

Summary of Final Evaluation

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| 1. Outline of the Project | |
| Country : Republic of Ecuador | Project title : Conservation of the Galapagos Marine Reserve Project |
| Issue/Sector : Environment | Cooperation Scheme : Technical Cooperation Project |
| Division in Charge : Forestry and Nature Conservation Division II, Forestry and Nature Conservation Group, Global Environment Dept., | Total cost (including planned disbursement) : Total : Approximately 590 million Japanese Yen |
| Period of Cooperation : January 2004 - January 2009 | Partner Country' s Implementing Organization : Galapagos National Park Service (GNP(S)) (Servicio Parque Nacional Galápagos((Servicio)PNG) |
| | Supporting Organization in Japan : Ministry of the Environment, Ministry of Agriculture, Forestry and Fisheries |
| | Related Cooperation : |
| 1-1 Background of the Project | |
| <p>The Galapagos Islands is a large and complex archipelago, lying 800 to 1100 km west of Ecuador mainland, straddling the equator and extending over 3 degrees East-West and 3 degrees North-South. An exceptionally high percentage of the flora and fauna are endemic, and inter-island variation is also very high with the various islands harboring genetically distinct populations, races and species, reflecting different stages of genetic diversification/ radiation. The increase of population may cause threats on conservation of the Galapagos Marine Reserve (GMR).</p> <p>While terrestrial research and mitigation measures are being applied to the terrestrial park, the same is not the case for the marine reserve. The problems are compounded by extremely limited opportunities for resource exploiters to diversify into alternative jobs, a poorly informed and poorly trained workforce due to physical isolation of the islands and lack of trust between government and a public education system that has failed to instill conservation values and importance of sustainable use of the islands precious resources of both land and the marine areas.</p> <p>A lack of understanding of how marine resources are affected by natural and anthropogenic factors has resulted in inadequate management measures being taken to establish the GMR on a sustainable basis. Under such conditions, the sustainability of the GMR is being compromised. All these occur despite the fact that the government of Ecuador has implemented the Special Regime Law for the Conservation and Development of Galapagos Province (SLG) (Ley de Regimen Especial para las Islas Galapagos) that embraces precautionary principles and places the highest emphasis on maintaining biodiversity in the region.</p> <p>Taking such issues into consideration, the Government of Ecuador requested to the Government of Japan technical cooperation aiming at conservation, sustainable use of marine resources, Environmental Education and participatory management of communities.</p> <p>Under these circumstances, Japan International Cooperation Agency (JICA) launched the Conservation of the Galapagos Marine Reserve Project on 20 January 2004, to collaborate with the Galapagos National Park Service (PNG) with the aim to promote activities of conservation for the GMR with the participation of local residents.</p> | |
| 1-2 Project Overview | |
| <p>The project aims to strengthen the participatory management system of the GMR. In collaboration with the Servicio Parque Nacional Galápagos as a counterpart, the project implements diverse assistance for the residents of the Galapagos Islands.</p> <p>(1) Overall Goal : GMR conservation and sustainable management is promoted through participation of key actors. (2) Project Purpose : Participatory Management system of GMR is strengthened. (3) Output :</p> <p style="padding-left: 20px;">Output 1: Information flow on marine reserve management is strengthened among fishing communities. Output 2: Environmental understanding is promoted to the local residents. Output 3: Information of marine life and ocean environment is increased. Output 4: Water quality monitoring system is established in Santa Cruz. Output 5: Sustainable resource management for artisanal fisheries is supported.</p> | |
| 1-3 Inputs | |
| <p>(As of June 2008)</p> <p>< Japanese side ></p> <p style="padding-left: 20px;">Long-term expert 7 Short-term expert Total 15 Acceptance of trainees (in Japan) 10 Equipment supplied Total amount: US\$251,900 Local Cost US\$1,221,189</p> <p>< Ecuadorian side ></p> <p style="padding-left: 20px;">Counterparts (CPs) 18 Local cost Personnel cost for CPs, provision of land for offices of Japanese experts and Communication Centre for Environmental Education (CCEE), cost for utilities and consumables</p> | |

| 2. Evaluation Team | | |
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| Members of Evaluation Team | 1. Mr. ENDO Hiroaki (Leader) Director, Forestry and Nature Conservation Division II, Forestry and Nature Conservation Group, Global Environment Dept., JICA 2. Ms. ADACHI Kanako (Evaluation and Planning) Senior Program Officer, Forestry and Nature Conservation Division II, Forestry and Nature Conservation Group, Global Environment Dept., JICA 3. Ms. TANAKA Erika (Evaluation and Analysis) Researcher, Social Development Department, Global Link Management 4. Ms. HIGASHIONNA Hiromi, (Interpreter) | |
| Period of Evaluation | 17 August 2008 – 6 September 2008 | Type of Evaluation : Final evaluation |
| 3.Results of Evaluation | | |
| 3-1 Project Performance | | |
| (1) Achievement of Project purpose | | |
| Project Purpose is gradually being achieved. | | |
| <p>The capacity of Participatory Management Board (Junta de Manajo Participativo: JMP) can be evaluated to be improved. JMP meetings are now regularly held. The number of agreement made at JMP may not be clearly increased but, according to interview, agendas that had not been agreed for a long time started to be discussed and some of them obtained agreement during the past two years. This means that the quality of JMP discussion has been improved. The representatives of each sector are participating in JMP more actively and the process of discussions became more friendly and constructive.</p> | | |
| (2) Achievement of Outputs | | |
| Output 1: Information flow on marine reserve management is strengthened among fishing communities. | | |
| <p>Information and communication on marine reserve management is strengthened among fishing communities. Information is disseminated through bulletins, radio and TV broadcasting, and short text messages via mobile phones. The contents are; information on fisheries and fisheries cooperatives, information on natural resources of GMR, and reports of progress and results of Participatory Management Board (Junta de Manejo Participativo: JMP) Information dissemination via mobile phones was launched in January 2008 and is spreading rapidly among fishermen as this is a media that can send messages in a timely and efficient way. The fishing cooperatives have better knowledge on GMR management and participatory management methodology. According to the socio-economic survey conducted by the Project, the percentage of fishermen who feel that they “always” receive information on GMR management increased from 31.3% in 2005 to 48% in 2008, while those who feel that they “never” receive that information decreased from 13.4% in 2005 to 4.7% in 2008. Information has been disseminated to community people as well through bulletins, radio, and TV. Through activities related to Output 1, fishing cooperatives feel that their opinions and positions are well delivered to other part of community and, at the same time, that the community understands the situations of fishermen better than before. As a result, relations between fishing communities and PNG and between fishing communities and other community organizations have been improved. In 2004, only a 27% of the fishermen consider that the fisheries cooperatives are divulging information in an appropriate way, but in 2008, a 48.6% of the fishermen interviewed indicated that their cooperatives are good and even excellent in the internal communication.</p> | | |
| Output 2: Environmental understanding is promoted to the local residents. | | |
| <p>Through environmental education activities that take place at secondary schools and at the Communication Center for Environmental Education (CCEE), community people improved their knowledge on GMR. Through environmental education at schools, students enhanced their interests toward and knowledge of marine environment. Some students are communicating with their parents on GMR and information on GMR and environmental conservation is spreading more to other community people. The Project held an educational unit on marine ecosystem at secondary schools and this course has been incorporated into the curriculum of biology. A majority of teachers are also interested in environmental education and support the activities. There is not a specific subject as environmental education in Ecuador and environmental education is conducted as a part of other subjects. Topics on conservation of GMR should be incorporated in all local education levels. Clarifying the positioning of environmental education in curriculum may be effective to further strengthen this activity.</p> <p>The opening of CCEE was delayed due to land property problem but the facilities have been well utilized since its opening as an opportunity of environmental education for community people as well as tourists. As the training center of CCEE is opened to the public, community people who use CCEE training center make a visit to exhibition center as well, which contributes to the improved awareness and knowledge among CCEE users. At CCEE volunteers are stationed for environmental education and administration of the facilities. PNG is currently formulating a utilization plan of CCEE.</p> <p>In 2007, a total of 55 events were held, including presentation, training, cultural exchange, and meeting of the National Institute of Galapagos (INGALA). In 2008, 26 events were held as of July. The total number of users of training center is about 1500 as of July 2008. A total number of visitors to the exhibition center is 4578 as of July 2008.</p> | | |
| Output 3: Information of marine life and ocean environment is increased. | | |
| <p>Analysis on ocean environment and spiny lobster larva has been regularly conducted and data has been accumulated and disseminated to the general public. Information of marine life and ocean environment is clearly increased. Generally speaking, it is necessary to conduct monitoring and analysis for five to ten years to obtain adequate data that can present scientific</p> | | |

evidences. In this sense, the information and data accumulated by the Project can be said as only a start. However, it is notable that the marine life monitoring has been established at PNG and operation system to continue monitoring is being established. At the start of activities of Output 3, PNG did not have research methodology or experienced staff. The Project had collaboration with CDF to conduct monitoring, while Japanese experts provided technical transfer to Ecuadorian CPs. Through Project activities, PNG's research capacity is clearly improved. Collaboration with other sections of PNG, such as Tourism Administration, has started with a study on the carrying capacity of diving sites as a part of monitoring of marine ecosystems. The results of marine life and ocean environment monitoring were utilized for the development materials for activities related to Output 1 and 2.

Output 4: Water quality monitoring system is established in Santa Cruz.

Water quality monitoring and participatory water quality monitoring are regularly conducted and reports are compiled and distributed to communities. PNG acquired the knowledge to implement the methodology in water quality monitoring. Local people who participated in water quality monitoring enhanced their interests and concerns on the results of water quality. Reports on water quality monitoring are utilized by local authorities as sources of decision-making. Based on the reports on water quality monitoring, the municipality office in Santa Cruz reduced the volume to draw water at one of two water sources. Water quality monitoring is now conducted in islands of Isabela and San Cristobal as well, on an ad-hoc basis.

Output 5: Sustainable resource management for artisanal fisheries is supported.

A variety of activities for sustainable resource management for artisanal fisheries have been implemented and produced outputs to some extent.

Activities to promote small-scale participatory fishing were conducted and about 30 fishermen are prepared to operate small-scale participatory fishing excursions. However, for small-scale participatory fishing to be viable as alternative income source, the development of market is a crucial factor at this moment. Therefore, the Project is planning to participate in marketing fair to take place in the United States in September 2008.

In relation to this Output, the Project also conducted marine resource monitoring on sea cucumbers with fishermen as a part of marine resource restoration strategy. Through participation, fishermen became more aware of monitoring technique and developed trust on the data generated by PNG and other authorities. The results of monitoring have been incorporated in annual fishing plan. Through this activity, not only the level of understanding of fishermen on fishing resource was increased, but their relations with authorities were improved as well because fishermen recognize the administrative decisions based on scientific data. In regard to participatory fishing monitoring, it was not conducted in a participatory way because an agreement of fishermen was not obtained. It is desirable that fishermen participate in monitoring that PNG conducts for the transparency of the monitoring results but it is difficult to conduct when there is no motivation to fishermen.

As to activities of women's groups, support was provided to the Organization for Active Women of Isabela (Organización de Mujeres Activas Isabelaña: OMAI) and to the Organization of Pinzon Artisan (woodpecker finch) Women of Isabela (Organización de Mujeres de Pinzón Artesano de Isabela: OMPAI) groups. In OMAI, profits are produced quite constantly and women in the group gained monthly income. Acquiring additional income source somewhat eased the pressure to fishing in some households, which may be a favorable sign for marine resource conservation. In OMPAI, the profits produced by women's activities are still relatively small to secure constant additional income resource to households of group members.

One thing to be noted in activities of alternative income source is that the number of beneficiaries is small. This makes it difficult to connect the benefit of this Output to Project Purpose and leaves the impact brought by the Output small.

The activities related to alternative income source were not included in conventional work lines at PNG, therefore, operation system to implement the activities after the Project completion is not well defined. During the Project, the activities are enhanced by the contribution of local staff of the Project as well as Japanese experts and CPs. It is necessary to discuss the implementation system of PNG for the activities, not only in Isabela Island but also in other Islands.

(3) Implementation Process

At the initial stage of the Project, the implementation process was not very smooth. About one year after the Project start, the Project began to show smooth progress and the planned activities are expected to be completed by the end of the Project. The Project was formulated, incorporating opinions of various stakeholders both Japanese and Ecuadorian sides, including community people in the Galapagos Islands, although it took a considerable time before the commencement of the Project. This formulation process is highly evaluated among stakeholders.

During the first year of the Project, there were several factors that constrained the smooth progress of the Project. Firstly, it took six months before all four Japanese long-term experts were dispatched as planned. Secondly, the Director of PNG was replaced several times for the first two years of the Project. In addition, demonstrations of fishermen occurred frequently during 2004. After 2005, the Project made smooth progress.

The overall operation system of the Project is well managed in general. It took about one year that the first Joint Coordination Committees (JCC) was held. However, since then, JCC has been held approximately once a year and serves as an opportunity to review the progress of the Project, to identify the difficulties, and to present solution among Project stakeholders. The progress and achievements of the Project are monitored based on Project Design Matrix (PDM) and Plan of Operation (PO) and shared between Japanese experts and Ecuadorian counterparts (CPs) regularly at JCC and other meetings. PDM was modified twice at the Study in 2005 and the Mid-term Evaluation Study in 2006. Through the modification, the logic and verbal expression of PDM were made clear.

Communication in the Project team was generally good. At first, there were some difficulties as PNG was not familiar with the implementation process of Japanese technical cooperation and there were language difficulties. However, efforts to understand mutually by both sides improved communication.

The ownership of PNG and other related stakeholders is generally high. CPs at PNG have been involved in the decision-making process of the Project and implement their assigned activities although some CPs have difficulties in fully committing themselves to the Project due to other duties at PNG. Fisheries cooperatives and fishermen have been actively participating in the Project activities and their attitude toward PNG has been improved. Also community people and students are participating in Project activities such as participatory monitoring and environmental education. Organizations involved in environment conservation, such as Charles Darwin Foundation (CDF), provide adequate support for Project implementation in environmental education.

3-2 Summary of Evaluation Results

(1) Relevance

Relevance is high in terms of needs in target area and in terms of priority of both Ecuadorian and Japanese policy. The Project plan was carefully designed although there are some questions to point.

The Project Purpose and Overall Goal are consistent with the needs of the Galapagos Islands. Conservation of marine resource in the Galapagos Islands is highly important for the Government of Ecuador. As the fishery resources are decreasing, conservation of marine resource is an urgent matter for fishing communities. Marine reserve is important for tourism as well. Furthermore, the environmental issue has influence on general community people. Environmental contamination affects quality of water and health of community residents. For conservation of GMR, to sustain participatory management system is a priority issue.

The Ecuadorian government put importance on participatory management system of GMR. In the National Development Plan (2007-2010), conservation of natural environment is listed as one of nine priority strategies. The National Development Plan refers to formulation and implementation of programs through people's participation.

Environment conservation is a priority area in Japanese policy in Official Development Assistance (ODA) to Ecuador. There are three priority areas in Japanese ODA to Ecuador, namely, poverty reduction, environment conservation, and disaster prevention. Environment conservation includes conservation of natural environment and ecosystem and countermeasures against environment contamination.

The Project design was carefully considered, though some points should be noted. First, some Project components include activities that were not regularly implemented in operation of PNG, for example, support for communications for fisheries cooperatives, small-scale participatory fishing, water quality monitoring, participatory water quality monitoring, and women's groups activities. Including these activities in the Project design may have seemed to exceed the capacity and operation system of PNG. Therefore, the Project planned to develop the capacity to implement these activities at PNG. As one solution for this, the Project planned to have collaboration with related organizations other than PNG, such as Charles Darwin Foundation (CDF) and FUNDAR (local NGO). Secondly, it can be pointed out that the scale of target group of activities to create alternative income source is quite small. This activity was introduced with an aim to reduce the pressure on fishing resources by securing alternative income source for fishermen's households. This logic is appropriate. However, only about 30 fishermen households are engaged in, or planned to be engaged in, small-scale participatory fishing, while the number of members of women's groups that the Project support is about 20.

(2) Effectiveness

Effectiveness is generally high. Project Purpose is gradually being achieved.

The capacity of Participatory Management Board (Junta de Manajo Participativo: JMP) can be evaluated to be improved. JMP meetings are now regularly held. The number of agreement made at JMP may not be clearly increased but, according to interview, agendas that had not been agreed for a long time started to be discussed and some of them obtained agreement during the past two years. This means that the quality of JMP discussion has been improved. The representatives of each sector are participating in JMP more actively and the process of discussions became more friendly and constructive.

All of five Outputs are necessary elements to achieve Project Purpose. Some Outputs are interrelated. For example, the results of ocean environment monitoring (Output 3) were incorporated in materials of environmental education (Output 2) and participatory water quality monitoring (Output 4) serves as an opportunity of environmental education (Output 2). This interrelations among each Output enhanced benefits produced by each Output.

As to the Important Assumptions from Output to Project Purpose, i.e., the existence of JMP, JMP does exist and has been functioning quite well since 2005. It should be noted, however, that the financial foundation of JMP is weak. Out of three positions of JMP, Coordinator, Facilitator, and Communicator, only the post of Facilitator is filled currently. Also the results of referendum to accept the new Ecuadorian Constitution expected to take place at 28 September 2008 should be monitored. There is possibility that the new Constitution may affect the current organization of JMP although the majority of those interviewed expect that the participatory environmental management of GMR will be maintained in one way or another.

(3) Efficiency

Efficiency is medium. A part of inputs were not implemented as originally planned. Implemented inputs are, however, well utilized and contributed to produce Outputs. As to Output 5, the scale of output produced by inputs may be a little small.

The Ecuadorian side allocated CPs to implement activities for each Output. However, frequent replacement of Directors of PNG made the Project operation system unstable. Some CPs have difficulties to get themselves fully involved in the Project. This is mainly because they are busy with their regular duties at PNG. PNG provided spaces for the Project office and CCEE. As to the CCEE, there was some dispute as to the property rights of the land, and it delayed the operation of CCEE. Necessary equipment and materials for Project activities were provided by PNG.

The Japanese side could not send experts as planned at the initial stage of the Project and it affected the smooth start of the Project. Since 2005, experts have been dispatched as planned. As some CPs are busy with their work at PNG, the Project employ some Ecuadorian staff to complement activities. The local staff hired by the Project made a great contribution to smooth implementation of the Project. This is especially important in that they are familiar with local needs and situation. Training in Japan was effective to transfer technique to implement Project activities. Ecuadorian CPs participating in Training in Japan are utilizing what they learned in Japan for the Project activities and they disseminate the experiences to other staff of PNG through presentation. Three CPs out of 10 participants of Training in Japan left their position. One of them still remains at PNG and provides advice and assistance when necessary. Provision of equipment by the Japanese side was implemented as planned in general. A small part of equipment was not delivered timely due to some procedural matters concerning procurement but this did not affect the Project activities. Provided equipment is well utilized to produce Outputs. Equipment is well maintained. As to CCEE, although the opening was considerably delayed due to land property problem, the facilities are frequently visited and utilized by the community people and have contributed to the implementation of environmental education. Volunteers are assigned by the Project to explain exhibition to visitors. There is already an operation and maintenance system of CCEE set up at PNG.

The efficiency of inputs in comparison to the outcome depends on activities. As to activities related to communication (Output 1) and environmental education (Output 2), efficiency is high as outcome is clear and the size of beneficiary is quite large. On the other hand, in regard to alternative income source activities, efficiency is not high as there is not clear outcome at this moment and the size of target group is quite small, about 30 fishermen families for small-scale participatory fishing and approximately 20 women for women's group support.

(4) Impact

The achievement of Overall Goal can be expected if the current activities are carried out by the Ecuadorian CPs after the completion of the Project. Some unexpected impacts are recognized.

The prospect that Overall Goal is achieved is considerably high. Through the Project, community people, including fishermen, teachers, and students, improved awareness and knowledge toward environmental conservation and they are changing attitude to better conserve their environment. These community people are considered to become key actors to participate in GMR conservation as well as organizations such as PNG and NGOs. As the organization system of PNG and JMP is strengthened during Project period and the relations between these entities and communities, including fisheries cooperatives, are improved, it is expected that conservation activities based on proposals by key actors will increase. To achieve Overall Goal, it is essential to continuously implement activities introduced by the Project after the termination of Project period.

Regarding the Important Assumptions specified in PDM, there is not much influence so far although it is still important to monitor their progress. Fishing resource is decreasing and fishermen are making efforts to secure a sustainable fishing yield. However, as the relations between PNG and fisheries cooperatives are improved, it is likely that proposals on appropriate fishing efforts will be discussed in a constructive manner. There is not a sharp increase in new residents in the Galapagos Islands according to interview, although the official statistics presents data in an opposite way. As to number of tourists, the majority of those interviewed admit that it is surely increasing. Nevertheless it will not cause much trouble to environmental conservation if the impact of tourists is adequately managed.

Some unexpected positive impacts are found. The Project intended to implement water quality monitoring only in Santa Cruz Island. During the course of time, this activity was extended to other islands, i.e., Isabela and San Cristobal upon the request of Ecuadorian side. Another unexpected impact in regard to water quality monitoring is that the municipal office in Santa Cruz reduced the volume of water to draw at one source based on the reports on water quality monitoring. In addition, the communications and collaboration among assistance agencies and local NGOs are improving in the course of discussions to coordinate their cooperation activities, especially in the area of small-scale participatory fishing.

The Project placed a focus on fisheries cooperatives and fishermen as the main target group, which may lead to a kind of misunderstanding or "jealousy" from other groups concerned to environment conservation. This can be pointed out as a negative impact. One incident is that a bulletin on fisheries cooperatives was once issued by an individual in management of fisheries cooperative union, without observing established protocols. The management of tourism sector felt hurt and said that the Project favored the fishing sector. This case

presents an example that information may sometimes be distorted by the fact that the Project is focused on a certain group of society as target.

(5) Sustainability

Sustainability can be expected to some extent.

Political sustainability is generally high. As mentioned before, environmental conservation is one of priorities in Ecuadorian development policy and emphasis is placed on participatory management system. In addition, the current Ecuadorian government shows a strong initiative to conserve environment of the Galapagos Islands, especially when the Islands are specified in the list of "World Heritage in Danger". Although the Galapagos Islands got listed in the World Heritage sites in Danger during the Project period, the factors to be put in the list of the Heritage in Danger are identified as increased population, tourists, and introduced species. These factors are exactly described as Important Assumptions in PDM and it should be noted that the listing in Heritage in Danger does not mean that the Project did not work. One slight concern is that the political progress after the referendum of revision of the Constitution. In general, it is expected at the moment that the government policy to give priority to participatory environment conservation will be maintained.

Organizational sustainability of PNG is relatively high. In comparison to the time at the start of the Project, the organizational capacity of PNG has been clearly improved. The Director of PNG is not replaced as often as before. Allocation of other personnel is also stable as the majority of trained CPs remain in the positions. Furthermore, more than 150 park rangers are appointed from contracted workers to permanent employees in August 2008, which will strengthen the stability of personnel capacity of PNG. In addition, relations with related organizations such as fisheries cooperatives are remarkably improved. In spite of these improvements, there is still shortage of allocation of manpower at PNG, and it is necessary to implement the new organizational chart, where technical capacity and number of park rangers of PNG are enhanced. As to the organization of JMP, it starts functioning relatively well in recent years but financial foundation is still unstable and there is some uncertainty in its position and functions after the referendum of the Constitution.

Financial sustainability of PNG is also relatively high. By the fiscal system of the Galapagos Islands, a part of entrance tax is allocated to PNG, which gives stable financial source to PNG. Financial stability may be more secure if PNG has efficient and rational procedural system of budget planning and disbursement.

Technical sustainability is expected to some extent. Technical transfer is being implemented and CPs are utilizing acquired knowledge and skills in their daily work. Maintenance system of provided facilities and equipment are quite well functioning so far. Nevertheless, continuous efforts and administrative adjustments will be necessary as some activities introduced by the Project are not included in conventional work lines on PNG, for example, production of educational materials, water quality monitoring, and support for fisheries cooperatives and women's group. These activities have been conducted to a considerable extent by an initiative of local staff of the Project and technical transfer from the local staff to CPs at PNG is required by the end of the Project period. As to these activities, strengthening collaboration with related organizations such as CDF may be a contributing factor.

Efforts to continuously work with communities and to spread the benefit of the Project are required to further secure sustainability. Target group of the Project in communities, for example, fisheries cooperatives and women's groups, have strong will to continue the activities. If adequate support by CP and related organizations is provided, benefits can be further enhanced. The Project already extending water quality monitoring to the Islands other than those initially planned. Further efforts to spread benefits to other areas will consolidate sustainability of the Project although strengthening organizational capacity of authorities in other Islands may be required.

3-3 Factors that promoted realization of effects

(Regarding the project planning)

The Project plan was formulated basically in adequate process although there are some issues that could have been better addressed. In the planning stage of the Project, participatory workshops were held three times to clarify the needs of the stakeholders and to incorporate ideas and requests of them in the Project design. This effort took time to finalize and to reach an agreement in the Project plan.

(Regarding the implementation process)

During the course of Project implementation, it was revealed that the original PDM did not incorporate needs of existing situations and opinions of some CPs actually assigned. During the Mid-term Evaluation Study, the PDM was reviewed and modified, incorporating opinions of those concerned. This helped smooth progress of the Project.

3-4 Factors that impeded realization of effects

(Regarding the project planning)

Wide ranges of conservation activities were planned. However, the planned listed in the PDM were not complied with the usual PNG business. Therefore building up implementing organization faced difficulty.

(Regarding the implementation process)

Some counterparts were too busy and their engagement in the project was limited. Also there were some factors such as the delay of dispatch of Japanese experts, demonstration by fishermen frequently organized and so on.

3-5 Conclusion

-The Project was implemented smoothly in the latter part of the Project period although the progress was not very smooth for the first two years and there are some questionable issues in adequacy of the project design and efficiency of inputs. As to Outputs, the achievements have not been fully produced as expected for some components, but, in general, Outputs are being achieved.

- The Project Purpose is likely to be achieved. Therefore, it is appropriate to terminate the Project as initial plan.

-Some activities still leave concerns in sustainability after the completion of the Project. Activities on communications, environmental education, and alternative income source generation were implemented with contribution of local staff hired by the Project. Marine resource monitoring and water quality monitoring were not conducted at PNG before the Project. Participatory fishing monitoring was not conducted in the Project because cooperation of fishermen was not obtained. It is necessary to discuss implementation system of the activities after the Project completion, especially of those activities above mentioned.

3-6 Recommendations

(1) PNG should continuously develop current activities after the Project period. To realize this, it is recommendable to incorporate all the Project activities in planning documents such as management plan of GMR and PNG as well as implementation documents like POA of PNG. This will include allocation of necessary personnel and budget. It is suggested that, after this evaluation, Japanese experts and Ecuadorian CPs analyze and make proposals on necessary personnel and specific activities that they are going to implement during the remaining Project period. In order to strengthen collaboration of PNG with assistance agencies and NGOs, it is recommendable for PNG to coordinate such collaboration.

Communication: Operation capacity should be strengthened at PNG to disseminate information. This includes production of bulletins and TV and radio programs. It is advised that future support by PNG on communications be expanded to all sectors that are concerned to sustainable management and development of GMR and that operate economic activities there. As for information dissemination on fisheries cooperatives, it is recommended that the Project conduct training to fisheries cooperatives before the Project ends so that the cooperatives will implement communication activities by themselves after the Project.

Environmental Education: Organizing working system in which CPs can implement activities is necessary. As to environmental education at secondary schools, it is required to make an agreement with schools in education program, including class schedule coordination and collaboration with teachers in teaching. It is recommended that experts, CPs, and local staff formulate proposals to have project activities integrated into curriculum established by the integral education reform. It is also recommended that the Project hold a discussion with the Ministry of Education or its office in the Galapagos Islands as to future activity plan.

Ocean environment monitoring/Water quality monitoring: It is recommended that PNG increase the number of technicians to implement monitoring. Collaboration among different sections within PNG, for example, Marine Resources and Tourism Administration, is desirable as well as collaboration with related organizations such as CDF.

Alternative income source: Organizing working system is necessary, in which CPs can provide support to this activity after the Project completion. As to support for groups of fishermen's wives, it is adequate to develop scheme at PNG to support activities for small- and micro-scale enterprises through providing information on training, administration, credit access, finance, production, commercialization, and tax, for example, instead of continuing support for specific groups. To set up collaboration with external organizations may be recommendable, if necessary.

(2) PNG should finalize and implement operation plan of CCEE, including renewal of exhibition, to utilize CCEE effectively, and to conduct environmental education in communities. In the operation plan, budget for CCEE should be clearly specified. Also PNG should formulate a plan to secure personnel at CCEE in charge of education and administration, including maintenance of aquarium tanks.

(3) PNG should take an initiative in support JMP to secure financial sources to cover the cost for operation, administration, and logistics necessary to participatory management system. It is recommendable that the Ecuador government facilitates to maintain participatory management system of GMR and promote so that the function of JMP/AIM continue.

(4) Japanese experts and CPs should accomplish technical transfer as to activities that local staff members hired by the Project have had the initiative in implementation so that PNG will develop internal capacity to be able to continue the activities after the Project completion.

(5) It is understood that PNG should carry on with the activities after the termination of Project period. However, Japanese cooperation may be expected in some manner when necessary.

3-7 Lessons Learned

- (1) The Project aims for improvement of participatory management system. As a result, communications among stakeholders have been improved and conflicts have been reduced. It can be said that participatory management system is effective in environmental conservation. However, it should be recognized that participatory process takes time and depends on external factors.
- (2) When the Project includes components that are not covered by conventional work lines of CP organization, it is necessary to carefully confirm the implementation system of CP organization and possible collaboration with related organizations in the stage of project formulation.
- (3) Incorporation of project activities in regular work plans of CP organization will enhance sustainability after the project completion.
- (4) It is often the case that environmental conservation project includes components in various areas. It is important to clarify the project purpose and to select activities that are expected to produce outcome. One issue is the selection of target group. If the size of the target group is too small, even though there is a certain benefit for the target group, it may be difficult to connect the outcome to achievement of project purpose and to produce impact. However, it is true that setting a small-scale target group makes it relatively easy to bring benefit to the specific target group. Therefore, it is appropriate to formulate a plan to expand the benefit of activities in the initial project design when a small target group is selected.
- (5) Activities related to communication are effective components as they improve understanding among stakeholders and their relations as well. In communication, mobile phones can be a very useful tool as a vast majority of community people have a mobile phone, people get information at any time via mobile, information can be sent to many people at one time, and interactive communication can be possible.
- (6) Environmental education that targets for students at schools may be effective to produce benefits in the family circle and in the future. To sustain activities, it is necessary to incorporate environmental education in official curriculum, therefore, collaboration with the Ministry of Education will be required.
- (7) Local staff hired by project often plays an important role because they can conduct activities appropriate to social and cultural situations of the country without language barrier. However, depending on local staff too much may leave questions in operation system of CP organization after the project completion.
- (8) It should be noted that focusing on a certain group of society as a target may lead to misunderstanding or jealousy of other groups of the society. Even if the Project seems to be well accepted in general terms, a small incident may trigger negative feeling toward the project among the rest of groups. Careful management of communication and information will be necessary.