

Ex-Post Evaluation of Japanese ODA Loan Project
“Sustainable environmental conservation project in northern Palawan”

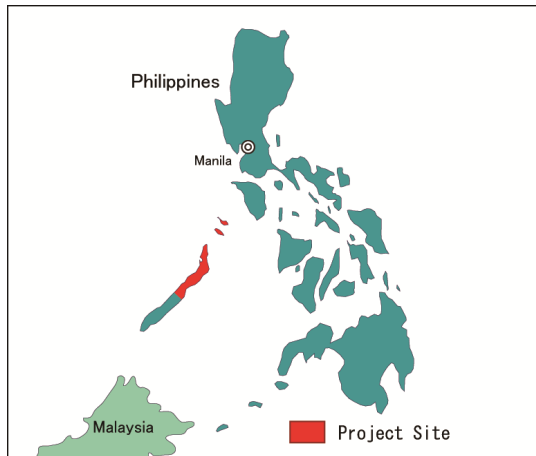
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0. Summary

This project was implemented for environment conservation and sustainable tourism development purposes, which are in line with the development needs of the Philippines and Palawan Islands. These purposes are also consistent with the country’s development policy and Japan's aid policy. From this viewpoint, the relevance of this project is high. This project established a mechanism that enables sustainable utilization of natural resources. This includes; (1) establishing zoning regulation to implement the ECAN Zones created under the ECAN zoning¹ component of the project; (2) provision of alternative livelihoods to the local residents; and (3) prevention of ecosystem degradation in the terrestrial and coastal areas through control of soil erosion from the coastal roads. However, degradation of marine resources may have continued in some areas with inadequate implementation of zoning regulation. The road improvement of the project has contributed to the increase in the number of tourists, which may have indirectly affected the natural environment. Therefore, the effectiveness of this project can be judged to be fair. The project cost and implementation period slightly exceeded the plan; however, the output was also correspondingly more than the plan. Therefore, the efficiency of this project is high. The road section where soil erosion prevention works was carried out has been properly maintained and access among El Nido, Puerto Princesa and other municipalities tremendously improved. However, some local governments do not fully utilize the ECAN zoning and it is based on the seven-years-old satellite data. There is need to strengthen the organizational structure for the implementation of ECAN Zoning in some local government units, and to update the system by providing new satellite image information for the ECAN zoning to be more effective. In addition, there is a need to support the local governments to comply with standards and guidelines for environmentally sustainable tourism development. Therefore, the project sustainability is judged to be fair. In light of the above, this project is evaluated to be satisfactory.

¹ ECAN(Environmentally Critical Areas Network) zoning: demarcation of borders of land use reflecting the local residents’ intention based on the geographical conditions, land use, vegetation, ecosystem, to be used to clarify the critical area for environmental conservation and to specify the area as a core zone for priority conservation.

1. Project Description



Project Site



Colon Island

1.1 Background

During 70 years until 1997, about seventy percent (70%) of the Philippine forests was lost. This has caused decline in soil conservation and water resources recharge function resulting in more floods, and droughts. In addition, forty-four percent (44%) of mangrove forest, the habitat of fries, had been lost from 1968 to 1976, which led to the decline of marine resources.

With this background of environmental destruction and natural resources degradation, the Philippine government has been working to reduce the degradation of ecosystems such as unregulated deforestation and damage of coral reefs. The medium-term development plan from 1999 to 2004 recognizes and includes environment conservation as an important task. In addition, in the Tourism Master Plan from 1991 to 2010 where the northern part of Palawan province was its priority area, contribution to the regional economies through tourism development, correction of social disparities and diversification of tourist destinations were raised as main issues. Furthermore, in the Philippines, laws and regulations were established for the conservation of natural resources. However, the implementation was not effective due to insufficient law enforcement capacity caused by financial difficulties of the enforcement agencies, lack of environmental protection consciousness of the local residents, and the livelihood conditions of the residents dependent on the terrestrial and marine resources.

The northern part of Palawan province, the project area, is said to be the last unexplored area of the Philippines, and has coral reefs, tropical rainforest, and the habitat of rare species such as dugong. There are no major industries to support livelihood for the local people. Population growth and poverty has even increased the destructive activities such as fishing using cyanide and dynamite that destroy coral reefs and excessive logging that caused deforestation. In some areas, soil erosion from the coastal roads led to ecosystem deterioration, creating much damage to the marine life.

Strategic Environmental Plan for Palawan Act was enacted for sustainable growth and specific natural resources conservation in Palawan province in 1992, and a guideline was prepared for

comprehensive environmental protection by local governments. ECAN zoning², which aims to conserve biodiversity, water resources, and tourism resources; to conduct environmental research; and to respect land use rights of ethnic minorities were the major strategies in the Act. The Palawan Council for Sustainable Development Staff (PCSDS) was promoting and advocating to the municipal governments to adopt ECAN zoning in an ordinance, a local legislation.

ECAN zoning is prepared based on basic information of geographical conditions, land use, vegetation, ecosystems, through consultation with residents. ECAN zoning data needed to be updated through acquisition of new basic data and consultation in order to make the zoning more accurate especially under the rapidly changing environment. It was also needed to establish a plan and system of compliance with ECAN zoning. In addition, it was necessary to provide an alternative means of livelihood³ and raise awareness of environmental conservation for the residents who depended on agriculture, forestry and fishery in the area where development was restricted.

Under these circumstances, JICA conducted a study of Sustainable Tourism Development Plan in northern Palawan in 1997. This project was proposed with 1) ECAN zoning, 2) prevention of soil erosion in road maintenance, and 3) environmentally sustainable tourism development, which came after the project formation study (1999).



Major cities in Palawan

1.2 Project Outline

The objective of this project is to decrease the negative effects of development and economic activities on the natural environment by 1) supporting the update and implementation of ECAN zoning⁴, 2) road rehabilitation to prevent soil erosion (El Nido - Taytay), 3) project management and tourism promotion of environmentally sustainable tourism⁵ that can be an alternative livelihood in the northern Palawan, thereby contributing to the sustainable use of natural resources and environment/ecosystem conservation.

² ECAN zoning developed by Palawan Council for Sustainable Development Secretariat (PCSDS) has ‘Core zone’ (development activities are prohibited), ‘Buffer zone’ (development activities are limited), ‘Multi-purpose zone’ (used for other purpose), and ‘Tribal Ancestral Lands’ (traditional land use by minorities is continued). The ECAN Committee, headed by the mayor, judges whether the request of permission of new buildings suits the ECAN or not, in the local governments.

³ An alternative of livelihood means an alternative to be provided instead of economic activities that damage natural resources such as illegal fishing.

⁴ Support includes: provision of information processing equipment, provision of satellite images in all the eleven local governments in north Palawan, ECAN map preparation through consulting service, preparation of ECAN management guideline, management plan, and training plan, research on ECAN zoning (Participatory coast resource evaluation, coastal sea evaluation, and study on habitation of ecologically important sea area and endangered species), training or ECAN zoning management (community consultation for ECAN map creation, ECAN monitoring, ECAN committee, ECAN management guideline/plan, capacity development plan, etc.).

⁵ Preparation of standard and guideline on sustainable tourism development, formulation of the comprehensive tourism promotion plan for respective local governments with the highest priority, and training for work promotion by local residents' tourism business were conducted.



Protected area and a patrol boat of the local government (El Nido)



Fishing boats from outside El Nido area

Loan Approved Amount/ Disbursed Amount	2,034 million Yen / 1,956 million Yen
Exchange of Notes Date/ Loan Agreement Signing Date	June 2000 / May 2001
Terms and Conditions	0.75% interest rate, 40 years of repayment (10 years grace period) Bilateral Tied (consultant: general tied)
Borrower / Executing Agency	Government of the Philippines / Department of Tourism (DOT), PCSDS, Department of Public Works and Highways (DPWH)
Final Disbursement Date	Sep. 2009
Main Contractor (Over 1 billion yen)	WELEX CONSTRUCTION (Philippine) / GOLDROCK CONSTRUCTION AND DEVELOPMENT CORPORATION(Philippine)
Main Consultant (Over 100 million yen)	ECAN Zoning: PACIFIC CONSULTANTS INTERNATIONAL(Japan)/ ALMEC CORPORATION(Japan)/ DARUMA TECHNOLOGIES INCORPORATED(Philippine)/ CERTEZA SURVEYING AND AEROPHOTO SYSTEMS,INC.(Philippine)/ GEO-SURVEYS & MAPPING,INC.(Philippine) Road rehabilitation: PACIFIC CONSULTANTS INTERNATIONAL(Japan)/ PHILIPP'S TECHNICAL CONSULTANTS CORP(Philippine)/ TCGI ENGINEERS(Philippine)/ FILIPINAS DRAVO CORPORATION(Philippine)/SUSTAINABLE ECOSYSTEMS INTERNATIONAL CORP.(Philippine) Environmentally sustainable tourism development: PCHL CONSULTING GROUP(Ireland)/ CEST INCORPORATED (Philippine)
Related study (F/S, etc.)	Sustainable Tourism Development Plan in North Palawan (JICA 1995-1997), The Sustainable Environmental Management in North Palawan, SAPROF 1999.8-12.

2 Outline of the Evaluation Study

2.1 External Evaluator

Wataru Yamamoto, Global Group Japan 21

2.2 Duration of Evaluation Study

The study period for the ex-post evaluation is as below.

Duration of the Study: October 2011 – July 2012

Duration of the Field Study: November 10– December 1, 2011
February 25– March 3, 2012

2.3 Constraints to the Evaluation Study

This project includes 1) support to update and implementation of ECAN zoning, 2) provision of alternative livelihood and environmental education and raising awareness for the local residents under the ECAN component, and 3) support to the local governments to prepare standards and plans, and 4) training for local residents on tourism business under the component of environmentally sustainable tourism development. There are a wide range of beneficiaries (Table 1). There was limitation to collect information on the respective beneficiaries in the field study period. Therefore, the site inspection was conducted only in El Nido, Taytay, Coron and Puerto Princesa. The beneficiary survey was carried out only for 1) the fishermen around the protected area of Taytay where alternative livelihood improvement activities were promoted by the ECAN component, 2) the tourism business workers in El Nido and Coron where training for tourist business employment was carried out by environmentally sustainable tourism development, and 3) both fishermen and tourism workers in Puerto Princesa. For the local governments, hearing survey and a workshop with implementing agencies, local governments, and NGO representatives was conducted.

Table 1 Beneficiaries and the survey method

Component	Beneficiary	Beneficiary Survey	Workshop and hearing survey
ECAN zoning			
-Support and implementation	Local governments		○
-Provision of alternative livelihood	Residents/Fishermen	○	
Environmentally sustainable tourism development			
-Prepare standards and plans	Local governments		○
-Training	Residents/Fishermen	○	

3 Results of the Evaluation (Overall Rating: B ⁶)

3.1 Relevance (Rating: ③⁷)

3.1.1 Relevance with the Development Plan of the Philippines

As earlier mentioned, the Philippine government recognized environmental conservation as an important issue in the Medium-Term Philippine Development Plan (MTPDP), and the co-existence of the sustainable growth and natural environment resource conservation utilizing ECAN zoning were considered important in Palawan province

In the MTPDP (2004 - 2010), tourism development is recognized to be a powerful promotion source in the Philippine economy, and environmentally sustainable tourism development is considered to be the first priority in national development.

In the Tourism Law enacted in 2009, tourism is regarded as an important sector for investment, employment promotion, and national development, aiming to promote ecologically sustainable and economically viable tourism, having participation of local people with their culture and contributing to equitable distribution in the society. Moreover, the Law aims at making the Philippines the main hub of Asian tourism. It aims to promote tourism that enables conservation of tourism resources based on the culture and history. Thus, the implementation of the project has high consistency with the development policy at the both time of planning and evaluation.

3.1.2 Relevance with the Development Needs of the Philippines

As mentioned in background, at the time of project evaluation, sights of damaged coral reefs abound caused by destructive fishing methods. Excessive deforestation led to soil erosion and ecosystem deterioration. Bad conditions of roads on the coast had created water runoff flowing to the sea causing much damage to marine life. It was imperative to select ecologically important areas, to carry out zoning after due consultations with the stakeholders so that the community accepts the zoning, and programs to protect the area. Although marine conservation activities such as establishing marine protected areas by local governments are seen, development pressure by increasing tourists was getting more serious even at the time of project evaluation⁸. Thus, the necessity to promote environmentally sustainable and socially equitable tourism development was higher. This shows that the compatibility with development needs is high, both at the time of planning and evaluation.

3.1.3 Relevance with Japan's ODA Policy

'Environmental conservation and disaster prevention' has been cited as one of the four priority areas of Country Assistance Program for the Philippines (2000). Consistently, the environmental sector

⁶ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

⁷ ③: High, ②: Fair, ①: Low

⁸ Forest area reduced by 6% (annually 5500ha) during 1992-2005, and coral decreased by 10% during 2004-2011(Palawan province of the Environment, 2009 UPDATE, PCSDS.) Tourists to Palawan increased rapidly in the past several years, and the travel agents by local capital have increased. Tourists to Coron (50,000 people in 2010) have risen eightfold for 4 years after the airport construction in 2008, and that to Puerto Princesa (400,000 in 2010) have doubled in four years.

was the main target for assistance in Overseas Economic Cooperation Operation Policy (1999)⁹.

JICA conducted a study on the Northern Palawan Sustainable Tourism Development Plan in 1995-1997, and formulated the Tourism Development Implementation Plan containing the components carried out in this project. Also JICA applied a lower interest rate for environmental projects than the usual rate since 1995 in order to promote implementation of environment and nature conservation projects. Therefore, the compatibility of this project with the aid policy of Japan is high.

From all the above, this project has been highly relevant with the Philippines's development plan, development needs, as well as Japan's ODA policy, therefore its relevance is high.

3.2 Effectiveness¹⁰(Rating: ②)

No operational and effect indicator (quantitative indicator) for this project was specified during the appraisal and the indicators set up for three components were also only for the output level. Therefore, in this ex-post evaluation effectiveness was analyzed mainly by qualitative effect elaborated for each component.

3.2.1 Support to Update ECAN Zoning and Implementation

At the time of appraisal, ECAN maps were planned to be prepared for 11 municipal local governments in Northern Palawan. Training for coastal resources evaluation and investigation of endangered species habitats required for zoning (ECAN zoning management, alternative livelihood program promotion, environmental education, and raising awareness) was planned for five (5) priority municipal local governments¹¹. The planned outputs through corresponding programs were realized. Taking all outputs as a whole, the project even exceeded expectations (see the section 3.4.2 Efficiency).

The outputs of this project transformed into outcomes, such as; (1) reorganization of the ECAN committee¹², which supervises adherence to the ECAN zoning, (2) realization of development regulation of core zone, (3) setting of protected areas by the municipal local governments, (4) integration of the zoning in the land use plan through an ordinance, the local government law, (5) enhanced compliance of development regulations by the residents by creation of alternative livelihood, and (6) establishment of community learning centers for effective and continuing development of the

⁹ Yen loan policy of the former JBIC

¹⁰ Rating was done adding the 'Impact'. See 3.3.3 for the summary of Efficiency and Impact.

¹¹ Present land use and various social conditions are taken into consideration through public hearing, and those are reflected in the geographic division of zoning when zoning is going to be formed as an ordinance, although an ECAN map mainly shows the geographic division on the environmental preservation based on natural conditions.

¹² It is the committee which judges whether the building due to be built is observing ECAN zoning or not. The members vary in respective local governments, but they are generally the mayor, the ECAN staff of PCSDS, environment officer, planning officer, the Department of Environment and Natural Resources staff, and the head of the barangay (village), association of the villages, NGOs, etc.. PCSDS checks observance of ECAN zoning based on judgment of the ECAN committee, and issues a building permit (SEP Certificate), responding to the construction request of a new building. This committee existed before the project, but did not work effectively.

alternative livelihood (Figure 1).

Based on the above, the effectiveness of supporting ECAN zoning and its implementation is high.

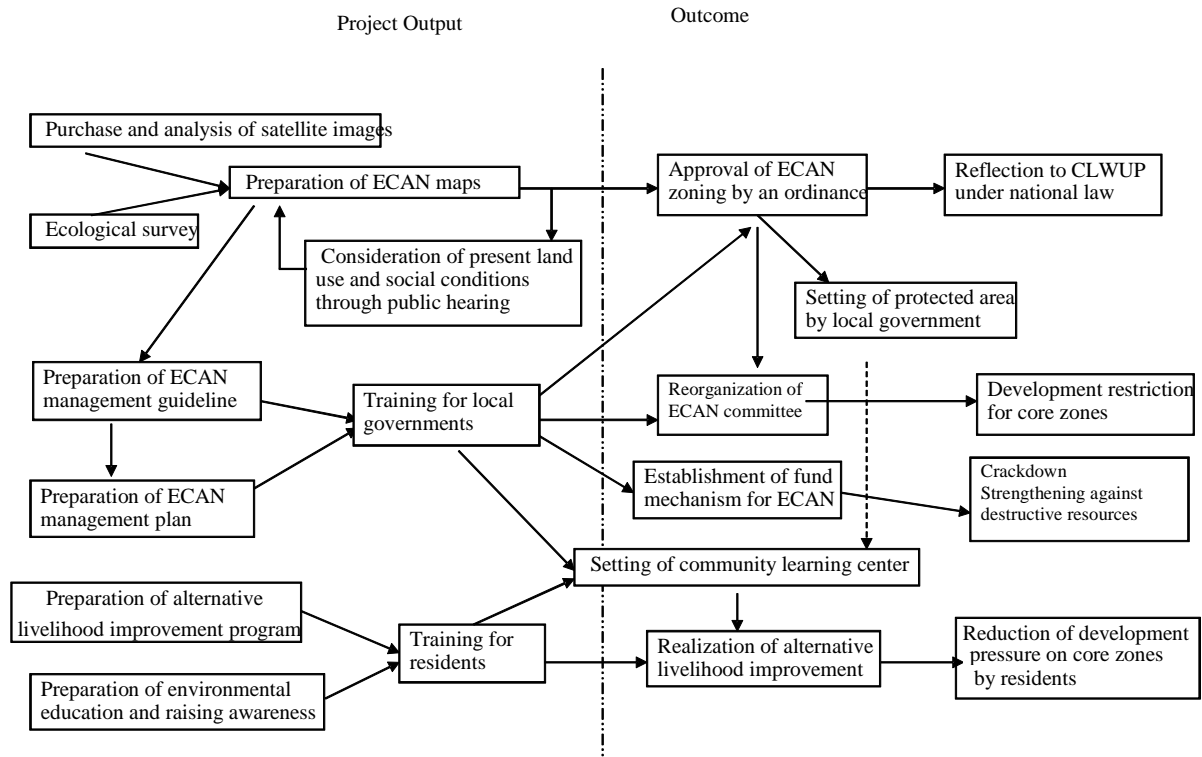


Figure 1 Project output and outcome of the ECAN zoning components



Fishing community (Taytay)



Fishing community (Taytay)



Lake Kayangan with tourists (Coron)



Aqua farming of crabs (Puerto Princesa)

(1) Status of the ECAN Committee

As per established system, the municipal governments adopt the ECAN zoning by an ordinance. The ECAN Committee is reorganized in each municipal local government to implement ECAN Zoning and regulate the protected areas. In this project, ECAN zoning was formulated in eight local governments as a corresponding system that enables sustainable use of natural resources, although only five municipal local governments were included in the plan.

According to PCSDS and municipal local governments, budget is distributed to the ECAN committees in the seven local governments (eight local governments of project implementation except for El Nido). Approval and monitoring of construction are properly carried out by the municipalities. In El Nido, however, the ECAN Zoning is not properly functioning due to the strong pressure of tourism development that caused proliferation of illegal buildings.

(2) Strengthening regulations to reflect the land use planning

Revision of Comprehensive Land and Water Use Plan (CLWUP) has been promoted based on the Local Government Code, the official plan for land and water use plan of the local governments, to strengthen ECAN zoning regulations¹³.

ECAN zoning has been already reflected in the land use plan of the three local governments. With their CLWUP completed, the four other municipal governments will reflect ECAN zoning in the next land use plan¹⁴. On the other hand, the integration of ECAN Zoning in the land use plan of El Nido has no progress due to the reluctance of the head of the local government. Discussion among PCSDS, the local government, local NGO are ongoing in El Nido.

3.2.2 Prevention of Soil Erosion

Civil works for erosion prevention was carried out in 59 km, out of the programmed 61.1km of El Nido – Taytay Road. This road section had particularly bad soil conditions with some parts along the coast. Before the project, large amount of soil was flowing directly into the sea when it rains. After

¹³ Land use plan, which is based on a national law, can impose more tax and be more compulsory compared with the ECAN zoning, which is only authorized by an ordinance of a local government.

¹⁴ A land use plan is revised by the Local Government Act once in five years. The revision year varies in respective local governments.

the project, the road surface and drainage facilities were improved. Water no longer crosses the road surface, thereby visibly reducing soil erosion as attested by the El Nido local government, the NGOs, and the residents.

Judging from the results of site visits, the work was done properly, and prevention of soil erosion was achieved as planned. However, quantitative data, i.e., the amount of soil that eroded into the sea needed to validate the changes before and after the project could not be obtained.

According to DPWH, the road stretching from Puerto Princesa to El Nido has already been programmed for concreting through national funding. The sections from Puerto Princesa to Roxas have already been concreted. However, the road section covered by this project (El Nido-Taytay) located between Roxas and El Nido is still unpaved but is included in the DPWH program, which is expected to be completed by 2014. With program's completion, soil erosion is expected to decline further.

The above shows the high effectiveness of the soil erosion prevention under this project.



The upgraded bridge (Taytay-El Nido)



Protected slope (Taytay-El Nido)

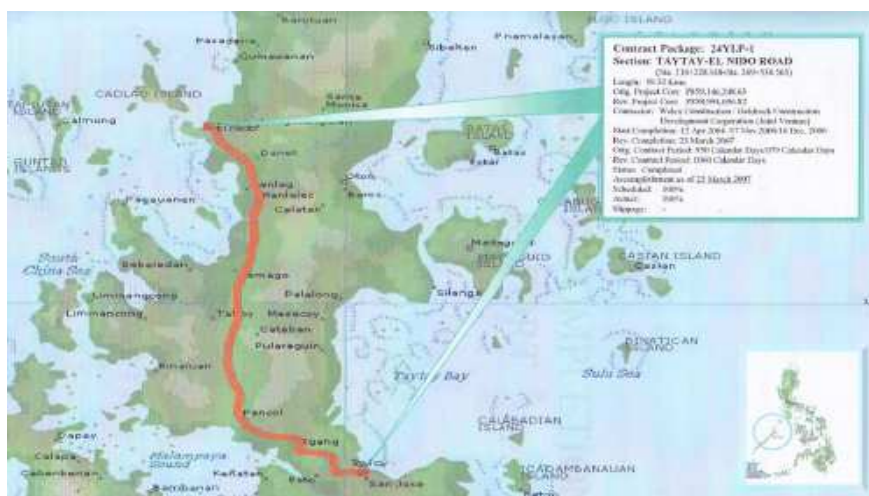


Figure 3 Improved road section (Taytay-El Nido)

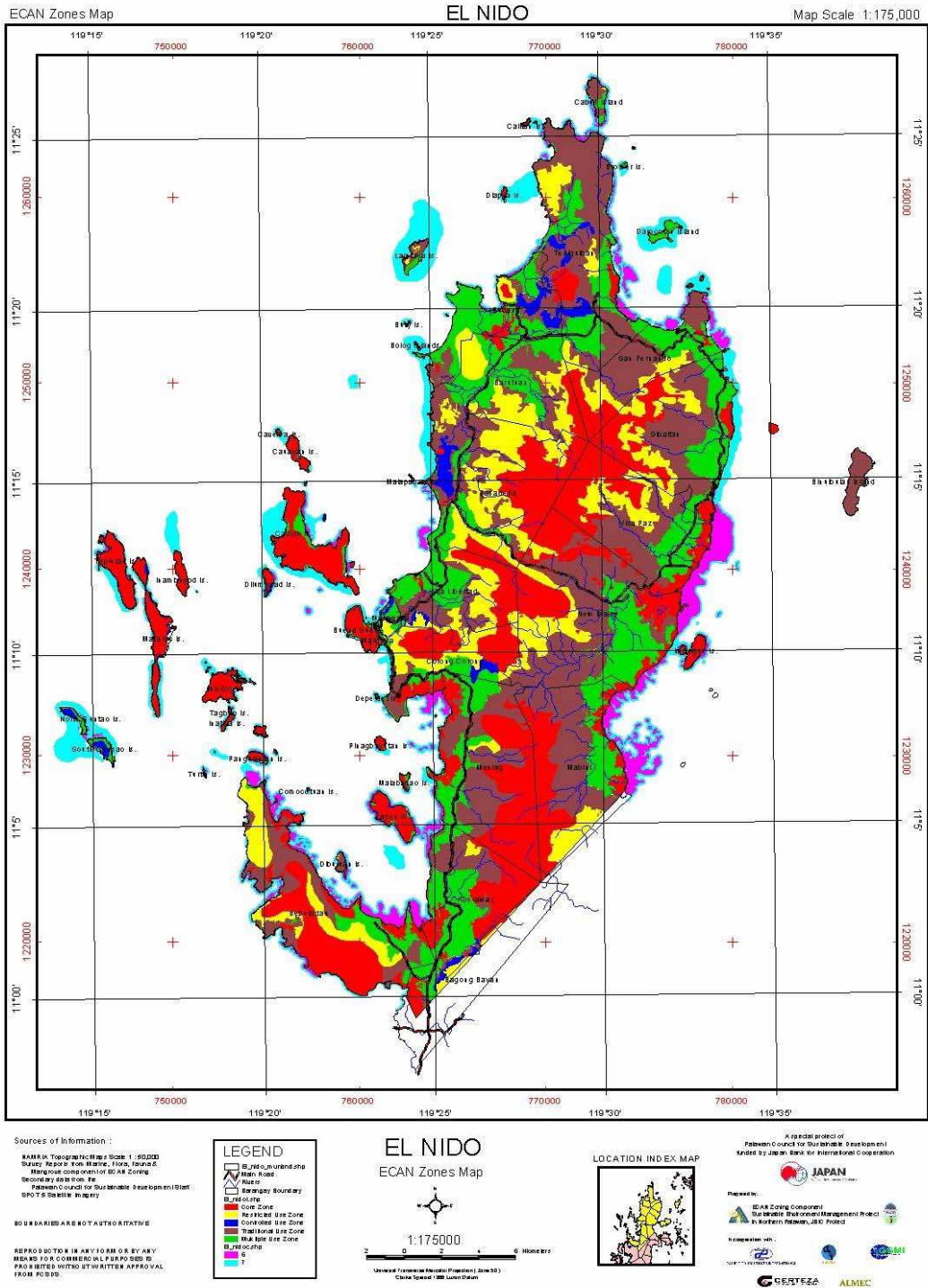


Figure 2 Example of an ECAN zoning map (El Nido)

3.2.3 Environmentally sustainable tourism development

DOT was the implementing agency of this project component. It prepared guidelines and criteria for environmentally sustainable tourism development and Integrated Tourism Development Plan, although these documents are not effectively utilized. The necessary trainings were carried out to promote local residents' participation in tourism and eventually provide alternative livelihood. Thus, the effectiveness of environmentally sustainable tourism development is considered to be fair.¹⁵

(1) Usage of standards and guidelines on sustainable environmentally sustainable tourism development

Under this project, standards and guidelines for maintaining environmentally sustainable tourism development were prepared for purposes of giving due consideration to environment in tourism development for Northern Palawan. These included construction design guidelines for buildings, sewage management and similar undertaking, standardization of licenses, land use zoning, laws and regulations, organization control, among others.

These standards and guidelines were supposed to be adopted as Municipal Tourism Codes in Coron and El Nido. These were not yet adopted in Coron but already used by the Tourism Office. On the other hand, the El Nido local government did not adopt the standards and guidelines and was never used by the local Tourism Office. Thus, these standard and guidelines are not effectively attaining its purpose, causing problems and eventually, environmental destruction. Municipal governments need stronger support for sustainable tourism development from the DOT but their support is limited since it has no local office in Palawan.

(2) Preparation of comprehensive tourism promotion plan and its implementation

In Busuanga, Coron¹⁶ and El Nido 'Integrated Tourism Development Plan' was prepared by taking into consideration of a fund mechanism for environmentally sustainable tourism. Thirteen (13) tourism development areas and three (3) tours were developed using this plan.

Integrated Tourism Development Plan was prepared based on the above mentioned standards and guidelines, which are important for environmentally sustainable tourism development. The plan was formally approved only by local governments of Busuanga and Coron. In Coron, the plan has been used for development of tourism products by the city Tourism Board. The plan also not been approved formally in El Nido (approved by the city Tourism Boards), neither was it used. As a result, construction of hotels that do not comply with the standards and guidelines are continued, causing environmental degradation, particularly deterioration of water quality. Drainage of hotels along the beach lines of El Nido that discharge to the sea are a common sight. Despite this, the DOT does not support the local government to work for approval and implementation of the comprehensive tourism promotion plans.

¹⁵ The operation effect indices set at the planning time (number of training times and trainees) are output indices, and see '3.4 Efficiency'. Refer to 3.4 as operation effect index at the planning time was an output index.

¹⁶ Busuanga and Coron prepared a combined plan.

(3) Training for local residents' participation in tourism

Beneficiary's survey was conducted for the participants in the tourism livelihood training; 60 tourism business persons, 30 tourism and fishing business persons. The results show that 50 percent started new activities that provided their families additional income. About 33 percent earned monthly income increase of 1,000- 3,000 pesos, 21 percent (21%) earned 3,000-5,000 pesos more and 25 percent (25%) earned a high additional income of 5,000-10,000 pesos. Two respondents in Puerto Princesa revealed that their monthly income increased by more than 15,000 pesos. The average monthly income increase from tourism activities of respondents is 3,300 pesos, in Coron(average of 7 out of 30) and 5,400 pesos (average of 5 out of 24) in El Nido. Clearly, the local people earned additional income from alternative means of livelihood. Depending on resource exploitation such as illegal fishing, some alternative livelihood may lead to the decrease of economic activities. Only 51 percent of the trainees responded that they have changed their consciousness about supporting environment improvement. Respondents showed that training contents in the aspect of environmental education were poor and less effective in terms of improving environmental awareness. These are shown by the less encouraging results of the survey; 47 percent in Taytay where respondents are fishermen and 46 percent and 47 percent in El Nido and Coron, respectively, where respondents are tourism workers. A better result is shown in Puerto Princesa (63%), where respondents are both fishermen and tourism workers. Very few respondents, less than 20 percent said that the trainings helped them improve themselves. This is especially true for the fishermen-respondents of Taytay.



Notice of Coron island

3.3 Impact

3.3.1 Intended Impacts

This project was expected to promote ecosystem conservation and sustainable use of natural resources by reducing the negative impact of development and economic activities on the natural environment. The followings are the relevant impacts of this project:

(1) Promotion of sustainable use and conservation of natural resources through establishment of protected areas

Protected areas were established in both land and marine core areas of ECAN zoning where sustainable use and conservation of natural resources were carried out.

Setting the marine protected area under the ECAN zoning of the project protected spawning areas and secure fish eggs and strengthening of fishing regulations expected to decrease destructive fishing activities. Fishing in the surrounding areas of those places enables to ensure certain level of harvest with protecting fish eggs (sustainable fishing). However, illegal fishing is still a major cause in decrease of fishery resources outside of the protected areas. It was

reported that fishing boats from places outside of Palawan are perpetrating destructive fishing. Hence, the impact of this project is limited to the marine protected areas and vicinity.

In El Nido, open protected areas (about 15 places with 1,100 ha, 30-100 ha/place) are already established based on ECAN zoning. In Taytay where the economy is highly dependent on fishing, regulations were revised. Twenty percent (20%) of municipality income from fishery may be used for marine resources management, especially to strengthen control of illegal fishing. Limited fishing methods are permitted and use of other fishing methods is subject to penalty of not less than 2,500 pesos. About five years ago, an average of three cases of illegal fishing per year was filed. In 2010, no case was filed. The arrested illegal fishing cases was reduced to five in 2009 and three in 2010. The number of fishermen coming to Taytay has decreased over time due to the severe crackdown on illegal fishing in the recent years.

According to Taytay municipal government regulators, with the severe crackdown on illegal fishing, illegal fishermen have also developed methods to avoid being caught. In dynamite fishing, weight is attached to fishing gear to prevent wave on the surface during explosion. Aquaculture is becoming more popular in Palawan. Fish caused by dynamite fishing is used as prey for aquaculture. Dynamite fishing is still common in some isolated islands especially those that are not frequently patrolled. This substantiates the survey result that 70 percent of the fishermen of Taytay consider that fishing resources are decreasing, and the existence of illegal fishing (37%) is still one of the causes.

In the core area of Puerto Princesa, located inland, a community forest is set and the use of non-timber forest products is promoted.

(2) Livelihood improvement through provision of alternative livelihood

In the management guidelines of ECAN zoning, organic farming, aquaculture and processing of cashew nuts, salt, pineapple oil, dry mango, and seaweeds were proposed. Some of these proposals were carried out by fishermen's group and women's group through the funding of local governments and NGOs¹⁷. Those realized alternative livelihoods contributed to reduce the natural resources destruction by illegal fishing, etc. However, the extent of the effect was not measured.

(3) Continuous activities in community learning center

Community learning centers were established in the seven protected areas in order to provide a link between protection of core areas and livelihood improvement¹⁸. Support service for

¹⁷ According to PCSDS, about 100 people are involved in cashew processing and handicraft by women's group in El Nido. One hundred farmers participated in seaweed production in Taytay, and one thousand farmers in aquaculture in Taytay with an income increase of 50,000 pesos. Two coconut candy producers with income increase of 2,500 pesos, and two ginger producers are participating. The beneficiary survey for 30 people in Taytay showed that the average monthly income increase is 5,800 pesos (four persons out of 19 persons) by seaweed production.

¹⁸ The community learning center was established as an exit strategy to support ECAN zoning, and is used as a focal point for the alternative livelihood improvement activities by the NGOs and local governments around the designated protected area. This activity is considered to reduce the burden on fishery, and to support to conserve the protected area indirectly.

livelihood improvement activities by the local governments and NGOs, were connected with the protection activities of each zone through residents' organizations of the villages in the community learning center.

(4) Securing funds for environmentally sustainable tourism development

As a means of sustaining the program, fund raising for the development of sustainable tourism by the related organizations and other local governments was proposed under this project. Currently, funds are collected to be used to promote environmentally sustainable tourism. However, the uses of the fund may vary according to the intention of the head of the local government or the indigenous peoples' council. In some instances, management of the fund causes rift among different interest groups. Thus, as it is currently, it is not a stable fund mechanism to support sustainable tourism development for some local governments. Specific examples are cited below:

- The fee of 100 pesos per person is collected in Kayangan Lake, a very popular tourist destination in Coron. It is residence to the indigenous people and a protected area. The indigenous people's council is managing the fund including collection and disposition. There is a disagreement in opinion between the local government and the indigenous people regarding the uses of the fund. Coron island currently accepts the limit of 1000 tourists per day.
- In El Nido, 200 pesos is collected from tourists for staying up to five days. Collection of this fee goes to the Environmental Tourism Development Fund. Approximately 4.3 million pesos was collected in 2010. The breakdown of the fund uses is: 40 percent for strengthening of the protected areas, 20 percent for tourism and waste treatment, 20 percent for operational management, and 10 percent for the local governments' budget.

(5) Impact of soil erosion prevention due to road development

Road improvement of the road section between El Nido and Taytay includes concrete pavement, gravel road, concrete bridges, drainage canals with concrete boxes, drainage canals with concrete pipes and structures, and slope protection. All these contributed to reduction of soil erosion and its inflow into the sea. However, reduction of soil erosion directly connected to reduction of seawater pollution is only found at the road section between the steep drop-off and the seashore, which is just a fraction of the whole road. Therefore, it can be said that the impact is limited to a small area.

3.3.2 Other impacts

According to the NGOs and the local government of El Nido, the construction works to prevent soil erosion between El Nido and Taytay improved road conditions by shortening the required time to go to El Nido to 1.5 hours. Before the project, it took four (4) hours in dry season and eight (8) hours in rainy season to travel from Puerto Princesa to El Nido. Consequently, the number of tourists in El

Nido increased dramatically. The annual number of tourists increased 2.6 times from 14,000 in 2004 to 37,000 in 2010, which is more than the growth in the whole Province of Palawan¹⁹. As a whole, the number of tourists in Palawan increased by only 53 percent for four years from 2007 to 2010.

According to the results of site visits and interview with PCSDS, the ECAN zoning has not been reflected in the land use planning and the standards and guidelines on environmentally sustainable tourism development have not been formally approved. In the meantime, development of hotels and restaurants to meet the demand of increased number of tourists has been welcomed in El Nido. The construction of hotels and restaurants in a small dense seaside area beyond the capacity of waste water treatment proliferated.

PCSDS is concerned about the loss of tourism resources due to water pollution, accounted to increase in e-coli beyond the standard fit for contact recreation. It is necessary to construct wastewater treatment facility to cover all the area, or to have each hotel establish wastewater treatment facility.

In this project no migration of local people was present since it was only road rehabilitation of existing roads. Moreover, soil erosion to ocean during the construction was pointed out by local residents. However, it was considered to be temporal and the long-term impact on environment was not recognized. According to the people who worked in the construction, in order to place the dug-out soil, land was provided free of charge by land owners by giving dug-out soil and land work to prepare the site.



El Nido bay where water pollution is pointed out



Cooperative by a Women group (El Nido)

3.3.3 Summary of effectiveness and impact

In the project, the system that enables sustainable use of natural resources has been built based on the provision of ECAN zoning and an alternative means of livelihood. Protection of natural resources

¹⁹ El Nido can be accessed by road and air. Only a small airplane with 19 persons on board is available by air. Therefore it is speculated that access by road is the main transportation of increased tourists. Road section between Roxas and Taytay was paved by other project, which is also considered to have contributed to the increase of tourists.

was also promoted through controlling erosion along the coastal road. The trainings on tourism and other livelihood implemented in this project brought higher income to the trainees of local residents and are connected to the reduced destructive economic activities like illegal fishing done by some residents. Therefore, it is judged that the effectiveness of the livelihood component is generally high.

Tourists increased rapidly in some municipalities like El Nido while regulation by ECAN zoning did not work effectively. Evidently, marine pollution was caused by increased tourist facilities, which caused degradation of marine resources²⁰ especially at beach fronts. The number of tourists in El Nido may have increased even if this project was not implemented, but considering that the bad road conditions before the project, road improvement by this project accelerated increase of tourists in El Nido, and indirectly, contributed to the degradation of the natural environment. To strengthen ECAN zoning and to comply with standards and guidelines, it is necessary to help develop capacity of the local governments and raise awareness of the tourism industry workers. Based on the above, the effectiveness/impact of the project is judged to be fair.

3.4 Efficiency (Rating: ③)

3.4.1 Outputs

(1) Support for formulation and implementation of ECAN zoning

The following outputs have been realized through equipment and consulting services procurement. Some are not a part of the plan during the project appraisal. Thus, it suggests that the realized outputs are more than expected.

1) Equipment procurement

Equipment and vehicles for the resource survey and mapping have been procured as planned.

- GIS software,
- Satellite image,
- Coastal marine survey equipment,
- Diving equipment to be used to study mangroves, coral reefs, seaweed, and fish,
- Equipment and vehicles for field survey, and
- Zoning and survey equipment (GPS, etc.)

2) Support for preparation and implementation of ECAN maps

Satellite images have been purchased in all the eleven local governments as planned. ECAN maps were prepared in eight local governments including five priority ones, although it was planned in eleven local governments²¹ (Table 2). ECAN maps of the remaining three local governments have been created after the project at the expense of the Philippine Government.

²⁰ Development is concentrated in a certain area in El Nido, where the bay is narrow and surrounded by mountains.

²¹ In Cuyo, Agutaya Magsaysay, only ECAN maps were prepared by the budget of PCSDS after the project (not in this project), due to difficulty and limited access being located in isolated islands.

The ECAN management guideline, the ECAN management plan to show the plan until 2015, the training plan to show training method for the implementation, among others, were prepared to support ECAN zoning implementation.

Although the administrative plan was planned ECAN management guidelines for five priority local governments and the management plan for one local government, these were actually prepared for eight and two local governments, respectively.

Table 2 Support for preparation and implementation of ECAN maps

	ECAN map	ECAN management guideline	ECAN management plan	Training plan
<u>El Nido</u>	○	○	○	
<u>Busuanga</u>	○	○	○	○
<u>Coron</u>	○	○		○
<u>Culion</u>	○	○		○
<u>Tavtav</u>	○	○		
<u>San Vicente</u>	○	○		
<u>Puerto Princesa</u>	○	○		
<u>Linapacan</u>	○	○		

Note: Priority local governments are underlined

Source : PCSDS

3) Research

The following studies were conducted, and the results were reported to the local governments to be used to set the ECAN core zones.

- Participatory study on coastal resource evaluation and coastal ocean evaluation
- Study on habitat of endangered species in terrestrial area
- Study on ecologically important ocean area and habitat of endangered species

4) Training

Under this project, three trainings on ECAN zoning management, alternative livelihood program promotion, and environmental education and raising awareness program were carried out.

Training for ECAN zoning management

After the needs evaluation and preparation three documents, such as; i) Guideline of the community consultation for ECAN map preparation, ii) ECAN monitoring manual and iii) ECAN committee re-formation facilitation manual were prepared. The trainings were conducted in eight local governments, although it was planned only in three (Busuanga, Coron, and Cullion). For the ECAN zoning management, and the ECAN management guidelines, training was also conducted for eight local governments although planned only for five. Training for ECAN

management plan was intended for one local government but was carried out for two local governments. Training plan was prepared and the trainings were carried out in three local governments although these were not included in the plan.

Promotion of alternative livelihood program

The assessment on the alternative livelihood was conducted in four local governments, although it was planned only in three local governments. Organic farming, aquaculture, food processing, and the production of cashew nuts, salt, pineapple, oil, dry mango, seaweeds were proposed.

Environmental education and awareness program

Environmental education manual for teachers were updated by PCSDS, and environmental education for teachers was carried out as planned in three municipalities, with 40 participants in Busuanga, 45 in Coron, 25 in Cullion. In addition, environmental education in elementary and junior high schools were conducted in the entire province.

5) Community Learning Center

As an exit strategy of the ECAN zoning component, Community Learning Centers were established in seven communities (in seven local governments) as a model for protected areas. Livelihood improvement of the local community, which is compatible with nature conservation activities, is promoted in those centers with the local governments and the NGOs. This is an additional output that was not included at the planning period.

(2) Soil erosion prevention works

As per plan, soil erosion prevention works were conducted in the 59 km target road section between El Nido - Taytay. The works included; concrete pavement (6.2 km) , gravel road (53.2 km), concrete bridges (10,301m), drainage canals with concrete boxes (38 units), drainage canals by reinforced concrete pipes (215 pipes), drainage structure, and slope protection etc. It was confirmed by the site visit that the slope protection, road repair, drainage installation, repair and installation of bridges, etc. were accomplished. Compared with the detailed design of the civil works, the quantity of required materials increased to some extent, and accordingly the length of road improvement was slightly shortened.

(3) Project administration and environmentally sustainable tourism promotion

Under this component, there are some outputs that were not in the plan during appraisal, which means that outputs realized were more than expected in the plan.

1) Development of standards and guidelines on environmentally sustainable tourism development

As planned, the draft ordinance was prepared as tourism standards and guidelines on tourism development. This includes construction design guidelines for buildings including sewage management, standardization of licenses, land use zoning, rules and regulations, organization control, etc.

2) Preparation of environmentally sustainable tourism promotion plan

'Development Structure Plan' and 'Piloting of Tourism Product Development' was prepared in Busuanga, Coron and El Nido taking the ECAN zoning and fund mechanism for environmentally sustainable tourism promotion into account. In addition, a feasibility study on sustainable tourism development was conducted in Culion and Taytay, and 'Indicative Structure Development Plan' was prepared in San Vicente.

3) Training to promote residents' participation in tourism

Training on tourism business was conducted for residents of Busuanga, Coron, and El Nido. Some 929 people participated in the training compared to the 160 people expected. The contents of the training modules included; basic sustainable tourism development, Palawan tourism, basic tour guiding, resource evaluation of coral reefs, snorkeling, first aid, reception and guiding techniques, home stay, etc. The contents were mostly vocational training or for livelihood purposes. Thus, the element of environment education was limited.

4) Project formulation study for similar projects

'Sustainable Tourism Management Plan for Central Philippines' was additionally prepared for similar project formation based on the experiences of this project. Again, this was not included in the plan during the appraisal. This was done on the bases of the Philippine government policy that the tourism development of the central Philippines should be the driving force of the region's economy activity.

3.4.2 Project Inputs

3.4.2.1 Project Cost

Actual project cost was 2,820 million Yen, 104% of the planned project cost. Loan disbursement amounted to 1,956 million Yen or 96 percent of the maximum loan amount. The total project cost was slightly higher than the planned project cost due to the corresponding increase in quantity of works particularly for soil erosion prevention works and additional study for the formulation of new projects for the environment conservation type tourism development.

3.4.2.2 Project Period

According to the Project Completion Report, the project period is 79 months from May 2001 (signing of the Loan Agreement) to December 2007, which is 119.6 percent of the planned period. The borrowing period was not extended. The project completion is delayed by 18 months compared to the plan mainly due to the following reasons/additional activities:

- Community learning centers were established as an exit strategy of the ECAN zoning component, the centers were used to strengthen protection of the core areas and to support livelihood improvement. These were additional activities.

- The start of the activities was delayed by six months due to the delay in procurement of consultant services. Procurement was done in Fiscal Year 2002 since the budget was not included in Fiscal Year 2001.
- Project formulation study for a similar project was additionally conducted for environmentally sustainable tourism development by using surplus budget.

Table 3 Project cost and loan disbursement (unit: million Yen)

	Planned amount	Actual amount *	Loan	Burden of Philippine Government
ECAN zoning	533	517	516	1
Soil erosion prevention	1,456	1,914	1,199	715
Project management & Environmentally sustainable tourism development	284	389	241	148
Physical contingency	129			
Administrative expenses and tax	267			
Total	2,712	2,820	1,956	864

*: Includes administrative expenses and taxes for each component

Exchange Rates: Weighted average of disbursement amount each year

Source: JICA internal documents

3.4.3 EIRR (Economic Internal Rate of Return)

At the appraisal time, the economic internal rate of return (EIRR) was estimated to be 15.2 percent and 19.1 percent for ECAN component and soil erosion prevention, respectively. Recalculation was not carried out in the ex-post evaluation due to the fact that sufficient data required to recalculate could not be obtained.

From the above, while cost and period for the project is slightly larger than planned, more-than-planned outputs were realized. Therefore, it is judged that the efficiency of the Project is high.

3.5 Sustainability (Rating: ②)

3.5.1 ECAN zoning

(1) Structural Aspects of Operation and Maintenance

PCSDS maintains and manages all the ECAN maps for the whole Palawan province. ECAN committee was re-organized and regulations on development and control on the basis of ECAN zoning were carried out in all the eight local governments, where the maps were prepared. Community learning centers were established in the seven protected areas in order to connect protection of core zones and livelihood improvement. Support service for livelihood improvement activities is carried out by local governments and NGOs with PCSDS' support.

Operation and maintenance system is almost established; however the internal system of human resources to carry out ECAN at some local governments such as El Nido, which does not utilize the ECAN zoning properly is not sufficient.

(2) Technical Aspects of Operation and Maintenance

Technology transfer to PCSDS for ECAN zoning was completed through this project. If satellite images can be purchased, the ECAN zoning can be updated by PCSDS. Each local government has acquired the fundamental knowledge and technology for ECAN zoning management through training under this project.

(3) Financial Aspects of Operation and Maintenance

ECAN zoning was produced on the basis of satellite images from 2001 to 2005, and it needs to be updated about once every ten years. PCSDS' annual budget of 53 million pesos is not sufficient to purchase equipment such as new satellite imagery maps and GIS and perform monitoring, control, and research activities effectively. Around 600-800 million pesos is needed to purchase satellite images of the entire Palawan. PCSDS requested for the budget, but was not approved by the Philippine government in 2011.

(4) Current Status of Operation and Maintenance

During the field works of the evaluator, the ECAN zoning is not fully functional in El Nido. Strengthening of capacity for operation and maintenance with the support of PCSDS is needed.

From the above, some problems have been observed in terms of structural, financial and operation and maintenance aspects of the effect of ECAN zoning.

3.5.2 Soil erosion prevention works

(1) Structural Aspects of Operation and Maintenance

Project Management Office (PMO) of DPWH that implemented the soil erosion prevention works was dissolved after the project completion. Road maintenance is conducted by the sub-regional office of DPWH located in Roxas. No problem was observed in this aspect of operation and maintenance.

(2) Technical Aspects of Operation and Maintenance

Advanced technology is not necessary for the maintenance and management of the road rehabilitated in this project and DPWH already has the technology to maintain them.

(3) Financial Aspects of Operation and Maintenance

According to DPWH, 15 million pesos per year is allocated for operation and maintenance of the El Nido-Taytay Road, which means that there is no financial problem. The roads are being

concreted gradually and are planned to be completed by 2014.

(4) Current Status of Operation and Maintenance

Maintenance works such as surface repair and removal of vegetation around the groove are regularly conducted, thereby maintaining the effectiveness of erosion prevention. As mentioned above, concreting of the target road section is programmed for completion by 2014.

From the above, no problems have been observed in terms of structural, financial and operation and maintenance aspects in the road rehabilitation work.

3.5.3 Environmentally sustainable tourism development

(1) Structural Aspects of Operation and Maintenance

The standards and guidelines for tourism development plan and the comprehensive tourism development plan of local governments were intended to be utilized by the Tourism Board of each local government. For various reasons, the utilization of the documents was not very effective. Among others, (1) the Tourism Boards do not have enough human resources to implement the plans, and (2) the tourism business owners resisted restrictions and regulations on development in some local governments. Moreover, the DOT does not have an office in Palawan to assist the local governments. The local project office of this project was dissolved after project completion. No structural reinforcement or training²² was extended to the local governments after the project.

(2) Technical Aspects of Operation and Maintenance

Respective local governments have obtained the basic technology to operate the standards and guidelines for tourism development plan and the comprehensive tourism development plan; however, they are not obligated to use them. More training is necessary on appropriate utilization of guidelines, wastewater treatment in hotels or land use zoning.

(3) Financial Aspects of Operation and Maintenance

Fund is collected for ECAN zoning and environmental management by the local government or related organizations based on the comprehensive tourism development plan. However, the possibility of the funds being diverted to other purposes is pointed out. Thus, monitoring is required.

(4) Current Status of Operation and Maintenance

Only few local governments utilize the standards and guidelines for tourism development

²² Coordination between PCSDS, which has branch offices in some local governments and respective local governments are going well, therefore, it may be good for DOT to conduct follow-up for the local governments with PCSDS.

plan and the comprehensive tourism development plan. The probable reasons may include; lack of consensus building among interest groups to unify differing views on development and environment, and insufficient awareness as among the staff of DOT and some local governments who are suppose to train the contents and promote the compliance of standards and guidelines.

As mentioned above, there are structural, technical and financial problems affecting the effectiveness of the current operation and maintenance of the environmentally sustainable tourism development.

3.5.4 Summary of sustainability

Management of the road maintenance on the section where erosion prevention work is being carried out properly. On the other hand, ECAN zoning is not properly implemented in some local governments. Strengthening the organizational structure in these local governments and updating the satellite image information are needed. Compliance with standards and guidelines that have been prepared in this project and support for local governments (particularly strengthening organizational structure) for approval of the plan are needed in the environmentally sustainable tourism development. Accordingly, the effect of the project on sustainability is judged to be fair.

4. Conclusions, Recommendations and Lessons Learned

4.1 Conclusions

This project was implemented for environment conservation and sustainable tourism development purposes, which are in line with the development needs of the Philippines and Palawan Islands. These purposes are also consistent with the country's development policy and Japan's aid policy. From this viewpoint, the relevance of this project is high. This project established a mechanism that enables sustainable utilization of natural resources. This includes; (1) establishing zoning regulation to implement the ECAN Zones created under the ECAN zoning²³ component of the project; (2) provision of alternative livelihoods to the local residents; and (3) prevention of ecosystem degradation in the terrestrial and coastal areas through control of soil erosion from the coastal roads. However, degradation of marine resources may have continued in some areas with inadequate implementation of zoning regulation. The road improvement of the project has contributed to the increase in the number of tourists, which may have indirectly affected the natural environment. Therefore, the effectiveness of this project can be judged to be fair. The project cost and implementation period slightly exceeded the plan; however, the output was also correspondingly more than the plan. Therefore, the efficiency of this project is high. The road section where soil erosion prevention works was carried out has been properly maintained and access among El Nido, Puerto

²³ ECAN(Environmentally Critical Areas Network) zoning: demarcation of borders of land use reflecting the local residents' intention based on the geographical conditions, land use, vegetation, ecosystem, to be used to clarify the critical area for environmental conservation and to specify the area as a core zone for priority conservation.

Princesa and other municipalities tremendously improved. However, some local governments do not fully utilize the ECAN zoning and it is based on the seven-years-old satellite data. There is need to strengthen the organizational structure for the implementation of ECAN Zoning in some local government units, and to update the system by providing new satellite image information for the ECAN zoning to be more effective. In addition, there is a need to support the local governments to comply with standards and guidelines for environmentally sustainable tourism development. Therefore, the project sustainability is judged to be fair. In light of the above, this project is evaluated to be satisfactory.

4.2 Recommendations

4.2.1 Recommendations to the Executing Agency

(1) Recommendations to DOT

Strengthening cooperation of ECAN zoning and tourism development at provincial level

The DOT and the PCSDS formed a taskforce to coordinate the smooth implementation of the special law on strategic environmental planning in Palawan Province; however both sides did not share the final output of this project. Technical cooperation was insufficient with respect to tourism development and ECAN zoning. For an effective environmentally sustainable tourism development, it is necessary to strengthen coordination of DOT and PCSDS through information exchange and sharing of output. In addition, the PCSD should open the membership to include the DOT, which is currently not a member of the PCSD.

Support to local governments to implement the standards and guidelines and comprehensive tourism promotion plan

Standards and guidelines for sustainable tourism development planning and comprehensive tourism promotion prepared in this project have not been fully utilized due to lack of awareness and inability of the local governments. In order to utilize the documents, it is recommended that the DOT to leverage those materials for providing technical assistance to local governments.

Introduction of environmental education activities in tourism development training

The training on tourism industry carried out for local residents in this project was a kind of vocational training, as it was meant for the local people to get jobs. It is recommended that trainings for the tourism industry workers include more environmental education elements. For this purpose, trainees should be educated on the fact that to conserve the natural resources and to operate tourism within the carrying capacity of the environment will lead to sustainable tourism in the area where natural resources are also the tourism resources. It is also important to conduct stakeholder analysis to guide the formulation of training contents and methods. Specifically, the difference in awareness among occupational groups (e.g. fishermen and others) should be addressed.

(2) Recommendations to PCSDS

Support on the implementation of ECAN zoning in local governments

It is important that PCSDS continues supporting the local governments, particularly in preparing the management guidelines and management plan for ECAN zoning, which has to be reflected in the land use plans of the eleven municipal local governments in Northern Palawan.

Update of ECAN zoning and spread to other local governments

Current ECAN zoning was created on the basis of satellite images from 2001 to 2005. Currently, the situation has already changed considerably and hence, updating is overdue. It is recommended that new satellite images be acquired to update the ECAN zoning to come up with useful development management and land use plan.

Expansion of monitoring function

The number of tourists increased by 50 percent in 2010, and rapid tourism development is continuing in northern part of Palawan province. If the local people should have continuous benefit from tourism, monitoring of the impact on natural environment, which is the base of the tourism, is necessary. However, sufficient data that can validate the changes in the environment could not be obtained in this ex-post evaluation. It is thus, recommended that PCSDS expand their monitoring function to include monitoring of water quality of river water and seawater to be reflected in sustainable tourism development.

4.2.2 Recommendations to JICA

ECAN zoning has been done through combination of a number of elements such as setting of the core area for biodiversity conservation through the consultation with residents, institutionalization of the conservation, revision of the Fisheries Act, management of sustainable funding mechanism, environmental conservation and the promotion of alternative livelihoods. In the implementation of such project, it is needed to include the strengthening the capacity of local government to regulate development in the project plan.

The ECAN zoning is an environmentally sustainable development strategy based on combination of ecological and socio-economical factors. Such strategies can be applied to other areas in Palawan and other regions in the Philippines. Since a certain amount of know-how in the Philippines has been accumulated in this project, JICA should consider applying this experience to other areas.

4.3 Lessons Learned

Even environmental conservation projects promoting sustainable development can weaken awareness of environmental conservation as communities can be enticed by economic incentives of development. The lack of such awareness can lead to environmental degradation. Therefore, such projects should be led by an organization whose main mandate is environment conservation. In this project, the substantial achievement in ECAN zoning was due to the PCSDS as executing agency. On the other

hand, the tourism development component carried out by DOT did not produce sufficient outcome for environment and in some local governments environmental degradation continued despite the project. The same argument explains the effects of road development by DPWH. From this point of view, the organization that manages environmental conservation could have been the more appropriate lead implementing agency.

Comparison of plan and actual achievement for main components

Item	Plan	Actual achievement
① • Output	<p>I. ECAN zoning</p> <p>a)ECAN mapping (11)</p> <p>b)Research -Participatory coast resource evaluation -Coastal sea evaluation -Study on habitation of ecologically important sea area and endangered species</p> <p>c)Training -ECAN map preparation, monitoring, ECAN committee re-formation(3) -ECAN management guideline (5) -ECAN management plan (1) -Training program in local government(0) -Alternative livelihood improvement (3) -Environment education and enlightening program (3)</p> <p>d)Community learning center (0)</p> <p>II. Soil erosion prevention works 61km</p> <p>III. Environmentally sustainable tourism development</p> <p>a) Preparation of criteria and guidelines for sustainable tourism development planning</p> <p>b) Environmentally sustainable tourism development (3)</p> <p>c) Training to promote residents' participation in tourism (160 persons)</p> <p>d) Project formulation study for similar projects (none)</p>	<p>I. ECAN zoning</p> <p>a)ECAN mapping (8)</p> <p>b)Research Done as planned</p> <p>c)Training -ECAN map preparation, monitoring, ECAN committee re-formation(8) -ECAN management guideline (8) -ECAN management plan (2) -Training program in local government(3) -Alternative livelihood improvement (4) -Environment education and enlightening program (3)</p> <p>d)Community learning center (7)</p> <p>II. Soil erosion prevention works 59km</p> <p>III. Environmentally sustainable tourism development</p> <p>a) Preparation of criteria and guidelines for sustainable tourism development planning Done as planned</p> <p>b) Environmentally sustainable tourism development (3)</p> <p>c) Training to promote residents' participation in tourism (929 persons)</p> <p>d) Project formulation study for similar projects Sustainable Tourism Management Plan for Central Philippines was completed</p>
② Duration	May 2001~April 2006 (60 months)	May 2001~December 2007 (79 months)
③ Project cost		
Foreign currency	1,282 million Yen	1,956 million Yen
Local currency	1,431 million Yen	864 million Yen
Total	2,712 million Yen	2,820 million Yen
(Yen loan)	(2,034 million Yen)	1,956 million Yen
Exchange rate	1Peso = 2.8 Yen(June 2000)	1Peso = 1.9 Yen(weighted average in June 2002 - June2007)

Remark: A figure in a bracket means the number of local government(s) that falls under the category.