Case Study (Port Expansion)

Project Summary:

The Democratic Socialist Republic of Sri Lanka is located in the Indian Ocean only 31 kilometers off the southern coast of India and is home to approximately twenty million people. The island is strategically situated in the Indian Ocean, along the main East-West shipping route and is therefore in a central location for all of South Asia. Because of its location, Sri Lanka was poised to be a strong competitor in the global shipping sector, with three deep water ports: Colombo, Trincomalee, and Galle.

Colombo, the capital of Sri Lanka, is the site of a large deep water port. Located on the southeast side of the island, the Colombo Port facilities include two terminals, Jaya Container Terminal (JCT) and Queen Elizabeth Quay (QEQ). From 1987 to 1997, throughput of container traffic for the terminals at Colombo Port increased from less than 500,000 twenty foot equivalent units (TEUs) to over 1.5 million TEUs. By the mid-1990s, however, this growth was beginning to slow due to inefficiencies and delays caused by outdated systems and equipment. Projections showed traffic volume leveling off in 2003 or 2004 when the maximum capacity for JCT, the larger and more active of the terminals, would be reached. In addition, estimates at the time indicated that around 40% of west-to-east traffic was being diverted from Colombo Port to more competitive ports outside of Sri Lanka. Regional traffic would continue to grow; forecasts predicted an estimated 7.3% annual growth in traffic to India until 2018 and an overall increase in regional container traffic because of the increasing trade volume. But Colombo Port was slowly losing it competitive edge to newer, more modern port facilities, and required capital investment to maintain or increase its market share.

The Sri Lankan government’s desire to remain a true competitor in the shipping sector prompted the creation of a Public-Private Partnership in 1999. The South Asia Gateway Terminals (Private) Limited (SAGT partnership) was created by the Sri Lanka Port Authority and several private companies to improve, expand, operate, and manage the QEQ terminal through a 30-year Build-Operate-Transfer (BOT) concession.

Construction for the expansion of QEQ was completed in August of 2003. Throughput for QEQ increased by 350 percent from 2000 to 2004, leading to a 30 percent increase for Colombo Port
as a whole. Economic efficiency for the port as a whole has improved because of management techniques utilized by the SAGT partnership at QEQ and in turn transferred from the SAGT partnership to JCT.

**Project Objectives:**

The Sri Lankan national government granted the SAGT partnership a thirty-year concession to develop and manage the country’s first modern container terminal. There were several objectives for the project.

The first objective was to expand the Queen Elizabeth Quay (QEQ) terminal from the original capacity of 250,000 TEUs per year to a capacity of 1.1 million TEUs. The expansion in the volume of trade handled by Sri Lanka would increase, generating revenue for the port, and broader economic benefits as well.

A second objective of the project was to improve port efficiency. Sri Lanka’s location gave it a competitive advantage in the port industry, but with a limited container capacity and expanded shipping world-wide, the competitive advantage would have disappeared. Efficiency needed to be improved in gross gantry moves (the number of containers handled) per hour. Berth efficiency, which measures the average waiting time for container vessels, needed to be improved from the 1997 average of 6.9 hours.

A third objective of the project (contingent upon success) was to demonstrate to the international community and the private sector that public-private infrastructure projects could have positive outcomes in Sri Lanka. After the Asian financial crisis, and in response to internal political troubles in Sri Lanka, private firms were hesitant to invest in projects there. A strong, efficient project with the SAGT partnership would show the effectiveness of private sector involvement and the benefits that are possible, and encourage further investment in Sri Lanka.
**Project Description:**

1. **Partners**

The PPP of SAGT is comprised of eight partners: the public agency known as the Sri Lanka Port Authority (SLPA), a Sri Lankan investment group, two port management companies, three lending institutions, and a shipping company. The shareholdings of the SAGT partnership are allocated so that 41.25 percent of holdings are owned by Sri Lankan shareholders and only 26.25 percent are owned by foreign port management companies. Of the 41.25 percent Sri Lankan owned shares, 15 percent are owned by SLPA and the other 26.25 percent are owned by the Sri Lankan private investment group. The three lending institutes are the Asian Development Bank, the International Finance Corporation, and the Commonwealth Development Corporation, each of whom owns 7.5 percent of the shares. The final 10 percent is owned by a foreign shipping company.

2. **Implementation - Legislative**

The Sri Lankan economy was liberalized in the 1970s to promote economic growth. This has included partnerships and private sector involvement in many aspects of the economy. Since that time, Sri Lanka has seen marked increases in economic growth and direct foreign investment. Infrastructure development and renovation have featured prominently in these partnerships because the government believes infrastructure is the basic building block of any economy. Without solid infrastructure, only limited economic growth can be realized.

On January 31, 1978, the Greater Colombo Economic Commission Law, No. 4 was enacted by the National State Assembly. The law established the Greater Colombo Economic Commission, giving the commission the powers deemed necessary for the development and resurgence of the economy. The law has been amended five times and has renamed the Economic Commission the Board of Investment. An objective of the board is to foster, generate, and strengthen the economy and to promote foreign investment within the nation.

Since 1995, the Sri Lankan government has actively sought private sector participation in the development of port infrastructure through partnerships in the form of either Build-Own-Operate (BOO) or BOT transactions. With knowledge of the limited capacity of their ports and rapid growth in the shipping industry, the expansion of a port was deemed necessary to maintain a competitive advantage. Colombo Port was selected for the expansion project because Colombo is the national capital and it provided an ideal location. Initially, the private sector was invited to
bid for the development of an outer harbor for the port, which required the construction of an expensive new breakwater structure because the port did not have any land for expansion. Although several developers showed interest, no bids were offered. This eventually led to alternative approaches being considered.

Realizing how vital infrastructure is to their economy, in 1996 the Board of Investment established the Bureau of Infrastructure Investment (BII) to promote and facilitate private sector investment in infrastructure. The BII oversees infrastructure in the power, ports, information technology, highways, housing, water, and solid waste sectors.

A major milestone was reached in 1999 with the formation of the PPP SAGT to expand and operate the QEQ at Colombo Port. The project allowed for the expansion within the existing port footprint and did not require the costly upfront investment that would have been required to build a new breakwater structure. The project was the first transportation PPP project undertaken in Sri Lanka.

In 2006, reflecting the continuing role of PPPs in Sri Lanka, the Cabinet Subcommittee on Investment Promotion established a Public-Private Partnership Unit within the Board of Investment. The PPP unit facilitates projects and has generated procurement guidelines.

3. Financial Agreement

The total cost of the project for the expansion and operation of the QEQ was estimated at US$240 million, but came in under budget at US$227.4 million. The project was financed based on a debt/equity ratio of 60:40. Originally, there were US$144 million in loans, provided through the International Finance Corporation (part of the World Bank Group), the Asian Development Bank, and the Commonwealth Development Corporation, at $35 million in loans and $7.3 million in equity for each of the institutions. The Private Sector Infrastructure Development Company Ltd., which is supported by the World Bank Group, provided $39 million in long-term loans. The loans are held and paid by the SAGT partnership. Due to a reduction in project costs, the Asian Development Bank (ADB) actually lent only $25 million in loans and $3.6 million in equity, making the debt portion of the costs only US$135 million.

The 40 percent equity ($92.4 million) to finance the project was provided through the eight partners in the SAGT partnership. Ownership of shares ranged from 3.91 percent to 27.27 percent. SLPA owns 15.58 percent of the shares in the SAGT partnership. Of the eight partners, three controlled 15 percent or more of the shares. As mentioned above, the three lending
institutions also provided equity and the IFC and the CDC gained 7.5 percent of the shares in the SAGT partnership; the ADB gained 3.91 percent of the shares. Investments in the SAGT partnership ranged from US $3.6 million to $25.2 million. Of the $92.4 million in equity, the public sector provided $32.4 million and the private sector provided $60 million.


SAGT (Pvt) Ltd. was granted a thirty-year concession in the form of a Build-Operate-Transfer contract with SLPA in September of 1999. This contract was the first BOT and the first PPP within the transportation sector of Sri Lanka. It called for the extension of the quay, the repair and upgrading existing facilities, and purchasing new equipment. Three new container berths and one new passenger berth were to be built.

Under the BOT contract, the SAGT partnership pays the Port Authority lease payments for the terminal. The Port Authority also earns income from shares in the company. With increased traffic to QEQ, and Colombo Port in general, SLPA benefits from fees charged directly to vessels using the port (i.e., tug service fees, piloting fees, and dockage fees). All partners earn income from the dividends they receive for their holdings in the company.

The contract required the SAGT partnership to offer employment to all 500 workers at QEQ. If those workers chose not to join the SAGT partnership, the Port Authority was required to employ them. There was a fear that retrenchment would take place right after the QEQ switched hands, so this provision was included in the contract to protect workers. The SAGT partnership created jobs to offset the workers who chose to remain with SLPA. The contract also required the SAGT partnership to maintain the facilities through outsourcing to local companies. Drivers, janitorial staff, and security personnel were not employees of the SAGT partnership, but of local companies.

5. Implementation Metrics

The SAGT partnership expanded and modernized the QEQ, both physically and in efficiency. The PPP undertook to increase the container capacity to 1.1 million TEUs per year. To accomplish this, the main terminal area needed to be expanded from 7.5 to about 20 hectares of container yard (1 hectare is equal is 10,000 square meters). The total linear berth (area in the harbor used to moor vessels) was 940 meters in length after the completion of the project. This was accomplished by increasing the width of the quay by 100 meters into the harbor basin over a 940 meter long stretch.
Construction was completed in three phases to ensure the continued operations of the port during this time. The first stage was completed and operational in February 2002, the second stage in July 2002, and the third stage in August 2003. For each stage, additional meters of quay length were added—340, 310, and 290, respectively—along with three post-panamax cranes, for a total of nine new cranes.

With the expansion of quay length, throughput was expected to increase by an average of 50 percent a year until 2005, when the design capacity of 1.1 million TEUs per year would be reached. Actual throughput grew steadily from 200,186 TEUs in 2000 to 899,720 TEUs in 2004, an increase of 350 percent. The goal of 1.1 million TEUs was not reached in 2005 because of a two-month delay in the handover of QEQ from SLPA to the SAGT partnership and in the delivery of equipment. Due to these delays, QEQ’s throughput increased by an average 45 percent annually, slightly below the 50 percent goal. In the first ten months of 2006, throughputs grew by 39 percent over the same period in the previous year.

The SAGT partnership improved Colombo Port, as well as QEQ, efficiency. Management strategies and technology were transferred from the private sector port management companies and used by the SAGT partnership. The company raised its service standards, which have become a benchmark for ports throughout the country; today the Port of Colombo is rated as one of the top 35 ports in the world. Management and staff have been trained to improve their knowledge and skills, with the possibility for advancement within the company. All employees, with the exception of two senior positions, are staffed with Sri Lankan nationals. The company has 500 employees, which is the same as the quay had before the PPP; however, the volume of TEUs passing through QEQ has increased 350 percent. Employee efficiency has improved drastically because of the expansion of QEQ capacity, equipment modernization, better training, and work process improvements.

By the end of the fiscal year ending March 2004 (four and a half years into the project), QEQ was generating enough cash to cover capital expenditures. The operating cash flow for the project has been very strong. The Asian Development Bank evaluated the project and found that the Financial Internal Rate of Return was at least 2.5 percent greater than the Weighted Average Cost of Capital over the lifetime of the project. This earned the project a rating of “excellent”.
Commentary:

1. Overcoming Impediments

As previously discussed, one of the provisions of the contract required the SAGT partnership to offer employment to all the SLPA workers previously employed at QEQ. Only a portion of QEQ workers accepted employment with SAGT, with the rest continuing their employment with the Port Authority. The SAGT partnership overcame this temporary shortage of workers by hiring qualified personnel from across Sri Lanka. The partnership ended up creating a number of jobs because employee levels for QEQ remained constant through the changeover in ownership. Through effective training, and infrastructure and technology investment, these workers were more productive than the original staff, processing three a half times more TEUs per worker.

Economic growth for QEQ, and for Sri Lankan ports in general, slowed in 2001 because the insurance industry placed a war risk surcharge on all vessels going into and out of Sri Lanka. The surcharge was levied by insurers after the Joint War Committee and the War Risk Rating Committee of the London Insurance Market determined that all of Sri Lanka should be brought under “held cover.” Previously only northern Sri Lanka was under “held cover,” which relates to war. The surcharges resulted from security concerns following an attack by the Liberation Tigers of Tamil Eelam, a Tamil separatist movement, on the International Airport near Colombo in July 2001. During this time many vessels used ports in neighboring nations; however, when the surcharge was removed in March 2002, traffic returned to Sri Lankan ports. This demonstrates the importance of political stability and security in securing international trade and continuing growth and development.

2. Success/Failure

Overall, the SAGT partnership has dramatically improved the efficiency of QEQ. Container traffic has increased from 200,186 TEUs in 2000 to 899,720 TEUs in 2004, a 350 percent increase, with no net increase in QEQ staffing. Traffic will continue to rise, as QEQ is not yet operating at full capacity. Gross gantry moves per hour rose from 12 in 1998 to 30 in 2003. Berth efficiency has increased from an average of 6.9 hours of wait time for vessels in 1997 to 0.9 hours in 2003.

Productivity at the port overall has increased because SLPA has adopted many of the same management techniques as the SAGT partnership. Roughly 500 jobs were created directly by the SAGT partnership and many others were created as a result of contracts for maintenance at
the expanded QEQ. Jobs in surrounding sectors have been created because of increased spending by the SAGT partnership employees. With a greater number of vessels using Colombo Port, demand for ancillary services in and around the port increased. According to an Asian Development Bank study, the economic internal rate of return, which measures the quantifiable net economic benefits to all of society, was over 15 percent for the life of the project, earning the project’s contribution to economic development a rating of “excellent.”

The third objective of the partnership was to demonstrate the positive impacts PPPs and private sector investment could have in Sri Lanka. In 2006, one of the partners in the SAGT partnership increased its holdings from 26.25 to 33.75 percent of the SAGT partnership’s shares, demonstrating its confidence in the SAGT partnership. Further faith in PPPs in Sri Lanka has been shown with the proposed South Harbor project at Colombo Port. The project will involve the building a new terminal with three berths and a new breakwater. Estimated costs are around $500 million. The criteria for submitting an Expression of Interest (EOI) to the government included having handled around 2 million TEUs, including at least 600,000 TEUs as transshipment in two terminals in the previous two years. Five companies or partnerships, including the SAGT partnership, submitted EOIs. This signifies their belief in the success of further projects at Colombo Port.