Sri Lanka

Baseline Road Project (I) (II)

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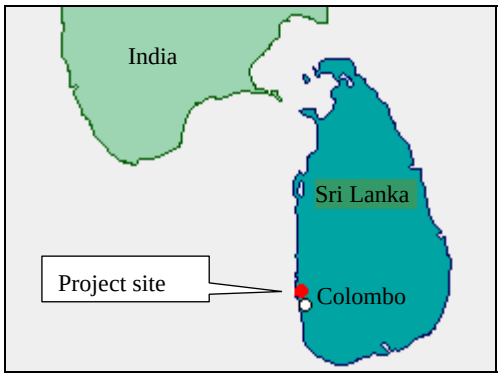
Field Survey: November - December 2005

1. Project Outline and Japan's ODA Loan



Map of the Project site

Colombo City Baseline Road

1.1 Background

As a social and economic center of Sri Lanka, Greater Colombo Area[1] (which includes Colombo city and the surrounding region) has achieved development. An 8-km-long Baseline Road that runs from north to south through the eastern end of Colombo city is one of the main arterial roads in the Greater Colombo area. At the time of the appraisal (1993), however, with the exception of a certain segment, the entire road had only a single lane in each direction. As the road's surface had also deteriorated, it was difficult to travel smoothly. Moreover, because railroad tracks crossed the road, time to wait for trains to cross was required. In short, it was the most congested section in all of Colombo city. The increase in traffic volume expected for the 1990s and years following suggested a compelling need to widen and improve the Baseline Road.

1.2 Objective

The project's objective was to facilitate smooth traffic in Greater Colombo Area by widening the existing Baseline Road from dual one lane (partially two lanes) to dual three lanes and also by implementing road rehabilitation, construction and

[1] Greater Colombo Area (Colombo area) has a population of 2.3 million (roughly corresponding to the population of Niigata Prefecture), making up 12% of the population of Sri Lanka. When the Gampaha district next to the Colombo area (2.09 million) and the Kalutara area (1.08 million) are added, the total population comes to 5.47 million people, with around 30% of Sri Lanka's total population concentrated in this region.

improvement of structures, upgrading of junctions, etc, and thereby contribute to revitalization of economic activities in this area.

1.3 Borrower/Executing Agency

Government of the Democratic Socialist Republic of Sri Lanka/Road Development Authority (RDA)

1.4 Outline of Loan Agreement

Loan Amount/ Disbursed Amount	(I) 5,137 million yen/4,926 million yen (II) 2,342 million yen/2,291 million yen
Exchange of Notes/ Loan Agreement	(I) June 1993/August 1993 (II) June 1997/August 1997
Terms and Conditions (I) - Interest Rate - Repayment Period (Grace Period) - Procurement (II) - Interest Rate - Repayment Period (Grace Period) - Procurement	 2.6% p.a. 30 years 10 years General Untied 2.3% p.a. 30 years 10 years General Untied
Final Disbursement Date	(I) January 2002 (II) May 2004
Main contractors	(I) Kumagai Gumi Co., Ltd. (II) Kumagai Gumi Co., Ltd.
Consultant	(I) Nippon Koei Co., Ltd. (Japan)/W.S. Atkins International (England) (II) Nippon Koei Co., Ltd. (Japan)/Engineering Consultants Ltd. (Sri Lanka)/Resource Development Consultants (Sri Lanka)/W.S. Atkins International Ltd. (England)
Feasibility Study (F/S) etc.	1991: F/S by the British government

	1992: Preliminary Study by Japan Bank for International Cooperation（JBIC）

2. Evaluation Result

2.1 Relevance

2.1.1 Relevance at the time of appraisal

In the Public Investment Programme of 1991-1995, investment in roads and highways accounted for 49.5% of the entire transportation investment budget, putting a strong emphasis on their role in economic development. In addition, in the context of promoting development of the private sector, and in particular, export-oriented enterprises, there was a recognized need to provide transportation services and appropriate transportation infrastructure in order to avoid a fall in their export competitiveness of such companies. In regards to the Greater Colombo Area, the Transport Sector Planning Study (TSPS) of 1988 under the United Nations Development Programme (UNDP) concluded that rehabilitating the Baseline Road and extending it to the south should be development priorities. At that time, the Baseline Road was a major highway connecting the north and south regions of the Greater Colombo Area, and played a central role as one of Sri Lanka's most significant roads. At the same time, traffic was increasing year by year, and it was anticipated that the road would simply not be able to handle the expected traffic volume increase from 1994-2001 if it continued to have only dual one lane. Consequently, the project had a high priority as a measure for increasing traffic capacity in the Greater Colombo Area.

2.1.2 Relevance at the time of evaluation

The current Medium-Term Expenditure Framework (2006-2008) indicates a vision of "constructing modern, high quality and efficient infrastructure on a national scale and providing important connections among resources, market and employment, thereby uniting regions and enhancing competitiveness of the nation". Moreover, a large portion or 27%-33% of the infrastructure budget is allocated to road construction and maintenance. A southward extension project of the Baseline road was included as one of road development projects for the years 2006-2015 in the Road Sector Master Plan of 2005 (sponsored by the Asian Development Bank (ADB)). In this way, the project has great importance as a means of strengthening the role of the Baseline Road as a major arterial road in the Greater Colombo Area.

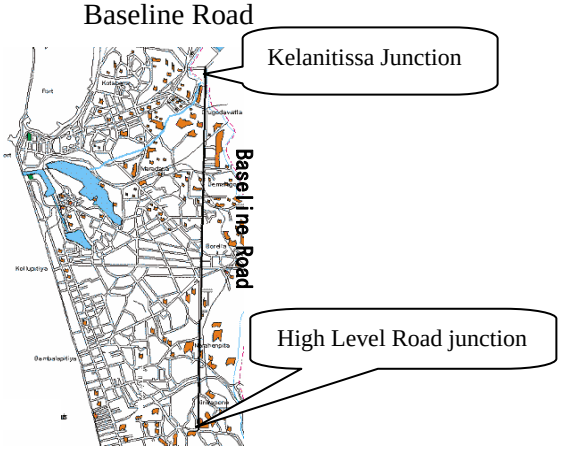
2.2 Efficiency

2.2.1 Outputs

The project was implemented by dividing into two phases. Phase I was designed to extend the north section of the Baseline Road by 4.75km, and Phase II was to extend the south section by 3.25km. The planned and actual outputs were as shown in "Comparison of Original and Actual Scope" at the end of the report. Major changes from the initial plan were as follows. First, in Phase I, it was additional included to upgrade to dual three lane for the section from Borella Junction to the Kanatta Junction (roughly 600m) which, at first, was excluded from the plan due to the difficulty in additional land acquisition. Secondly, for the safety of pedestrians and for the smooth flow of traffic, the crosswalks were moved underground at the Borella Junction.

Fig. 1 Entrance to the Borella Junction underpass

Fig. 2 Location of the Baseline Road



2.2.2 Project period

The construction work for Phase I was initially planned to end in May 1998, but took 28 months longer than expected, ending in September 2000. A number of factors contributed to the delay. Selection of the consultant took an extra four months, and revisions to the detailed design required an extra two months on account of changes to the scope of the project. The construction work was delayed 22 months, of which, 19 months delay was accounted for the utilities diversion of water pipes, transmission lines and telecommunication lines, and three months delay was due to the fact that illegal residents refused the relocation associated with land acquisition for a canal bridge. With regard to the utilities diversion in particular, the main reason for the delays was that numerous underground utilities that had not been documented on design maps were only discovered after the construction work began, and a great deal

of time was spent trying to coordinate with the various water supply, sewerage, communications, and electric power supply utility companies who had administrative authority over those facilities.

In Phase II, no major delays in the construction work were observed. This can be attributed to the fact that weekly meetings were held during project implementation among building contractors, construction supervision consultants, the Road Development Authority (RDA), and the various utilities agencies (National Water Supply and Drainage Board (NWSDB), Colombo Municipal Council (CMC), Ceylon Electricity Board (CEB), and Sri Lanka Telecom (SLT)) so as to facilitate liaison and coordination. The construction work for Phase II was completed in September 2002, that is, 25 months delay from the planned completion date of August 2000. The main reason for the delay was that there was a 24-month delay in selection of consultants and procurement of contractors due to prolonged contract negotiations for the civil work.

2.2.3 Project cost

The project cost for Phase I came to 3,645 million rupees, a significant increase over the planned cost of 2,662 million rupees on a local currency basis because the cost for utilities diversion was increased, and costs for consulting service and civil works were also increased due to the delay in project implementation. However, because the yen appreciated by roughly 105% relative to the rupee between the time of the appraisal and the time of civil work completed, on a yen basis, the total project cost was actually lower than the planned figure by approximately 1,500 million yen. As for Phase II, on a local currency basis, the actual costs for construction and utilities diversion overshot planned figures by a substantial margin. Owing to the fact that from the time of the appraisal to the time of civil work completed the yen appreciated by 95% over the rupee, on a yen basis, the actual project costs of 3,365 million yen were a mere 47 million yen above the planned figure of 3,318 million.

2.3 Effectiveness

2.3.1 Annual average daily traffic

Table 1 compares planned and actual figures for traffic volume.

Fig. 1 Planned and Actual figures for annual average daily traffic (vehicles per day)

Measurement point (distance from the north end of the Baseline Road)	Actual figures for 1994	Target figures for 2002—four years after the time of expected work completion (May 1998)	Actual figures for 2006 (estimated based on measurements taken February 9, 2006)	Percentage of the actual increase in volume relative to the planned increase in volume
0.83 km point	55,660	88,829	75,039	58.4%
2.00 km point	24,691	71,866	59,765	74.3%
7.40 km point	No data available	77,322	30,968	Not applicable

Source: Actual figures for 1994 come from the RDA. Target values for 2002 derive from the appraisal document. Actual figures for 2006 are estimates made based on measurements taken during the ex-post evaluation[2].

At present, the Baseline Road functions primarily as a main road between residential neighborhoods in the suburbs and offices, governmental institutions, schools, and commercial facilities concentrated within Colombo city itself. As such, the road contributes to the making of a smooth traffic network through the Greater Colombo Area. Actual figures fell below projections. Traffic volume in and out of Colombo city from the suburbs was generally sluggish on account of a government policy promoting suburbanization between the latter half of the 1990s and the first half of the following decade. After the year 2000, however, it was reported that public transportation services (specifically buses and rail) had not improved, and that the ownership and usage of private automobiles, motorcycles and three-wheeled taxis had increased dramatically. Traffic volume along the Baseline road increased at an annual rate of 4-5% between 2001 and 2005. Moreover, traffic volume along the road is expected to swell, and the road's function as a main road connecting the northern and southern portions of the Greater Colombo Area is expected to improve by the start and completion of planned construction work to extend the southern end, and by the carrying out of improved traffic management (including synchronized traffic signals, a crackdown on illegal parking, and regulations on direction of travel) and upgrading of junctions (including traffic circles and increases in the capacity of intersecting roads).

2.3.2 Traffic volume at peak times

The standard design volume of the Baseline Road is 1800 passenger car units

[2]During the ex-post evaluation, traffic volume was measured at three points along the Baseline Road. Measurements were taken from 7:00 to 19:00 on February 9, 2006. To convert from 12-hour measurements to 24-hour estimated values, 24-hour measurements taken by the Road Development Authority (RDA) in July 2002 were used, multiplying by a factor of 1.29.

(PCUs) per hour (a PCU is a unit that converts all vehicles into the equivalent number of passenger cars). According to traffic volume data measured on February 9, 2006, actual peak traffic volume (measured for one lane over a one-hour period) for the Phase I and Phase II sections was a maximum of 1,227 and 543 vehicles per hour, respectively. In other words, traffic volume came to 68% and 30% of the standard design volume for the two sections respectively. See 2.3.1 for a discussion on the projected traffic increases in a future, as well as the reasons that actual traffic levels were so far below the standard design volume.

2.3.3 Vehicle operation cost saving

The project seems to have contributed to improve the road surface characteristics (roughness, potholes, and cracks) of the Baseline Road greatly at over all sections, and to save operating cost for vehicles using the road. Based on the table for economic vehicle operating costs for different roughness that the ADB applied to road projects in Sri Lanka, the vehicle operation cost saving in 2003 (the year after Phase II was completed) came to 142 million rupees. The estimated saving in vehicle operation cost for the projected year following Phase II project completion, as calculated at the time of the appraisal, was 258 million rupees (1995 value). Considering that prices rose by 180% between 1995 and 2003, the vehicle operation cost saving calculated at the time of the appraisal was excessive.

2.3.4 Economic Internal Rate of Return

In the ex-post evaluation, the Economic Internal Rate of Return (EIRR) was recalculated for at the time of both appraisal and ex-post evaluation. Economic benefit was attributed solely to the vehicle operation cost saving by improvements to the road conditions[3]. EIRR at the time of the appraisal was 3.2% for the Phase I section at the time of Phase I completion, and 2.8% for all sections of the road at the time of Phase II completion. At the time of the ex-post evaluation, assuming that traffic volume would increase by 3%, the corresponding figures for the completion of Phase I and

[3]At the time of the appraisal, benefits were calculated as a combination of 1) the saving in vehicle operation cost by reduction in travel distance and improvement of road surfaces, 2) the reduction in travel time resulting from changes in route and travel speed, and 3) the reduction in traffic accidents resulting from an improvement in road surfaces. For Phase I, benefits for the north section only came to 21.4%, and for Phase II, benefits for all sections including the south section were 21.2%. For the ex-post evaluation an attempt was made to recalculate EIRR based on the same preconditions as used in the appraisal. However, because it was not possible to obtain all the data required, figures were recalculated for both at the time of appraisal and ex-post evaluaion levels taking only the reduction in travel costs due to road surface improvement as the benefit.

Phase II were 0.4% and 0.5%, respectively. The reason that the ex-post evaluation figures were lower than the appraisal figures is believed to be that, when calculated on a local currency basis, actual project costs greatly exceeded planned consts, and the projected benefit from the reduction in travel costs was overestimated.

2.4 Impact

2.4.1 Economic stimulation for the Greater Colombo Area

Fig. 2 shows the number of businesses registered in the three districts—Colombo, Gampaha, which is located north of Colombo, and Kalutara, which is south of Colombo.

Fig. 2 Number of Businesses Registered with
the Ministry of Industrial Development's Board of Investment

(Unit: No. of Companies)

	2000	2001	2002	2003	2004
Colombo	1,731	1,927	2,062	2,104	2,117
Gampaha	694	705	764	796	844
Kalutara	142	165	181	189	205
Subtotal	2,567	2,797	3,007	3,089	3,166
Total for all of Sri Lanka	3,227	3,626	3,800	3,902	4,001

Source: Sri Lanka Central Bank

The number of businesses registered in these three districts accounts for 80% of all businesses nationwide. The rate of increase is slowing gradually, and economic activity in the Greater Colombo Area, which is the heart of Sri Lanka's economic activity, and surrounding regions, is increasing. The Baseline Road thus plays a significant role as a major arterial road in the region.

2.4.2 Improvement of livelihood of roadside residents

According to the beneficiary study conducted in the ex-post evaluation[4], 83% of residents surveyed responded that the project had had a positive effect on their living environment, such as that illegal residents' quarters that had formerly dotted the road were eliminated, the installation of street lights and sidewalks, as well as the rebuilding of buildings along the road, had improved the scenery and living environment along the road, crime, especially crime against women, had decreased,

[4]In the ex-post evaluation, an interview survey was carried out for 30 households out of the 311 relocated households, 30 households out of residents currently living in the vicinity of the Baseline Road, and 30 other beneficiaries of various kinds, including pedestrians, bus passengers and users of other transportation means, and drivers of private automobiles, mini-taxis, buses, and trucks.

and the frequency with which the road flooded during heavy rains had decreased by the construction of sewerage and drainage facilities done as part of the civil work.

2.4.3 Rise in land value in the neighborhood

The price of land in the vicinity of the Baseline Road increased substantially from the time before construction began to the time construction ended. In the Dematagoda district, which is located along the road's northern part, land prices rose from 5,900 rupees/m^2 before the start of work to 59,000 rupees/m^2 after work was completed. Similarly, in commercially active Borella district prices went from 20,000 rupees/m^2 to 158,000 rupees/m^2. In the Narahenpita district, an upper-middle class residential area at the road's southern end, land prices rose from 12,000 rupees/m^2 to 40,000 rupees/m^2. In short, land prices rose by 300% to 1,000%. As a result of this drastic increase in land prices, former small- and mid-sized business operators moved out to other areas, and new businesses came in to replace them. Overall, the appearance of the area surrounding the road changed markedly.

2.4.4 Change in class of residents living along the Baseline Road

Survey results report that thanks to the completion of the Phase II section on September 2002, there was a trend for those in the upper income bracket who owned private automobiles to move from downtown areas to the road's southeastern section, which now had improved access to the city center. Based on traffic volume survey conducted at the southern end of the Phase II section, a peak in the volume of passenger vehicles heading north towards the city center was seen in the mornings when people commute to work or head for school. In the afternoons when students leave school and in the evenings when people leave work, peak traffic volume consisted largely of passenger vehicles heading south.

2.4.5 Change in the nature of traffic accidents

The nature of traffic accidents has changed since the development of the Baseline Road. While the number of accidents involving a single vehicle and those in collisions with other vehicles fell between 2002 and 2004, accidents involving pedestrians rose 34% along the Phase I section and 45% along all sections including the Phase II section. The increase in accidents involving pedestrians mainly occur when pedestrians cross the road at places other than crossings, when pedestrians cross at times when visibility is poor, and when pedestrians cross at traffic signals that are out of order. On the other hand, at the Borella Junction, where an underground passage was constructed, accidents involving pedestrians are lower than in other north section

junctions.

2.4.6 Resident relocation

Relocation of a total 311 households and land acquisition were implemented during the implementation of phases I and II of the project. Before the land was acquired, the RDA conducted a study on lands for acquisition. The RDA collected data on landowners, occupants, and illegal residents, and based on that data, provided compensation to landowners. For long-term occupants, compensations were provided on condition that they have either a certificate of rights to land occupation or, that they paid Colombo municipal taxes. Illegal squatters received no compensation for the land they had occupied, though they were offered dwellings to which they could relocate.

Of the 311 households who were relocated by the project, 251 consisted of illegal squatters. Based on a plan before the project, dwellings were prepared for these people to relocate to. In some cases, some time was needed to furnish the new dwellings with running water, sewerage, and electricity. According to a beneficiary survey conducted in the ex-post evaluation, roughly 80% of the 30 relocated households examined by the survey responded that the water supply, toilets, and sewerage facilities at their new residences were either the same or better than what they had before. Moreover, 73% responded that their new residences were as clean or cleaner, and 63% said that their living environment was as good or better. While there were some cases that residents could not get the same jobs as before, some respondents acknowledged the positive effects that they had a residence, were socially recognized, and were set up so that their children could attend school in the vicinity. Moreover, most of the residents whose land was partly acquired were able to remain in the same location.

2.4.7 Environmental Impact

With regard to the influence of air pollution and noise on residents living in the vicinity of the road during the construction, although the project did not need the approval under an environmental impact assessment (EIA), an environmental report was prepared previously. The project was implemented with approval by the Central Environmental Authority (CEA) on condition that excavated earth and sand was to be properly stored and disposed of, measures were to be taken to minimize dust from the earth and sand during transport, construction machinery was to be transported in cooperation with the police and city authorities and so on. In the beneficiary survey, no major violations were reported. No post-project monitoring was undertaken to check on the impact on the environment since it was not legally required.

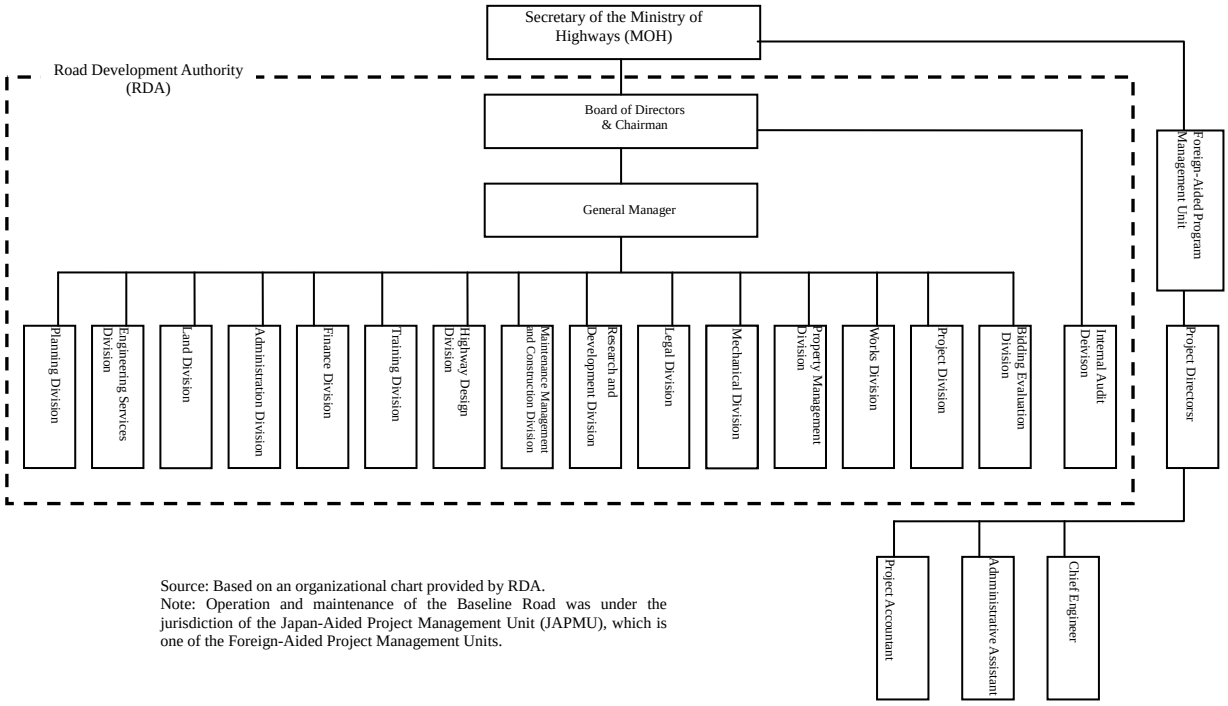
2.5 Sustainability

2.5.1 Executing agency

2.5.1.1 Technical capacity

Japan-Aided Project Management Unit (JAPMU), which was separated from the RDA in March 2002, is responsible for the construction, operation, and maintenance of road and highway projects supported by aid from Japan, and has experiences in supervising road construction and rehabilitation (see Fig 3). When Phase II was completed, an engineering consultant prepared an operation and management manual as part of the technology transfer and provided it to the RDA. However, because it was lost when JAPMU moved its office out of the RDA, up until now it has not been used[5]. At the present time, it has been only five years since the completion of Phase I and three years since the completion of Phase II, so no major repairs or rehabilitation have been carried out.

Fig. 3 Organizational Chart of Institutions related to Road and Highway Development



Source: Based on an organizational chart provided by RDA.
Note: Operation and maintenance of the Baseline Road was under the jurisdiction of the Japan-Aided Project Management Unit (JAPMU), which is one of the Foreign-Aided Project Management Units.

2.5.1.2 Operation and maintenance system

[5]During the ex-post evaluation, it was found that the manual had been lost. The external evaluator obtained the same manual from the supervisory consultant, and handed it over to the executing agency. As described above, at present, only daily maintenance is necessary, but when in the future rehabilitation will be conducted, this manual should be used.

As described above, JAPMU is in charge of operation and maintenance for roads. The Japan-aided project unit of RDA had been in charge of the management of the Baseline Road up until March 2003, when, pursuant to Management Service Circular No. 10 from the Ministry of Finance and Planning, the unit and other foreign-aided project management divisions were separated from the RDA. JAPMU thus became an independent accounting unit under the direct control of the Secretary of the Ministry of Highways (MOH), which possesses its own budget and whose functions include the implementation, administration, finances, and operation and maintenance of road projects supported through Japan aid (Independent project management unit (PMU) are designed to effectively and efficiently carry out projects funded through foreign assistance by gathering first-rate personnel from the private sector and evaluating the performance of their project managers.). At present, besides the project director appointed by MOH, technical officers hired from the private sector, project accountants, and other management staff, JAPMU has a total of 35 employees (regular number of 45). The unit has authority and responsibility for the operation and maintenance of the Baseline Road. Drainage, sewerage, garbage collection, and other services provided along the road are under the jurisdiction of Colombo Municipal Council (CMC). The RDA and JAPMU are under the jurisdiction of MOH. They submit reports on technological issues to the Director- Programming, and on financial issues to the Chief Accountant of MOH. MOH compiles the budget for road construction, operation, and maintenance based on these reports. At the time of the ex-post evaluation, there was some discussion of carrying out organizational restructuring such that JAPMU, currently a financially independent unit under the jurisdiction of MOH, would move back under the control of the RDA. For concerns whether the quality of road maintenance could be maintained if the operation and maintenance duties for the Baseline Road currently implemented by JAPMU should be transferred to MOH's Maintenance, Management, and Construction Division, it was explained that even if JAPMU returns to the jurisdiction of RDA, operation and maintenance of the Baseline Road would remain under JAPMU' s control, and would not be under the purview of the RDA's Maintenance, Management, and Construction Division.

2.5.1.3 Financial status

A yearly operation and maintenance budget of 10 million rupees for the Baseline Road is allocated independently to JAPMU, with the accounting year corresponding to the calendar year. Over the past three years, JAPMU's operation and maintenance expenditure has been 10.83 million rupees in 2003, 14.48 million rupees in 2004, and

13.09 million rupees in 2005 (up till November). In addition to the above-described budget allocations, JAPMU also obtains rental revenue from shops in the Borella Underground Passage and billboards placed along the Baseline Road, and using these revenues, they install a central divider fence in the road and so on. Since 2004, however, assets management for the leasing of space for billboards along the road and the rentals for shops in the Borella Underground Passage have been reassigned to RDA's newly established asset management and income unit, and so revenue is now paid to that division instead. JAPMU has been requesting a 10% increase in allocations per year because they see that they are not able to maintain the road surface or repair damage outside beyond daily maintenance tasks such as road inspections, street cleaning, and repairs of street lights and traffic signals with its current limited budget allocations. The authority to determine the budget resides with higher governmental authorities, namely MOH and the Ministry of Finance and Planning. JAPMU's 2006 budget allocation for operation and maintenance of the Baseline Road came to 10 million rupees, and in the future it is expected that the same budget framework will be maintained. The RDA implements construction and operation and maintenance of roads under Sri Lankan governmental policy and budget allocations.

2.5.2 Operation and maintenance status

As described above, JAPMU performs operation and maintenance for the road. At present, only five years have passed since the completion of Phase I construction, and so large-scale repairs have not yet been undertaken. What is performed presently includes street cleaning, repainting of street signs, and other daily maintenance, together with repairs to areas damaged through traffic accidents. These operation and maintenance tasks are all sub-contracted to private enterprises, and JAPMU simply plays a supervisory role. Within JAPMU, below the Chief Engineer is an engineer responsible for operation and maintenance, and below that are two Technical Officers who inspect the Baseline Road on a daily basis in the mornings and afternoons. An interview with the local police conducted during the ex-post evaluation pointed a number of problems. Traffic signals and street lamps tend to take time to be repaired when they are out of order, damaged guardrails are neglected, and portions of the central fence have not been installed. Based on field inspections conducted over all sections of the road, the facilities and condition of the road appear to be reasonably well maintained. Due to budgetary limitations for operation and maintenance of the Baseline Road, repair work does take some time to get done, but for the most part operation and maintenance is being carried out satisfactorily.

3. Feedback

3.1 Lessons Learned

The project was a development and expansion of a road in a metropolis where it was assumed to have underground utilities. During the implementation of Phase I, numerous underground utilities that had not been documented on design maps were only discovered after the construction work began, and a great deal of time was spent trying to coordinate with the various water supply, sewerage, communications, and electric power supply utility companies who had administrative authority over those facilities. In Phase II, the construction work itself faced no major delays. This can be attributed to the fact that weekly meetings were held during project implementation among building contractors, construction supervision consultants, the RDA, and the various administrators of the underground utilities (NWSDB, CMC, CEB, and SLT) so as to facilitate liaison and coordination. When implementing a similar road project in a large city in the future, the executing agency should be advised to keep close contact with parties concerned in order to avoid useless delay caused by poor coordination.

3.2 Recommendations

3.2.1 Recommendations for MOH, RDA, and JAPMU

Following this project, there is a need to extend the road to the south and expand the network. Since traffic volume is expected to increase during that time, additional traffic control facilities and upgrading of junctions will be needed. The Baseline Road was designed considering efficiency in traffic as a first priority, therefore, inconvenience is caused for the pedestrians such as long distances between crossings. Frequently seen are the pedestrians crossing the road where there is no crossing, and many accidents involving pedestrians are reported which is also partly due to the malfunction of the traffic signals. It is recommended to plan a traffic safety education for the habitants living in the vicinity of the Road, and installment of pedestrians' crossings with traffic signals and overpasses.

3.2.2 Recommendations for RDA, JAPMU, and JBIC

Storage of data and information relating to the project by the executing agency is not satisfactory[6]. JBIC should not simply request a project completion report to be

[6]During the ex-post evaluation, the evaluators attempted to obtain financial documents pertaining to the Phase I section construction work, status reports on the progress of construction, and completion reports for the Phase I construction work. However, these had been lost either partially or in their entirety, and it was not even possible to determine whether they had been submitted to the executing agency. In addition, because periodic measurement data for traffic volume along the Baseline Road was not being

submitted, but need to provide support to resolve problems related to data and information storage.

In addition, as described above, the executing agency lost the operation and maintenance manual, and at present it is not being used. The manual does not provide concrete and practical explanations from the user's standpoint, and therefore the executing agency's lack of interest on motivation to use it could be one of the reasons that it is not utilized. An operation and maintenance manual prepared by ADB under its road sector master plan contains concrete descriptions together with pictures and schematics of road surface conditions such as roughness, pot holes, and cracks as well as damage to road structures. It should be used as a reference in the future when another manual is to be prepared.

taken, post-project measurements likewise could not be obtained.

Comparison of Original and Actual Scope

Item	Plan	Actual
(1) Outputs	Phase I 1) North section of the Baseline Road (New Kelani Bridge-Kanatta Junction): 4.8km	Phase I 1) North section of the Baseline Road: 4.75km
	Repairs and maintenance for the existing road (rehabilitation)	As planned
	Road expansion (expansion from dual one lane to dual three lanes, with the exception of the 600m stretch with dual two lanes between Borella and Kanatta Junction, which is to remain the same)	Expansion of sections with dual one lane to dual three lanes was as planned, but the section with dual two lanes was also expanded to dual three lanes.
	Rehabilitation of the exsisting Dematagoda Canal Bridge.	As planned.
	Construction of Dematagoda Viaduct over the railway	As planned.
	Provision of signals for the crossing (seven locations)	As planned; however, management of pedestrians at the Borella Junction was changed by converting crosswalks into underground passages.
	2) Engineering services mainly for detailed design for all sections of the Baseline Road (both north and south sections)	2) As planned.
	Phase II 1) South section of the Baseline Road (from Kanatta Junction to High Level Road): 3.4km	Phase II 1) South section of the Baseline Road: 3.25km
	Road expansion (from dual two lanes to dual three lanes)	As planned.
	Installation of traffic control facilities and traffic safety facilities	As planned.
	Construction and improvements of structures	As planned.
	Utility diversion	As planned.

	2) Consulting services a) Supervision consultant b) Management consultant	2) As planned.
(2) Project Period	Phase I August 1993-May 1998 (58 months) Phase II August 1997-August 2000 (37 months)	Phase I August 1993-September 2000 (86 months) Phase II August 1997-September 2002 (62 months)
(3) Project Cost Foreign currency Local currency Total ODA Loan Portion Exchange rate Foreign currency Local currency Total ODA Loan Portion Exchange rate	Phase I 3,388 million yen 4,039 million yen (1,448 million rupees) 7,427 million yen 5,137 million yen 1 rupee = 2.79 yen (as of March 1993) Phase II 1,481 million yen 1,837 million yen (879 million rupees) 3,318 million yen 2,342 million yen 1 rupee = 2.09 yen (as of Jan. 1997)	Phase I 3,119 million yen 2,750 million yen (1,613 million rupees) 5,869 million yen 4,926 million yen 1 rupee = 1.75 yen (1997-2001) Phase II 1,591 million yen 1,774 million yen (1,164 million rupees) 3,365 million yen 2,291 million yen 1 rupee = 1.43 yen (1998 - 2004)