Sri Lanka

Telecommunication Network Expansion Project in the Colombo Metro Area

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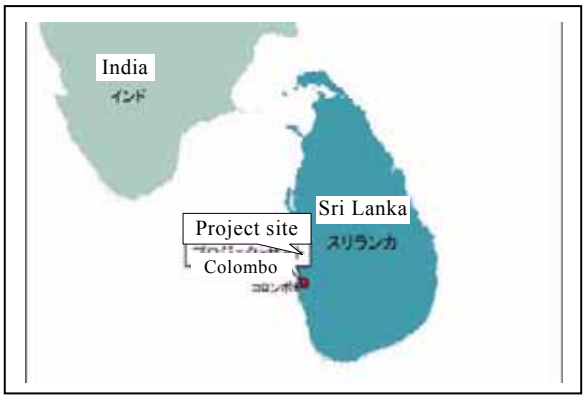
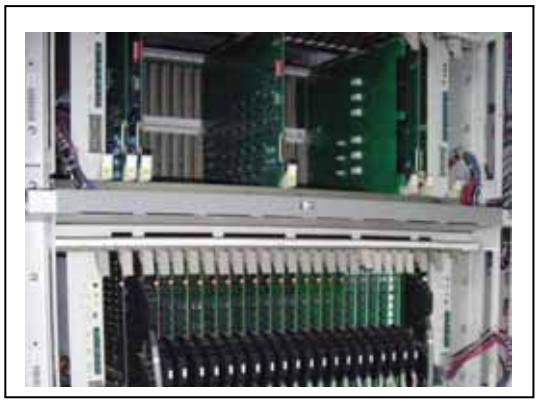
Field Survey: October 2006, February and April 2007

1. Project Profile and Japan's ODA Loan



Map of project area



Switchboard installed under the project

1.1 Background

This project was designed to improve telecommunications in the Colombo Metro Area where about half of the applicants on the waiting list for main telephone lines were concentrated and a further increase in demand for telephone services was expected. It was also listed among the priority projects that needed to be immediately implemented in the "Study on Telecommunications Networks in the Democratic Socialist Republic of Sri Lanka" by JICA.

Sri Lanka Telecom (SLT) was partially privatized in August 1997 when it sold 35% of its shares to NTT (Japan). Although the BOT method is widely used to for the utilization of private resources and privatization of the infrastructure sector in Asian developing countries, the SLT's case took the form of "privatization of the enterprise management" by selling its shares to investors. NTT's participation in the management of SLT was expected to help improve telecommunications services and to accelerate development. The provision of the ODA loan for this project executed by SLT would presumably facilitate the privatization process in the infrastructure sector.

1.2 Objective

The project objective was to respond to the demand for telephone services and eliminate the waiting list for main lines in the Colombo Metro Area by installing

switchboard equipment, transmission lines and external plants, thereby contributing to enhanced economic activities of the region.

1.3 Borrower/Executing Agency

Government of the Democratic Socialist Republic of Sri Lanka / Sri Lanka Telecom Limited (guaranteed by the government of Sri Lanka)

1.4 Outline of Loan Agreement

Loan Amount / Loan Disbursed Amount	10,023 million yen / 8,347 million yen
Exchange of Notes / Loan Agreement	June 1997 / August 1997
Terms and Conditions -Interest Rate -Repayment Period (Grace Period) -Procurement	 2.3% 30 years (10 years) General untied
Final Disbursement Date	October 2004
Main Contractors	Tomen Corporation (Japan)
Consultant Services	Nippon Information Technology Consulting Co., Ltd. (Japan)
Feasibility Study (F/S), etc.	1996 “Study on Telecommunications Networks in the Democratic Socialist Republic of Sri Lanka” (JICA)

2. Evaluation Result (Rating: A)

2.1 Relevance（Rating: a）

2.1.1 Relevance at the time of appraisal

For the government of Sri Lanka pursuing poverty reduction through economic growth, the most important issue was the improvement and development of infrastructure for the purpose of promoting investment and activating the economy. As of 1997, the government has been proceeding with the policy of developing the telecommunications sector along with electric power and road, port, water and sewerage sectors using foreign public funds. Assistance for a telecommunications project by the ODA loan was in accordance with the aforementioned policy of the government of Sri Lanka at that time. The demand for telephone services in the Colombo Metro Area occupied about 60% of the national demand as of 1997 and a further increase in demand for telecommunications was expected. The Telecommunications Sector Master Plan adopted at that time put an emphasis on meeting the demand for telephone services in the Metro Area. The policy on telecommunications announced in 1994 set the goal of completely satisfying the demand for telephone services by 1998. However, due to the delay in the implementation of related projects, it was considered difficult to satisfy the ever-increasing demand by 2001.

In order to achieve this goal, implementation plans of 15 projects were drawn up by 2000, and this project was one of the three projects of the highest priority. The Telecommunications Sector Master Plan specifically mentions this project as one of the three priority projects. Feasibility studies were conducted for these three priority projects (the Central Ring Optical Trunk Transmission Network Construction Project, and the New International Telecommunications Facilities Construction Project) that needed to be urgently carried out. As of the time of ex-ante evaluation (1997), deregulation of the telecommunications sector and privatization of SLT were planned. Assistance for this project was provided considering the public nature of SLT that operates most fixed telephone lines in Sri Lanka. Therefore, the decision to provide assistance for this project was appropriate at the time of appraisal.

2.1.2 Relevance at the time of evaluation

The telecommunications sector remains an important sector in the development plan of Sri Lanka. The development strategies of Sri Lanka "Regaining Sri Lanka" (December 2002) first mentions the "telecommunications and IT" sectors among the seven priority sectors of infrastructure development and puts forth an action plan "to develop the telecommunications sector on a competitive basis to facilitate the growth of ICT services." Also, the fifth and sixth of the transport and telecommunications initiatives are "improving access to telecommunications facilities" and "bringing the Internet to the countryside," indicating that particular importance is placed on the telecommunications sector. Actually, in the national economy, the service industry including telecommunications services has been growing steadily, achieving annual growth rates of 4–7% since 2002.

At the same time, based on the recommendations by IMF and the World Bank, the government of Sri Lanka has been further pursuing the policies of structural reform, deregulation and introducing foreign capital. The government intends to maintain sustainable development of the economy through privatization of public enterprises in the service industry, etc., and structural reforms (according to interviews with government offices and references provided by the Ministry of Foreign Affairs and by JETRO). In telecommunications projects, the government withdrew from the position of direct management and came to play supervisory and regulatory roles in projects. The Ministry of Post and Telecommunications (MOPT) concentrates on policy planning as the regulatory role has been transferred to the Telecommunication Regulatory Commission (1996). Thus, a good balance between planning and checking facilitated sound development of the telecommunications sector. With the reform of the telecommunications sector, mobile communication and Internet are spreading. MOPT, the

administrative authority in charge of these measures, was changed to the Ministry of Mass Communication once integrating the administration of broadcasting and mass media and that of post and telecommunications. Then it was divided again into the Ministry of Post and Telecommunications and the Ministry of Mass Media and Information.

The New National Telecommunications Policy (September 2002) called for "providing people with choices of inexpensive and efficient communication means" by developing information infrastructure in Sri Lanka and combining IT, media, telecommunications and new information technology (Internet and electronic government). As a result, more fixed telephone lines were installed in the Colombo Metro Area where the telephone business was easy to make profit, which led to the spread of fixed telephone services in all of Sri Lanka. In Sri Lanka, a framework for the liberalization of telecommunications services excluding basic services such as fixed-line telephone services was established under the Telecommunication Law that took effect in 1991. As a result, private telecommunications operators entered into the market in 1996. Those entered were Suntel (partially funded by Swedish and Hong Kong companies) and Lanka Bell (partially funded by a Singapore company). Both of them obtained licenses to operate local telecommunications businesses (Wireless Local Loop: a system that connects subscriber lines to the fixed telecommunications network using radio links, which is effective in providing telecommunications services in regions with low demand). SLT, which was incorporated in the same year, was obliged to interconnect with these two private companies.

The 1996 government approval of Wireless Local Loop (WLL) telephone services which utilize connections between the fixed telephone network and radio technology created an environment in which private businesses could maintain profits. These services are spreading to the rural areas around the capital and other regions. It is believed that the extensive development was made possible largely due to the synergy effect of this project and the fixed telephone network expansion project which was implemented around the same time with the assistance of World Bank and ADB. Of 883,000 fixed telephone lines available as of 2002, 769,000 lines are provided by SLT. This project made a great contribution to the development of telecommunications with SLT, which had served most of the telephone demand in Sri Lanka.

Implementation of this project with the ODA Loan paved the way for deregulation and privatization of telecommunications through structural reforms. The deregulation led to the introduction of competition and, in that process, SLT achieved rapid growth as a business entity. Technical transfer from NTT is almost complete today, and SLT has become capable of managing and operating autonomously. Now SLT can issue corporate bonds in the Singapore market and its financial status is becoming quite sound. It owns 1.1 million fixed lines and maintains a high operating rate of 95% (as of the time of the

interview survey in October 2006).

Therefore, the assistance to the fixed telephone network capacity expansion project through SLT was still considered appropriate as of the time of evaluation. The rapid spread of mobile telephones and CDMA after the time of appraisal was not foreseeable at the time of appraisal. Still, the fixed telephone network forms the basic infrastructure for the expansion of the various telecommunications networks in recent years and, therefore, the relevance of the project has not been lost even after its completion.

2.2 Efficiency (Rating: b)

2.2.1 Outputs

Regarding almost all items, more outputs have been achieved than what was planned. A particularly high output has been achieved for the local cable access network included in the external plant, of which the capacity is 220% of planned capacity. While the demand for telecommunications increased with the economic development of the Colombo area, prices of communications equipment such as switchboards declined as a result of technological innovation on a global scale. In this project, additional procurement was made because the procurement prices were generally lower than initially estimated.

The summary of outputs is shown below.

(1) Switchboard equipment
Capacity: 110,438 lines (13 switching offices) (113% of planned output)
(2) External plant
- Fiber-optic cable network: 4 rings, 16 fiber-optic cores (100% of planned output)
- Local cable access network: 164,470 lines (24 switching office) (220% of planned output)

(3) Transmission equipment
- 4 junctions (35 switching offices) (125% of planned output in terms of the number of switching offices)

(4) Office buildings
- No office was constructed or reconstructed because of the change of the plan.

(5) Electric power equipment
- Storage batteries: 22 places (169% of planned output)
- Power generators: 6 places (120% of planned output)

(6) Consulting services
- 90 MM (103%)

(7) Others
- Installation of 60,494 subscriber lines (new)

2.2.2 Project period

The schedule for the project was delayed by about two years in total due to the change

in specifications of the procured equipment, installation, and facilities and civil works, i.e. the increase in the number of switchboards that were introduced in the external plant, which required an additional period for maintenance service by the suppliers.

Detailed design was conducted after the suppliers were selected because of the rapid advancement of telecommunication technology and additional procurement. Therefore, the time frame for the detailed design came after that of the selection of suppliers. The scheduled period for selecting consultants was shortened, and maintenance assistance was carried out as scheduled.

	Plan (at the time of appraisal)	Actual
Project period	Aug. 1997–Mar. 2003 (68 months)	Aug. 1997–Oct. 2004 (81 months)
Selection of consultants	Aug. 1997–Jul. 1998	Aug.–Dec. 1997
Detailed design	Jul.–Dec. 1998	Jan. 1998–Feb. 1999
Selection of contractors	Sept. 1998–Feb.1999	Mar.–Jun. 2000
Equipment procurement, installation, and equipment and civil works	Mar. 1999–Mar. 2002	Mar. 1999–Apr. 2004
Maintenance assistance	Apr. 2002–Mar. 2003	Apr. 2002–Mar. 2003

2.2.3 Project cost

The following shows the comparison between the planned and actual project cost.

	Plan (at the time of appraisal)	Actual
Project cost	15,872 million yen	9,769 million yen (61.5% of planned amount)
ODA loan portion	5,849 million yen	7,645 million yen (76.3% of planned amount)
Foreign currency	10,023 million yen	7,645 million yen (76.2% of planned amount)
Local currency	5,849 million yen	2,124 million yen (36.3% of planned amount)

Both the local currency and foreign currency portions were reduced from the initial estimate. The main factor is the reduction in contract prices due to technological advancement. Although SLT requested to reallocate the unused portion of the ODA loan resulting from cost reduction to the expansion of the telecommunications network over regions outside of the Colombo Metro Area, the Japanese government did not permit additional procurement by the reallocation of the unused portion of the ODA loan because it would not be included in the original scope of the project. Therefore, the project cost

was significantly reduced from the planned amount. The exchange rate changed from 1 Rs = 2.09 yen at the time of appraisal to 1 Rs = 0.75 yen, representing a significant appreciation of yen.

2.3 Effectiveness (Rating: a)

2.3.1 Number of subscriber lines, waiting list for main lines, etc.

The comparison of performance indicators for the telecommunications sector between pre-implementation and post-implementation is as follows:

- ✓ Number of subscriber lines: 914,912 (national, 2005) (290% of pre-implementation)
- ✓ Number on waiting list for main lines: 27,211 (Colombo Metro Area, 2005) (412% of pre-implementation)
- ✓ Call completion rate: 47.14% (national, 2005) (143% of pre-implementation)
- ✓ Fixed telephone density: 5.42 (national, 2006) (304% of pre-implementation)
- ✓ Faults cleared within 24 hours: 85.67% (national, 2003) (156% of pre-implementation)

Since the waiting time for telephone subscription was increasing at the time of appraisal, the introduction of equipment to solve such problems with the ODA loan was timely. The target area was the capital area where the improvement of telecommunications had tremendous ripple effects on economical development. Indicators of the quality of telecommunications services ("call completion rate" and "faults cleared within 24 hours") also have improved from the time of the appraisal.

2.3.2 Internal rate of return (IRR)

The values of financial internal rate of return (FIRR) and economic internal rate of return (EIRR) recalculated based on the same assumptions as those applied at the time of appraisal are shown below. Since the data on the incomes from call charges, subscription fees and basic charges, which should be used for their calculation, were not available, the average income per subscription line was calculated by dividing the total income in the recent years by the number of subscription lines. The values used were of those in the year with the smallest figures (minimum value) for a conservative assessment.

✓ FIRR: 15.27%

Assumptions (same as those applied at the time of appraisal)

Costs: project cost, operation and maintenance expenses (values reported by SLT)

Benefits: income from call charges, income from subscription fees, and income from

basic charges
(The minimum value of the average income per subscription line in recent years is used for a conservative assessment.)

✓ EIRR: 22.43%

Assumptions (same as those applied at the time of appraisal)
Costs: project cost, operation and maintenance expenses
Benefits: social benefits from telecommunications (income from charges × 1.15)
Project life: 20 years including the construction period

The FIRR and EIRR of this project are slightly lower than those calculated at the time of appraisal (FIRR = 17.6%, EIRR = 23.7%) because the construction period was extended from the planned 68 months to 81 months. These results, however, suggest that the expected profitability was close to being achieved.

2.4 Impact

2.4.1 Quantitative effects

As a result of deregulation, telephone service companies other than SLT entered into the market, and the effect of the competition with SLT became obvious. At present, telephone density has increased sharply both in urban and rural areas from the time of appraisal as shown below.

✓ Telephone density in urban areas
18.9% (96/97) → 51.4% (03/04) (fixed telephone density: 17.7% → 42.2%)[1]

✓ Telephone density in rural areas
2.6% (96/97) → 21.6% (03/04) (fixed telephone density: 2.0% → 13.7%)[2]

Also, Internet services (including e-mail) using telephone lines, which were not available at the time of appraisal, have been growing. The national subscription density of these telecommunications services is 1.4% (2004). The subscription densities in urban and rural areas are as follows:

Subscription density in urban areas: 5.3% (03/04)[3]
Subscription density in rural areas: 0.8% (03/04)[4]

The numbers of subscribers of the Internet and e-mail services provided by SLT

[1] Statistics by the Central Bank
[2] Statistics by the Central Bank
[3] Statistics by the Central Bank
[4] Statistics by the Central Bank

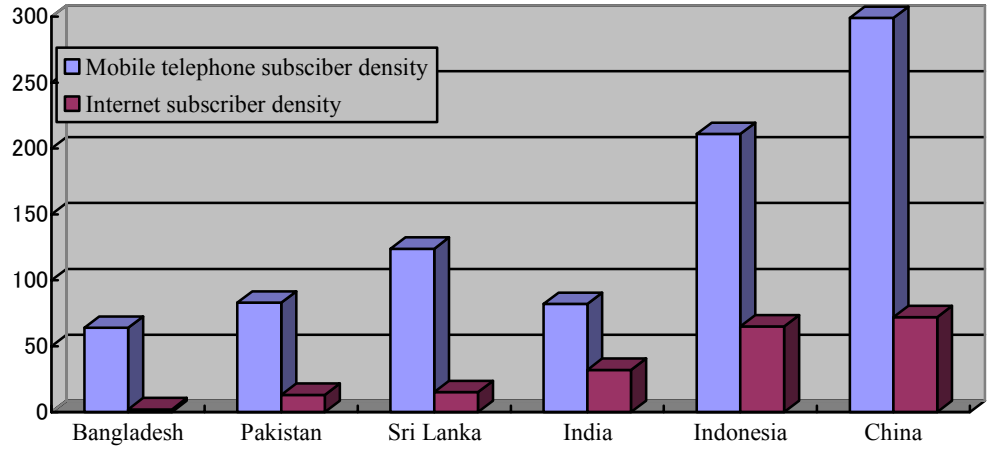
(national total) changed as follows:

Internet subscribers: 554 (1996) → 59,908 (2006)[5]

e-mail service subscribers: 830 (1996) → 21,224 (2006)[6]

The comparison of mobile telephone subscriber density and Internet subscriber density among south Asian countries, Indonesia and China is shown below.

Figure 1: Comparison of Mobile Telephone Subscriber Density and Internet Subscriber Density among Developing Countries (per 1000 people)

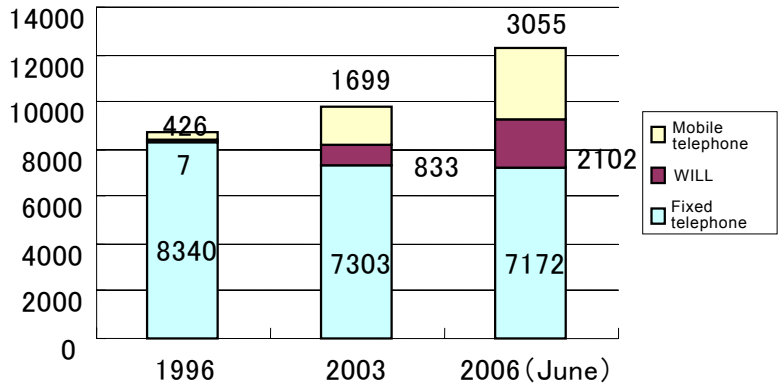


Source: Statistics by ITU (International Telecommunication Union). Mobile telephone subscriber densities are for 2005 and Internet subscriber densities are for 2004.

As the telecommunications sector grew increasingly active, the number of employees of this sector increased as shown in the following figure. The unemployment rate of Sri Lanka also improved during this period from over 10% to less than 9%.

[5] SLT Annual Report
[6] SLT Annual Report

Figure 2: Change in the Number of Employees of the Telecommunications Sector by Business Area (person)



Source: prepared by the survey team based on the data by World Bank

2.4.2 Qualitative effects

According to the interviews (20 households and 8 enterprises were chosen from 1250 samples in 5 regions and interviewed extensively), the qualitative effects of this project on the society and economy include activation of small-sized enterprises and exporting industries, increased opportunities for employment and education, and satisfaction of the increasing needs for international telephone calls. There has been no negative impact on the environment.

One of the qualitative effects brought to the telecommunications sector is that fees and charges decreased due to technological innovation and competition with the mobile telephone. The benefit is evident even in rural areas. The reduction of fees and charges are achieved without intervention or request of the government. Although the widespread use of the mobile phone is observed as a structural change in the telecommunications sector, fixed telephone services expanded on a steady basis because its usage does not incur charges for incoming calls. The fixed telephone network is essential for the introduction of CDMA technology. Expansion of the fixed telephone network including this project triggered penetration of telecommunications services not only into urban areas but also into rural areas. SLT started CDMA business (SLT Citylink CDMA) from the fourth quarter of 2005. After achieving 35,020 subscriptions during the same quarter, it increased subscriber lines to 269,338 by the end of 2006 (a 693% increase). The goals of “achieving telephone density of 13% and e-mail user density of 0.6% by 2005” set in the Report on Development Strategies (December 2002) have been achieved.

According to the questionnaire survey to beneficiaries conducted at the same time, the

following qualitative effects were observed.

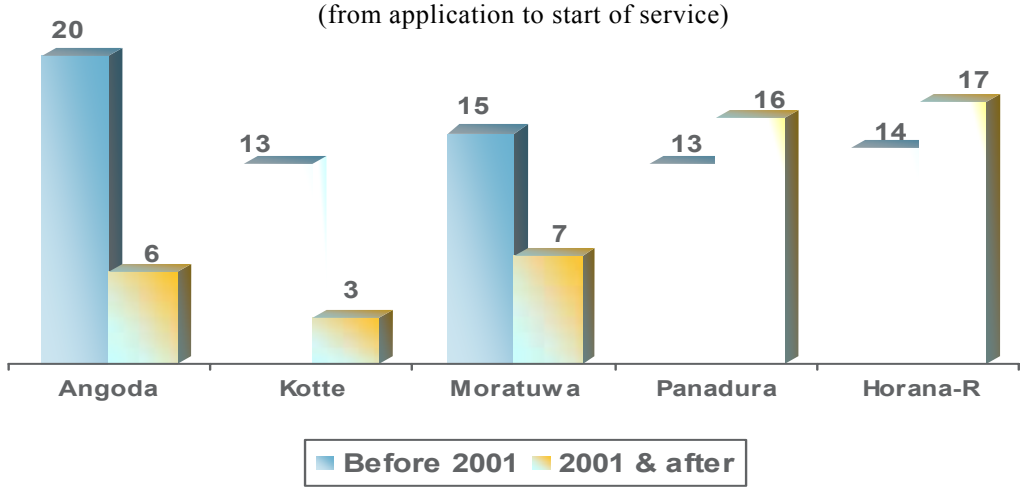
Column: Impact of the fixed telephone network expansion project (beneficiary survey)

As part of impact evaluation, a questionnaire-based survey of fixed telephone users (general households and companies) in the Colombo Metro Area was conducted. Five areas were selected including three areas covered by JBIC assistance (Angoda, Kotte and Moratuwa) and two areas not covered by JBIC assistance (Panadura and Horana-Rural), and 250 samples were randomly chosen from each area (1,250 samples in total).

(1) Reduction in the waiting period for general households for installation of fixed telephone lines

Figure 3 below shows the waiting period (months) from the time of application for subscription of SLT's fixed telephone services to the time of installation of telephone lines. In three areas covered by the JBIC assistance, the average waiting period was shortened substantially (from 16 months to 5 months on average) after 2001 when the switchboard equipment installed with the ODA loan started operation and the number of available lines increased. On the other hand, the average waiting period increased in the two areas not covered by JBIC assistance.

Figure 3: Change in Waiting Period (Months) for Installation of Fixed Telephone Lines
(from application to start of service)



(2) Reduction in the average waiting period for corporate users from application to installation of telephone lines

Also for corporate users, the average waiting period (months) from the time of subscription application to that of installation was shortened substantially after 2001 when the number of available fixed telephone lines increased with JBIC assistance as shown in Figure 4 below.

Figure 4: Reduction in Average Waiting Period (Months)
for Installation of Fixed Telephone Lines

First Year of	First Line	Second Line

SLT Services	Companies	Period (months)	Companies	Period (months)
Before 2001	64	**20**	25	**15**
2001	5	**2**	2	**1**
2002 and after	21	**6**	19	**3**
No answer	2		46	

(Note) Totals of three areas covered by JBIC assistance (Angoda, Kotte, Moratuwa)

2.5 Sustainability (Rating:a)

2.5.1 Executing agency

2.5.1.1 Technical capacity

SLT is owned 35% by NTT and obtained technologies and know-how for continuous expansion. With the expansion of fixed telephone services, technologies of mobile communication and Internet access were introduced and the benefits of fixed telephone services were synergistically increased. In particular, the introduction of CDMA technology, which enables the fixed telephone network to be used in providing telecommunications services in rural areas, helped ensure universal services after privatization of SLT. Deregulation and privatization allowed the entry of foreign capital and enabled the timely introduction of technologies. There seems to be no technical problem in operating and maintaining the existing equipment and continuing universal services.

For the future, the plan is to introduce ADSL and IP telephone services that are to be more stable when using the fixed telephone network. After NTT acquired shares of SLT, new services were introduced and necessary technologies were transferred. Therefore, SLT can introduce new business based on these new technologies.

2.5.1.2 Operation and maintenance system

The corporate headquarter of SLT consists of the Management Division, the International Division, the Marketing Division, the Technical Division, the Project Division, the Organization Management Division, the Financial Division and the Planning Division under the Chairman, President (CEO) and Board of Directors. The number of employees of SLT is 7,172 according to the 2006 Annual Report.

After privatization, SLT set the following strategic business goals for each year according to which it has been gradually reforming the management structure.

Figure 5: SLT's Basic Strategies after Privatization

1997: Investment to respond to the demand (consistent with this project)
1999: Reinforcement of internal control

2002: Business structure reform 2004: Corporate brand strategy as the market leader 2006: Technological innovation and business diversification

Source: prepared by the survey team based on the materials provided by SLT

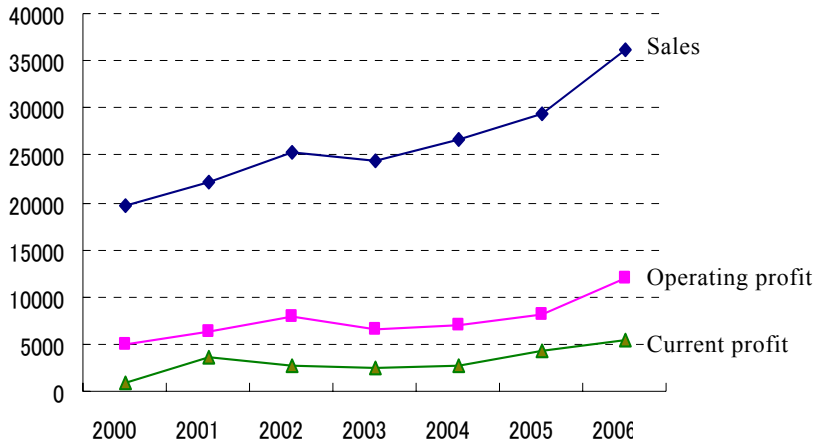
These goals serve as phased milestones on the better use of fixed telecommunications infrastructures under this project and on the expansion on business as a provider of Internet services. By pursuing this direction, SLT, the largest telecommunications carrier in Sri Lanka, would reduce telecommunications costs of the country and thus contribute to economic development and improvement of the investment environment.

2.5.1.3 Financial status

SLT shares are owned 49.5% by the government of Sri Lanka, 35.2% by NTT, and 15.3% by employees and others (as of 2006).

Its sales, operating profit and current profit have all been growing on a steady basis.

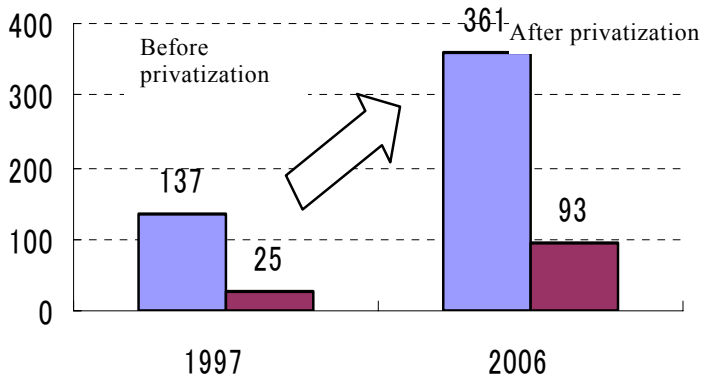
Figure 6: Changes in Sales, Operating Profit and Current Profit of SLT



Unit: million Rs; Source: prepared by the survey team based on the SLT Annual Report

Looking into the changes in the financial performance in the past ten years from appraisal to this ex-post evaluation, sales increased by 120% and net profit increased by 77% from 1997 to 2006 (Figure 7). In terms of earnings, both income and profit have been steadily increasing. These data show that SLT has been building strong business operations.

Figure 7: Sales (left) and Before-tax Profit (right) of SLT before and after Privatization

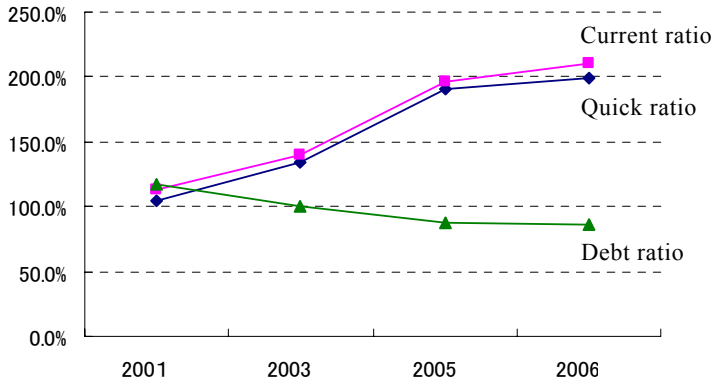


Unit: thousand million Rs

Source: prepared by the survey team based on the materials provided by SLT

As for the change in the private debt situation after privatization, long-term debts/sales ratio improved from 144.8% (2000) to 70.2% (2005). On the capacity to meet short-term financial obligation, both the current ratio and quick ratio has been increasing. These facts indicate that SLT is on the steady path toward establishing a sound financial structure.

Figure 8: Changes in Current Ratio, Quick Ratio and Debt Ratio of SLT



Source: prepared by the survey team based on the SLT Annual Report

Backed up by the improved financial status as described above, SLT is highly rated in foreign capital markets and is allowed to issue corporate bonds in a foreign currency (Singapore Dollar) in the Singapore bond market (according to the interview with the

CEO of SLT in October 2006). In corporate ratings, SLT is rated BB- or above by all rating companies.

Figure 9: Ratings of SLT

Fitch Rating	2004 (2003 for domestic)	2006
International	B+	BB-
Domestic	AA	AAA
S&P	2005	2006
International	B+	BB-
Domestic	BB-	BB-

Source: prepared by the survey team based on the SLT Annual Report

2.5.2 Operation and maintenance status

2.5.2.1 Operation and maintenance structure

In the Colombo Metro Area, the target area of the project, operation and maintenance staff are allocated as follows to engage in operation and maintenance activities.

- ✓ Switching board (SW): 158 employees
- ✓ External plant (OSP): 1,250 employees
- ✓ Transmission equipment (TR): 135 employees

With regard to the switching offices, around 10 employees are allocated to each large office, and one employee is allocated to each small office as the staff in charge of operation and maintenance with three shifts in each. It was confirmed that the organization structure for O&M, which was in place at the time of appraisal, has been maintained to date.

SLT established four in-house training schools to maintain and enhance skills and knowledge of employees. These efforts seem to have resulted in the improvement of efficiency such as the 306% increase in the number of direct exchange lines per employee from 36 (1997) to 146 (2006).

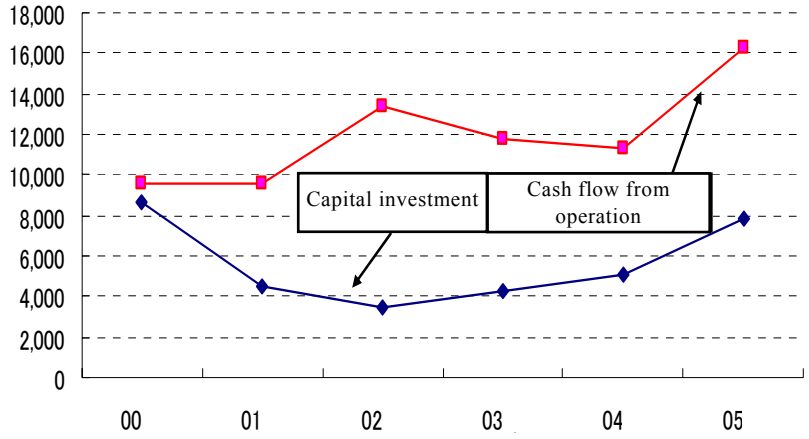
At the switching office in the Kotte area under the project which we visited, a Fujitsu switchboard was installed on the first floor of the office. The capacity of the switchboard was 20,036 lines of which 17,420 lines were in operation, achieving a capacity utilization rate of 87%. On the second floor covered by the World Bank portion was an Alcatel (France) switchboard. Of its capacity 19,744 lines, 16,244 lines were in operation, achieving a capacity utilization rate of 82%. There is some concern over parts replacement because the Japanese manufacturer ceased to manufacture switchboards. This is an issue on the supplier side, not caused by SLT. However, as a matter of fact, medium-

to long-term problems may occur when parts in stock run out. This kind of problem has not occurred with switchboards made by Ericsson. SLT is considering replacing the Fujitsu equipment in the future with those made by Ericsson and Chinese manufacturers such as Huawei and ZTE, manufacturing inexpensive equipment.

2.5.2.2 Finance

As with many other companies, there is a certain cycle in the capital investment of SLT and it seems that a capital investment plan has been followed in standard manners in this industry. The company is in a period of capital investment expansion started in 2004. Considering that the cash flow is increasing at the same or a higher rate than capital investment, it can be said that the company has established a financial structure strong enough to ensure sustainable growth for visible future.

Figure 10: Changes in Capital Investment and Cash Flow of SLT



Unit: million Rs; Source: prepared by the survey team based on the SLT Annual Report

3. Feedback

3.1 Lessons Learned

- When forming a project, decision on assistance should be determined based on full consideration of the trends of the policy on regulation including privatization (for this project in Sri Lanka, JBIC provided assistance based on full awareness of the trend of privatization).

- In the privatized telecommunications sector, its public and policy-oriented nature should be taken into consideration when providing assistance (SLT has this public

nature).

As mentioned in the section on "Relevance," the government policy on privatization and deregulation was already under way at the time of ex-ante evaluation of this project (1997). SLT was obliged by the government to make its lines available to newcomers after privatization. Also, SLT was the only company at that time that could provide universal services with its extensive network covering rural areas. Therefore, the assistance to SLT indirectly supported the structural reform of the telecommunications sector and at the same was of great public importance.

- The use of the unused portion of the loan should not have been limited to the capital area. In a sector where technological innovation advances rapidly, the target area of the project should be determined in a flexible manner.

As mentioned in "2.2.3" of the section on "Efficiency," the Japanese government did not approve SLT's request to apply the unused portion of the project budget resulting from cost reduction to the project in other regions than the Colombo Metro Area. Consequently, SLT carried out the project in the outskirts of Colombo with its own funds (because it managed to implement the project in Colombo with low-interest ODA loan). Considering the fungibility of the fund, JBIC's response is not considered wrong. However, there seems to be no necessity to limit the target area to inside Colombo.

3.2 Recommendations

(For executing agency)

- SLT should consider expansion of the area of its high-speed telecommunications services in response to the growing needs for ADSL services (as evidenced by the result of the beneficiary survey, the needs are particularly high among exporting companies). It would be able to further utilize the fixed telephone infrastructure for economic development.

As stated in the section on "Impact," SLT has achieved the target Internet subscriber density. What matters is the transmission speed. According to the beneficiary survey, ADSL services of higher speeds are indispensable for businesses and efforts are needed in this respect. In addition, as measurements of the quality of telecommunications network services, new indicators such as the ADSL service subscriber density need to be monitored.

Comparison of Original and Actual Scope

Item	Plan	Actual
1. Outputs	(1) Switchboard equipment - 97,840 lines (13 switching offices) (2) External plant - Fiber-optic cable network: 4 rings, 16 giver-optic cores (350km) - Local cable access network: 74,700 lines (24 switching offices) (3) Transmission equipment - 4 junctions (28 switching offices) (4) Office buildings - Construction (1) and reconstruction (4) (5) Electric power equipment - Storage batteries: 13 places - Power generators: 5 places (6) Consulting services - 87 MM	(1) Switchboard equipment - 110,438 lines (13 switching offices) (113% of planned output) (2) External plant - Fiber-optic cable network: 4 rings, 16 giver-optic cores (350km) (100% of planned output) - Local cable access network: 164,470 lines (24 switching offices) (220% of planned output) (3) Transmission equipment - 4 junctions (35 switching offices) (125% of planned output in terms of the number of switching offices) (4) Office buildings - No office was constructed or reconstructed because of change of plan (5) Electric power equipment - Storage batteries: 22 places (169% of planned output) - Power generators: 6 places (120% of planned output) (6) Consulting services - 90 MM (103%) (7) Others - Installation of 60,494 subscriber lines (new)
2. Project Period	Aug. 1997–Mar. 2003 (68 months) Selection of consultants: Aug. 1997–Jul. 1998 Detailed design: Jul.–Dec. 1998 Selection of contractors: Sept. 1998–Feb. 1999 Equipment procurement, installation, and equipment and civil works: Mar. 1999–Mar. 2002 Maintenance assistance: Apr. 2002–Mar. 2003	Aug. 1997–Oct. 2004 (81 months) Selection of consultants: Aug.–Dec. 1997 Selection of contractors: Jan. 1998–Feb. 1999 Detailed design: Mar.–Jun. 2000 Equipment procurement, installation, and equipment and civil works: Mar. 1999–Apr. 2004 Maintenance assistance: Apr. 2002–Mar. 2003 *Additional procurement (output [7]): Oct. 2000–Dec. 2003
3. Project Cost Foreign currency Local currency Total	 10,023 million yen 5,849 million yen (2,799 million Rs) 15,872 million yen	 7,645 million yen (76.2% of planned amount) 2,124 million yen (36.3% of planned amount) (1,590 million Rs) 9,769 million yen (61.5% of planned

		amount)
ODA loan portion	10,023 million yen	7,645 million yen (76.3% of planned amount)
Exchange rate	1 Rs = 2.09 yen (at the time of appraisal)	1 Rs = 1.33 yen (weighted average of each year. Source: Project Status Report dated May 2006)