

Philippines

Ex-post Monitoring for the ODA Loan Project South Luzon Expressway Construction Project

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Field Survey: May 2008

1. Outline of the Project



Location of Project Area:
Manila, the Philippines



South Luzon Expressway,
Maintenance Vehicle

1.1 Objectives

The objective of this project is to expand the flow of people and goods between Manila Metropolitan Area and its suburbs by elongate the existing South Luzon Expressway (from Manila Metropolitan Area to Calamba City, 42 km) to Batangas City, thereby contributing to the industrial development plan centering on the port development in the city.

1.2 Project Summary (Loan contract summary and other data)

Loan Amount / Loan Disbursed Amount	4,238 million yen / 3,669 million yen
Exchange of Notes/Loan Agreement	February 1990 / May 2000
Ex-post evaluation	Fiscal 2002
Executing Agency	Department of Public Works and Highways (DPWH)
Main Contract	Philippine construction companies (Manifold Construction Enterprise Inc. and others)
Consultant Services	DE LEUW CATHER INTERNATIONAL (U.S.)

1.3 Background and Reasons for Conducting Ex-post Monitoring

This project was subjected to a monitoring study because of the following reasons.

[Effectiveness] The traffic volume expansion due to the project was underachieved compared to its original target (5.2% in 2001, 5.6% in 2002), and the project effect was not shown at the evaluation. Therefore, it was necessary to keep monitoring the situation in later years.¹ The main reason why for the underachievement of traffic volume at the ex-post evaluation was that construction of the Calamba-Santo Tomas segment and the Lipa-Batangas segment had not been completed. There were other reasons including the followings: (i) The traffic volume on existing national roads did not increase as expected, and the expressway could not function sufficiently as the substitute route during traffic congestion. (ii) The number of companies moving into the industrial parks in the project area did not increase as expected. (iii) To switch driving from ordinary road to expressway between Santo Tomas-Lipan segment only is not that much beneficial for users in terms of cost and safety.

[Sustainability] The operation and maintenance of the project is conducted by a private company (STAR IDC), which holds the right of operation after the completion. It should be kept monitoring the condition of operation and maintenance. It is necessary to check financial data of the company, which has not yet been obtained and verify the sustainability of this company.

[Follow up of the recommendations] (i) To follow the progress of the work that the Philippine Government plans to conduct road construction, connecting to the project road, as well as effects of the project. (ii) The hearing survey of developers and tenant companies pointed out the followings: a) the need for the installation of street lighting facilities, b) the need for

¹ Note by JICA Evaluation Department: The review conducted at the time of monitoring revealed that the daily average traffic volume reported at the ex-post evaluation was an underestimated due to misinterpretation of data. Specifically speaking, it is considered very likely that the data used as monthly averages were actually daily averages; therefore, the reported traffic volume was about 1/30 of the actual value. In this report, the figures of traffic volume at the time of ex-post evaluation have been corrected as in the following table.

The traffic volume after correction was about 160% of the planned value, therefore, it may be considered that the effectiveness of the project was satisfactory at the time of ex-post evaluation.

	Before correction (Yen Loan Project Evaluation Report 2003, Table 2-1)		After correction	
	2001 (for 5 month Aug. – Dec.)	2002 (for 10 month Jan. – Oct.)	2001 (for 5 month Aug. – Dec.)	2002 (for 10 month Jan. – Oct.)
Annual traffic volume (vehicles)	75,309	159,250	75,309	159,250
Daily average traffic volume (vehicles/day)				
a) Planned value	9,406	9,406	9,406	9,406
b) Actual value	492	524	15,062	15,925
c) Achievement rate	5.2%	5.6%	160%	169%

measures to ensure safe driving and crime prevention, c) the inadequate maintenance of paving and road shoulders, and d) the high price of road tolls.

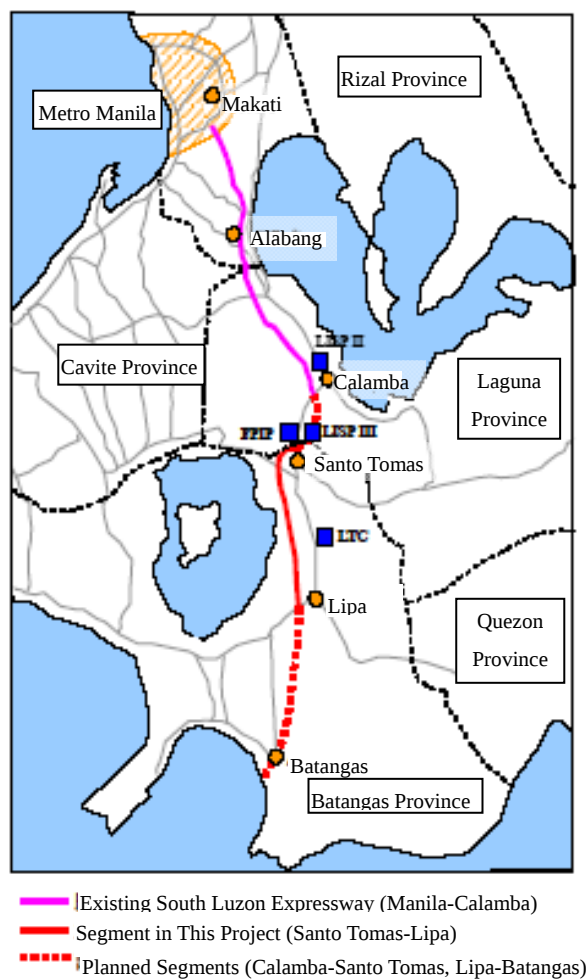
2. Monitoring Results

2.1 Effectiveness (Effects)

The traffic volume has increased to 18,000 vehicles in daily average. This represents a 190% achievement rate relative to the planned value in 2002. This can mean that the project is valuable. The project effects related to the opening of Batangas Port have not yet to be shown.

(1) Traffic Volume

South Luzon Expressway is a road heading to south from Manila Metropolitan Area. The segment between Santo Tomas and Lipa was constructed in this yen loan project. The segment between Lipa and Batangas, which had not been completed at the ex-post evaluation conducted, was constructed using the BOT scheme and opened in April 2008. Major part of expressway between Metro Manila and Batangas route, which is linking from Metro Manila via Alabang to Calamba, is already connected, and the only segment between Calamba and Santo Tomas remains unfinished (Fig. 1).



South Luzon Expressway

There are industrial parks (LISP: Light Industry Science Park, FPIP: First Philippine Industrial Park) in the area from Metro Manila to Santo Tomas, and an industrial park (Lima Technology Center) has been developed between Santo Tomas and Lipa.

The daily average traffic volume between Santo Tomas and Lipa in this project was 17,272 vehicles in 2003 and 17,967 vehicles in 2007. As compared with 2003, the traffic volume in 2007 shows a slight increase (a 4% increase). While traffic of passenger cars shows a decreasing tendency, two-axle six-wheel vehicles and vehicles with three or more axles are on an increase. The project operator considers that users are shifting from passenger cars to buses, reflecting the recent rise in the price of automobile fuels.

The traffic volume shows a tendency to increase in large commercial vehicle relative to passenger cars. According to the operator of South Luzon Expressway (STAR IDC; hereinafter referred to as SIDC), an increase is seen in the number of long-distance buses connecting Manila and the islands to the south of Luzon using the ferry terminal in Batangas Port.

The traffic volume on the ordinary roads between Santo Tomas and Lipa was 18,310 vehicles/day in 2005 and 17,618 in 2007. There have been little changes in the traffic volume, and it cannot derive any conclusion regarding the correlation to this project. Similarly, the data for the traffic volume on the ordinary roads between Manila and Batangas have been showing little changes (somewhat less than 18,000 vehicles/day).

While the expressway between Lipa and Batangas (to be connected to the Santo Tomas-Lipa segment and elongated to Batangas) which had not been completed at the time of ex-post evaluation, the South Route (the two lanes on the right side Lipa towards Batangas) was opened in April 2008. The two lanes of the South Route are currently used as two-way traffic (i.e., the two lanes of the South Route are used as one lane each way). The construction of the North Route is planned to begin when the traffic volume on the South Route reaches 25,000 vehicles/day. The opening of this elongated segment of the road is expected to lead increase in the traffic volume on the road segment in this yen loan project between Santo Tomas and Lipa.

Table 1. Daily Average Traffic Volume (Santo Tomas-Lipa)

	Fiscal Year						
	At the time of ex-post evaluation*2		At the time of monitoring				
Vehicle type*1	2001	2002	2003	2004	2005	2006	2007
Passenger car (including jeepney)	-	-	14,801	15,352	14,826	14,216	14,436
% to previous year	-	-	-	4%	-3%	-4%	2%
two-axle six-wheel or more	-	-	1,701	2,024	2,173	2,303	2,583
% to previous year	-	-	-	19%	7%	6%	12%
three-axle or more	-	-	770	805	797	838	948
% to previous year	-	-	-	5%	-1%	5%	13%
Total	15,062	15,925	17,272	18,181	17,796	17,357	17,967
% to previous year	-	6%	8%	5%	-2%	-2%	4%

*1 Tolls are categorized into Class 1: passenger car (two-axle four-wheel), Class 2: two-axle six-wheel or more, Class 3: three-axle or more. Class 1 includes jeepneys and SUVs. Class 2 includes buses and trucks. Class 3 includes large buses and trailer trucks.

*2 Data at the time of ex-post evaluation. The average from August to December for 2001 and from January to October for 2002.

Source: Star Infrastructure Development Corporation (STAR IDC).

Calamba-Santo Tomas is the only segment, which remains unconnected by expressway between Manila-Batangas route because the Lipa-Batangas segment has already opened. SLTC (South Luzon Tollway Corp.) has control over construction, operation and management of this segment. Land acquisition was largely completed and construction work started in March 2008. It is expected to be finished around the end of 2009.

(2) Saving Travel Time

Similarly to the findings of the evaluation, the travel between Santo Tomas and Lipa (21 km) takes about 15 minutes. Although there is a substantial traffic volume, it is not so much as to cause congestion, and it allows driving the entire segment at 100 km/h.

2.2 Project Impacts

(1) Contribution to Economic Development

Many foreign companies have business in the Philippines. During the construction period of this project, industrial parks were constructed around Santo Tomas and in Lipa, and some Japanese companies moved into these sites. The move of Japanese companies into the Philippines that started in the earlier half of the 1990s peaked in 1998, and the investment in the Philippines declined dramatically after the Asian economic crisis in the second half of 1997. The sites in the industrial parks between Manila and Batangas were sold well until 1998, but the sales growth has been sluggish thereafter. Recently, sales have become somewhat active, reflecting the favorable condition of Philippine economy. Major investment in the industrial parks between Manila and Batangas is the construction of the Suzuki factory (manufacturing of motorcycles and automobiles) in Lima Industrial Park (developed by a Japanese-owned trading company).

The developers and sales agents dealing with the industrial parks around Santo Tomas and Lipa are always emphasizing the presence of Batangas Port as an advantage of industrial parks in this area; therefore, the companies, moved into these sites, are well informed about the Batangas Port Project. The construction had been completed, at the time of monitoring, however, the container terminal in Batangas was not fully operated. As a result, the companies in the industrial parks did not use Batangas Port at all. There are problems in Batangas Port as follows; the contract between the operator of the container terminal and the Philippine Government has not been concluded, there is no prospect for the arrival of container carriers in this port, and there are difficulties in the arrangement of land transport between Manila and Batangas. When carriers transport commodity such as goods from the site, they currently use Manila Port for container shipment and Manila International Airport for air transport.

At the time of monitoring, interviewing the representatives from eight companies related to industrial parks around Santo Tomas and in Lipa (LISP, FPIP, LTC), including three industrial park developers, three forwarders handling the products from the industrial parks, and two companies operating in the industrial parks was conducted. Obtained the following information through this hearing:

- Companies in the industrial parks do not transport commodities to Batangas area through the project road because the container terminal of Batangas Port has not been operated. The companies in the industrial park in Lipa (Lima Industrial Park; developed and operated by a Japanese-owned trading company) may benefit from the use of the project road for the shipping to Manila area. Yet they transport cargos to Manila by ordinary roads because the toll gate and the access road to the toll gate are not wide enough for large vehicles.
- Forwarders are interested in the full operation of Batangas Port, and are willing to use Batangas Port when conditions are right. These conditions include smooth customs clearance procedures, simple logistics and low cost of the use of land transport (truck) operators, and transport efficiency of cost and time needed in the use of container carriers.

The macro economy of the Philippines has been favorable for several years, and the country has been recording about 5% of annual economic growth (5.4% in 05/06 and 4.9% in 04/05). Aside from foreign investment from the U.S. and Korea, the money sent from overseas workers is helping the increase in consumption. However, it could not derive any conclusion as to whether or not this project had an impact on this economic growth.

While a container terminal was newly constructed in Batangas, this city has long been a hub for the ferries operating to the island to the south of Luzon. A majority of the large vehicles, which are increasingly seen on the Santo Tomas-Lipa segment, are passenger buses using ferries. Although this project has not been utilized as an industrial road, it is used as a transport route connecting the capital Manila and local cities. It is expected that the opening of the Lipa-Batangas segment will lead to further increase in the traffic volume on this road.

2.3 Sustainability

The management condition is not good. Strengthening of road maintenance works is considered necessary, focusing on conservation of road shoulders. Because profitability on a single-year basis has already been achieved, it is expected that future increase in users will earn more profit and road maintenance will be improved.

(1) Technical Capacity for Operation and Maintenance

Similarly to the findings at the time of ex-post evaluation, road maintenance is practiced including overlaying, repair of damaged parts, mend and conservation of road shoulders, and repair of drainage canals. Although there is no technical problem, the maintenance condition in this segment is generally less than satisfactory, suggesting a shortage of necessary workforce. To improve road maintenance requires more budget, however, it seems difficult to keep more budget due to profitability problems.

(2) Organization for Operation and Maintenance

SIDC, the private company, has control over construction, operation and management of this segment. SIDC only plays the management role and Star Tall Corp (STC) actually runs operation and maintenance of the road. There are 188 employees in STC as a whole, including

33 persons in charge of road maintenance and servicing and 11 persons in charge of machine servicing. The expressway service is operated on a three-shift basis. Security teams patrol the segment, divided into two, respectively. The employment of local inhabitants in weeding works, which was confirmed during ex-post evaluation, has been discontinued, and the work is now conducted by outside contractors. (STC explains that the commissioning to local inhabitants was discontinued because their work is slow and low quality.)

The Lipa-Batangas segment has been constructed and operated/maintained by SIDC using the BOT scheme. Under the road construction policy in the Philippines, arterial toll roads connecting major cities should be constructed using the BOT scheme. Up to the present, four segments of toll roads, including the segment in this project, have been completed. In addition, five segments are being constructed or in the preparatory stage for construction, and eleven segments are planned.

(3) Financial Status

The request for the financial data of SIDC and STC was rejected. Although cumulative debt has not been eliminated, on a single-year basis it turned into the black in fiscal 2006/7. According to SIDC, there is no financial problem of business management.

(4) Maintenance Condition

The condition of road pavement is not good. Road surfaces have become partially wavy, and some segments are showing signs of inferior workmanship in construction. According to multiple persons related to such segments, “it is always about this level of quality even just after the completion.” The ex-post evaluation reported that poorly paved parts were found when the road was transferred from DPWH to SIDC (August 2001).

At the time of ex-post evaluation, the request for the installation of street lighting facilities was come out from industrial park developers/operators and tenant companies during the hearing. At the time of monitoring, there was no streetlight, and this problem has not been improved. However, according to the regulations on toll roads in the Philippines, South Luzon Expressway in this project is not required to have street lighting. Although night patrol is conducted, there are few signboards noting emergency contacts, and the provisions for emergency response to accidents are not adequate (however, there are very few users at night). Vehicles carrying cargos from Lima Industrial Park use ordinary roads because the access roads to interchanges (Bulihan and Sambat) are not wide enough for large vehicles. In addition, maintenance of road shoulders is not satisfactory, and weeding is inadequate. In particular, the access roads leading from the interchange to the lane have severely damaged road shoulders. The road edges are collapsed because road shoulders in these parts are unpaved. Drainage canals are grassy.

As seen above, the matters pointed out at the hearing survey during ex-post evaluation have not been addressed adequately.

3. Conclusions, Lessons Learned, and Recommendations

3.1 Conclusions

The Santo Tomas-Batangas segment was opened and the convenience for users improved. The traffic volume is expected to increase further once the Calamba-Santo Tomas is completed. The full operation of Batangas Port in the future will increase the traffic volume on the road in this project. This road, in turn, is expected to serve for the further effective utilization of Batangas Port.

3.2 Recommendations and Issues Requiring Follow-up

[To SIDC] Improvement of road maintenance should be carried out. Even if installment of street lighting is not necessary, toll road operation considering the safety of users and taking additional measures such as the installation of more signboards noting emergency contacts should be implemented.

[To the Philippine Government and DPWH] SIDC maintaining this road may tend to withhold expenditure even though it is absolute need and urgency because it is a private company. The condition of road operation and maintenance should be monitored regularly and if there are any problems detected, improvement should be requested to the SIDC by the it should be made by the public authorities.

3.3 Lessons Learned

None

(End)