

Republic of the Philippines

Ex-Post Evaluation of Japanese ODA Loan Project

Metro Cebu Development Project (III)

(Cebu South Reclamation and Cebu South Coastal Road)

External Evaluator: Yasuhiro Kawabata, Sanshu Engineering Consultant

0. Summary

The objectives of the project were to attract enterprises and facilitate smooth traffic flow in the urban area by reclaiming and developing new land for an industrial zone, and constructing a coastal road, thereby contributing to promotion of the economic development in Metro Cebu. The project was not highly relevant with the Philippines' development plans and needs, and Japan's ODA policy. Therefore, its relevance is fair. Regarding construction of a coastal road, the project has contributed to smoothing the traffic flow in the urban area, since part of traffic diverts to the coastal road, which was constructed under the project. However, the original idea to attract foreign capital enterprises through establishing an industrial park in the reclaimed area was not materialized after the Asian Financial Crisis. Thus, it was changed to invite local enterprises and industry, and the development work including construction of building of University of the Philippines, a shopping mall, apartments, and light industry factories has been undertaken. However, as of today, only part of the area has been developed, and thus, achievement of project objectives made are at a extremely limited level compared with the original plans. Therefore, its effectiveness and impact is considered low. Although the project cost was within the plan, the project period was significantly longer than planned. Therefore, efficiency of the project is considered fair. Effects achieved by the project were made under the coastal road project. No major problems have been observed in terms of institutional management system, and technical and financial aspects for operation and maintenance, therefore sustainability of the project effect by the coastal road project is high.

In light of above, the project is evaluated to be unsatisfactory.

1. Project Description



Project Location



Reclaimed land

Note: Buildings in the center are apartments.

1.1 Background

Metro Cebu¹ is the center of economy, trade and education in the central and southern Philippines and the economy has been growing in recent years. Geographically, it has flat plains expanding to the north and south along the shoreline with the rolling terrain behind it, and flat plains are relatively narrow. The northern districts including Mandaue, Cebu, and Lapu Lapu, which are close to an airport and ports, have been developed and spatially congested, while development in the southern districts including Talisay, which have poor accessibility has been behind. Thus, disparity between the northern and southern districts has been expanding.

The economy of Metro Cebu has been developing nucleating the 330 ha Mactan Export Processing Zone. However, since there was a limit to meet the demand from foreign investors, a new industrial park was needed in order to further the regional economic development. Creating a new development zone by reclaiming the Cebu south coast was considered to be an appropriate plan taking into the geographical condition such as accessibility to an airport and sea ports. It was also expected that it would help alleviate the disparity between the northern and southern districts, which has been a pending issue for a while. In addition, construction of an alternative road was considered essential, since more traffic congestion was foreseen without proper access to the developed area.

1.2 Project Outline

The objectives of the project were to attract enterprises and facilitate smooth traffic flow in the urban area by reclaiming and developing new land for an industrial zone, and constructing a coastal road, thereby contributing to promotion of the economic development in Metro Cebu.

¹ Metro Cebu consists of 7 cities and 6 towns including cities of Cebu, Mandaue, Talisay and Lapu Lapu.

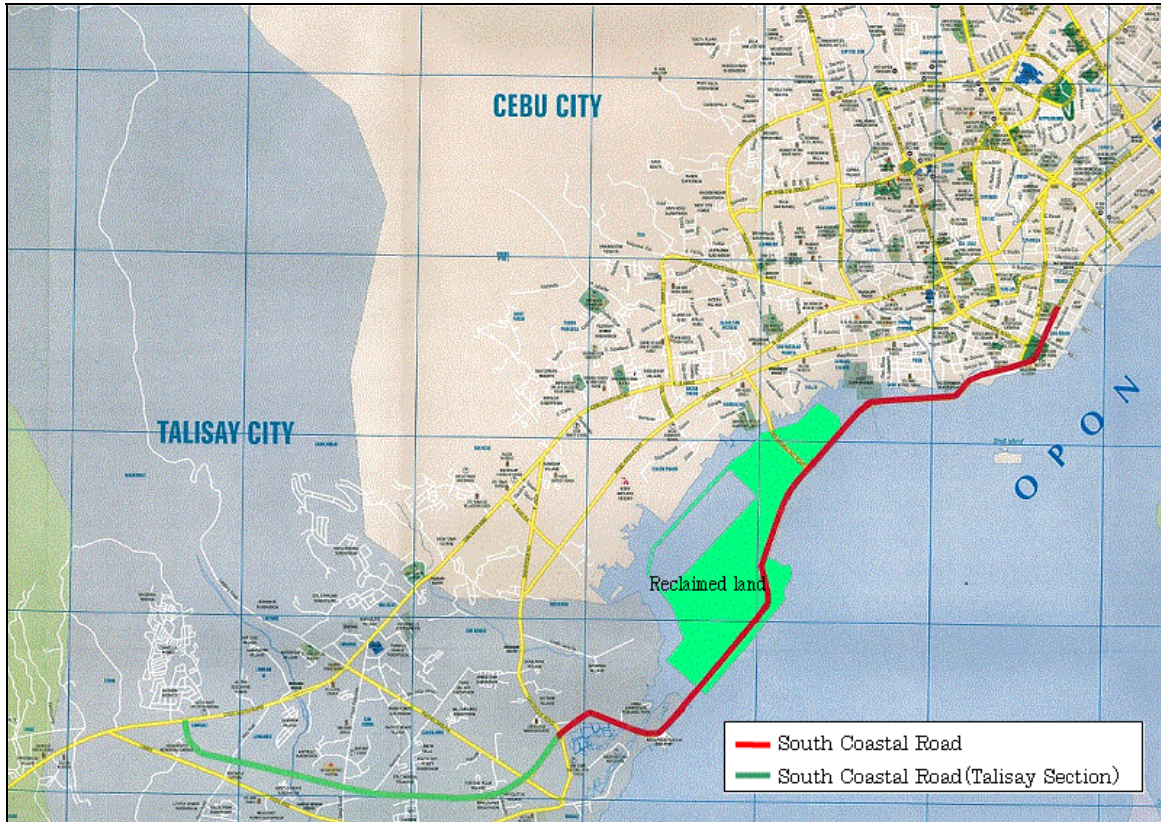


Figure 1: Location of the Project Site

Loan Approved Amount/ Disbursed Amount	Reclamation : 12,315 million yen /12,292 million yen Coastal Road : 18,391 million yen /18,377 million yen
Exchange of Notes Date/ Loan Agreement Signing Date	Reclamation : July 1995 / August 1995 Coastal Road : July 1995 / August 1995
Terms and Conditions	(Both Projects) Civil Work: Interest Rate:2.70% Repayment Period: 30 years (Grace Period: 10 years) Conditions for Procurement: General untied Consulting Services: Interest Rate: 2.30% Repayment Period: 30 years (Grace Period: 10 years) Conditions for Procurement: General untied
Borrower/ Executing Agency(ies)	Reclamation : Land Bank of the Philippines Coastal Road : The Government of the Republic of the Philippines Reclamation : Cebu City Government Coastal Road : Department of Public Works and Highways (both projects were managed by Metro Cebu Development Office)
Final Disbursement Date	Reclamation : June 2004 Coastal Road : June 2006 (originally December 2002 / June 2003, respectively)

Main Contractor	Reclamation : Toyo Construction Coastal Road : Toa Corporation, Taisei Corporation ▪ Marubeni Corporation (JV), Kajima Corporation
Main Consultant	(Both projects) Nippon Koei ▪ OPMAC ▪ Katahira and Engineers Inc. ▪ Toko Engineering Consultants Ltd. ▪ CEDCO (Philippine) (JV)
Feasibility Studies, etc.	Feasibility Study by the World Bank (Central Visayas Urban Planning (December 1983), Feasibility Study for Metro Cebu Development Plan (III) by local funds (November 1989)
Related Projects	Japanese ODA Loan: Metro Cebu Development Project (I) (L/A signed in May 1989), Metro Cebu Development Project (II) (L/A signed in February 1990), Engineering Services for Metro Cebu Development Project (III) (L/A signed in June 1991), Second Mactan Bridge Construction Project (L/A signed in August 1993), Second Mactan Bridge (II) and Metro Cebu Road Development Project (L/A signed in March 1997) Grant: Supply of Materials and Construction of Bridges along Rural Roads (5 times since 1989)

2. Outline of the Evaluation Study

2.1 External Evaluator

Yasuhiro Kawabata, Sanshu Engineering Consultant

2.2 Duration of Evaluation Study

Duration of the Study: October 2012 - September 2013

Duration of the Field Study: January 24 - February 13, 2013, April 14 - 27, 2013

3. Results of the Evaluation (Overall Rating: D²)

3.1 Relevance (Rating: ②³)

3.1.1 Relevance with the Development Plan of Philippine

Under the Mid-Term Development Plan 1993-1998, the following strategies were established:
1) attraction of foreign capital and investment through development of infrastructure and investment related system; 2) alleviation of poverty; 3) enhancement of people's quality of life; 4) promotion of decentralization based on the new Local Autonomy Act (1990); 5) strengthening of rural development by establishing President Office-run regional offices in Visayas, focusing on Cebu island and in Mindanao; and 6) reform of financial system.

² A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

³ ③: High, ② Fair, ① Low

Objectives of the project matched with two strategies including 1) and 5) among above mentioned 6 strategies.

Under the current Philippine Mid-Term Development Plan 2011-2016, in order to achieve the inclusive growth, the government would address the following agendas: enhancement of governance, attraction of investment, infrastructure development by the PPP scheme, reforms of social security, strengthening of tax collection, and peace building/stable national security. With respect to the transport sector, improvement of quality of existing transport infrastructure, and development of transport networks and logistics are considered to be issues and challenges, and the following strategies are employed: provision of access to major tourism destinations and strategic production areas, identification and development of strategic logistics corridors, improvement of the road RORO⁴ transport system, exploration of ASEAN connectivity through RORO and others.

3.1.2 Relevance with the Development Needs of Philippine

Since numerous foreign enterprises moved into the existing Mactan Export Processing Zones, the zones became too cramped and it became difficult to respond to the increasing demand for investment by foreign investors. Thus, it was noted that there was a need to develop a new industrial park in order to further the regional economic development. The Cebu south coastal district was considered to be an ideal location taking into account the geographical condition such as the accessibility to an airport and sea ports. However, it was considered that it was needed to construct a new alternative road in order to avoid more traffic congestion in Cebu city without improvement of accessibility in the district if an industrial park should be established by reclaiming.

Even now, the well balanced development and growth between the northern and southern districts is essential in order to promote the development of Cebu city. Since the project aims at developing the less developed southern district, it matches with the development needs for Cebu city. However, since the original development objective by reclaiming was to develop an industrial park and promote attracting foreign enterprises, the current land use plan (industries to be invited were changed to commercial sector, light industry, and other service business) is substantially different from the original plan. In the reclaimed land, buildings of University of the Philippines, residential complexes and light industry factories have been partly completed and a shopping mall is being constructed. The South Coastal Road under the project has contributed to alleviate the traffic congestion in the central Cebu city by diverting partly the traffic on the congested Cebu South Road to South Coastal Road. The project matches with the

⁴ Roll-on/roll-off ships are vessels designed to carry wheeled cargo such as automobiles, and large trucks, that are driven on and off the ship on their own wheels.

development needs in Cebu city.

3.1.3 Relevance with Japan's ODA Policy

Under the Country Assistance Policy for the Philippines (established in December 1993), the assistance was to be given to sustainable economic development, poverty alleviation, environmental protection and improvement, rural development, reconstruction of damages caused by disaster/disaster prevention. Among these agendas, regarding the economic infrastructure, the following were considered to be priority assistance agendas: i) fundamental economic infrastructure for industry development (roads, rivers, ports); ii) reconstruction of economic infrastructure in the disaster-stricken areas; iii) development of disaster prevention system.

Among two projects, the Coastal Road Project matches with the Philippine development policies and the high priority agendas in the Japan's ODA Policy, and the development need is high. Regarding the Reclamation Project, since attraction of enterprises consisting of export processing producers was not materialized, the implementation of the project did not necessarily match with the Philippine development policies and needs, and the high priority agendas in the Japan's ODA Policy. The overall relevance of two projects is considered fair.

3.2 Effectiveness⁵ (Rating: ①)

3.2.1 Quantitative Effects (Operation and Effect Indicators)

This ex-post evaluation is related to two projects including both Metro Cebu Development Project (III) Reclamation and Coastal Road. Although an export processing zone was to be originally established in the completed reclaimed land, attraction of foreign capital enterprises was not achieved because of the Asian Financial Crisis in 1997. Thus, Cebu City changed the targeted industries to commercial business, light industry, service business and others, and submitted the concept plan to JICA in mid 2009. As of today, residential complexes and light industry factories have been partly completed and a shopping mall is being constructed. The remaining 1/3 of the land area has been for sale in lots. Thus, it is difficult to examine the development impact on the reclamation project at this moment. The quantitative impacts by Coastal Road Project are examined herein after.

(1) Average Daily Traffic (South Coastal Road)

The average daily traffic after completion of the project is shown in Table 1.

⁵ Sub-rating for Effectiveness is to be put with consideration of Impact

Table 1: Average Daily Traffic (South Coastal Road)

unit: vehicles/day

Annual Average Daily Traffic	2010	2011
	20,300 (29,000)	21,300 (30,900)

Source: DPWH

Note 1: Counting station: between Rafael Rabaya -Road San Roque Road along Talisay section

Note 2: Numbers in () are traffic volume including motorcycles

Note 3: Data on the projected traffic volume not available

Considering that Talisay section and the connecting road, Sergio Osmeña Blvd Road at the Cebu city are both at-grade 4-lane roads, traffic congestion likely occurs during peak hours in some sections. The traffic volume of the parallel Cebu South Road for the past three years are as shown below.

Table 2: Average Daily Traffic (Cebu South Road)

unit: vehicles/day

Annual Average Daily Traffic	2010	2011	2012
	38,552	38,340	40,412

Source: DPWH

Note 1: Counting station: around Lawaan I

Note 2: Traffic volume included motorcycles

Considering that Cebu South Road is also an at-grade 4-lane road, traffic congestion likely occurs during peak hours in some sections.

(2) Travel Time

The travel time required to pass the old road and South Coastal Road (the project road) between Lawaan I (intersection with the Talisay section) in the south along Cebu South Road and Cerreta Cemetery in Cebu city was measured. The result indicated that the travel time by South Coastal Road (the project road) is shortened by 14 minutes.

3.2.2 Qualitative Effects

Reclamation Project:

The original plan to attract foreign capital was not materialized, and the plan was changed to attracting local enterprises and industry. The development work in the reclaimed land commenced in 2010. However, at this moment only part of development plan (apartments and light industry factories) has been completed, and the development effects have not been achieved.

Coastal Road Project:

Upon completion of South Coastal Road, the route from the southern Cebu districts (Naga) to Mactan Island, where an Mactan International Airport, Mactan Economic Special Zones I and II, and resorts in the eastern shoreline are located, makes a detour around central Cebu city, and it reaches and crosses Mactan bridges. The travel time was shortened and it also contributes to alleviation of traffic congestion in the central Cebu city.

Since the reclaimed land has been being developed, it was considered difficult to examine the development effects at this moment. Thus, beneficial surveys to examine the effects were undertaken on the Coastal Road project (Talisay section)⁶. Beneficial survey results are shown below.

A) Was traffic congestion in the project area improved after the project? (%)

Yes	No
79	21

Among respondents, who answered "Yes", 48% answered that the improvement was substantial, and 45% answered that it was fairly improved. Only 7% responded that it was a little improved.

B) Was travel time shortened after the project? (%)

Yes	No
71	29

The degree of shortened travel time differs depending on the travel purpose and destinations. However, generally about 70% answered that the travel time was shortened.

C) Was accessibility to each facility improved after the project? (%)

Facility	%
Markets, shops, trade centers	61
Social services	45
Hospitals	21
Government/public agencies	10
Cebu Port	94
Mactan Airport	58

⁶ Surveys undertaken: January 2013, Number of samples: 210 (residents along the project road and road users, Male 40%, Female 60%) , Survey method: interviews using a questionnaire.

As expected at the planning stage, many people admit that the accessibility to Cebu ports and Mactan International airports was improved. In addition, quite a number of respondents recognize the improvement of accessibility to markets, shops, and trade centers.

D) Was highway safety on national roads in the project area improved after the project? (%)

Very	Fairly	Improved	Not so much	Not improved
3	12	62	14	9

About 80% of respondents admit that the highway safety was also improved.

According to the results of beneficiary surveys, about 80% of respondents admit that the traffic congestion in the project area was improved after the project and that about 70% answered that the travel time was shortened. People conceive that the accessibility to each facility was improved, particularly to Cebu Port (94%) and Mactan Airport (58%) as expected at the planning stage.

3.3 Impact

3.3.1 Intended Impacts

The results of beneficiary surveys on impacts are shown below.

A) Do you think that the regional economic activities were promoted after the project? (%)

Yes	No
83	17

B) Do you think that the business chances were increased after the project? (%)

Yes	No
83	17

About 80% respondents gave the positive answers to promotion of regional economic activities and increase of business chances. The impact due to provision of an arterial road from the Talisay district to the coastal district appears.

C) Was the transported amount of commercial products to markets increased after the project? (%)

Increased	Decreased
80	20

About 56% conceive that the most increased commercial product is processed food, followed by agricultural products (44%), manufactured goods (41%) and electronics products (30%) among the increased products.

D) Was the household income increased after the project? (%)

Yes	No
45	55

Regarding the direct contribution of the project to the increase of household income, only 45% respondents conceive its direct benefits (increase of household income).

3.3.2 Other Impacts

Under the project, resettlement of directly affected 520 households and informal settlers of 400 households took place due to construction of an access road to the reclaimed land (Mambaling Road) and the coastal road. According to the executing agency, about 80% among resettled households moved to the designated land by the executing agency, and the rest (about 20%) resettled to other locations. Compensation was paid by Department of Welfare of the Urban Poor of the Cebu City Government.

On the other hand, the implementation of the project generated a series of complaints on impacts on the livelihood due to deterioration of the living environment by the project, and also demonstrations by the fisherfolks who live on the opposite shore facing the SRP and their allied NGOs and Community Based Organizations (CBO).

During preparation stage of the project, an Environmental Impact Assessment (EIA) was prepared and approved by the Philippines Government. However, regarding the impacts to the residents who live on the opposite shore facing the reclaimed land, issues are briefly discussed in the report stating that the marine resources along the shore has been deteriorated and that major impacts are not foreseen. There is no section in which impacts on the socioeconomic aspects of the residents on the opposite shore are well analyzed, and they are not listed as a risk item. Hearings with residents in the communities revealed that the disclosure of relevant project information was not made, nor public hearing was systematically made through posting in conspicuous public places and publication in newspaper. Lack of view points on impacts to residents who live on the opposite side is considered to be one of factors for less attention to socioeconomic aspects. .

Cognizant of the above mentioned complaints and based on the discussion made between

JICA and the Philippine Government, in 2004 JICA conducted a study to clarify the alleged negative impacts of the project. Based on the study results, the study team recognized that the project had impacts on about 1,400 households including resettled households in 13 barangays in Cebu City facing the reclaimed land, and recommended a comprehensive social development plan covering livelihood, education, environment and others to urban poor communities in 13 barangays. Responding to the study conclusion, Cebu City has conducted the social compensation program to the identified communities since 2005. However, since it was considered difficult to identify the residents who were affected solely by the project, and Cebu City considered that it was more appropriate to provide assistance to the district as a whole, rather than solely to the identified residents. Cebu City identified 3,700 households, who lived in within 100 meters from the shorelines as the program beneficiaries. Cebu City originally planned a five-year Program ending in 2010. However, it decided to continue the Program even after 2011 and it has been still under implementation. The average budget allocated to the Program for the past 7 years was 3.5 million peso. (Although in addition to the budget for the Program, there is also general budget allocated to the programs to be implemented by relevant divisions of the City Government. However, the exact amount allocated to each program could not be clarified.) The Program, which still has been continued, is not funded solely by the City Government, but also by other sources of support including NGO, CBO and private sector as well. The Program includes: 1) assistance for livelihood projects (massage, rag sewing, meat processing and others); 2) education, health services and environmental programs including mangrove planting; and 3) sharing good practice, and showcasing of livelihood products.

The survey of 130 sample household-beneficiaries conducted by JICA, inviting a professor of Ateneo de Manila University in 2012 revealed that the quality/status of education and health has been improved. Residents were highly satisfied with efforts made on education and health services. On the other hand, regarding the assistance for livelihood projects, the share of residents who admitted they were either highly benefited (15%) or only slightly benefited (38%) was 53% and the remaining 47% said they did not enjoy the benefits. Reasons for not-benefited are that they could not yield a profit or that activities could not be maintained. Backgrounds for these negative outcome are: lack of funds; they used the funds for daily life activities; the interest rate for loans is high; and they could not collect sales proceeds. Although it is considered that the livelihood assistance to the urban poor is not easy and the outcome cannot be easily achieved, it is expected that the Cebu City Government would continue to improve the assistance program including livelihood assistance taking into account the current situation and problems.

The task team visited the project sites to inspect some of on-going social compensation programs. Among the livelihood assistance programs, under the crab raising business, about 1,000 baby crabs were initially put in the ponds and some grown up crabs were sent to the fish markets. However, since most of crabs later died, currently crabs were replaced by bangus fish

(popular fish in the Philippines) and they have been cultured. As one of successful programs, the massage therapy/finger pressure service at Wellness Center is listed. The Center has trained about 40 therapists, and 5 of them are now regularly working with the Center. About 20 therapists out of 40 have continued pursuing the livelihood as a physical therapist in other districts. Earnings at the Center collected from customers who have therapy services are 10,000 - 15,000 pesos per month, and they are used to operational expenses and labor costs. Regarding the sustainability of each program, the presence of a leader who has business operational/management skills is considered a key factor, together with enhancement and development of technical skills of individual employee, who participates in each program. As a health service assistance, health nutrition posts built in some of barangays could be good examples. Health nurses and nurses are regularly dispatched to the posts, and simple treatment/consultation is provided to the low income residents who cannot afford to go to a health center. According to a counselor of some barangay, expanding health posts and provision of sanitation facilities (e.g. waterless toilets) are still considered crucial.

At this moment, only part of the development plans (apartments and light industry factories) has been completed, and the development effects have not been achieved. The coastal road contributes to alleviation of traffic congestion in the central district of Cebu city. However, one of original objectives was to secure the accessibility under the plan in which the export processing zone was to be constructed in the reclaimed land. Judging the effectiveness made by both reclamation and coastal projects comprehensively, the project has achieved its objectives at a limited level, and therefore its effectiveness and impact is low.

3.4 Efficiency (Rating: ②)

3.4.1 Project Outputs

The original and actual output of the project is shown in Table 3.

Table 3: Output (original and actual)

	Major Scope of Work at appraisal	Major Scope of Work at completion
Reclamation		
Civil work:	1) Reclamation work for about 330 ha including revetment work of about 10.3km with a reclamation volume of 13.6 million m ³	1) Reclaimed area: about 296 ha (among which the area for a coastal road is about 24 ha. Since a 61 ha pond is included in the area, the actual reclaimed area is about 235 ha. The length of revetment work is about 9.2 km. The reclaimed soil volume was about 9 million m ³) 2) Additional work (a management office in the reclaimed area, roads/bridges, a sewage treatment plant, a desalination plant, major electric facilities and others)

Consulting services	1) Review of detail designs 2) Assistance in bidding activities 3) Construction supervision 4) Market research, management study and investment promotion study of the Cebu Export Processing Zone Foreign :201 M/M Local : 834 M/M	As planned Foreign :206 M/M Local : 839M/M
Coastal Road		
Civil work:	Construction of Cebu Coastal Road (totaling 7.75km) 1) Causeway Section (Segment 2): construction of a 6-lane 4.02 km highway with two bridges with a total length of 174m and a revetment work of 7.2km 2) Central Business District Section (Segment 3): construction of a 4-lane 3.73 km highway including the viaduct section with a total length of 2.8km 3) Development of resettlement sites	Construction of Cebu Coastal Road (totaling 7.75km) 1) Causeway Section (Segment 2): construction of a 6-lane 4.02km highway and a 4-lane 0.84 km highway with a total length of 4.86 km 2) Central Business District Section (Segment 3): construction of a 4-lane 2.89 km highway including the viaduct section with a total length of 1.62km Segment 3 was divided into 3A (viaduct section), 3B1 (approach section), and 3B2 (tunnel section), procurement of works was made by 3 packages. However, 3B2 (tunnel section) was completed with the own funds after the loan was expired. (commenced the work in June 2006 and completed in October 2010. 3) Development of resettlement sites
Consulting services	1) Review of detail designs 2) Assistance in bidding activities 3) Construction supervision Consulting services on the above services Foreign :292 M/M Local :1,260 M/M	1) Review of detail designs 2) Assistance in bidding activities 3) Construction supervision 4) Feasibility Study and the Detailed Design of structures for Segment 3B2. Foreign :470 M/M Local : 2,294.5 M/M

Source: JICA appraisal documents

Note: During the appraisal for the Coastal Road, the Talisay section (5.3 km) of the Coastal Road was included in the project. Since it was later judged that it was essential to give more time to handle the resettlement of squatters (illegal occupants), this component was dropped from the project. The component was added to the Second Mactan Bridge Project (II) as Metro Cebu Development Project. The Second Mactan Bridge Project (II) and the part of Metro Cebu Development Project (Talisay section) were combined as a project, and it was approved as Second Mandau - Mactan Bridge (Phase II) and Metro Cebu Road Project. The loan agreement was signed in March 1997.

Major changes made on the Scope of Work are as follows:

Reclamation Project:

1. Because of change of policy of the Cebu City Government, the original plan for

reclamation was changed to the one with a pond within the reclaimed land, resulting in reduction of reclaimed area by about 60 ha.

2. Originally, the filling materials were to be transported from off Maasin of southern Leyte. However, since a clearance was not secured from environmental viewpoints, materials were sourced out from quarries in Cebu Island.
3. Since savings were expected to accrue in the loan amount because of variation of foreign exchange rates, additional work was implemented. (the exchange rate at appraisal in January 1995 was 1 Peso = 4.13 yen. The rate at bidding for additional work in June 2002 was 1 Peso = 2.39 yen)

Coastal Road Project:

The project road length at the planning and completion stages is both 7.75 km. However, the number of contract packages for bidding was changed from original 2 to 4 packages. Particularly, the central business district section (Segment 3) was divided into 3A (viaduct section), 3B1 (approach section) and 3B2 (tunnel section) and bidding was made. Since 3B2 section was changed from the original flyover structure to a tunnel, a feasibility study and detailed designs were needed to be done, and thus the implementation period was substantially extended. At commencement of civil work (in 2006), about 1.7 billion yen (about 65% of the civil work cost) was disbursed. The project was completed with own funds spent for the remaining project cost. (The project commenced in June 2006 and was completed in October 2010). Since the 3B2 section was changed to a tunnel, undertaking of a feasibility study and detailed designs was added to the scope of work for consultants.

3.4.2 Project Inputs

3.4.2.1 Project Cost

The originally estimated project cost of Metro Cebu Development Project (III) - Reclamation at appraisal was 16,420 million yen, of which the total Japanese ODA loan was 12,315 million yen. The actual project cost at completion was 12,860 million yen, which is equivalent to 78% of the planned cost, and the Japanese ODA loan disbursed was 12,292 million yen.

The originally estimated project cost of Metro Cebu Development Project (III) - Coastal Road at appraisal was 24,521 million yen, of which the total Japanese ODA loan was 18,391 million yen. The actual project cost at completion was 24,795 million yen, which is equivalent to 101% of the planned cost, and the Japanese ODA loan disbursed was 18,377 million yen.

The originally estimated total project cost of both projects at appraisal was 40,941 million yen, of which the total Japanese ODA loan was 30,706 million yen. The actual project cost at completion was 37,655 million yen, which is equivalent to 92% of the planned cost, and the

Japanese ODA loan disbursed was 30,669 million yen.

However, if the project cost was compared in peso, since the Japanese yen appreciated double compared with the exchange rate used at appraisal (1 peso = 4.13 yen), the actual project cost is likely much higher than the planned cost⁷.

Table 4: Comparison of Project Cost (Planned and Actual)

unit: million yen

Item	Planned					Actual				
	ODA loan	Local		Local		ODA loan	Local		Total	
	(foreign)	Own fund	ODA loan	Total	ODA loan	(foreign)	Own fund	ODA loan	Total	ODA loan
Reclamation										
1) Civil work	7,727			14,117	10,676				10,448	10,027
2) Consulting services	883			892	866				1,467	1,320
3) Physical contingency	773			1,412	30					
4) Interest during construction					743				945	945
Total	9,333			16,420	12,315				12,860	12,292
Coastal Road										
1) Civil work	9,997	2,904	5,885	18,286	15,382	12,481	5,303	3,571	21,355	16,052
2) Consulting Services	1,269	37	58	1,364	1,327	1,836	407	489	2,732	2,325
3) Development for resettlement areas	254	66	128	448	382					
4) Contingency	1,000	529	300	1,829	1,300					
5) Land acquisition/ Compensation	0	2,594	0	2,594	0		708		708	
Total	12,520 (3,031)	6,130 (1,484)	5,871 (1,422)	24,521 (5,937)	18,391 (4,453)	14,317	6,418	4,060	24,795	18,377
Total										
1) Civil work	17,724			29,329					31,803	26,079
2) Consulting services	2,152			2,185					4,199	3,645
3) Development of resettlement areas	254			448						
4) Contingency	1,773			3,241						
5) Land acquisition/ Compensation	0			2,594					708	
6) Interest during construction									945	945
Total	21,853			40,941	30,706				37,655	30,669

Source: JICA appraisal documents, PCR, Final Reports prepared by supervision consultants

Exchange rates:

Reclamation: At appraisal (January 1995), 1 US\$ = 100 yen, 1 Peso = 4.13 yen; At contract signing (1997.10 - 2000.10), 1 Peso=4.64 yen by Oanda; Average during the project implementation (1997.4 - 2000.10), 1 Peso=2.24 yen by Oanda; Average during civil work implementation (2003.2 - 2004.5), 1 Peso=1.85 yen by Oanda.

Coastal Road: At appraisal (January 1995), 1 US\$ = 100 yen, 1 Peso = 4.13 yen

Note 1: Numbers in () are in million peso.

Note 2: The loan handling charge of 18 million yen is included in the cost for civil work (Coastal Road).

⁷ Comparison between the planned and actual project costs should be made in Japanese yen. However, time has quite passed since the appraisal time (almost 18 years). During this period, the exchange rates have substantially floated. In addition, the exchange rates used for payment in Japanese yen under the contract made in peso, and the payment mode/conditions are not clear. Thus, project costs were converted into Japanese yen by using simple average exchange rates during the contract period.



Reclaimed land (Sea Channel)



Coastal Road Viaduct Section

3.4.2.2 Project Period

Reclamation Project:

The original project period planned at appraisal was from August 1995 (signing of the Loan Agreement) to June 2000 (civil work completion) with a total period of 59 months. The actual project period was from August 1995 (signing of the Loan Agreement) to December 2004 (civil work completion) with a total period of 113 months, or equivalent to 192% of the plan. The main reason for delay is: although the originally planned reclamation work was completed as planned, the additional work was implemented during March 2003 - December 2004, and thus, the overall work was completed with delay by 54 months (equivalent to 192% of the plan).

Coastal Road Project:

The original project period planned at appraisal was from August 1995 (signing of the Loan Agreement) to December 2000 (civil work completion) with a total period of 65 months. The actual project period was from August 1995 to October 2010 (completion of the tunnel section at the Cebu city side) with a total period of 183 months, or equivalent to 282% of the plan. The main reasons for delay are as shown below, and the implementation period was substantially delayed with combined reasons mentioned below.

1. Delay of effectiveness of the Loan Agreement (L/A was signed on August 30, 1995, and became effective on June 28, 1996)
2. The reclamation work was originally planned to be commenced in July 1997, ahead of road work, and to be completed in June 2000. The implementation plan, in which the road work (particularly causeway section) was to be commenced in July 1997 and completed in December 2000, is considered to be not pragmatic.

3. Delay of selection of contractors by half a year.
4. The ambush incident against engineers of a Japanese contractor occurred in February 2001, and construction was practically suspended until January 2002.
5. Due to problems on land acquisition occurred in the viaduct section in the central business district section (3A), the alignment needed to be changed and it took a long time to prepare detailed designs.
6. Similarly, at the connecting section from the coastal road to the existing city road in Cebu city (3B2), designs needed to be revised (from a viaduct structure in the city to a tunnel), and it took a long time to undertake a feasibility study and prepare new detailed designs.

3.4.3 Results of Calculations of Internal Rates of Return (IRR) (reference only)

(1) Financial Internal Rate of Return (FIRR)

FIRR for the reclamation project, calculated at the appraisal time was 14.8%. Since the objective of the reclaimed land was changed upon completion of reclamation work, recalculation of FIRR is not applicable.

(2) Economic Internal Rate of Return (EIRR)

EIRR for the coastal road project, calculated at the appraisal time was 19.1%. Since the scope of work was partially revised and the implementation period was substantially extended, recalculation of EIRR is difficult.

Regarding the reclamation project, although the project cost was within the plan, the project period significantly exceeded the plan. Therefore, efficiency of the project is considered fair. With respect to the coastal road project, although the project cost was almost as planned, the project period significantly exceeded the plan. Therefore, efficiency of the project is considered fair. The overall rating for efficiency combining two projects is considered fair.

3.5 Sustainability (Rating: ③)

3.5.1 Institutional Aspects of Operation and Maintenance

Since the reclamation project has not achieved its objectives, the sustainability on the coastal road project is hereinafter discussed.

Coastal Road Project:

Cebu City District Engineering Office under DPWH Regional Office VII (with about 230 regular staff) has been responsible for maintenance of the coastal road after the project was completed. Cebu City District Engineering Office has about 55 regular staffs,

and among those 8-9 staffs are responsible for maintenance work, with additional about 35 roadside maintenance workers. In addition, the Office employs about a few dozen temporary staffs. A maintenance worker is assigned every 3.5km for routine maintenance work of roads.

Regarding the coastal road, each office in charge of operation and maintenance of the project sections and districts is well staffed and no particular problem was observed.

3.5.2 Technical Aspects of Operation and Maintenance

Coastal Road Project:

DPWH has developed and possesses various manuals including those for road repair/maintenance, road maintenance activity, and road safety. For a newly employed staff, training is undertaken using DPWH's manuals and he is assigned to the field work. The routine maintenance work has been undertaken by force account, and technicians and workers have sufficient technical skills. The periodic maintenance work (such as replacement of expansion joints) and major rehabilitation (such as overlay), which require special equipment and skills are undertaken by contractors, who were selected through the competitive bidding process. The District Engineering Office, in charge of the project sections and district, has regularly undertaken training and prepared required manuals, and thus, there are no technical issue to sustain the effects of the project.



Coastal Road (Causeway section)



Coastal Road (Tunnel section)

3.5.3 Financial Aspects of Operation and Maintenance

Coastal Road Project:

The maintenance budget for routine maintenance of national roads including roads constructed under the project is provided directly to a District Engineering Office following the DPWH's standard norm and formula. Concerning the 2013 budget, 67,387 peso/km/year from the DPWH general budget, and additional 24,745 peso /km/year from the vehicle user charges, totaling about 92,000 peso/km/year is to be allocated to

the roadway section. Budget of 30,700 peso/km/year is allocated to the bridge/viaduct section (e.g. for old bridges). The maintenance cost spent by Cebu City District Engineering Office for the project section for the past five years is shown in Table 5.

Table 5: Operation and Maintenance Cost (Coastal Road)

Operation and Maintenance Cost	unit : peso				
	2008	2009	2010	2011	2012
	45,773	196,334	438,988	469,195	149,960,270

Source: DPWH Regional Office VII

Note: Except in 2012, the work undertaken is repair of pavement and marking. Rehabilitation and improvement of the causeway section was undertaken in 2012.

During ocular inspection in the field, no cracks on the pavement surface was observed, and the pavement condition looked fine.

3.5.4 Current Status of Operation and Maintenance

Coastal Road Project:

Maintenance work has been undertaken at the following frequency.

- Repair of potholes: as potholes were identified.
- Repainting of markings: when the marking became indistinct.
- Grass cutting, road surface cleaning, and clearing ditches: undertaken regularly

Routine and periodic maintenance for roads constructed under the project has been properly undertaken according to the maintenance manuals, and no issue was observed. As about ten years have passed since the pavement of the coastal road was completed, roughness and irregularity due to settlement became evident. In 2012, rehabilitation and improvement work was implemented.

As mentioned above, since the reclamation project has not achieved its objectives, the sustainability only on the coastal road project was discussed above. Regarding the coastal road project, no major problems have been observed in institutional, technical and financial aspects of the maintenance system. Therefore, sustainability of the project effect is considered high.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

The objectives of the project were to attract enterprises and facilitate smooth traffic flow in the urban area by reclaiming and developing new land for an industrial zone, and constructing a coastal road, thereby contributing to promotion of the economic development in Metro Cebu. The project was not highly relevant with the Philippines' development plans and needs, and

Japan's ODA policy. Therefore, its relevance is fair. Regarding construction of a coastal road, the project has contributed to smoothing the traffic flow in the urban area, since part of traffic diverts to the coastal road, which was constructed under the project. However, the original idea to attract foreign capital enterprises through establishing an industrial park in the reclaimed area was not materialized after the Asian Financial Crisis. Thus, it was changed to invite local enterprises and industry, and the development work including construction of building of University of the Philippines, a shopping mall, apartments, and light industry factories has been undertaken. However, as of today, only part of the area has been developed, and thus, achievements of project objectives made are at a extremely limited level compared with the original plans. Therefore, its effectiveness and impact is considered low. Although the project cost was within the plan, the project period was significantly longer than planned. Therefore, efficiency of the project is considered fair. Effects achieved by the project were made under the coastal road project. No major problems have been observed in terms of institutional management system, and technical and financial aspects for operation and maintenance, therefore sustainability of the project effect by the coastal road project is high.

In light of above, the project is evaluated to be unsatisfactory.

4.2 Recommendations

4.2.1 Recommendations to the Executing Agency

In order to continue the social compensation program, it is essential to focus on the development of the operational management capacity including business operation and personnel management in addition to enhancement and development of technical capacity of individual participants in each program. Particularly, under the group type programs such as the livelihood assistance program, it is important to cultivate leaders who have business operational management capacity (management, financing, personnel management, technical skills, management vision and organizational skills).

4.2.2 Recommendations to JICA

None

4.3 Lessons Learned

1. Signing of loan agreements for two projects (reclamation and coastal road) was made in 1995. Thus, the ex-post evaluation is being done in 18 years after the loan signing date. Under the project with the long implementation period, filing and archiving the relevant project documents is quite often improperly managed by the implementing agency. JICA needs to keep all the project documents in order, and to supervise so that a well spelled

out project completion report is timely submitted upon loan expiration by the executing agency. Moreover, JICA should provide more advice on preparation of the project completion report and review more thoroughly so that the submitted report covers all the information and data required.

2. It is likely that the weakness on viewpoints from the residents who live on the other side facing the SRP affected quality of an EIA report, lack of consultation with residents and improper monitoring during the operational stage. Thus, in preparation of an EIA, the scope of analysis on potential impact items needs to be well studied. Moreover, even if the impacts are not foreseen with proper countermeasures, risks should be well defined and these risks needs to be monitored during the project implementation. JICA should pay attention to these risks and request the project executing agency to monitor potential risks which might take place during implementation.
3. At commencement of the project, the unreasonable/ unpragmatic changes and plans in designs and implementation schedule were made including the following: i) reduction of reclaimed area (due to construction of a pond) and change of borrow pits for sand for reclamation (from sea sand to the soils/sand in Cebu Island) under the reclamation project, and ii) the inappropriate/unpractical implementation schedule in which construction of the coastal road was to be undertaken while reclamation work was under implementation under the reclamation project. Moreover, during the project implementation, changes on routes and type of roadway structures at the connecting section with the existing city road were made under the coastal road project. Since these changes are fundamental problems in terms of the project scope, it would be questionable whether or not the technical review (including environmental aspects) at the appraisal stage was adequate. Thus, it is considered that more thorough technical appraisal should have been done at the appraisal stage inviting experts in each sector (expertise required for this project includes environment, road, dredging/reclamation, and construction management/planning).

Comparison of the Original and Actual Scope of the Project

Reclamation Project

Item	Original	Actual
1. Project Output	1) Reclamation work for about 330 ha including revetment work of about 10.3km with a reclamation volume of 13.6 million m ³	1) Reclaimed area: about 296ha (among which the area for a coastal road is about 24 ha. Since a 61 ha pond is included in the area, the actual reclaimed area is about 235 ha. The length of revetment work is about 9.2 km. The reclaimed soil volume was about 9 million m ³ .)
Consulting services	2) Additional work (a management office in the reclaimed area. roads/bridges, a sewage treatment plant. a desalination plant, major electric facilities and others) as planned 1) Review of detail designs 2) Assistance in bidding activities 3) Construction supervision 4) Market research, management study and investment promotion study of the Cebu Export Processing Zone Foreign : 201 M/M Local : 834 M/M	2) Additional work (a management office in the reclaimed area. roads/bridges, a sewage treatment plant. a desalination plant, major electric facilities and others) as planned Foreign : 206 M/M Local : 839 M/M
2. Project Period	August 1995 -June 2000 (59 Months)	August 1995 -December 2004 (113 Months)
3. Project Cost		
Amount paid in Foreign currency	9,333 million yen	Unknown
Amount paid in Local currency	7,087 million yen	Unknown
Total	16,420 million yen	12,860 million yen
Japanese ODA loan portion	12,315 million yen	12,292 million yen
Exchange rate	1 Peso = 4.13 yen (as of January 1995)	1 Peso=1.85-2.24yen (average between April 1997 and May 2004)

Coastal Road Project

Item	Original	Actual
1. Project Output	Construction of Cebu South Coastal Road (totaling 7.75km) 1)Causeway Section: construction of a 6-lane 4.02km highway with two bridges with a total length of 174m and a revetment work of 7.2km 2)Central Business District Section (segment 3): construction of a 4-lane highway with a total length of 3.73km including the viaduct section with a total length of 2.8km 3)Development of resettlement sites	Construction of Cebu South Coastal Road (totaling 7.75km) 1)Causeway Section(Segment 2): construction of a 6-lane 4.02km highway and a 4-lane 0.84 km highway with a total length of 4.86 km 2)Central Business District Section (Segment 3): construction of a 4-lane 2.89 km highway including the viaduct section with a total length of 1.62km Segment 3 was divided into 3A (viaduct section), 3B1 (approach section), and 3B2 (tunnel section), procurement of works was made by 3 packages. However, 3B2 (tunnel section) was completed with the own funds after the loan was closed. (commenced the work in June 2006 and completed in October 2010. 3)Development of resettlement sites
Consulting services	1)Review of detail designs 2)Assistance in bidding activities 3)Construction supervision Consulting services on the above services Foreign : 292 M/M Local : 1,260 M/M	1)Review of detail designs 2)Assistance in bidding activities 3)Construction supervision 4)Feasibility Study and the Detailed Design of structures for Segment 3B2. Foreign : 470 M/M Local :2,294.5 M/M
2. Project Period	August 1995-December 2000 (65 Months)	August 1995 -October 2010 (183 Months)
3. Project Cost		
Amount paid in Foreign currency	12,520 million yen	14,317 million yen
Amount paid in Local currency	12,001 million yen	10,478 million yen
Total	24,521 million yen	24,795 million yen
Japanese ODA loan portion	18,391 million yen	18,377 million yen
Exchange rate	1 Peso = 4.13 yen (as of January 1995)	1 Peso = approx.1.9 yen (average between January 1998-October 2010)

Total of 2 projects (Reclamation and Coastal Road)

Project Cost		
Total	40,941 million yen	37,655 million yen
Japanese ODA loan portion	30,706 million yen	30,669 million yen