NORTH LUZON, PHILIPPINES

Case Study (Transportation)

Project Summary:

The Republic of the Philippines is an archipelagic nation in Southeast Asia comprised of 7,107 islands. The Philippines is home to over 91 million people, living on approximately 300,000 square kilometers. About half the population lives on the island of Luzon, where the capital, Manila, is located. Congestion in and around the capital is an area of concern for the Philippine government.

The North Luzon Expressway is the main transport corridor from the Manila metropolitan area to central and north Luzon; there is no viable alternative for travelers. Built between 1975 and 1977 by the Department of Public Works and Highways, the expressway operated as a toll road. Originally, the expressway was franchised to a private company; however, this was later taken over by the government and renamed the Philippine National Construction Corporation (PNCC). Under PNCC’s management, the expressway was not adequately maintained. In addition, growing traffic volume meant that the expressway’s capacity could no longer meet commuter needs. By the mid-1990s, about 160,000 vehicles traveled on the expressway each day, but with narrow lanes and heavy traffic, congestion became a major problem. The expressway also experienced a large number of avoidable accidents and deaths over the years.

In the early 1990s, the Philippine government passed legislation that promoted and regulated the use of public-private partnerships (PPPs) in repairing existing infrastructure and building new projects. The Build-Operate-Transfer (BOT) Law of 1993 (as amended in 1994) provided the opportunity to utilize a BOT-type approach to modernizing the North Luzon Expressway. With improvements needed for the expressway and limited funding available from the Department of Public Works and Highways, a BOT contract was pursued.

A PPP was granted a 30-year BOT contract with the Philippine government to revitalize the expressway. The North Luzon Expressway underwent repairs and expansion between early 2003 and February 2005, with the project completed on time and under budget. During that time, construction occurred on 14 interchanges, 24 bridges, 31 overpasses, and 3 toll plazas.
Tolls are assessed to vehicles on the expressway, so that the PPP can recoup its construction costs. Toll rates increased 700 percent from the original rate of .33 pesos per km to 2.5 pesos per km (effectively from less than half a US cent to about 5 US cents). Despite this sharp increase in the toll rate, the expressway did not see a drop in daily users.

**Project Objectives:**

There were several objectives to using a public-private partnership to rehabilitate the North Luzon Expressway. The government wanted to decrease the congestion on the expressway by widening and repairing the road. Very little repairs were made on the expressway after it was originally built, so many of the bridges and interchanges were in desperate need of renovation.

Another objective was to make the expressway safer for commuters by reducing the number of accidents and fatalities. Numerous accidents and fatalities were caused each year by the sheer number of vehicles on a road that was too narrow to safely accommodate them all. By widening the road, the Philippine government would be able to reduce these numbers.

A third objective of the PPP was to spur development north of metro Manila in the Clark Special Economic Zone. The government’s objective was to develop this zone as a new industrial town and major civil, international aviation complex. As the only viable road between north Luzon and Manila, the expressway needed to be improved so that the connection between the special zone and Manila would support this development goal.

**Project Description:**

1. **Partners**

The North Luzon Expressway is operated by the Manila North Tollways Corporation (MNTC), a PPP comprised of four partners. The public partner is the Philippine National Construction Corporation, a state-owned enterprise. The three private companies include one Philippine company (an infrastructure developer) and two foreign firms. One of the foreign companies is a French toll road operator and the other is an Australian construction company.

The Philippine company owns 67.1 percent of MNTC. The two foreign companies own over 10 percent each, with the toll road operator owning 13.9 percent and the construction company owning 16.5 percent, and PNCC controls 2.5 percent of the partnership.
2. Implementation - Legislative

Presidential Decree No. 1112 was issued on March 31, 1977 and authorized the use of tolls to help finance infrastructure projects. The decree established a Toll Regulatory Board that determines and decides the projects that will be constructed and/or operated as toll facilities. The Toll Regulatory Board authorizes the toll rates that are set for various highways, roads, bridges, and public thoroughfares. The board is comprised of members from the Department of Transportation and Communication, the Department of Public Works and Highways, the Department of Finance, the National Economic Development Authority, and the private sector. The decree also prohibits any financial guarantees by the government. This legislation enabled the original construction of the North Luzon Expressway, and its operation as a toll road.

The Philippine national government passed the Build-Operate-Transfer Law in 1993 and amended it in May, 1994. This law permits private companies to implement, both fully and partially, infrastructure projects. Sectors include power plants, highways, ports, airports, canals, dams, hydropower projects, water supply, irrigation, telecommunications, railroads, transport systems, land reclamation projects, industrial real estate, housing, government buildings, tourism projects, markets, slaughterhouses, warehouses, solid waste management, information technology networks and database infrastructure, education and health facilities, sewerage, drainage, and dredging. (Also see the Manila Water case study: http://www.ncppp.org/undp/manila.html)

The law stipulates that BOT contracts cannot exceed 50 years. It also states that the company can charge facility users appropriate tolls, fees, rentals, and charges, but the amount charged cannot exceed that stipulated by the contract.

In 1994, a domestic business group indicated interest in expanding the expressway. Negotiations took place, including a plan to gain funds from the domestic and international capital markets. However, the Asian financial crisis of 1997 halted plans to rehabilitate the expressway. It was in 1998 that a PPP solution was finally implemented.

3. Financial Agreement

The total cost for the project was US$ 384 million. It was financed on a debt-equity ratio of 69.6: 30.4. MNTC received US$267.1 million in loans from multiple lenders and paid US$ 116.9 million in equity. The portion of the equity paid by the four partners was tied to their
holdings in the company. The amount of equity provided by the partners ranged from just under US$ 3 million to just over US$ 78 million.

MNTC received loans from the Asian Development Bank (ADB), the International Finance Corporation, and the Export Finance and Insurance Corporation in the amounts of US$ 45 million, US$ 45.4 million, and US$ 55 million, respectively. The partnership also has a loan of US$ 14.9 million in subdebt. MNTC received three loans funded through commercial banks that were guaranteed against political risk. One loan was a Complementary Financing Scheme loan through the ADB for US$ 25 million. The Multilateral Investment Guarantee Agency (part of the World Bank Group) guaranteed US$ 47.5 million in loans and Export Credit France (Coface) guaranteed US$ 34.3 million in loans. The loans have a term of 13 years, including a grace period of 3.5 years.


MNTC and the Philippine government signed a 30-year Build-Operate-Transfer contract in June 1998 to rehabilitate, expand, operate, and maintain the existing 84 km North Luzon Expressway. The Philippine government retains ownership of the Expressway throughout the lifetime of the contract. When the contract expires, operation and maintenance of the North Luzon Expressway will revert back to the government.

All risk associated with the construction phase of the project was shouldered by MNTC, which was responsible for all construction, and for all maintenance of the expressway for the duration of the contract. The contract stipulates that the government will not provide any financing, so in order to recoup its investment; MNTC will set and collect tolls that have received approval from the Toll Regulatory Board. The Authorized Toll Rate will be adjusted every two years based on an adjustment index, which is determined by the cost of the project still to be recovered, the rate of inflation in both the US and the Philippines, and the peso/dollar exchange rate. If revenues are not substantial enough to cover expenses, the Philippine government will not provide financial assistance to MNTC; all market risk is borne by the PPP.

5. Implementation Metrics

The North Luzon Expressway extends from Balintawak in metropolitan Manila, up to Sta. Ines in Pampanga. The expressway is 84 km long, and connects the country’s largest metropolitan area to more rural portions of central and north Luzon. Construction began on the North Luzon Expressway in early 2003 and was completed in February 2005, on time and under budget.
MNTC widened, rehabilitated, and repaved 14 interchanges, 24 bridges, and 31 overpasses on the expressway. MNTC repaved approximately 295 lane-kilometers and added 138 lane-kilometers. This increased the busiest section of the expressway to eight lanes in each direction. The company also constructed three toll plazas and an Operation Management Center. MNTC hired about 5,000 local workers to complete the construction projects.

MNTC was granted permission to collect tolls on the expressway as the way to recoup expenses from the construction phase of the project. Toll prices cannot be set higher than the Authorized Toll Rate, which is established by the Toll Regulatory Board. On the southern part of the expressway in the urbanized area, tolls are collected in an open system, meaning tolls are collected as vehicles enter the expressway and in the rural, northern areas of the expressway, tolls are collected in a closed system, as vehicles leave the expressway.

Initially, the reference toll rate was based on 1995 price levels, but tolls were quickly raised because increases in the toll rate had been minimal in the first 30 years of operation. Three different levels of tolls are assessed, for cars, buses, and trucks. For cars, the toll rate was 26 centavos (100 centavos equal 1 peso) per km prior to December of 2003 and was then increased to 33 centavos. In February 2005, the toll rate was increased to 2.5 pesos per km for cars; if a car traveled the whole 84 km stretch, the toll was 190 pesos (US$ 3.40). For trucks, the toll is 500 pesos (US$ 9.00) and for buses, the toll is 600 pesos (US$ 11.00).

Commentary:

1. Overcoming Impediments

In order to recoup project costs, MNTC needed to drastically increase the toll rate for the expressway. To combat consumer opposition to the increase and gain support, MNTC instituted a comprehensive Communication Program. The program reached national and local government units, national and local media of all kinds, grassroots organizations, NGOs, and organized transport groups. MNTC explained that the value added by the improved expressway would be much greater than the cost of the toll rate increases. With the support of these groups, MNTC was able to gain the support of commuters. Without stakeholder support, increases in the toll rates could have potentially caused massive protests. Initially, the North Luzon Expressway saw a small decrease in the number of vehicles on the road; however, the expressway now sees the same level of commuters as before the toll increase.
2. Success/Failure

MNTC completed the construction phase of the project on time and under budget. The North Luzon Expressway has been successfully repaired and expanded. MNTC was able to reduce both the commute time and the congestion on the expressway through widening and proactively maintaining the roads. In the more populated areas, the expressway now has up to eight lanes of traffic in each direction to accommodate commuters.

The tolls increase of 700 percent might have been expected to have negative social impacts. However, the lack of consumer opposition indicates that the public perceives the benefit of the project to justify the increase. The public relations campaign to educate the public about the necessity of increasing the toll rate also played a role in building stakeholder support for the project.

Economic opportunities have increased in the regions surrounding Manila due to improved conditions. Companies in these regions see quicker transportation times for their products traveling to metro Manila.