las contrapartes trabajan de tiempo complete - Adquisición de equipamiento no se retrasa debido a presupuesto insuficiente o pago oportuno de IVA
1.1 Ejecutar prevención y control de contingencias 1.1.1 Ejectar la campaña de prevención de incendios 1.1.2 Establecer sistemas de análisis de información del estado del medio ambiente en relación a actividades de prevención de contingencias ambientales (huracanaes, inuandaciones, etc.) 1.2 Promover estauración ecológica 1.2.1 Elaborar el progrma especifico de restaiuración de manglares necesaria por medio de análisis de aerofoto e imagen satelital y por estudio de campo. 1.2.1.1 Llevar a cabo restauración de manglares en zonas criticas. 1.3 Promover reducción de efectos negativos por la actividad humana 1.3.1 Promover la coordinación con instituciones de gobierno, académmicas y sector social para elaborar programa de saneamiento ambiental generada por la comunidad (manejo de aguas residuales y residuos solidos) 1.3.2 Apoyar la ejecución del programa de manejo de residuos sólidos 1.3.3 Realizar capacitación sobre manejo de agua residuales y residuos solidos 2.1 Desarrollar el taller de para priorizar necesidades de invesigación y preparar un plan de monitoreo de parámetros fiscoquímicos meteororologia, contaminación, fauna, covertura vegetal, social. 2.2 Llevar a cabo el plan de monitoreo en coordinación con otras organizaciones relacionadas y grupos de residentes y mejorar la calidad de mismo. 2.2.1 Coordinar y ejecutar al menos dos lineas de monitoreo de especies de importancia socio-economica y natural de mediano y largo plazo. 2.3 Elaborar y actualizar una base de datos socio¡económicos de residentes e investigaciones junto con sus reportes correspondientes. 2.4 Establecer un sistema de información geográfica sistematizado, homologado, instalado y alimentado de datos existentes del medio.	[Lado Japonés] 1. Personal (1) Expertos de largo plazo 1) Chief Advisor (asedor jefe) / Manejo de humedales 2) Coordinator/ Educación ambiental (2) Expertos de corto plazo Serán enviados según las necesidades 2. Entrenamiento en Japón par alas contrapartes 3. Equipamiento necesario para el desarrollo del proyecto 4. Costos locales (Parte de los gastos de las actiaddes del proyecto)	[Lado Mexicano] 1. Personal (1) Director de Proyecto (2) Manager de proyecto (3) Contrapartes Staff de la RBRC Staff de la RBRL (4) Secretaria (5) Staff administrativo 2. Equipamiento (incluyendo vehiculos) 3. Instalaciones, incluyendo una oficina para los enviados japoneses 4. Costos locales (presupuesto necesario par alas actividades del proyecto)	**Condiciones previas** - Disponibilidad del número requerido de contrapartes - La oficina para los expertos japoneses está preparada

(4) Revised PDM Version 3

Project Name: Coastal Wetland Conservation in Yucatan Peninsula in the United Mexican States
Target Area: Ría Celestún Biosphere Reserve (RBRC)
Implementing Agency: CONANP-the RBRC Office
Target Group: Counterparts, Residents of RBRC and other relevant personnel participating in the Project
Duration: from 1 March 2003 to 28 February 2008 Prepared on 17 January 2005

Narrative Summary	Objectivity Verifiable Indicators	Means of Verification	Important Assumption
Overall Goal: Conservation of wetland ecosystem of RBRC is improved.	1. Areas of illegal waste dumping are going to be reduced. 2. Artificially and naturally restored areas are going to be increased.	1. RBRC reports on illegal activities. 2. RBRC reports on environmental restoration	
Project Purpose: Environmental management activities are carried out properly in RBRC by leadership of the RBRC office.	1. Number of residents who carry out sustainable use of natural resources and management is increased. 2. Environmental illegal activities in RBRC are decreased.	1. Project reports 2. Report of PROFERA and the RBRC office on illegal activities.	- Large-scale natural disaster does not occur. - There is no unfavorable legal modification to conservation and management of biosphere reserve.
Output: 1. Ecological restoration is promoted by means of reduction of negative impacts caused by natural disasters and human activities.	1.1 Public awareness of the RBRC residents against forest fire and natural disasters is improved. 1.2 Sufficient technical knowledge on mangrove rehabilitation is accumulated. 1.3 Number of residents making garbage compost and segregation of disposal becomes 30% of the total.	1.1 Results of interview survey 1.2 Manual on afforestation of mangrove 1.3 Project reports	- Policy, organization and budget of CONANP are not changed unfavorably to the Project. - There is no serious conflict among CBOs or residents' groups.
2. Environmental monitoring is carried out aiming at protected area management and promotion of research activities.	2.1 Number of priority research activities increased. 2.2 More than 4 groups of residents participate in monitoring. 2.3 GIS database of RBRC will be available on the web site.	2.1 Research activity approval record of the RBRC office. 2.2 Project reports. 2.3 Web site of RBRC.	
3. Knowledge and capacity of residents and tourists about nature conservation are improved by environmental education.	3.1 Understanding by residents about importance of RBRC is improved. 3.2 Understanding by tourists about importance of RBRC is improved. 3.3	3.1 Result of interview survey 3.2 Questionnaire survey by means of suggestion boxes 3.3 Guide book, pamphlets, posters, etc.	
4. Sustainable utilization of natural resources is prepared by community-based organization (CBO).	4.1 Number of persons participating in group activities is increased. 4.2 Percentage of groups that employ sustainable production activities is increased.	4.1 Annual report of PRODERS 4.2 Evaluation report of PRODERS	

(PDM version 3)

Activities: (Please refer to the Plan of Operation for detailed activities)	**Inputs:** [Japanese side] 1. Personnel (1) Long-term experts 1)Chief Advisor / Wetland Management 2)Coordinator / Environmental education (2) Short-term experts Will be dispatched when necessary 2. C/P training in Japan 3. Equipment necessary for the implementation of the Project 4. Local cost Part of expenses for project activities	[Mexican side] 1. Personnel (1) Project Director (2) Project Manager (3) Counterparts Staff of RBRC office (4) Secretary (5) Administrative staff 2. Equipment including vehicles 3. Land, buildings and facilities including office for Japanese experts 4. Local cost Necessary budget for project activities	- C/P work continuously at the office. - Necessary number of persons and budget are secured by relevant parties for the Project. - Procurement of equipment and services is not delayed largely. **Preconditions:** - Necessary number of C/P is available. - Office for Japanese experts is prepared.

(5) Revised PDM version 4

Project Name: Coastal Wetland Conservation in Yucatan Peninsula in the United Mexican States
Target Area: Ría Celestún Biosphere Reserve (RBRC)
Implementing Agency: CONANP-the RBRC Office
Target Group: Counterparts, Residents of RBRC and other relevant personnel participating in the Project
Duration: from 1 March 2003 to 28 February 2008 Prepared on 7 February 2006

Narrative Summary	Objectivity Verifiable Indicators	Means of Verification	Important Assumption
Overall Goal: Conservation of wetland ecosystem of RBRC is improved.	1. Artificially and naturally restored areas are increased.	1. RBRC reports on environmental restoration	
Project Purpose: Environmental management activities are carried out properly in RBRC by leadership of the RBRC office.	1. Task forces related to wetland conservation are continuously held and conservation activities are properly implemented. 2. Concrete annual plan is prepared by the RBRC office.	1. Reports of each task force 2. Concrete annual plan of the RBRC office 3. Reports of each conservation activities	-Large-scale natural disaster does not occur. -There is no unfavorable legal modification to conservation and management of biosphere reserve.
Output: 1. Mangrove ecosystem restoration in RBRC is promoted.	1.1 Experimental restoration using 60,000 mangrove trees is carried out. 1.2 The Manual of restoration for mangrove is made based on the experimental results.	1.1 Manual of mangrove restoration 1.2 Project reports	-Policy, organization and budget pf CONANP are not changed unfavorably to the Project. -There is no serious conflict among CBOs or residents' groups.
2. Sustainable use of natural resources is practiced by community-based organizations (CBOs).	2.1 At least three resident groups participate in productive activities without environmental destruction.	2.1 Monitoring reports on ecotourism 2.2 Study reports on productive activities.	
3. Solid waste management is improved.	3.1 The solid waste management plan in the municipality of Celestún is made and implemented.	3.1 Minutes of the task force 3.2 Activity reports of the task force	
4. Mechanism of information sharing about wetland conservation in the RBRC among related organizations and residents is established.	4.1 The list of publications and data on wetland conservation on RBRC is made and updated. 4.2 Information is disseminated through newsletters and other media.	4.1 Reports of the task force 4.2 An index of related information 4.3 Newsletters etc.	
5. Knowledge and capacity of residents about importance of RBRC are improved through environmental education.	5.1 Understanding by residents about importance of RBRC is improved. 5.2 Number of residents participating in environmental education activities is increased.	5.1 Reports of interview survey 5.2 Reports on seminars and events.	

(PDM version 4)

Activities:	**Inputs:**		
1.1 Establish the task force for mangrove restoration and strengthen its function. 1.2 Diagnose the cause of withered mangrove and make a restoration plan. 1.3 Produce mangrove plants. 1.4 Implement experimental reforestation based on the restoration plan. 1.5 Monitor growth and survival of planted mangrove trees and environmental condition. 1.6 Make a manual of mangrove restoration. 1.7 Share the results and experiences with related organizations 2.1 Establish the task force for ecotourism and strengthen its function. 2.2 Support ecotourism. 2.3 Support feasible projects of PRODERS. 2.4 Monitor production activities of CBOs and give them necessary supports. 3.1 Establish the task force for solid waste management and strengthen its function. 3.2 Support elaboration and implementation of the solid waste management plan of the municipality of Celestún. 3.3 Support the enactment of an ordinance of solid waste management of the municipality of Celestún 4.1 Establish the task force for research and monitoring in order to share information about wetland conservation in RBRC and strengthen its function. 4.2 Make and update the list of publications and data on wetland conservation in RBRC. 4.3 Disseminate Information through newsletters and other media. 5.1 Establish the task force for environmental education and strengthen its function. 5.2 Promote residents' understanding of meanings and importance of RBRC through events, seminars, brochures, posters and other publications.	[Japanese side] 1. Personnel (2) Long-term experts 1)Chief Advisor / Wetland Management 2)Coordinator / Environmental education (2) Short-term experts Will be dispatched when necessary 2. C/P training in Japan 3. Equipment necessary for the implementation of the Project 4. Local cost Part of expenses for project activities	[Mexican side] 1. Personnel (1) Project Director (2) Project Manager (3) Counterparts Staff of RBRC office (4) Secretary (5) Administrative staff 2. Equipment including vehicles 3. Land, buildings and facilities including office for Japanese experts 4. Local cost Necessary budget for project activities	- Procurement of equipment and services is not delayed largely. **Preconditions:** - Necessary number of C/P is available. - Office for Japanese experts is prepared.

(6) Revised PDM (Version 5)

Project Name: Coastal Wetland Conservation in Yucatan Peninsula in the United Mexican States
Target Area: Ría Celestún Biosphere Reserve (RBRC)
Implementing Agency: CONANP-the RBRC Office
Target Group: Counterparts, Residents of RBRC and other relevant personnel participating in the Project
Duration: from 1 March 2003 to 28 February 2008

Prepared on 2 March 2007

Narrative Summary	Objectivity Verifiable Indicators	Means of Verification	Important Assumption
Overall Goal: Conservation of wetland ecosystem of RBRC is improved.	1. Artificially and naturally restored areas are increased.	1. RBRC reports on environmental restoration	
Project Purpose: Environmental management activities are carried out properly in RBRC by leadership of the RBRC office.	1. Task forces related to wetland conservation are continuously held and conservation activities are properly implemented. 2. Concrete annual plan is prepared by the RBRC office.	1. Reports of each task force 2. Concrete annual plan of the RBRC office 3. Reports of each conservation activities	-Large-scale natural disaster does not occur. -There is no unfavorable legal modification to conservation and management of biosphere reserve.
Output: 1. Mangrove ecosystem restoration in RBRC is promoted.	1.1 Experimental restoration in the area of 7 ha is carried out*. 1.2 The Manual of restoration for mangrove is made based on the experimental results.	1.1 Project reports 1.2 (Survival Rate) 1.3 Manual of mangrove restoration	-Policy, organization and budget pf CONANP are not changed unfavorably to the Project. -There is no serious conflict among CBOs or residents' groups.
2. Sustainable use of natural resources is practiced by community-based organizations (CBOs).	2.1 At least three resident groups participate in productive activities without environmental destruction.	2.1 Monitoring reports on ecotourism 2.2 Study reports on productive activities.	
3. Solid waste management is improved.	3.1 The solid waste management plan in the municipality of Celestún is made and implemented.	3.1 Minutes of the task force 3.2 Activity reports of the task force	
4. Mechanism of information sharing about wetland conservation in the RBRC among related organizations and residents is established.	4.1 The list of publications and data on wetland conservation on RBRC is made and updated. 4.2 Information is disseminated through newsletters and other media.	4.1 Reports of the task force 4.2 An index of related information 4.3 Newsletters etc.	
5. Knowledge and capacity of residents about importance of RBRC are improved through environmental education.	5.1 Understanding by residents about importance of RBRC is improved. 5.2 Number of residents participating in environmental education activities is increased.	5.1 Reports of interview survey 5.2 Reports on seminars and events.	

*The area of 7 ha does not correspond to the actual planting area since planting is done only in appropriate place in the 7 ha.

(PDM version 5)

Activities: 1.1 Establish the task force for mangrove restoration and strengthen its function. 1.2 Diagnose the cause of withered mangrove and make a restoration plan. 1.3 Produce mangrove plants. 1.4 Implement experimental reforestation based on the restoration plan. 1.5 Monitor growth and survival of planted mangrove trees and environmental condition. 1.6 Make a manual of mangrove restoration. 1.7 Share the results and experiences with related organizations 2.1 Establish the task force for ecotourism and strengthen its function. 2.2 Support ecotourism. 2.3 Support feasible projects of PRODERS. 2.4 Monitor production activities of CBOs and give them necessary supports. 3.1 Establish the task force for solid waste management and strengthen its function. 3.2 Support elaboration and implementation of the solid waste management plan of the municipality of Celestún. 3.3 Support the enactment of an ordinance of solid waste management of the municipality of Celestún 4.1 Establish the task force for research and monitoring in order to share information about wetland conservation in RBRC and strengthen its function. 4.2 Make and update the list of publications and data on wetland conservation in RBRC. 4.3 Disseminate Information through newsletters and other media. 5.1 Establish the task force for environmental education and strengthen its function. 5.2 Promote residents' understanding of meanings and importance of RBRC through events, seminars, brochures, posters and other publications.	**Inputs:** [Japanese side] 1. Personnel (3) Long-term experts 1)Chief Advisor / Wetland Management 2)Coordinator / Environmental education (2) Short-term experts Will be dispatched when necessary 2. C/P training in Japan 3. Equipment necessary for the implementation of the Project 4. Local cost Part of expenses for project activities [Mexican side] 1. Personnel (1) Project Director (2) Project Manager (3) Counterparts Staff of RBRC office (4) Secretary (5) Administrative staff 2. Equipment including vehicles 3. Land, buildings and facilities including office for Japanese experts 4. Local cost Necessary budget for project activities	- Procurement of equipment and services is not delayed largely. **Preconditions:** - Necessary number of C/P is available. - Office for Japanese experts is prepared.

Annex 3 Evaluation Grid

(1). Evaluation Grid

Evaluation criterion	Evaluation Question		Results
	Main Question	Sub Question	
Relevance	Are the Project Purpose and the Overall Goal relevant to the needs of conservation of wetland ecosystem of RBRC?	To reconfirm the needs of conservation of ecology of wetland of RBRC. Are the Project Purpose "Environmental management activities are carried out properly in RBRC by leadership of the RBRC office" relevant to the needs of conservation of wetland ecosystem of RBRC?	CONANP, the implementation organization of the Project, was established as an organization managing the nature protected areas in Mexico in 2002. In Mexico, there were 127 protected areas that were under the control of CONANP and its coverage was 6.7% of the national territory in 2002. There are 161 protected areas and its coverage is 11.6% as of the year 2007. The protected area has been increased, and the needs on the techniques of conservation for protected areas and knowledge on management of protected areas are increasing more. The RBRC is created as a biosphere reserve in 2000. Because a lot of people live in the reserve and its natural environment was deteriorated such as death of mangrove forest, the RBRC was one of the priority areas where the measures for restoration and conservation of wetland ecosystem should be carried out in a participatory way. Although the RBRC is a wetland registered in the Ramsar convension, it was difficult to carry out conservation activities sufficiently in order to solve issues only by the RBRC office, and it was necessary to strengthen the cooperation among organizations concerned and local residents. Therefore, proper implementation of the environmental management activities by the RBRC office will bring conservation of wetland ecosystem of the RBRC area, and it is in conformity with the needs.
	Are the aims of the Project relevant to the National Development Plan of Mexico etc.?	Relevant to the National Development Plan, policies of SEMARNAT and the state government of Yucatan. (verify importance of conservation of wetland ecosystem in those plans and policies)	In Mexico which holds significant biodiversity at global level, the conservation of natural environment is one of the continued priority issues in the governmental policy. The National Development Plan of the current Federal Government shows 5 pillars and one of the pillars is "sustainable environment". Within the context of the sustainable environment, protection and sustainable use of natural resources and environmental education are the important issues. Also State Government of Yucatan considers that the basic priority is to establish the conditions for achieving sustainable development in assuring environmental conservation and sustainable use of natural resources. Therefore, the aims of the Project are relevant to the policies of the government of Mexico.
	Conformity to ODA policy of Japan.	Conformity with priority assistance subjects of Japanese Government to Mexico.	One of the priority areas of Japanese economic cooperation (ODA: Official Development Assistance) with Mexico is "Cooperation on Global Environmental Issues and sanitation and distribution of water (environmental measures and protection of natural environment). Within this area, the strengthening of capacity on management of ecosystem is one of the important issues. Therefore, the Project is in conformity with ODA policy of Japan.
	Was the project approach adequately selected for wetland ecosystem	① Appropriateness of selection of the target group ② Appropriateness of selection of main activities	The RBRC was an animal refuge in the past and became a biosphere reserve in 2000. This reserve had been facing various natural and social environmental problems such as death of mangrove forest and illegal disposal of garbage by resident in the reserve etc. Although, the area of the RBRC (81,482 ha) is not so large compared with other reserves and there was no donor assistance, this reserve is important as major feeding place for flamingo and

	conservation? (Relevance of project design)	(mangrove ecosystem restoration, eco-tourism, solid waste management, and environmental education). Were these project approaches appropriate for achieving fully the Project Purpose?	also for the conservation of ecology of whole peninsula of Yucatan. Main components of the Project are such as restoration of mangrove, ecotourism, solid waste management, environmental education, and others. Restoration of mangrove forest and improvement of solid waste management were important environmental issues in the area of RBRC, and awareness raising of local residents on environmental conservation was indispensable. Therefore, it may be said that the selection of strategically important components for the conservation of wetland ecosystem of RBRC was appropriate. In addition, various activities are necessary for wetland conservation, and for that, collaboration between various organizations also is necessary. Therefore, the project activities have been carried out not only counterpart staff of the RBRC office and but also the residents and community groups of Celestun, governmental organizations concerned, and NGOs, with their participation, cooperation and collaboration. Therefore, the approach of the Project was appropriate.
	Are the fields of cooperation appropriate in transferring Japanese technologies?	To confirm whether Japan has technological advantage or appropriate technologies in technical transfer (in the fields of mangrove ecosystem restoration, eco-tourism, and solid waste management)	In the three technical areas of the Project such as mangrove restoration, promotion of ecotourism and solid waste management, Japan has appropriate technologies with experienced persons, which makes justifiable the technical cooperation for those areas. (1) Restoration of mangrove Japan has a peculiar mangrove forest in the Iriomote island, Okinawa where advanced reserve management has been performed. JICA has implemented technical cooperation to this area in Indonesia, Malaysia, Brazil, Senegal etc. and accumulated the knowledge concerned. (2) Promotion of Ecotourism Japan has advantageous experience and knowledge in promoting ecotourism, in the wetland ecosystem. The Kushiro International Wetland Center in Hokkaido has been receiving overseas trainees and provides study tour on mangrove ecosystem in the said Iriomote Island. It is also carrying out similar ecotourism activities in many other localities, receiving overseas trainees and dispatching experts to other countries. (3) Solid waste management It is known that Japanese local governments employ a good solid waste management system which serves as a model at international level. JICA has ample experiences of technical cooperation to this area in many developing countries.

Evaluation criterion	Evaluation Question		Results
	Main Question	Sub Question	
Effective-ness	Were the Outputs achieved?	(as per the table of achievement)	(as per "3-2 Achievement of the Outputs" of the report of the terminal evaluation)
	Is the Project Purpose achieved? (Environmental management activities are carried out properly in RBRC by leadership of the RBRC office.)	(as per the table of achievement)	(as per "3-3 Achievement of the Project Purpose" of the report of the terminal evaluation)
	Are the Outputs of the project contributing to the achievement of the Project Purpose?	Were the Outputs enough to achieve the Project Purpose? Were its no wonder in the logic that "the Project Purpose would be achieved if all the Outputs were achieved?"	Necessary measures for achieving the project purpose are incorporated mostly as output, therefore the logic in achieving the project purpose is appropriate.
	Are the important assumptions from the output to the project purpose correct also at the present point of time?	① Policy, organization and budget of CONANP are not changed unfavorably to the Project. ② There is no serious conflict among community-based organizations or residents' groups.	(1) Number of the protected areas, which CONANP is controlling, is increasing and the budget of CONANP is also increasing. Therefore, policy and budget of CONANP will not be changed unfavorable to the Project. (2) Relation between an ecotourism group which the Project supported and the bay boat cooperative was bad at one time, because ecotourism group might compete with the bay boat cooperative in obtaining tourists. The counterpart and Japanese expert had fixed up the problem.
	Factors promoted and factors hampered to achieve the Project Purpose.	Factors promoted other than the project	There is no specific factor.
		Other factors influenced (promoted and hampered).	Consensus on the contents of the project activities was obtained at the middle period of the project term, therefore, the duration that project activities has been practically implemented is around 2 years and half. If such duration were longer, degree of achievement of the Project Purpose might be higher.

			(Overall evaluation of effectiveness) Effectiveness of the Project is considered to be at a satisfactory level in general. As mentioned already, the degrees of achievement of the indicators of the Outputs are at a satisfactory level, and also the RBRC office has basic capacity for carrying out environmental management activities with proper leadership and the degree of achievement of the Project Purpose is at a satisfactory level. Major facilitating factors in achieving the Project Purpose are the functional task forces of the Project, and good cooperation and collaboration of the members of the task forces and the organizations concerned. It is expected that these good points of the RBRC office will be maintained and strengthened further.

Evaluation criterion	Evaluation Question		Results
	Main Question	Sub Question	
Efficiency	Were quality, quantity and timing of Inputs to the Project appropriate compared to outputs achieved by the Project?	Appropriateness about number, specialty, capability, duration, timing of dispatch of Japanese Experts.	Number of the long-term experts dispatched is as planned. The fields of specialty are chief advisor/ wetland conservation and coordinator/ environmental education. The short-term experts in the fields of the mangrove restoration, eco-tourism, solid waste management, etc. were dispatched. Because there are 5 fields of activity in the Project, i.e. mangrove restoration, ecotourism, solid waste management, information sharing, and environmental education, there are too many work loads to handle duties only with tow long-term experts. Dispatch of the long-term and the short-term experts was appropriate in general. Good cooperation among the long-term and the short-term experts has made good outcomes.
		Appropriateness about kind, quantity and timing of provision of equipment/facilities.	Provision of equipment was appropriate in general.
		Appropriateness about number, contents, period and timing of training in Japan	In total, 15 persons have participated in the training in Japan and 2 more persons will participate soon. Most of participants satisfied very well on the contents of the training in Japan. They are utilizing the matters learned in Japan for their works.
		Appropriateness about number, capability and timing of assignment of C/Ps.	Number of the counterparts at the RBRC office is 7 at present, of which 2 counterparts are permanent staff and 5 counterparts are contract based staff*. A lot of works was carried out by limited number of counterpart personnel. . Because the field in charge of each counterpart was decided and an appropriate structure for the project implementation was made, the progress of the activities became smooth more. One of the key concerns for establishment and sustainability of knowledge and experiences of the counterparts, it is necessary to take measures for assuring continuity of the counterparts. * Remarks: 1 year contract.

	Appropriateness about size and convenience of office space for the Japanese experts and C/Ps etc. utilized for the Project.	Office space for the Japanese experts was provided one year after from the commencement of the Project. The size and convenience of the office space is appropriate. A Cultural Conservation Center, which has functions as the RBRC filed office in Celestun and space for training and exhibition, is under construction and will be completed by the early time of the year 2008.
	Appropriateness about budget allocated by Mexican side	The budget allocation by Mexican side was appropriate. Budget of the PRODERS and PET programs of CONANP and also program of CONAFOR were utilized for implementing the project activities. Allocation of budget for the personnel expenses and ordinary expenditure was appropriate in term of amount and timing. However, because the budget disbursement of PRODERS program starts later half of the year (usually from September), this made certain negative effect on the progress of the project activities.
Utilization of inputs	Utilization of equipment provided under the Project	Utilization of equipment provided under the Project is appropriate in general.
Were the activities appropriate for producing the outputs?	For achieving the outputs, what kinds of activities have been carried out with what kind of intension?	All following activities have been carried out in cooperation between Japanese experts and the counterpart personnel and also in collaboration with organizations concerned. These are the facilitating factors for obtaining good results. (1) Mangrove restoration Starting from investigation for identifying the causes of death of mangrove forest, experimental reforestation and comparative experiment have been carried out. The accumulated knowledge and experiences were complied into manuals for mangrove restoration. There are appropriate information sharing and good collaboration among organizations concerned of the mangrove restoration task force. (2) Ecotourism Ecotourism Infrastructures for 3 residents groups have been constructed based on the ecotourism plan made by principally Mexican side and using budgets provided Mexican side. Japanese side has supported in making the training program for capacity development of the groups for ecotourism and producing the training materials. (3) Solid waste management A master plan on solid waste management in Celestun municipality was made for reducing illegal disposal of garbage and managing solid waste appropriately (including recycle) under the Project. After then, seminars on garbage for the residents (housewives), a pilot project of separate collection of solid waste and support for establishing a decentralized public organization (OPD: Organo Público Decentralizado) have been carried out. (4) Information sharing Documents and information related to the wetland conservation have been collected and a list of collected documents etc. was made. A bulletin of the RBRC office, which presents the project activities and the list of the collected documents, was

		published. (5) Environmental education Various events have been carried out in the week of environment conservation in November in order to raise awareness of the residents in Celestun about environmental conservation and importance of the RBRC area. Also above mentioned seminars on garbage to the residents have been carried out.
	Unnecessary activities	It is not identified unnecessary activities in the planned activities. The project activities have been carried out according to the PDMs.
	Activities that should have been involved in	Main activities in the field of Environment Education were planed and implemented as the events in the environment conservation week, but environmental education activity at the place of schools was not incorporated in the Project. It ws also necessary to implement environmental education to tourists. In addition, it was necessary to be included clean-up campaign of town and water shore. In regard to the information sharing, it was better to be included information distribution by web site. In addition, it might be better to be included activity on technical examination for introducing appropriate methods for treatment of drainage/ sewage from houses etc. in Celectun for reducing environmental effects of to the RBRC area.
Factors hampered or promoted that influenced on efficiency of the Project.	Stability of C/Ps engaged in the Project ①Stability of C/Ps who participated in the training in Japan. ②Stability of C/Ps who received technical transfer by the Japanese experts	Only one counterpart in charge of environment education was changed in the latter half of the project period, therefore, there was no negative effect on efficiency.
	Other factors influenced (promoted and/or hampered)	<Factor promoted> Creation of task force for each field of the project activities, participation of persons from the concerned government organizations, local residents groups, and NGOs as member of task forces, and good cooperation and collaboration between those organizations/ groups and the RBRC office are very important for smooth implementation of the project activities obtaining appropriate academic support and financial support from the organization concerned, and also getting higher outcomes. <Factor hampered> At the time of change of the federal government, state government and municipal mayor, significant delays of budget disbursement were occurred and made effects on implementation of the project activities negatively.

			(Overall evaluation on Efficiency) Efficiency of the Project is considered to be at moderate level. Around 2 years from the start of the Project was spent for obtaining a consensus on the contents of the Project between Mexican side and Japanese side. During this period, project activities were not carried out smoothly. After obtaining a consensus, the progress of the project activities became smooth. The degrees of the achievement of the Outputs, which are indicated in the revised PDM, are in a satisfactory level in general.

Evaluation criterion	Evaluation Question		Results
	Main Question	Sub Question	
Impact	Is there expectation of achievement of Overall Goal in future? "Conservation of wetland ecosystem of RBRC is improved."	(as per the table of achievement)	(as per "4-4-1 Prospect of achievement of the Overall Goal" of the Report of the Terminal Evaluation)
		Are the important assumptions from the project purpose to the overall goal correct also at the present point of time? Is the possibility high that the important assumptions are true? ①Large-scale natural disaster does not occur. ②There is no unfavorable legal modification to conservation and management of biosphere reserve.	(1) Large-scale natural disaster was not occurred during the project period. However, there is possibility that large-scale hurricane passes by in the future and may bring large-scale natural disaster. (2) Because the government of Mexico recognizes importance of environment conservation and budget for environment conservation is increasing, therefore, there is little possibility that the regulations about conservation and management of the biosphere reserve will be modified unfavorable way.
	Other positive and negative impacts of the Project.	What kinds of change were occurred for the C/Ps in terms of capacity development, awareness and attitude on their works? What kinds of activity and/or instruction of the Project produced such kinds of change?	Initiative and capacity on coordination of counterpart personnel are enhanced. Defining the responsibility of each counterpart clearly and giving competence are the facilitating factor for obtaining good results.

What kinds of capacity development and/or change of awareness of the persons concerned to the Project, such as persons working in organizations concerned to the Project, residents and/or community organizations in the project targeted communities, were occurred as a results of the implementation of JICA cooperated project? What kinds of activity and/or instruction of the Project produced such kinds of change?	As a result of the activities of the task force of the solid waste management, understanding about garbage by residents of Celestun has been raised, and the municipal office of Celestun has begun to put emphasis for keeping beautifulness of the town. Residents living out of the pilot project area for the separated waste collection are requesting to be implemented the separated collection. Residents of Celestun dispose garbage in their courtyard customary, and they have begun to have awareness about separation of garbage in their house. Local residents, who participated in the activities for mangrove experiment reforestation, have begun to recognize importance of mangrove restoration. As effects of implementation of the seminars on garbage and the pilot project of the separated garbage collection, illegal garbage disposal and burning of garbage at home are reduced. Decrease of number of fly is also reported.
Are there any other positive impacts? (For example, extension or application of the method utilizing at the Project, strengthening of collaboration among persons concerned to the Project, impact to policy or system concerned.)	Following impacts are observed. (1) Explanation about the experiment reforestation field in Celestun and site visit were carried out at the following courses of CINVESTAV and DUMAC. 1) The CINVESTAV organized lecture for students of post-graduate. This is 15 days course and 1 week is spent in Celestun. Majority of students is Mexican. 16 students participated in this lecture in 2007. 2) The training course named "Reserve" has been carried out by DUMAC. This is 2 months course. In this course, there is "wetland" module and explanation about the experiment reforestation field in Celestun was done. Participants to this course were staff in charge of environment conservation in the countries from the Central and South America, and Caribbean. 16 persons participated to the course in 2007. (2) As obtaining visible good outcomes of mangrove restoration, topographic survey and mangrove reforestation are going to be started at just southern part (around 12 ha) of the experiment reforestation site of the Project in Celestun using the fund of the Mexican government (CONAFOR). (3) CONAFOR usually provided their fund mainly for nursery production and tree planting. By understanding necessity of topographic survey and construction of canals and wells for mangrove restoration, CONAFOR started to provide fund for such purposes. Therefore, there is good possibility that other organizations also provide necessary support. (4) 11 municipal offices in the northern coastal area of the Yucatan peninsula have interest to the solid waste management system incorporating in the municipality of Celestun. There is possibility that this system will be referred by such municipal offices in future.

		Negative impacts (for example, intensification of conflict of interests and opposition of opinions, and impact caused of increase of tourist, etc.) and measures against the negative impacts	There is no negative impact identified at present.

Evaluation criterion	Evaluation Question		Results
	Main Question	Sub Question	
Sustain-ability (prospect)	Importance of wetland ecology conservation in National Development Plan and other environment conservation related policies (federal government and state government of Yucatan)		As mentioned already, the sustainable environment, protection and sustainable use of natural resources and environmental education are the important issues in the National Development Plan of the current Federal Government. Also State Government of Yucatan considers that the basic priority is to establish the conditions for achieving sustainable development in assuring environmental conservation and sustainable use of natural resources. Therefore, importance of wetland ecology conservation will not be changed.
	Importance and recognition of the Project at CONANP and the Secretary of Environment of the state government of Yucatan. Will political support continue also after the termination of JICA cooperation?		Good results on the Project are known not only by CONANP but also by SEMARNAT, this fact will bring favorable circumstance for obtaining necessary budget for wetland conservation activity from now on.
	Does the office of RBRC have capability to utilize and develop further the outcomes of the Project?	Does the office of RBRC have necessary management capability to continue environmental conservation activities also after the completion of the Project? ① Will necessary staff be assigned at the office of the RBRC in terms of number of person, capacity and technical level? ②Is there conformity between the regular works of the office of RBRC and the activities that should be continued also after the completion of the JICA cooperated project.	It is well recognized that the project activities should be continued as regular activities of the RBRC office. The counterparts have improved knowledge and experiences related the project activities, and also they have good capacity to manage the task forces and to coordinate with the organizations concerned. However, for tackling the new issues for achieving the Overall Goal, their capacity is not so well sufficient yet. This is a matter that already mentioned, it is necessary to take appropriate measure for assuring continuity of the counterparts, who received technical transfer under the Project and are employed as contract based staff*, in order to establishing their knowledge and experiences. * Remarks: 1 year contract.

	Prospect of budget allocation to the activities of the office of RBRC Will necessary budget be secured for the activities of restoration of mangrove, eco-tourism promotion, solid waste management, and environmental education, etc. (prospect of allocation of budget from PRODERS and PET)	(1) Mangrove restoration Monitoring of the sites where the experiment reforestations have been conducting (Celestun area and Isla Arena area) should be continued. It seems that cost for the monitoring activity is not so large and CONANP can assure such cost. Mangrove restoration is going to be implemented in 12 ha in Celestun area by using CONAFOR fund. It is expected that similar mangrove restoration activities will be carried out after that step by step. (2) Ecotourism Construction costs for ecotourism infrastructures have been provided mainly by CONANP and CONAFOR. Still there are remaining plans for infrastructure construction, for that, fund of CONANP and CONAFOR might be utilized. (3) Solid waste management After establishment of a OPD and start of operation, solid waste management will be carried out by using the budget of the municipal office of Celestun and incomes from sells of recyclable resources. Additional budget will not be necessary as far as operation and administration by OPD are performed well. (4) Information sharing The RBRC office will continue collection of related documents and information, and publish the bulletin twice a year. Cost for these activities is not large and it is expected to continue these activities by using CONANP budget. (5) Environment education Event of the environment conservation week in November are continued and regular activity of CONANP. Therefore, CONANP will assure necessary budget for the event.
Prospect of budget allocation by other related organizations for the wetland ecosystem conservation of RBRC.		The project activities carried out by using program funds of PRODERS and PET, and also having funds of CONAFOR. The state government of Yucatan provided budget for the construction of the garbage treatment center in Celestun. Because the RBRC office has good relationship with those organizations, it is expected that the activities will be carried out by using such budgets.
Has a system for implementing the activities for achieving the outputs established? Will the task forces of the Project be going to functioning continuously? Does role allotment among organizations concerned with the Project become clear?		In regard to the task forces for the mangrove restoration and the environment education, there is consensus that the task forces will be continued even after termination of the JICA cooperation. In regard to the task force for the solid waste management, the board of directors of OPD, which is under establishment, will take over its roles. In regard to the task force for the ecotourism, there is expectation to be created an ecotourism association by integrating all ecotourism related organizations in Celestun in future. After creation of this association, the roles of the task force will be taken over to the association.

Will techniques transferred by the Project become established?	Technical capacity of C/Ps of the office of the RBRC ①Do C/Ps have sufficient capacity (knowledge and techniques) to continue wetland ecosystem conservation activities of RBRC in sustainable way (without support of Japanese experts)? ②Do C/Ps have necessary ability to coordinate and take leadership for implementing activities in collaboration with other organizations concerned? Will those abilities (coordination and leadership) maintain at the office of RBRC, even after change of staff of the office.	After the mid-term of the Project, the project activities of each field have been carried out by deciding the roles of each counterpart. Therefore, the counterpart training in Japan and the technical transfer by the Japanese short-term experts have been done effectively. The counterparts are positively trying to acquire related knowledge and techniques. Their capacity has been clearly strengthened. However, there is still room for improvement in order to establish the outcomes of the Project and develop to attain the Overall Goal. It is important to define objective clearly for obtaining good results with efficient and effective way under the conditions that limited budget and limited personnel are available. For that, it is necessary to make mid and long term vision on conservation of the whole RBRC area and to make plan of the activities of the RBRC office. To attain the Overall Goal, preparation of long-term vision and concrete action plan based by the RBRC office is highly recommended.
	Will equipment procured under the Project be maintained well?	Equipment procured under the Project is maintained well and will also be maintained well in future.
What are major factors that facilitated or hampered the sustainability, or could facilitate or hamper in future?		Good relationship among the RBRC office, related organizations, and local residents is major facilitating factor for sustainability. Continuity of temporally employed staff of the RBRC office is important for assuring sustainability.

	(Overall evaluation on Sustainability) (1) Political aspect As mentioned already, the sustainable environment, protection and sustainable use of natural resources and environmental education are the important issues in the National Development Plan of the current Federal Government. Also State Government of Yucatan considers that the basic priority is to establish the conditions for achieving sustainable development in assuring environmental conservation and sustainable use of natural resources. Therefore, political importance of the wetland ecology conservation will be continued. (2) Organizational aspect It is well recognized that the project activities should be continued as regular activities of the RBRC office. The counterparts have improved knowledge and experiences related the project activities, and also they have good capacity to manage the task forces and to coordinate with the organizations concerned. However, for tackling the new issues for achieving the Overall Goal, their capacity is not so well sufficient yet. This is a matter that already mentioned, it is necessary to take appropriate measure for assuring continuity of the counterparts, who received technical transfer under the Project and are employed as contract based staff*, in order to establishing their knowledge and experiences. Therefore, there is room for improvement in assuring the organization sustainability. * Remarks: 1 year contract. (3) Financial aspect The project activities carried out by using program funds of PRODERS and PET, and also having funds of CONAFOR. The state government of Yucatan provided budget for the construction of the garbage treatment center in Celestun. It is expected that the activities will be carried out by using such budgets. Therefore, it is expected to be assured financial sustainability. (4) Technical aspect After the mid-term of the Project, the project activities of each field have been carried out by deciding the roles of each counterpart. Therefore, the counterpart training in Japan and the technical transfer by the Japanese short-term experts have been done effectively. The counterparts are positively trying to acquire related knowledge and techniques. Their capacity has been clearly strengthened. However, there is still room for improvement in order to establish the outcomes of the Project and develop to attain the Overall Goal. It is important to define objective clearly for obtaining good results with efficient and effective way under the conditions that limited budget and limited personnel are available. For that, it is necessary to have a mid and long-term vision on conservation of the whole RBRC area with a plan of the activities of the RBRC office. To attain the Overall Goal, alignment of such mid and long-term vision with a concrete action plan by the RBRC office is highly recommended.

2) Implementation process

	Evaluation Question		Results
	Main Question	Main Question	
Implementation Process	Were there any modification of project plan, implementation structure for accomplishing initial target of the Project?	Were there any problems on progress of implementation, especially related with achievement of the outputs? How those problems solved?	This Project started in march 1, 2003. However, the progress of the activities of the Project was delayed because it was spent on discussion and examination about the contents of the project plan for about 2 years from 2003 to 2004. In January, 2005, a consensus on the contents of the Project was gained between Mexican side and Japan side. By this point in time, PDM was revised three times. Afterwards, the role of each counterpart of the RBRC office in the Project activities was clarified, the initiative of the counterparts have been risen, and the progress of the project activities became smooth under the good cooperative relations among Mexican side and Japanese side. (PDM was revised 5 times. Please see annex for PDM0 to PDM5.)
	Appropriateness of methodology of technical transfer	Were there any problems on methodology of technical transfer? If available, what kinds of problems were there. How those problems solved?	In regard to methodology of technical transfer, for example, the experimental reforestation for mangrove restoration has been carried out together by the Japanese experts and the counterparts concerned through conducting joint filed observation, thinking about what are the main problems for mangrove ecosystem restoration, how to investigate, and what kind of methods are effective for restoration. Through practice of these approaches and activities, the project staff concerned has accumulated experience and knowledge. In regard to the solid waste management system, appropriate solid waste management system for the municipality of Celestun is recommended by utilizing some methods in Japan through discussions among Japanese experts, Mexican counterparts, the municipal office of Celestun and the State government of Yucatan. It seems that the good results of the Project have come out from the attitude for producing appropriate methods applicable in the project area by thinking and discussing together among persons concerned to the Project, and based on the techniques in Japan.
	Composition of the members of each task force and their activities. Was the frequency of task force meetings appropriate? Is the progress of the activities of the task forces appropriate?	Kind of Task forces: 1) Mangrove restoration, 2) Ecotourism, 3) Solid waste management, 4) Environmental education.	In generally, the meetings of each task force have been held around 6 times a year. The frequency of the meeting seems appropriate. Task forces of the Project are effective as a place for grasping the project activities and discussion. It is important to cooperate among organizations concerned, because those organizations tended to implement activity separately formerly. There are cases that invitation for the task force meeting was sent to the members just 1or 2 days before of meeting. It is better to sending the invitation beforehand for around 1 week.

Were there good cooperation/ collaboration among the organizations concerned? Have the project activities been implemented smoothly?	Are there positive participation and/or good collaboration between the Project and other organizations concerned? (For example, SECOL, CONAFOR, Municipality of Celestun, CINVESTAV, PRONAUTURA, DUMAC, and NyC etc?	Governmental organizations, residents groups and NGOs are participating to the Project as member of the task forces. As governmental organization, SEMARNAT, SECOL, CONAFOR and the municipal office of Celestun are participating. As residents group, the Ecotourism groups, boat cooperative, cooperative of hotels, and cooperative of restaurants are participating. As NGO, Niños y Crias and DUMAC etc. are participating. There is very good cooperation and collaboration between those organizations and the Project, and contributing smooth implementation of the project activities.
Project management system	Timeliness of JCC meetings and appropriateness of themes of discussion	JCC (Joint Coordinating Committee) has been held 7 times. It seems that JCC meetings have been held timely themes for discussion have been mostly appropriate.
	Have Periodical or regular meetings functioned well for smooth progress of the project activities?	The monthly meeting had been carried out during certain period, but the regular meeting is not held at present.
	Appropriateness of monitoring system	The progress of the Project was reported separately by both Mexican and Japanese sides in term of periodic report until January 2005. Thereafter the Project introduced a monthly joint meeting and reporting system for project monitoring according to the annual plan of operation. By this way, the consensus about progress of the Project has been obtained. However, the monthly joint meeting is not carried out at present owing to plenty of works. Main opportunity for the project monitoring is JCC meeting.
	How decision makings and/or changes on the project activities have been done?	The Plan of the project activities were discussed at the task forces and annual plan of the project activities were decided by the Japanese Chief advisor and the director of the RBRC office. Revisions of PDMs were authorized at the JCC meetings.
	Appropriateness of communication among C/Ps, other persons concerned to the Project and Japanese experts.	Communication among the counterparts, Japanese experts and persons concerned such as the task force members is good.
	Relationship among the Project, JICA Mexico office and JICA headquarters	JICA Mexico office has provided various supports such as coordination with CONANP headquaters and JICA headquaters, participation to the JCC meetings. JICA headquaters has provided support on dispatch of short-term experts and acceptance of the counterparts for the training in Japan, and also support on the revision of PDM that were held at the time of dispatch of consultative advisory missions (3 times) and mid-term evaluation mission.

Annex 4-1 Dispatch of Japanese Experts

1. Long-term Experts

No.	Name	Field	Period	M/M	2003	2004	2005	2006	2007	2008
1	Yasushi Hamamitsu	Chief Adviser/ Wetland Management	2003.06.02 - 2006.06.01	36.0						
2	Toru Kawakami	Chief Adviser/ Wetland Management	2006.04.06 - 2008.02.28	22.8						
3	Aki Koike	Project Coordinator/ Environmental Education	2003.03.01 - 2005.02.28	24.0						
4	Madoka Nakagawa	Project Coordinator/ Environmental Education	2005.07.11 - 2008.02.28	31.6						
			Total	114.4						

2. Short-term Experts

No.	Name	Field	Period		2003	2004	2005	2006	2007	2008
1	Yoko Tamura	Environmental Conservation Strategy/ GIS	2003.09.04 - 2003.11.08	2.2						
2	Hisashi Yokoyama	Monitoring of Aquatic Organisms	2003.11.17 - 2003.12.06	0.7						
3	Kazuhiko Doi	Facility Improvement	2003.12.01 - 2003.12.17.	0.6						
4	Toyohiko Miyagi	Mangrove Restoration	2004.02.15 - 2004.02.29	0.5						
5	Sanae Ito	Social Development	2004.03.07 - 2004.03.28	0.7						
6	Kazuhiko Doi	Facility Improvement	2004.03.08 - 2004.03.24	0.6						
7	Go Kimura	Ecotourism Development	2005.07.25 - 2005.09.03	1.3						
8	Toyohiko Miyagi	Mangrove Restoration	2005.08.08 - 2005.09.03	0.9						
9	Saisi Ota	Management of Solid and Liquid Waste	2005.09.26 - 2005.11.10	1.5						
10	Hisashi Sinsho	Participating Monitoring	2005.11.07 - 2005.12.10	1.1						
11	Toyohiko Miyagi	Mangrove Restoration	2006.02.20 - 2006.03.18	0.9						
12	Koichi Tsuruda	Mangrove Reforestation	2006.02.20 - 2006.03.18	0.9						
13	Koichi Tsuruda	Mangrove Reforestation	2006.05.22 - 2006.09.20	4.0						
14	Koichi Tsuruda	Mangrove Reforestation	2006.11.21 - 2007.03.04	3.5						
15	Saisi Ota	Solid Waste Management System	2006.11.23 - 2006.12.24	1.0						
16	Toyohiko Miyagi	Mangrove Restoration	2007.02.18 - 2007.03.04	0.5						
17	Toyohiko Miyagi	Mangrove Restoration	2007.08.13 - 2007.08.24	0.4						
18	Saisi Ota	Solid Waste Management System	2007.09.20 - 2007.10.20	1.0						
19	Shozo Nakamura	Mangrove Restoration	2007.10.15 - 2007.10.27	0.4						
			Total	22.7						

Annex 4-2 List of Major Machinery and Equipment Provided by Japanese Side

(Remarks: Equipment which cost is more than 20,000 yen or equivalent)

1. Equipment procured in JFY 2003

(1) Equipment procured in Japan

Arrival Date	No.	Name of equipment	Price (Thousand yen)		Quantity	Location of use	Frequency of Use	Condition	Remarks
2004/09/26	1	Infrared Night scope NIKON	180		2	CONANP office in Merida	D	A	
2004/06/07	2	Liquid Crystal Projector EPSON EMP-54	190		1	CONANP office in Merida	A	A	
2004/06/07	3	Video Camera SONY DCR-TRV940	240		1	CONANP office in Merida	C	A	
2004/06/07	4	Stereoscopic microscope NIKON SMZ1000-7	361		1	CONANP office in Merida	E	A	
		Sub-total	971						

(2) Hand carried equipment from Japan

Arrival Date	No.	Name of equipment	Price (Thousand yen)		Quantity	Location of use	Frequency of Use	Condition	Remarks
2003/04/10	1	Note type computer Toshiba PORTEGE 4010	237		1	CONANP office in Merida	A	A	
2003/07/15	2	Potable pH meter	127		1	CONANP office in Merida	C	A	
2003/04/10	3	Computer Software OFFICE XP Personal	43		1	CONANP office in Merida	A	A	
2003/04/10	4	Printer Canon LBP-1120	31		1	CONANP office in Merida	A	A	
2003/04/10	5	Scanner Canon CanoScan 8000F	29		1	CONANP office in Merida	A	A	
2003/04/10	6	Zip Drive iomega Zip750USB	27		1	CONANP office in Merida	A	A	
2003/04/10	7	Mo Drive OLYMPUS TURBO MO mini IV	30		1	CONANP office in Merida	A	A	
2003/04/10	8	Digital Camera Nikon Coolpix 4300	60		1	CONANP office in Merida	A	A	
2003/04/10	9	Binocular tetescope Canon 10x30	50		1	CONANP office in Merida	A	A	
2003/04/10	10	GPS GARMIN GPS38EX	40		1	CONANP office in Merida	A	A	
2003/04/10	11	Voice Recorder OLYMPUS DM-1	28		1	CONANP office in Merida	A	A	
2003/7/15	12	Salinity meter	21		1	CONANP office in Merida	A	A	
2003/7/15	13	Fishing net	29		1	CONANP office in Merida	D	B	
2003/7/15	14	Illastrated book of animals in coastal area of Japan	27		1	CONANP office in Merida	D	A	
2003/7/15	15	Illastrated book of fishes in Japan	28		1	CONANP office in Merida	D	A	
		Sub-total	806						

(3) Locally procured equipment

Arrival Date	No.	Name of equipment	Price (peso)	Price (US$)	Quantity	Location of use	Frequency of Use	Condition	Remarks
2003/09/17	01	Jeep Nissan Ex-terra gray color	292,000.00		1	CONANP office in Merida	A	A	
2003/09/23	02	Pick up track Nissan Frontier blue color	273,000.00		1	CONANP office in Merida	A	A	
2004/03/31	03	Plotter HP Desing jet 5500 42inch	163,800.00		1	CONANP office in Cancun	A	A	
2003/09/26	04	Hand cart	12,695.65		1	CONANP office in Merida	D	A	
2004/09/02	05	GIS soft ware Arcview Ver. 8.3		1,495.00	1	CONANP office in Cancun	A	A	
2004/09/30	06	Referential GPS		12,424.00	1	CONANP office in Cancun	B	A	
2004/09/30	07	GIS software Idrisi	16,800.00		1	CONANP office in Cancun	B	A	
2004/03/30	08	Note type computer TOSHIBA Satellite A20	19,240.00		3	CONANP office in Merida	A	A	
2004/03/30	09	Printer HP Color Laser jet 4600DTN	53,500.00		1	CONANP office in Merida	A	A	
2004/03/31	10	Electronic balance Sartorius	38,024.00		1	CONANP office in Merida	E	A	
2004/03/31	11	Electronic balance OHAUS ES50L	11,558.00		1	CONANP office in Merida	E	A	
2004/03/05	1	GPS Receiver GARMIN GPS12XL	4,939.28		1	CONANP office in Merida	C	A	
2004/3/31	2	DVD Player SONY SLV-D300P	2,689.00		1	CONANP office in Merida	A	A	
2004/3/31	3	TV SONY KV29FA210	6,998.00		1	CONANP office in Merida	A	A	
		Sub-total	895,243.93	13,919.00					

2. Equipment procured in JFY 2004

(2) Hand carried equipment from Japan

Arrival Date	No.	Name of equipment	Price (Thousand yen)		Quantity	Location of use	Frequency of Use	Condition	Remarks
2004/05/04	1	Note type computer TOSHIBA CX1/212CDEW	229		1	CONANP office in Merida	A	A	
		Sub-total	229						

(3) Locally procured equipment

Arrival Date	No.	Name of equipment	Price (peso)	Price (US$)	Quantity	Location of use	Frequency of Use	Condition	Remarks
2005/3/8	1	Photocopy Machine KYOCERA KM-1500LA	7,999.40		1	CONANP office in Merida	A	A	
		Sub-total	7,999.40						

3. Equipment procured in JFY 2005

(2) Hand carried equipment from Japan

Arrival Date	No.	Name of equipment	Price (Thousand yen)		Quantity	Location of use	Frequency of Use	Condition	Remarks
2005/7/5	1	Digital Camera Konika-Minolta D'image Z5	50		1	CONANP office in Merida	A	A	
2005/7/5	2	Flash Konika-Minolta	24		1	CONANP office in Merida	A	A	
		Sub-total	75						

(3) Locally procured equipment

Arrival Date	No.	Name of equipment	Price (peso)	Price (US$)	Quantity	Location of use	Frequency of Use	Condition	Remarks
2006/03/22	1	Liquid Crystal Projector SONY VPL-CS20	16,999.00		1	CONANP office in Merida	A	A	
		Sub-total	16,999.00						

4. Equipment procured in JFY 2006

(3) Locally procured equipment

Arrival Date	No.	Name of equipment	Price (peso)	Price (US$)	Quantity	Location of use	Frequency of Use	Condition	Remarks
2007/03/06	1	Fuel Pump HONDA WX10 1HP	4,353.90		1	CONANP office in Merida	A	A	
		Sub-total	4,353.90						

5. Equipment procured in JFY 2007

(3) Locally procured equipment

Arrival Date	No.	Name of equipment	Price (peso)	Price (US$)	Quantity	Location of use	Frequency of Use	Condition	Remarks
2007/09/04	1	Grass cutting machine STIHL FS85 25.4cc	3,890.00		1	CONANP office in Merida	A	A	
		Sub-total	3,890.00						

Frequency of Use
- A: Very frequently (Daily)
- B: Frequently (1 to 3 times a week)
- C: Use in specific period
- D: Few times at present (3 to 11 times a year)
- E: Not in use with specific reason

Condition
- A: Good conduction with periodical maintenance
- B: Fair condition
- C: Condition for repair
- D: Unable to use

ANNEX 4-3 Cost of equipment procured by Japanese Side

No.	Category	Unit	JFY 2003	JFY 2004	JFY 2005	JFY 2006	JFY 2007 (As of November)	Total
	Cost of equipment	Peso	1,217,031	30,275	24,294	4,354	3,890	1,279,844

Remarks: Cost of equipment means cost of equipment procured in Japan, hand carried equipment from Japan, and equipment procured in Mexico.

*JFY: Japanese Fiscal Year (from April to March)

Annex 4-4 Training of Counterpart Personnel in Japan

No.	Name	Position and organization at the time of training	Present Position	Name of training Course	Period of training		Remarks (Personal change etc.)
					From	To	
1	Fernando Durán Siller	Director of Biosphere Reserve of Ria Celestun	Director of Biosphere Reserve of Calakmul	Ecosystem conservation	2003.07.05	2003.08.06	Personal change
2	René Humberto Kantun Palma	Sub-director of Biosphere Reserve of Ria Celestun	Director of Biosphere Reserve of Ria Lagartos	Ecosystem conservation	2003.07.05	2003.08.06	Personal change
3	Luis Gabriel Hernandez Puch	Incharge of Environmental Education, Niñ os y Crias (NGO)	Incharge of Environmental Education, Niños y Crias (NGO)	Ecosystem conservation	2003.07.05	2003.08.06	
4	Carlos Antonio Chay Iara	Educational Director of Municipality of Celestun	Junior High school teacher of Celestun	Ecosystem conservation	2003.07.05	2003.08.06	
5	Juan José Chac Maldonado	Town representative of Celestun	Self-employed (Salt manufacturer)	Ecosystem conservation	2003.07.05	2003.08.06	
6	Sandra Araceli Garcia Goes	Incharge of Environmental Education, Biosphere Reserve of Ria Lagartos	Retired	Environmental Education	2004.03.02	2004.04.01	Retired
7	Carlos Francisco Reyes Sosa	Director of Environmental Education of SECOL, Yucatan	Retired	Environmental Education	2004.03.02	2004.04.01	Retired
8	José de la Gala Mendez	Director of Biosphere Reserve of Ria Celestun	Director of Biosphere Reserve of Ria Celestun	Natural Resource Management	2004.07.06	2004.07.26	
9	Marco Antonio Plata	Projects Chief, Biosphere Reserve Ria Celestun	Projects Chief, Biosphere Reserve Ria Celestun (Coordinator)	Ecosystem Conservation	2005.09.13	2005.10.20	
10	José Landero Cervere	Technician, Biosphere Reserve of Ria Celestun	Technician of Biosphere Reserve of Peten (Environmental Education)	Environmental Education	2005.10.11	2005.11.17	
11	Juan Ortiz Rivera	Assistant, Biosphere Reserve of Ria Celestun	Assistant, Biosphere Reserve of Ria Celestun (Ecotourism)	Ecosystem Conservation	2006.06.26	2006.07.31	
12	Cesar Romero	Projects Chief, Biosphere Reserve Peten	Projects Chief, Biosphere Reserve Peten (Ecotourism)	Ecosystem Conservation	2006.06.26	2006.07.31	
13	Mauricio Alarcon Rascano	Assistant, Biosphere Reserve of Ria Celestun	Assistant, Biosphere Reserve of Ria Celestun (Solid waste management)	Solid Waste management	2006.08.20	2006.10.07	
14	Amador Sanchez Ligonio	Technician, Biosphere Reserve of Ria Celestun	Technician, Biosphere Reserve of Ria Celestun (Ecotourism)	Resource Management Type Fishery	2007.02.22	2007.03.22	
15	Mauricio Quijano	Incharge of Environmental Education, Niñ os y Crias (NGO)	Incharge of Environmental Education, Niños y Crias (NGO)	Environmental Education	2007.01.22	2007.02.17	
16	Eduar Abriel Ciau Cardozo	Assistant, Biosphere Reserve of Ria Celestun	Assistant, Biosphere Reserve of Ria Celestun (Mangrove restoration)	Mangrove Ecosystem Restoration]	2007.11.26	2007.12.21	
17	Luis Enrique Carrillo Noh	Assistant, Biosphere Reserve of Ria Celestun	Assistant, Biosphere Reserve of Ria Celestun (Mangrove restoration)	Mangrove Ecosystem Restoration]	2007.11.26	2007.12.21	

ANNEX 4-5 Local Operation Expenses borne by Japanese Side

(Unit: Peso)

	JFY*1 2002	JFY 2003	JFY 2004	JFY 2005	JFY 2006	JFY*2 2007	Total
Local Operation Expenses (Total)	82,908	778,740	653,032	912,376.07	1,413,237	381,982	4,222,276

*1: JFY: Japanese Fiscal Year (from April to March)
*2: Amount of JFY 2007 is sum of expenses from April 2007 to September 2007

Annex 4-6 Assignment of Counterparts Personnel and Training in Japan

No	Name	Position and Organization	Assignment to the Project	Period of Assignment		2003	2004	2005	2006	2007	2008	Remarks
				From	To							
1	Flavio Cházaro Ramírez	General Director of Institutional Development and Promotion	Project Director/ Chairperson of JCC	2003.3.1	at present							
2	Fernando Durán Siller	Director of Biosphere Reserve of Ria Celestun	Project Manager	2003.03.01	2003.07.01							Training in Japan (2003.07.06-08.05: Ecosystem conservation)
3	Jose de la Gala Mendez	Director of Biosphere Reserve of Ria Celestun	Project Manager	2003.07.01	at present							Training in Japan (2004.07.06-07.26: Natural Resource Management)
4	Gerardo Rios Sais	Sub-Director of Biosphere Reserve of Ria Celestun	Project Coordinator, in charge of GIS	2003.03.01	2003.09.01							
5	Marco Antonio Plata Mada	Project Chief of Biosphere Reserve of Calakmul (actual position is Chief of Ria Celestun)	Project Coordinator	2003.08.01	at present							Training in Japan (2005.09.13-10.20, Ecosystem Conservation)
6	Cesar Uriel Romero Herrera	Project Chief of Biosphere Reserve of Ria Celestun (Reserve of Peten)	Ecotourism (C/P indirect)	2003.03.01	at present							Training in Japan (2006.06.26-07.31, Ecosystem Conservation)
7	Jose Landero Cervera	Technician of Biosphere Reserve of Ria Celestun	Environmental Education → (C/P indirect)	2004.01.01 2007.01.01	2005.12.31 at present							Training in Japan (2005.10.11-11.17, Environmental Education)
8	Juan Adolfo Ortiz Rivera	Assistant, Biosphere Reserve of Ria Celestun	Ecotourism	2004.09.01	at present							Training in Japan (2006.06.26-07.31, Ecosystem Conservation)
9	Mauricio Alarcon Lazcano	Assistant, Biosphere Reserve of Ria Celestun	Solid waste management	2004.09.01	at present							Training in Japan (2006.08.20-10.07, Solid waste management)
10	Amador Sanchez Ligonio	Assistant, Biosphere Reserve of Ria Celestun	Ecotourism	2004.03.01	at present							Training in Japan (2007.02.22-03.22, Resource Management Type Fishery)
11	Rita Helera	Assistant, Biosphere Reserve of Ria Celestun	Environmental Education	2007.01.01	at present							
12	Eduar Abrisel Ciau Cardozo	Temporary employed staff, Biosphere Reserve of Ria Celestun	Mangrove restoration	2005.07.01	at present							Training in Japan (planned 2007.11.00-11.00, Mangrove restoration)
13	Luis Enrique Carrillo Noh	Assistant, Biosphere Reserve of Ria Celestun (Reserve Peten)	Mangrove restoration (C/P indirect)	2007.01.01	at present							Training in Japan (planned 2007.11.00-11.00, Mangrove restoration)

ANNEX 4-7 Budget for the activities of the office of the RBRC borne by Mexican side (CONANP)

Budget for the RBRC office

(Unit: Peso)

Year *1	National Treasury	RBRC admission fee *2		PRODERS Budget *3	PET Budget *4	Total
	(expenditure)	Income	Expenditure			
2003	443,200	507,420	355,194	284,694	713,349	1,796,437
2004	0	1,200,000	840,000	1,138,000	197,175	2,175,175
2005	0	1,350,000	945,000	1,650,000	211,880	2,806,880
2006	1,100,000			1,600,000	324,495	3,024,495
2007 *5	7,451,119			2,000,000	689,350	10,140,469
					Total	19,943,456

*1: Fiscal year from January to December
*2: From the year 2006, RBRC admission fee deliver to the national treasury and then budget is distributed to the biosphere reserves etc. as a budget of the category of national treasury.
*3: PRODERS: Sustainable Regional Development Program
*4: PET: Temporally Employment Program
*5: Budget of national treasury include the budget for construction of the filed station. (Approx. 4 million pesos)