El Salvador

Road Improvement Project

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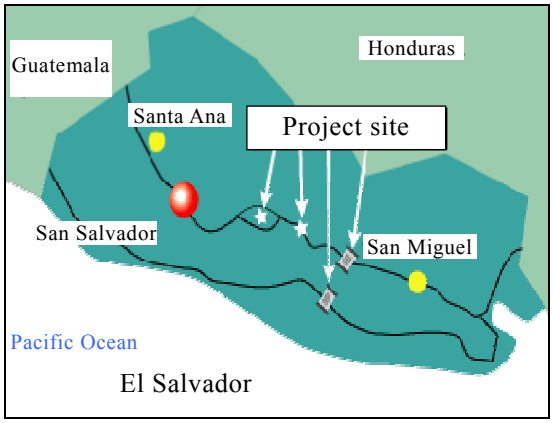
Field Survey: September and November 2006

1. Project Profile and Japan's ODA Loan



Map of project area

Capital's northern trunk road on National Highway 1

1.1 Background

In El Salvador[1], important infrastructure such as roads and bridges was destroyed during the long-lasted civil war (1979–92), which impeded reconstruction of the economy after peace was restored. In particular, reconstruction of the Cuscatlan Bridge on National Highway 1 and the San Marcos Lempa Bridge on National Highway 2, both important bridges over the Lempa River, the largest river of the country dividing the east-west transportation network, was the most urgent activity.

After the civil war ended, the government of El Salvador drew up the National Reconstruction Plan to further promote national economic development in response to the people's needs with emphasis on the development of road and bridge infrastructure as one of the priority areas. In the program, the highest priority was given to this project, which was to reconstruct the major trunk lines of National Highways 1 and 2.

This project was also expected to contribute to increasing the transport capacity of the part of the Pan-American Highway[2] running through not only El Salvador but also the whole Central America region.

[1] The population of El Salvador is 6.8 million (2006) and the total area is 21,040 km^2, almost the same as Shikoku.
[2] An international trunk road network connecting North and South American countries

1.2 Objective

The project objective was to increase the road transport capacity of major trunk roads in El Salvador and also to alleviate traffic congestion around the capital of the country by reconstructing two major bridges destroyed during the civil war and improving trunk roads around the capital, thereby contributing to the post-civil-war recovery and economic development.

1.3 Borrower/Executing Agency

Borrower: The Government of the Republic of El Salvador

Executing Agency: Ministry of Public Works (Ministerio de Obras Públicas: MOP)

Road Maintenance Fund (Fondo de Conservación Vial: FOVIAL, for the operation and maintenance of the portion covered by the ODA loan)

Figure 1: Project Area

1.4 Outline of Loan Agreement

Loan Amount / Loan Disbursed Amount	10,332 million yen / 10,332 million yen
Exchange of Notes / Loan Agreement	April 1994 / May 1994
Terms and Conditions -Interest Rate -Repayment Period (Grace Period) -Procurement	 3.0% 30 years (10 years) General untied
Final Disbursement Date	December 2004

Main Contractors	Rizzani de Eccher, SBI International, Astaldi
Consulting Services	Katahira & Engineers Inc., Nippon Koei Co., Ltd., Louis Berger, NHA Compania
Feasibility Study (F/S) etc.	F/S: 1993 by Black & Veatch/Chuo Kaihatsu Corporation

2. Evaluation Result

2.1 Relevance

2.1.1 Relevance at the time of appraisal

The National Reconstruction Plan (1992−1996) for the reconstruction of the national economy, which was weakened by the civil war, and reconciliation of the people placed high priority on the development of infrastructure such as power and water supplies, transportation, etc., and particular importance was given to the improvement of the road sector since it forms the foundation for recovery after the civil war. Also, as economic reconstruction and trading with neighboring countries were revitalized, an urgent need arose for the development of infrastructure including the improvement of major trunk roads, to which a large amount of funding was allocated. Thus, a more important role was given to the transportation sector.

As stated above, this project aiming at improving National Highway 1 and reconstructing two major bridges on National Highways 1 and 2 connecting the east-west corridors has assumed importance to provide the base for the country's recovery after the civil war and economic development.

2.1.2 Relevance at the time of evaluation

In the National Reconstruction Plan (1992−1996) for economic reconstruction after the civil war, high priority was given to improvement in the road sector. In recent years following the post-civil war recovery period, as trading among domestic cities, airports and ports as well as that with other Central American countries are becoming more active, the plan to expand and improve the major trunk road networks throughout the country is being carried out in line with the Transportation Master Plan (1997–2017). Thus, the transportation sector is still playing an important role. Construction of the capital's northern trunk road under this project is considered highly important as one of the pillar projects of the above-mentioned master plan.

In an international context, for the purpose of strengthening intraregional economic cooperation in Central America such as the Plan Puebla Panama (PPP)[3], the government is committed to improving the road sector as part of national policy and so the importance

[3] A development plan formulated in 2001 by Mexico and seven Central American countries with the aims of regional economic integration, sustainable development and improvement of people's living standards.

of road improvement under this project increased. In particular, the two major bridges reconstructed in this project not only contribute to the reconstruction of the war-ravaged east-west transportation routes such as National Highways 1 and 2, which are the major trunk roads, but also play extremely important roles in the transportation networks of Central American countries by forming parts of the Pan-American Highway and, therefore, their reconstruction was urgently needed.

Thus, this project supported the country's recovery after the civil war by improving National Highway 1 and reconstructing two major bridges on National Highways 1 and 2 and remains highly important in that it provides a base for economic development for the future.

2.2 Efficiency

2.2.1 Outputs

The comparison of the planned and actual outputs is shown in the table below. The three output items, i.e. the construction of two bridges and rehabilitation of National Highway 1, were implemented almost as planned.

As for the construction of a new access road to the capital's northern trunk road, the project plan was revised to increase the length of the road (increase in output). The main reason for the revision (change) of the plan was a request from residents living on the planned route, in response to which the planned route was changed to the new route in line with the Transportation Master Plan (1997–2017), and as a result the length of the road increased.

Table 1: Comparison of Planned and Actual Outputs

Output	Plan at the appraisal time	Actual
1) Construction of San Marcos Lempa Bridge (total length: 1.4 km, bridge: 0.5 km; approach roads: 0.9 km)	Total length: 1.4 km (bridge: 0.5 km; approach roads: 0.9 km)	Total length: 1.3 km (bridge: 0.5 km; approach roads: 0.8 km) (almost as planned)
2) Construction of Cuscatlan Bridge (total length: 2.4 km; bridge: 0.5 km; approach roads: 1.9 km)	Total length: 2.4 km (bridge: 0.5 km; approach roads: 1.9 km)	Total length: 2.9 km (bridge: 0.4 km; approach roads: 2.5 km) (almost as planned)
3) Rehabilitation and widening of National Highway 1 (San Martin–San Rafael Cedros)	21.1 km	21.52 km (almost as planned)
4) Construction of a new access road to the capital's northern trunk road	3.8 km	10.9 km (increase by 7.1 km)

Source: MOP

The temporary bridge before project implementation

The bridge after project completion

Figure 2: San Marcos Lempa Bridge before and after the Project

The temporary bridge before the project implementation

The bridge after the project completion

Figure 3: Cuscatlan Bridge before and after the Project

The junction with the old road before project implementation

The interchange after project completion

Figure 4: National Highway 1 before and after the Project

2.2.2 Project period

The project period of this project was from May 1994 to December 2004 (117 months), 63 months longer than the planned period from May 1994 to November 1998 (54 months).

The main causes of the delay in project completion are as follows:

- The delay in the construction schedule was due to frequently occurred abnormal weather and natural disasters (particularly, the delay in the construction schedule due to recovery from landslides, etc. caused by Hurricane Mitch in 1998[4] and the great earthquake in 2001[5] and the repair necessitated by them).
- The delay due to the change of the planned route of the access road to the capital's northern trunk road (study of the new route) to meet the drastic change in the socio-economic environment after the civil war.
- The delay in the construction schedule due to the time required for land acquisition for the newly planned access road to the capital's northern trunk road and also due to the amount of time required for construction, which was longer than expected, because of the complicated geographical features along the new route.

Table 2: Comparison of Planned and Actual Project Period

	Plan at the appraisal time	Actual project period	Percentage against the plan
Reconstruction of bridges	April 1995 – November 1998 (43 months)	November 1995 – August 2000 (57 months)	133%
Rehabilitation and widening of National Highway 1	January 1995 – November 1998 (46 months)	February 2000 – May 2004 (51 months)	111%
Construction of the capital's northern trunk road	December 1994 – November 1998 (47 months)	December 2001 – February 2004 (38 months)	81%

Source: MOP

2.2.3 Project cost

The project cost was 24,661 million yen, 168% of the planned 14,716 million yen. The main causes of the increase in the project cost are as follows:

- Because the project was a form of emergency assistance for recovery after the civil war, the plan had to be changed at the design stage to meet the rapid change in the socio-economic environment from the time of planning such as F/S, and as a result the contraction cost increased
- The construction cost increased due to recovery work after natural disasters such as

[4] The torrential rain brought by Hurricane Mitch, the fourth largest hurricane on record, that began at the end of October 1998 caused serious damage to Central American countries. In El Salvador, 175 people were killed, 65 were reported as missing, and over 84,000 suffered.

[5] The magnitude of the earthquake was 7.6 on the Richter scale. Casualties: approx. 10,000; collapsed houses: approx. 150,000.

Hurricane Mitch and the great earthquake.

- The cost of rehabilitation and widening of National Highway 1 increased after the planning stage because of the change of the scope (construction of additional pedestrian bridges, construction of the interchange, use of domestically produced materials, etc.) in accordance with the government's intention.
- The cost of land acquisition and resident relocation increased as a result of the change of the route of the capital's northern trunk road (total length 3.8 km → 10.9 km).
- Domestic prices rose more sharply than expected with the rapid change in the socio-economic environment after the civil war and as a result the cost of materials increased.
- The delay in the construction schedule due to natural disasters, etc. resulted in the increase in personnel expenses.

Table 3: Comparison of Planned and Actual Project Cost

(million yen)

	Plan at the appraisal time	Actual project cost	Percentage against the plan
San Marcos Lempa Bridge	1,757	2,350	134%
Cuscatlan Bridge	1,903	2,682	141%
National Highway 1	4,047	6,498	161%
Capital's northern trunk road	3,621	6,344	175%
Consulting services	1,405	3,607	257%
Land acquisition/resident relocation	710	3,180	448%
Reserve fund	1,273	0	—
Total	14,716	24,661	168%

Source: MOP

2.3 Effectiveness

2.3.1 Annual average daily traffic

The traffic volume on the trunk roads and bridges improved and constructed in this project has been steadily increasing as shown in Table 4, indicating that these roads and bridges are effective in meeting the traffic demand.

[San Marcos Lempa Bridge/Cuscatlan Bridge]

The annual average daily traffic (vehicle/day) on the San Marcos Lempa Bridge and the Cuscatlan Bridge, respectively, increased substantially to 345% and 262% of the figures before the project. In addition, the amount of traffic on National Highways 1 and 2 has been increasing. Thus, the effect of this project is apparent.

[Rehabilitation and widening of National Highway 1]

The traffic volume increased to over 200% of the level before the project. The project contributed to the increase in traffic on National Highway 1 and the improvement of convenience for commuters to the capital region.

[Capital's northern trunk road]

The access road constructed in a suburb of the capital city San Salvador serves as a bypass road that contributes to alleviating traffic congestion in the capital city and improving convenience by reducing the time required for commuting.

Table 4: Annual Average Daily Traffic (vehicle/day)

Item	1993	2002	2003	2005	2010*	1993–2005 ratio
San Marcos Lempa Bridge	2,221	7,759	8,319	7,664	10,855	345%
Cuscatlan Bridge	2,100	3,427	3,564	5,498	12,090	262%
National Highway 1 (San Martin–Cojutepeque)	7,107	12,950	12,684	17,194	27,578	242%
National Highway 1 (Cojutepeque–San Rafael)	5,674	9,976	8,829	12,823	19,478	226%
Capital's northern trunk road	N/A	N/A	N/A	15,305	27,678	N/A

* Estimate by MOP as of 2006
Source: MOP

2.3.2 Time saving

While traffic volume increased after the project completion, traveling time has been reduced. Reduction in traveling time generated the following effects:

- Reduction in the commuting time to the capital city (particularly from nearby farming villages northeast of the capital[6])
- Facilitation of physical distribution (time saving of 81 minutes at maximum average when running east-west from the west of Cuscatlan on National Highway 1 to San Salvador)

Table 5: Time Saving (unit: minute [annual time saving per vehicle])

No.	Item	Target	Result	Daily (rounded up to the next whole number)
1	San Marcos Lempa Bridge	2,040 min.	2,040 min.	6 min.
2	Cuscatlan Bridge	3,780 min.	3,660 min.	10 min.

[6] Before the capital's northern trunk road was constructed in this project, commuters to the capital, San Salvador, were usually caught in traffic congestion in Soyapango and Delgado. After the completion, traffic congestion has reduced.

3	National Highway 1 (San Martin–Cojutepeque)	5,880 min.	5,640 min.	16 min.
4	National Highway 1 (Cojutepeque–San Rafael)			
5	Capital's northern trunk road	22,980 min.	21,420 min.	59 min.
6	Cuscatlan Bridge and the west– San Salvador (driving through No.2 –No.3–No.4–No.5)	–	–	81 min.

Source: MOP

2.3.3 Decrease in the number of traffic accidents

As a result of the following safety measures, the project also seems to contribute to the decrease in the number of traffic accidents, according to the data provided by the executing agency shown in Table 6.

- Construction of pedestrian bridges and 1 meter-high concrete guard fences at the places where traffic accidents are likely to happen such as important transport points, school-commuting roads and commercial districts.
- Traffic safety education activities by MOP targeting primary schools, transport companies, etc. (distributing pamphlets, posting notices, giving lectures, etc.)

Table 6: Decrease in the Number of Traffic Accidents

Item	Before project	2004	2005
San Marcos Lempa Bridge	–	1	1
Cuscatlan Bridge	–	0	1
National Highway 1 (San Martin–Cojutepeque)	560 (2000)	54	26
National Highway 1 (Cojutepeque–San Rafael)		9	5
Capital's northern trunk road	140 (2001: old road)	28	14

Source: MOP

Figure 5: A pedestrian bridge and a concrete guard fence constructed for safety

Figure 6: A roadside signpost to indicate that school children commute on this road

2.3.4 Economic internal rate of return (EIRR)

EIRR at the time of appraisal was 24.1% and the average EIRR recalculated for each component for this evaluation is 42.9%. Such a high rate is achieved in spite of the increase in the project cost due to the delay in implementation because the traffic volume increased at a higher rate than expected.

EIRR: 42.9% (average of EIRR of each component)
Costs: Construction cost, consultant cost, land acquisition cost, operation and maintenance expenses
Benefits: Reduction in traveling cost, time saving
EIRR by section

- San Marcos Lempa Bridge : 23.8%
- Cuscatlan Bridge : 61.1%
- National Highway 1 (San Martin–San Rafael) : 56.1%
- Capital's northern trunk road : 30.7%

2.4 Impact

2.4.1 Contribution to economic growth and promotion of physical distribution

Agricultural products from all over the country are transported on National Highway 1 (including the Cuscatlan Bridge and the capital's northern trunk road) and National Highway 2 (including the San Marcos Lempa Bridge) to Acajutla port on the pacific coast in the western part of El Salvador, which is not only an important base of land transport to other Central American countries but also a shipping terminal of marine freight transport. The roads and bridges improved and constructed in this project are playing an important role and contribute to the promotion of physical distribution.

The GDP of the country including the agricultural sector has been increasing steadily since 2001, indicating that the increased physical distribution as a result of the road improvement under this project support the stabilization of the economy of El Salvador. The contribution of the project is particularly important for the transportation of large cargo in the agricultural sector (coffee, cotton, sugar, etc.), which is the leading exporting industry. Thus, it can be said that the project contributed to the GDP growth of El Salvador.

Table 7: GDP Growth Rate

GDP Growth Rate	1998	1999	2000	2001	2002	2003	2004	2005
Total GDP	3.75%	3.36%	2.00%	1.70%	2.34%	2.30%	1.83%	2.75%
Agricultural Sector	-0.70%	6.46%	-3.04%	1.30%	0.40%	0.90%	3.00%	8.92%

Source: Central Bank of El Salvador

Also, as the road improvement under this project covers the core part of the road network in El Salvador, it indirectly brought positive effects to the development of the other connected parts of the transport infrastructure. For example, an ODA loan project, "La Union Port Development Project" (opening of the port is scheduled for 2009), currently under way is expected not only to activate and increase efficiency of physical distribution in the county to cope with the increasing marine freight but also to contribute to reducing regional disparity in the country and facilitating integration of physical distribution systems of the Central American countries. The trunk roads improved under this project are considered an important infrastructure prerequisite for the development of La Union Port.

2.4.2 Improvement of the living environment

For this evaluation, an interview survey was conducted with 200 beneficiaries in eight districts covered by the ODA loan portion of the project[7]. According to the result of this beneficiary survey, 84% of local residents living along the improved roads are satisfied with the project.

As a result of the project, beneficiaries are particularly aware of the positive effects that have led to the improvement of their living environment including the improvement of transport convenience such as the reduction in traveling time and alleviation of traffic congestion. They also highly evaluate the improvement of the transport and road environment including the improvement of transport comfort such as the reduction in car body vibration during running and the improvement in road operation and maintenance work such as regular repair work.

The improvement of access to medical institutions, police stations and markets that are lacking in rural communities is also highly evaluated by residents. These results indicate that the project has a wide-ranging impact on the improvement of their living environment.

[7] The breakdown of interviewed residents in the beneficiary survey by district is 64 from two districts along the capital's northern trunk road, 96 from four districts along National Highway 1, 20 from a district near the Cuscatlan Bridge, and 20 from a district near the San Marcos Lempa Bridge. They were selected at random.

Table 9: Beneficiary Satisfaction with the Project

Very satisfied	Satisfied	Somewhat satisfied	Dissatisfied
48%	36%	13%	3%

Source: Beneficiary Survey (of 200 people)

Table 10: Project's Contribution for Beneficiaries

Reduction in traveling time	Improvement of transport convenience	Improvement of transport comfort	Improvement of road operation and maintenance	Increase in traffic volume
24%	17%	13%	12%	12%

Note) Multiple answers

Source: Beneficiary Survey (of 200 people)

Table 11: Effect of Improvement in Access to Public Services

Very large	Large	To some extent	No change	No opinion
6%	33%	29%	30%	2%

Note) Multiple answers

Source: Beneficiary Survey (of 200 people)

Figure 7: Beneficiary Survey near the Cuscatlan Bridge

Figure 8: Beneficiary Survey of Residents Living along National Highway 1

2.4.3 Social compensation

The 70 households that had to be relocated due to the rehabilitation and widening of National Highway 1 were provided with houses based on agreement between the executing agency and residents following discussions in public hearings, etc.

Although resident relocation was not necessary in acquiring the site for constructing the access road to the capital's northern trunk road, monetary compensation was paid to the landowner. Also, with the additional assistance from the executing agency, football

grounds, water and sewage facilities, access roads, pedestrian bridges, multi-purpose facilities, school classrooms, public washing places, etc. were constructed for communities along the capital's northern trunk road, contributing to the improvement of community life.

2.4.4 Impact on the environment

The project had no significant adverse impact on the environment in the target area.

It is worthy of special mention that Japanese environmental technology is introduced as described below to give appropriate consideration to the environment.

(1) After many tests and studies of various paving techniques to ensure safe driving even in torrential rain during the rain season, a Japanese-style drainage pavement was adopted out of consideration to the natural environment and living environment in the surrounding areas. While providing safe road conditions in torrential rain during the rain season, this technology also helps preserve the landscape.

(2) As part of safety and environmental consideration, Japanese-style civil engineering technology has been introduced in order to prevent rocks falling from slopes adjacent to roads running through hilly areas and to prevent surface weathering while preserving the landscape. Thus, this technology provides safe road conditions and at the same time helps preserve the landscape.

Figure 9: National Highway 1 where a Japanese-style drainage pavement has been applied

Figure 10: The environmentally-conscious slope introduced in the rehabilitation of the capital's northern trunk road

2.5 Sustainability

2.5.1 Executing agency

2.5.1.1 Technical capacity

Operation and maintenance of roads in El Salvador including those covered by this project are under the responsibility of FOVIAL and there is no problem with its technical

level.

The Technical Division of FOVIAL (18 employees in total) consists of three departments: the Regular Operation and Maintenance Department (6 employees), the Daily Operation and Maintenance Department (4 employees), and the Project Planning Department (5 employees). Each department has technical staff and there is no problem with their technical capacity to perform operation and maintenance activities.

FOVIAL is now working on the following three items as part of efforts to enhance technical capabilities.

- Development and implementation of a personnel development plan (2004–2008)
- Development of a training manual (2006)
- Construction of a road network maintenance and management system (on-line)

As for the private contractors that carry out the actual operation and maintenance work, those with the appropriate technical capacity are selected to enter into contracts. In addition, a complementary system is in place under which the technical staff of FOVIAL provides technical assistance. Therefore, there is no problem from the technical perspective.

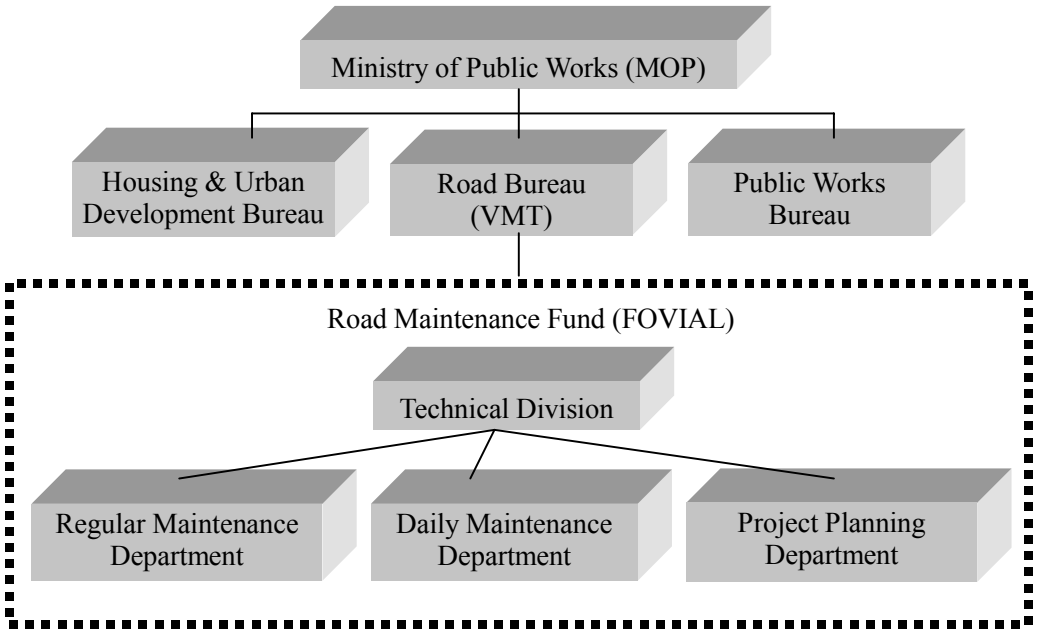
2.5.1.2 Operation and maintenance system

The Road Bureau (Viceministerio de Transporte) of the Ministry of Public Works (MOP) is responsible for this project.

The operation and maintenance work of the roads and bridges constructed in this project are under the responsibility of FOVIAL, which is the former road operation and maintenance division of MOP that became a separate organization in 2001 and is responsible for the operation and maintenance of all national highways. FOVIAL is a fully government-invested public corporation and it now has 61 employees.

In 2006 FOVIAL was certified with ISO9001, an international management system standard, and has been making efforts to improve its operation and management system.

Figure 11: Structure of Organizations in Charge of this Project



Source: MOP, FOVIAL

2.5.1.3 Financial status

FOVIAL is run with funds from the national treasury and a sufficient amount of funding is constantly allocated every year. There is no specific problem with its financial status.

Figure 13: FOVIAL's Budget (thousand US dollars)

	2002	2003	2004	2005	2006
Total	66,431	67,187	67,074	66,365	68,059

Source: FOVIAL

FOVIAL's revenue is generated from the tax for road operation and maintenance collected from the gasoline sold in El Salvador at a rate of 1% according to the law. This revenue is used for the operation and maintenance expenses of roads and bridges.

Of FOVIAL's budget, 94% is allocated to operation and maintenance work which ranges from daily operation and maintenance and regular operation and maintenance work to the specialized operation and maintenance of bridges and sideways. These operations are implemented steadily.

Table 14: Breakdown of FOVIAL's Budget for FY 2006 (million US dollars)

	Regular operation and maintenance	Daily operation and maintenance	Operation and maintenance of bridges and pedestrian bridges	Traffic safety	Operation administration

Cost	18.6	44.0	1.5	1.3	2.6
%	27.4%	64.7%	2.2%	1.9%	3.8%

Source: FOVIAL

Judging from the above, the financial status of FOVIAL is good and there seems to be no problem with the sustainability of the project's effects.

2.5.2 Operation and maintenance status

FOVIAL manages and maintains all national highway networks in El Salvador by dividing them into five regions.

In practice, private contractors perform actual operation and maintenance work and FOVIAL manages operations of these private contractors.

According to the results of the beneficiary survey, about 80% of the surveyed beneficiaries recognize the improvement of the transport environment compared with that before the project was implemented. These results indicate there is no problem with the status of road operation and maintenance by private contractors in general.

Table 15: Beneficiary Satisfaction with the Transport Comfort (riding comfort, vibration, etc.)

Much improved	Improved	Somewhat improved	No change
60%	19%	9%	12%

Source: Beneficiary Survey (of 200 people)

Table 16: Beneficiary Satisfaction with the Improvement of Road Operation and Maintenance (swiftness, repair capability, etc.)

Much improved	Improved	Somewhat improved	No change
62%	21%	12%	5%

Source: Beneficiary Survey (of 200 people)

3. Feedback

3.1 Lessons Learned

N.A.

3.2 Recommendations

N.A.

Comparison of Original and Actual Scope

Item	Plan	Actual
1. Output 1) San Marcos Lempa Bridge	Total length: 1.4 km (Bridge: 0.5 km) (Approach roads: 0.9 km)	Total length: 1.3 km (Bridge: 0.5 km) (Approach roads: 0.8 km)
2) Cuscatlan Bridge	Total length: 2.4 km (Bridge: 0.5 km) (Approach roads: 1.9 km)	Total length: 2.9 km (Bridge: 0.4 km) (Approach roads: 2.5 km)
3) National Highway 1 (San Martin–San Rafael Cedros)	21.1 km	21.52 km
4) Access road to the capital's northern trunk road	3.8 km	10.9 km
2. Project Period		
Reconstruction of bridges	Apr. 1995–Nov. 1998 (43 months)	Nov. 1995–Aug. 2000 (57 months)
Rehabilitation and widening of National Highway 1	Jan. 1995–Nov. 1998 (46 months)	Feb. 2000–May 2004 (51 months)
Construction of the capital's northern trunk road	Dec. 1994–Nov. 1998 (47 months)	Dec. 2001–Dec. 2004 (38 months)
Total	May 1994–Nov. 1998 (54 months)	May 1997–Dec. 2004 (117 months)
3. Project Cost Foreign Currency Local Currency Total ODA Loan Portion Exchange Rate	 9,026 million yen 5,690 million yen (477 million colones) 14,716 million yen 10,320 million yen 1 colon＝11.94 yen (as of 1993)	 7,951 million yen 16,710 million yen (160 million US dollars) 24,661 million yen 10,320 million yen 1 US dollar＝104 yen (as of 2004)