Democratic Socialist Republic of Sri Lanka

FY2015 Ex-Post Evaluation of Japanese ODA Loan

"Environmentally Friendly Solution Fund Project (II)"

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0. Summary

This project was implemented with an aim to encourage private companies to make environmental capital investments by providing medium/long-term funding. The relevance of this project is high, as it was consistent with the development policy and development needs of Sri Lanka as well as the ODA policy of Japan. In terms of project implementation, the efficiency of the project is fair, as the project cost was within the plan but the project period was longer than planned. With regard to the effectiveness of the project, it was inferred from the limited data available that the project effects had been mostly realized, but it was difficult to quantitatively evaluate the achievement of the project in its entirety due to limitations of available data. As impacts of the project, it was inferred that the project contributed to the reduction of environmental burdens created by activities of enterprises. However, since part of the effects realized through implementing this project cannot be evaluated due to limitations of available data, the effectiveness and impact of this project are regarded to be fair. With regard to operation and maintenance, their sustainability was judged to be fair. Although no particularly major issues were observed in the financial aspect, there were some concerns with the institutional and technical aspects because necessary institutional arrangements were still being prepared and the operation of the revolving fund had not yet started at the time of ex-post evaluation.

In light of the above, this project is evaluated to be partially satisfactory.

1. Project Description

Project Location (nationwide)

Waste water treatment facility installed at a rice mill utilizing the sub-loan from this project

1.1 Background

In Sri Lanka, agriculture & forestry mainly through plantation and fishery had been the major industry; however, industrial pollution became a serious issue through the progress of industrialization by the development of the manufacturing sector, mainly in textile and garment industries.

As to environmental laws and regulations, the National Environmental Act, enacted in 1980 to establish a basic legal framework, was amended in 1988. In this amendment, comprehensive regulations on air pollution, water contamination, waste and so forth were stipulated while a framework for the introduction of standards for discharge, noise and so forth as well as regulatory enforcement was formulated. However, it could not be said that the factories established before the amendment were complying with the regulations completely. Therefore, it was necessary to introduce an incentive mechanism that encouraged private companies to make environmental investments, along with an enhancement of regulatory enforcement and monitoring by administrative authorities.

Under these circumstances, the Government of Sri Lanka, with the support of the World Bank, engaged in building the capacity of the Central Environmental Authority (hereinafter referred to as 'CEA') to enforce environmental regulations. Meanwhile, the ODA Loan project "Environmentally Friendly Solution Fund Project" (hereinafter referred to as 'Phase I') was implemented to provide highly concessional medium/long-term funding toward private companies for making capital investments directed at environmental measures and technology transfer related to such measures.

The needs to acquire an Environmental Protection License (hereinafter referred to as 'EPL') were increasing further along with the strengthening of environmental regulations. However, the funds for taking environmental measures were not sufficiently supplied to companies and it was necessary to promptly improve the environment through the introduction of policy-based finance. In addition, the needs for energy saving were increasing year by year in Sri Lanka, but the funds for making such capital investment were lacking. This project was implemented, as it was necessary to continue the provision of funds because the disbursement of Phase I had finished at the end of 2003.

1.2 Project Outline

The objective of this project is to encourage companies' environmental capital investment by providing medium/long-term loans necessary to make such capital investment and to hire supporting consultants, and by providing training for the officers of the participating credit institutions (hereinafter referred to as 'PCI'), thereby contributing to the reduction of environmental burdens created by the companies eligible for this project.

<ODA Loan Project>

Loan Approved Amount/ Disbursed Amount	5,236 million yen / 5,172 million yen
Exchange of Notes Date/ Loan Agreement Signing Date	November, 2004 / December, 2004
Terms and Conditions	Interest Rate: 0.75% Repayment Period: 40 years (Grace Period): (10 years) Conditions for Procurement: General untied
Borrower / Executing Agency	Democratic Socialist Republic of Sri Lanka / Ministry of Industry and Commerce
Final Disbursement Date	December, 2011
Related Projects	[ODA Loan] "Environmentally Friendly Solution Fund" (September, 1998) [Technical Assistance] "The Project for Promoting Energy Efficiency Improvement in Sri Lanka" (2008-2011) [Other Donors] World Bank: Technical assistance and equipment provision to the CEA (1997) Kreditanstalt für Wiederaufbau (KfW): Creation of Pollution Control and Abatement Fund (Grant Aid, 1996)

2. Outline of the Evaluation Study

2.1 External Evaluator

Yumi Ito (Japan Economic Research Institute Inc.)

2.2 Duration of Evaluation Study

This ex-post evaluation study was conducted with the following schedule:

Duration of the Study: August, 2015 – October, 2016

Duration of the Field Study: November 22 – December 4, 2015 and February 22 – 27, 2016

2.3 Constraints during the Evaluation Study

The following paragraph details constraints in making the judgements for this ex-post evaluation study according to the five evaluation criteria.

In Sri Lanka, due to the reorganization of government ministries in 2010, the Ministry of Small and Medium Enterprise Development (hereinafter referred to as 'MSMED'), the former executing agency of this project was reorganized into the Ministry of Industry and Commerce (hereinafter referred to as 'MIC') and the Project Management Unit (hereinafter referred to as 'PMU'), in charge of this project, was transferred to MIC with an assignment of new staff members. In the current PMU, established within the MIC, there were no staff members who had engaged in the operation of this project before 2010. In addition, it seems that the transfer of the project's information such as relevant documents for the current PMU was not conducted sufficiently. Therefore, there were constraints in obtaining information during the implementation of this evaluation study. Furthermore, although this evaluation study was conducted about five years after the final disbursement of funding from JICA, more than ten years had passed since the inception of this project in 2004, thus not enough data for operation and effect indicators could be obtained.

Audits for the years 2009 and 2010 conducted by the Auditor General's Department of the Government of Sri Lanka pointed out the lack of eligibility clearance[1], loan approvals over the maximum amount, lack of proper approvals and so forth. The Ministry of Finance and Planning and the PMU made efforts to explain those issues by submitting evidence to the Auditor General's Department. However, the Government of Sri Lanka plans to refund to JICA the unsettled portion because of the difficulty in explaining the said issues due to a lack of documents and so forth. The total refund amount is planned to be about 1,260 million rupees[2] (about 23% of the total disbursement). For this evaluation study, sufficient information to evaluate the impact of this refund on the project effect could not be obtained and it was difficult to distinguish the refund portion from the information of the actual achievement of this project included in this report.

3. Results of the Evaluation (Overall Rating: C[3])

3.1 Relevance (Rating: ③[4])

3.1.1 Relevance to the Development Plan of Sri Lanka

At the time of project appraisal, it was stated that the Sri Lankan government would be

1 The procedure of this project includes confirmation of the sub-loan eligibility given by the PMU in advance, and eligibility clearance is a document issued through this procedure.
2 Equivalent to about 986 million Japanese Yen (calculated by an exchange rate 1 rupee = 0.78 yen (IMF, March 2016). This is reference information only, as the actual refund amount denominated in Japanese Yen to be agreed upon may be different depending on the exchange rate to be used.
3 A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory
4 ③: High, ② Fair, ① Low

proactive in promoting socio-economic development and in particular rural development, environment protection and poverty reduction in “Creating Our Future, Building Our Nation”(2004), the economic policy framework of the Government of Sri Lanka. At the environmental sector level, the National Environmental Act was enacted in 1980 and the CEA was established. In 1988, with the amendment of this act, the comprehensive regulations were established as well as the framework for the introduction of the standards for discharge and so forth and regulatory enforcement was formulated. At the time of project appraisal, the National Environmental Policy (2003) stated to balance the needs for development and environmental integrity.

Although a national development plan was being prepared at the time of ex-post evaluation due to a change of administration after the presidential election in 2015 in Sri Lanka, an economic policy statement made by the prime minister to the parliament in November 2015 specified that an economy that would pave the way for sustainable development was planned to be built. In addition, the budget speech for the year 2016 that was prepared based on the aforementioned economic policy statement stated, “our government led by His Excellency the President and the Prime Minister have placed the highest importance in conserving the environment within the context of sustainable development”, and the National Environmental Conservation Programme which includes environment pollution-control and so forth was planned to be implemented. Also, at the time of ex-post evaluation, the National Environmental Policy had not changed since the time of project appraisal. According to an interview with the Ministry of Environment conducted during the field survey of this ex-post evaluation study, an amendment to this policy was being prepared but no major changes were expected.

Based on the above, this project is to encourage companies’ capital investment for environmental measures aiming at contributing to the reduction of environmental burdens, and was consistent with Sri Lanka’s development policy as well as its environment sector policy, that is, to balance development and environment protection, at the time of project appraisal and ex-post evaluation.

3.1.2 Relevance to the Development Needs of Sri Lanka

At the time of project appraisal, measures to protect the environment and further efforts to encourage the implementation of such measures were considered necessary, as industrial pollution became a serious issue and it was estimated that only half of the companies involved obtained an EPL. In addition, it was expected that the environmental investment by private companies such as the introduction of pollution-control technology or energy saving measures would increase further, along with the tightening of regulations for environmental standards and the increasing awareness of environmental measures. According to interviews with PCIs, a concessional financing scheme like the one introduced by this project was needed in order to encourage environment protection measures, because investment in environmental measures did not necessarily bring about an increase in a company's revenue directly.

At the time of ex-post evaluation, according to the CEA, the ratio of EPL acquisition is estimated to be about 70%, regarding the industries for which the CEA issues EPLs[5] (as of December 2015 when the interview with the CEA was conducted). As to the estimated 30% of the companies remaining which have not acquired an EPL, it is considered that they are not equipped with adequate pollution-control measures. Therefore, investment in environmental measures was still considered important at the time of ex-post evaluation. In particular, it was not easy for small and medium-sized enterprises to comply with the standards as the cost of making investment in environmental facilities was high. Also, companies tended to prioritize an investment that would generate revenue. Thus, it was inferred that companies would be prone to put less priority on environmental investment. In addition, according to interviews with PCIs, the demand for a concessional loan scheme to make environmental investment was still high at the time of ex-post evaluation.

As described above, the need for measures to protect the environment and further efforts to encourage the implementation of such measures, as well as the demand for environmental investments were still high at the time of both project appraisal and ex-post evaluation. In addition, there was a demand for policy-based finance in order to encourage companies' environmental measures. Therefore, this project can be considered consistent with the development needs.

3.1.3 Relevance to Japan's ODA Policy

The Japanese government's Country Assistance Program for Sri Lanka listed "assistance for environment-oriented tourism development" as a part of one of the priority areas "assistance for raising foreign-currency acquisition capabilities" at the time of project appraisal. The program pursued the promotion of environment-based tourism development entailing the preservation and protection of human and social environments (improvements in water supply and sewerage, air pollution control, waste disposal, etc.). Also, at the time of project appraisal, in the Mid-term Strategy for Overseas Economic Cooperation Operations of JICA, "assistance to the improvement of the environment and pollution control" was listed as one of the priority areas. In addition, in JICA's Country Assistance Strategy for Sri Lanka, it was specified to extend the assistance of ODA Loan in high policy priority areas such as assistance for environmental measures, while paying

[5] Industries requiring an EPL were classified under two categories (A and B) before, but in 2008 this classification was changed to one consisting of three categories (category A is for significantly high-polluting industrial activities, B for medium level polluting activities and C for low-polluting industrial activities). Under this new classification, EPLs of categories A and B are to be issued by CEA, while EPLs of category C are to be issued by Local Government Authorities.

attention to the role of policy-based finance in the process of financial sector reform. This project was consistent with the Japanese government's Country Assistance Program for Sri Lanka, JICA's Mid-term Strategy for Overseas Economic Cooperation Operations and Country Assistance Strategy for Sri Lanka at the time of project appraisal, as it was a project to support companies' efforts in taking environmental measures through the provision of an ODA Loan.

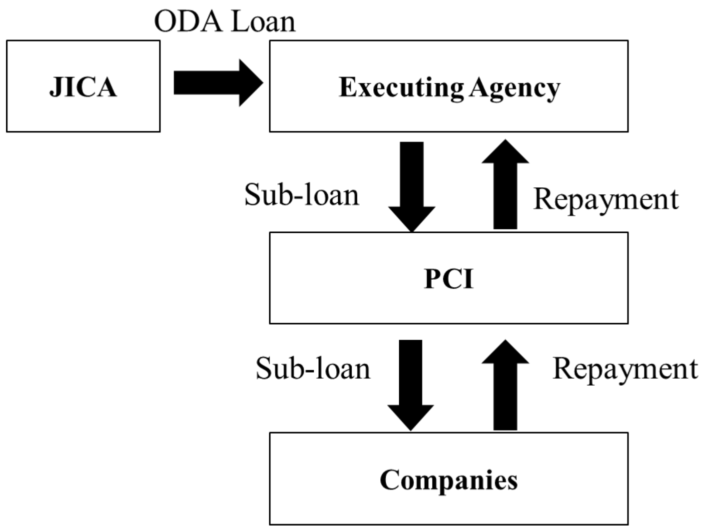
As described above, this project has been highly relevant to the Sri Lanka's development policy and development needs, as well as Japan's ODA policy. Therefore, its relevance is high.

3.2 Efficiency (Rating: ②)

3.2.1 Project Outputs

This project was for the Government of Sri Lanka to provide medium/long-term funding that would be necessary for companies to make environmental investments (General Loan) and funding for companies to hire consultants or conduct training necessary to make such investments (Technical Assistance Loan A, hereinafter referred to as 'TA Loan A') through financial institutions as well as funding for the PCIs to conduct employee training or public relations activities regarding this project (Technical Assistance Loan B, hereinafter referred to as 'TA Loan B'). As described above, there were two kinds of technical assistance loans; TA Loan A was for companies, while TA Loan B was for the PCIs. Funding schemes for each loan are shown in the diagrams below.

(General Loan and TA Loan A)



(TA Loan B)

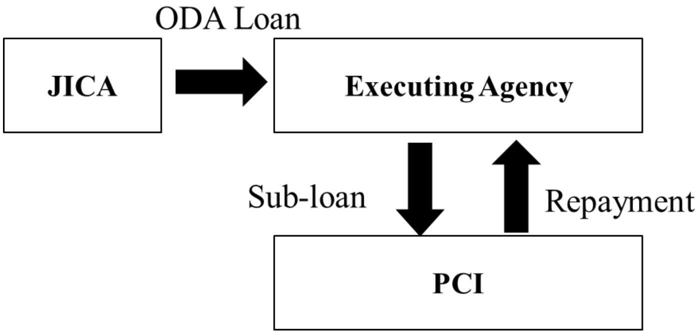


Figure 1. Funding Schemes of the Project

Source: Prepared based on the information provided by JICA

The outline of the project planned at the time of project appraisal is as follows.

(a) General Loan	・Target beneficiary (end-users): Financially viable enterprises (sole proprietorships, cooperatives, private limited liability companies, corporations, etc.) ・Eligible sectors: Manufacturing, industrial sectors and services sectors ・Eligible projects: Projects for environmental protection and environmental measures, energy-saving projects ・Eligible Items to be financed: Facilities for environmental measures (measures for emission control, etc.), facilities for the safety of work places, relocation costs to industrial estates equipped with pollution-control facilities, monitoring equipment ・Maximum loan amount: 50 million rupees. 30% is to be borne by the end-user in case of profitable sub-projects. ・Repayment period: Max. 10 years (including max. 2-year grace period) ・Interest rates: (from executing agency to PCI) 3.75% (from PCI to end-users) Max. 6.5%
(b) TA Loan A	・Target beneficiaries (end-users): Current and future end-users of the General Loan ・Eligible items to be financed: Cost of management/financial

	or technical training, cost of hiring consultants ・ Maximum loan amount: Not exceeding 750,000 rupees. More than 25% of the project cost is to be borne by the end-user. ・ Repayment period: Max. 5 years (including max. 1-year grace period) ・ Interest rates: (from executing agency to PCI) 0% (from PCI to end-users) Max. 2%
(c) TA Loan B	・Target beneficiary (end-users) : PCIs ・ Eligible items to be financed: Cost of PCI employee training to administer this project, and cost of conducting public relation activities for this project. ・Maximum loan amount: To be determined by the PMU on a case-by-case basis ・Repayment period: 3 years (including 1-year grace period) ・Interest rate: 3.75%

Regarding the loan disbursement, as shown below, General loan and TA Loan A were disbursed to 755 sub-projects and 38 sub-projects respectively. There was no usage of TA Loan B, and no information could be obtained on the reason for this. The breakdowns of loan disbursements by PCI, by district and by purpose, are shown in the tables on the following pages.

According to the breakdown of loan disbursement by district, although the loans were disbursed in all provinces except the northern province, the western province consisting of Colombo, Gampaha and Kalutara accounted for about half of the number of sub-projects. However, there is a possibility that the proportion of the number of sub-projects in Colombo was presented higher than reality as there were cases in which the loan was disbursed in Colombo but the facility funded by the loan was installed at a factory located in a different district. In addition, the proportion of the number of sub-projects was small particularly in the northern and eastern provinces which were areas affected by conflicts (the background will be described in section 3.2.2).

According to the breakdown of loan disbursement by purpose, the numbers of sub-projects for the wastewater treatment plant and resource saving each cover a little less than 40 percent of all sub-projects, followed by emission control with a little more than 10 percent of the share.

Table 1. Loan Disbursement by PCI

PCI	Environmentally Friendly Solution Fund Project (II)		TA Loan A	
	Number of sub-projects	Disbursed Amount (unit: million yen)	Number of sub-projects	Disbursed Amount (unit: million yen)
Commercial Bank	255	1,501.8	25	7.2
DFCC	131	1,277.7	8	12.7
NDB	67	692.3	0	0
Sampath bank	83	497.2	2	0.6
Bank of Ceylon	61	421.6	3	1.7
Hatton National Bank	56	347.6	0	0
Lanka Orix Leasing	65	242.3	0	0
PLC	37	186.4	0	0
Total	755	5,166.8	38	22.2

Source: Prepared based on the information provided by the PMU

Table 2. Loan Disbursement by District

District	Number of Sub-projects	Disbursed Amount (unit: million yen)
Colombo	218	1,428.1
Gampaha	95	733.7
Galle	55	337.2
Kandy	57	354.4
Kalutara	57	364.3
Pollonnaruwa	42	314.8
Matara	30	232.5
Kurunegala	36	161.3
Ratnapura	28	205.9
Puttalam	30	219.7
Kegalle	24	165.3
Nuwara Eliya	20	213.6
Anuradhapura	14	94.3
Badulla	17	71.3
Matale	12	73.9
Hambantota	9	55.6
Ampara	5	50.1
Moneragala	3	43.7
Trincomalee	3	47.1
Total	755	5,166.8

Source: Prepared based on the information provided by the PMU
Notes: Prepared using the information on total disbursement, because the breakdown of General Loan and TA Loan A was not available.

Table 3. Loan Disbursement by Purpose

	Number of sub-projects	Disbursed Amount (unit: million yen)
Wastewater treatment plant	280	1,714.3
Resource saving	265	1,060.0
Recycling of waste	57	918.6
Emission control	96	803.1
Dust control	13	197.8
Noise control	15	134.0
Solid waste disposal	13	114.6
Relocation	3	103.5
Waste heat recovery	9	61.9
Liquid & solid waste disposal	2	49.9
Waste reduction	2	9.2
Total	755	5,166.8

Source: Prepared based on the information provided by the PMU
Notes: "Relocation" is costs of relocation to industrial estates equipped with pollution control facilities

3.2.2 Project Inputs

3.2.2.1 Project Cost

The total cost of this project was to be financed by the Japanese ODA Loan. At the time of project appraisal, the total project cost was planned to be 5,236 million yen. The actual project cost was 5,172 million yen[6] (98.8% of the plan), which was less than planned.

3.2.2.2 Project Period

At the time of project appraisal, the period of this project was expected to be 52 months. The actual project period was 66 months (127% of the plan), from December 2004 (the signing date of the loan agreement) until May 2010 (the date of the final disbursement[7]), which was longer than planned.

As described above, although the project cost was within the plan, the project period exceeded the plan. Therefore, the efficiency of the project is fair.

3.3 Effectiveness[8] (Rating: ②)

3.3.1 Quantitative Effects (Operation and Effect Indicators)

3.3.1.1 Operation Indicators

As quantitative effects to be achieved by implementing this project, cumulative

[6] Total loan amount including disbursed amount of 5,166.8 million yen and service charge of 5.2 million yen.
[7] At the time of project appraisal, a definition of the project completion was not decided; in 2006 it was agreed with JICA to define the project completion date as the "date of the final disbursement" from JICA. However, the "Final Disbursement Date" in the section 1.2 Project Outline on page 2 of this report is written as December 2011, because the unused amount was adjusted in 2011.
[8] Sub-rating for Effectiveness is to be put with consideration of Impact.

collection ratio, ratio of principal payment in arrears[9] and ratio of sub-projects in arrears[10] were set as operation indicators and the targets for each indicator were set as shown in the table below.

Table 4. Operation Indicators of This Project

	Baseline	Target	Actual				
	2003	2009	2010	2011	2012	2013	2014
	Year of Project Appraisal	Completion Year	Completion Year	1 Year After Completion	2 Years After Completion	3 Years After Completion	4 Years After Completion
Cumulative Collection Ratio	93%	93%	94.8%	95.6%	93.7%	93.1%	96.9%
Ratio of Principal Payment in Arrears	2.1%	2.1%	0.4%	0.5%	0.6%	0.7%	2.7%
Ratio of Sub-projects in Arrears	4.7%	4.7%	2.6%	2.1%	2.5%	2.4%	3.4%

Source: Prepared based on the information provided by JICA, PCIs and PMU
Notes: Actual achievement data are calculated weighted averages of the data provided by PCIs, by utilizing the disbursement share based on the information provided by the PMU. The calculation was done based on the actual data provided by four PCIs (disbursement share: 59%) in 2010, five PCIs (62%) in 2011 and four PCIs in 2012, 2013 and 2014 (53%, but the cumulative collection ration ratio in 2014 was based on the data provided by three PCIs (39%)). These data are for reference, as the analysis is not based on complete data.

All data could not be obtained as more than ten years had passed since project completion. However, the cumulative collection ratio calculated by the weighted average of the data provided by four PCIs in the project completion year (2010) is 94.8%, higher than the target of 93% as shown in the above table. The principal infection ratio and the infection number ratio, calculated in the same way, were 0.4% and 2.6% respectively, lower than their respective targets. Regarding the infection number ratio, which was calculated by each PCI, it is necessary to note that even if the actual number of non-performing loans is small, the ratio tends to become relatively higher in number in the event that the number of sub-loans of the PCI (the denominator of the calculation of the ratio) is not large. The ratios specified for the years after project completion (2010) are also mostly at the level of achieving the targets.

As described above, according to the limited data provided by the four PCIs, which accounts for 60% of the total disbursement, the cumulative collection ratio, the principal infection ratio and the infection number ratio achieved their targets in the project completion

9 (Cumulative principal loans in arrears for 6 months or more) x 100/Cumulative principal loans
10 (Number of sub-loans in arrears for 6 months or more) x 100/Total number of sub-loans

year (2010), the data from which are to be used as a comparison for the targets. However, the achievement of the project cannot be fully evaluated due to limitations of available data.

3.3.1.2 Effect Indicator

At the time of project appraisal, it was expected that the number of companies obtaining EPLs would reach 180 through implementing this project. As written above, it was difficult to obtain this data because more than ten years had passed since project completion. The available data for this indicator was 97, which was the total data provided by two PCIs. The other three PCIs answered, “About 20 customers obtained new EPLs, while others already had EPLs”, “Most of the customers already had EPLs”, and “We have ensured that all the projects funded under this project obtained EPLs when applicable”.

As stated above, according to the limited data available, the realization of the project effect is inferred from the number of companies which obtained EPLs provided by two PCIs (accounting for 32% of the total disbursement) which exceeded more than half of the target number and from the status of EPL acquisition answered qualitatively by the three other PCIs. However, the achievement level of the entire project cannot be evaluated because the information was limited.

3.3.2 Qualitative Effects

At the time of project appraisal, improvement of the living environment of the residents nationwide, including those in areas of conflict, was expected as a qualitative effect of the project. Therefore, this evaluation study looked into whether the companies located in the former conflict areas had similar access to the policy-based finance of this project as companies located in other areas. The loan disbursement of this project to former conflict areas is as shown in the table below.

Table 5. Loan Disbursement in Former Conflict Areas

	Districts	Number of sub-projects	Disbursed Amount (unit: million yen)
Nothern	Jaffna	0	0
	Kilinochchi	0	0
	Mullative	0	0
	Mannar	0	0
	Vavuniya	0	0
Eastern	Trincomalee	3	47.1
	Batticaloa	0	0
	Ampara	5	50.1
	Total	8	97.2

Source: Prepared based on the information provided by the PMU

Usage of this policy-based finance was limited in the former conflict areas as the disbursement to such areas accounted for only about 1-2% of the total amount and of the total number of sub-projects. This was because the ceasefire agreement signed in 2002 was not virtually observed, and it was not until May 2009 that the end of the conflict was declared. It can be inferred that the provision of funds through this project was difficult to be carried out, because according to the interviews with PCIs, access to the area was restricted during the conflict and there were only a few banks that had branches in the area. It is also inferred that there was little demand for loans, as the economic activities were not so vigorous in the area. Furthermore, it was inferred that the situation stated above was difficult to improve immediately following the conflict. Therefore, it is considered that the project was influenced by the conflict for the most part of its period. Based on the above, the effect of "securement of companies' access to the policy-based finance in the former conflict areas" was not realized; however, this result is not to be evaluated in this study, as the realization of the effect was affected by the conflict as stated above.

3.4 Impacts

3.4.1 Intended Impacts

"Reduction of the environmental burdens created by activities of enterprises" was expected as an impact through the implementation of this project. The result of the beneficiary survey conducted by this ex-post evaluation study[11] showed that 100 out of 102 companies expressed recognition that their sub-projects financed by this project had contributed to the reduction of environmental burdens created by business activities. As to the question, "How do you rate the contribution of your sub-project financed by this project to the reduction of environmental burden created by your companies business activities?", 88% of the respondents (90 companies) answered "Contributed a lot", 9.8% (10 companies) answered "Contributed" and 2% (two companies) answered "No Change". Although the beneficiary survey was conducted on only a part of the total beneficiaries of this project, it could be inferred that this project contributed to the reduction of environmental burden to a certain extent, as was expected at the time of project appraisal, based on the fact that the contribution was recognized by 98% of the respondents.

3.4.2 Other Impacts

3.4.2.1 Impacts on the Natural Environment

According to a check done with the eight PCIs, no negative environmental impacts of this project were reported. It could be thought that considerations to potential negative impacts on the natural environment were made during the project implementation, because

[11] Interview survey was conducted on a total of 102 companies in 15 districts that received a loan through this project, and were selected non-randomly considering: location, financing PCIs, industry and loan amount..

according to the PMU, it consulted the CEA if there was a possibility of negative environmental impacts occurring, and some PCIs required a document from a CEA regional office upon loan applications or sought advice from the PMU or a CEA regional office when necessary.

3.4.2.2 Land Acquisition and Resettlement

According to the eight PCIs, there was neither land acquisition nor resident resettlement by the sub-projects of this project.

With regard to the effectiveness of the project, it is inferred that the operation indicators mostly reached the targets according to the limited data available, and the project effect is considered to be mostly realized according to the effect indicator when taking into account qualitative information complementarily. However, as stated above, the achievement of the project as a whole cannot be evaluated sufficiently due to limitations of available data. In addition, as described in the section "2.3 Constraints during the Evaluation Study", sufficient information to evaluate how the refund will affect the project effects. It is therefore difficult to evaluate the achievement of this project in its entirety to be high. Regarding the qualitative effect indicator "securement of companies' access to the policy-based finance in the former conflict areas", it is not to be evaluated in this study although the effect was not realized, due to the conflict not having ended until May 2009.

Regarding the impacts, it was inferred that this project might have contributed to the reduction of environmental burdens created by companies' activities as concluded in the beneficiary survey. Also, there were no negative environmental impacts reported and it was thought that considerations were given at the time of sub-project appraisal. There was neither land acquisition nor resettlement for this project. Therefore, no particular problem was observed.

In light of the above, a part of the effects realized through implementing this project cannot be evaluated due to limitations of available data. Therefore, effectiveness and impact of the project are regarded as fair.

3.5 Sustainability (Rating: ②)

3.5.1 Institutional Aspects of Operation and Maintenance

At the time of project appraisal, it was planned that the PMU established under the MSMED would be the executing agency. In actuality, the PMU had been in charge of this project as planned; however, due to the reorganization of government ministries in 2010, the MSMED was reorganized into the MIC. Therefore, the PMU established under the MIC has become the executing agency of this project, operating since May of that year, and is to be in charge of operation of the revolving fund of this project. There were eleven officers in the current PMU, including project assessment officers and so forth, but there were no environment officers in charge of evaluating the eligibility of the environmental aspects at the time of the field survey for this ex-post evaluation. However, the future employment of an environment officer has already been approved by the Ministry of Finance and Planning and the PMU is preparing the recruitment. Therefore, it is considered that the possibility of the PMU having an environment officer is high.

At the time of the ex-post evaluation, the operation of the revolving fund of this project had not yet started, although the project was completed in May 2010 and repayments made by the PCIs have been managed in an account at the Central Bank. According to the interview with the PMU, the reason the preparation for the revolving fund operation took such a long time after the transfer to the current PMU in 2010 was that the PMU had first undertaken the preparation of the revolving fund under another project supported by JICA (Small and Micro Industries Leader and Entrepreneur Promotion Project (III) [hereinafter referred to as 'SMILE III'], implemented from December 2004 until December 2010), and then began the preparation of the revolving fund of this project. The current PMU started the preparation of this project's revolving fund in 2014 and the operation guideline and format of the subsidiary loan agreement have already been prepared at the time of the field survey. In addition, according to the PMU, it took time to receive the settlement certificate issued by the Auditor General's Department regarding the issues pointed out in the audits that were stated in the section "2.3 Constraints during the Evaluation Study". Therefore the commencement of the revolving fund operation was delayed. Commencement of the revolving fund operation is expected once the settlement of the refund payment is completed.

Also, at the time of project appraisal, it was planned that the Policy Coordination Committee, consisting of the MSMED, other relevant ministries such as the Ministry of Finance, the PMU, the PCIs, the CEA and so forth was to be held once a year. In actuality, it was reported that the Project Steering Committee had been held twice a year during the project implementation period.

The current PMU is operating the revolving fund of the SMILE III project. As a framework for operation and supervision of the fund, the Project Steering Committee (to be held twice a year; consisting of JICA, representatives from Ministry of Finance and Planning, Ministry of Rural Economic Affairs and the PMU) supervises project management, while the Operational Committee (to be held every month; consisting of PCIs, representatives from the Central Bank, Ministry of Finance and Planning and the PMU) confirms the eligibility of sub-projects and the status of the revolving fund operation. According to the PMU, a similar framework is expected to be introduced for operation and supervision of the revolving fund of this project. In particular, the establishment of the Operational Committee is considered to be effective in securing transparency of fund operation.

Eight PCIs, i.e., Bank of Ceylon (BOC), Commercial Bank of Ceylon PLC (Commercial Bank), Hatton National Bank PLC (HNB), NDB Bank (NDB), Sampath Bank PLC、DFCC Bank PLC (DFCC), Lanka Orix Leasing Company PLC (LOLC), People's Leasing & Finance PLC (PLC), participated in this project. For the operation of the revolving fund of this project, selection of PCIs is to be conducted again, based on their eligibility criteria.

As explained above, the establishment of a highly transparent operation and supervision framework is expected premised on the experience of revolving fund operation from another existing project. However, the operation of the revolving fund of this project has not started and an environment officer was not recruited to the PMU yet, although the possibility of the recruitment of one was considered to be high. Therefore, the sustainability of the institutional aspects is considered to be fair.

3.5.2 Technical Aspects of Operation and Maintenance

During the project implementation, an environment officer was hired and placed at the PMU established within the MSMED as planned, and coordination with the CEA was conducted when necessary.

The current PMU, in charge of the revolving fund operation of this project, has been accumulating experience through the revolving fund operation of the SMILE III project since 2013; however, an environment officer has not yet been posted, as described above. Preparation has been done for the recruitment of an environment officer as of the time of this ex-post evaluation and the possibility of the recruitment is considered to be high. However, the revolving fund operation is expected to become difficult in case an environmental officer is not posted, as there would be no officer in charge of evaluating the eligibility of the environmental aspects within the PMU.

Regarding the loan appraisal and credit management capacities of the PCIs, no particular issue was observed, as human resource development such as in-house training and so forth is conducted as a financial institution. In regards to the environmental technical aspect, it was reported that reviewing a consultant's report submitted by a company, receiving support from an officer at the main office who had basic knowledge, or consulting technical matters with the PMU or the CEA were conducted during the project implementation period.

According to the PCIs, the operation guideline prepared for this project was utilized at the PCIs. The operation guideline for the revolving fund of this project has been prepared, so it is expected to be also utilized by the PCIs newly selected for the revolving fund operation.

As described above, the current PMU has been accumulating experience by operating the revolving fund of another project. However, the technical capacity to assess the environmental aspect has not been secured within the current PMU, as an environment officer has not been recruited to the post yet. Therefore the sustainability of the technical aspects is considered to be fair.

3.5.3 Financial Aspects of Operation and Maintenance

The operation cost of the PMU is to be borne by the government. At the time of ex-post evaluation, the operation of the revolving fund had not yet started, and concrete information on the operation budget could not thus be obtained. However, the operation of the revolving fund had been prepared with approval of the Ministry of Finance and Planning, and the budget of the current PMU's revolving fund operation of another project has been allocated by the government. Therefore, it can be considered that there is little concern about the financial aspect, as the possibility of budget allocation by the government for this project's revolving fund operation is considered to be high.

PCIs participating in the revolving fund operation are to be selected again. In the case of the PCIs of this project, their capital adequacy ratios were above 5%, meeting the requirement of the Central Bank of Sri Lanka, and there were no major problems seen in their major financial indicators.

Therefore, the sustainability of the financial aspects is considered to be high.

Table 6. Major Financial Indicators of the PCIs

	Capital Adequacy Ratio	Non-Performing Loan Ratio	Total Assets (Unit: billion rupees)	Return on Assets
BOC	9.1	4.3	1,568.3	1.74
Com Bank	12.93	3.47	795.6	1.6
HNB	12.15	3.16	576.6	1.7
NDB	10.09	2.51	262.7	1.47
Sampath	7.90	1.64	525.3	1.9
DFCC	17.01	3.5	130.0	1.6
LOLC Finance	13.11	4.8	67.9	2.45
PLC	20.22	2.72	112.3	4.75

Source: Websites and Annual Reports of the PCIs and information provided by the PCIs
Notes: Information of BOC and Sampath are as of Dec. 31 2015, DFCC as of Sept. 30 2015, LOLC Finance and PLC as of March 31 2015 and the others as of Dec. 31 2014

3.5.4 Current Status of Operation and Maintenance

It was planned to set up a revolving fund account at the Central Bank, and the funds repaid by PCIs were to be used for lending with the same purpose and same conditions as those of this project. The balances of this project's revolving fund are shown in the below table. There were no particular issues observed regarding the repayment status of the PCIs. The planned refund to JICA based on the audit reports described above is to be allocated from this revolving fund.

Table 7. Balances of the Revolving Fund

(Unit: million rupees)

	2006	2007	2008	2009	2010
Beginning Balance	-	7	47	430	1,068
Repayment from PCIs	7	40	382	638	856
Ending Balance	7	47	430	1,068	1,923

	2011	2012	2013	2014	2015
Beginning Balance	1,923	2,745	3,631	4,479	5,298
Repayment from PCIs	821	887	848	819	415
Ending Balance	2,745	3,631	4,479	5,298	5,713

Source: PMU

The operation of the revolving fund had not yet started as of the time of this ex-post evaluation as stated above, but the preparation to start the operation, including preparation of an operation guideline, had been conducted. The revolving fund was to be utilized for lending with the same purpose and mostly the same conditions as those utilized for the sub-loans of this project (although the Technical Assistance Loan B was not to be implemented). Therefore, there were no major issues in particular observed regarding the current status of operation and maintenance.

Regarding the operation and maintenance of the revolving fund of this project in light of the above, although there are no issues with financial aspects anticipated, the operation of the revolving fund has not yet started and there are some concerns over a part of the organisational and technical aspects. Therefore, sustainability of project effects is fair.

4. Conclusion, Lessons Learned and Recommendations

4.1 Conclusion

This project was implemented with an aim to encourage private companies to make environmental capital investments by providing medium/long-term funding that is necessary to do so. The relevance of this project is high, as it was consistent with the development policy and development needs of Sri Lanka as well as the ODA policy of Japan. In terms of project implementation, the efficiency of the project is fair, as the project cost was within the plan but the project period was longer than planned. With regard to the effectiveness of the project, it was inferred from the limited data available that the project effects had been mostly realized, but it was difficult to quantitatively evaluate the achievement of the project in its entirety due to limitations of available data. As impacts of the project, it was inferred that the project contributed to the reduction of environmental burdens created by activities of enterprises. However, since part of the effects realized through implementing this project cannot be evaluated due to limitations of available data, the effectiveness and impact of this project are regarded to be fair. With regard to operation and maintenance, their sustainability was judged to be fair. Although no particularly major issues were observed in the financial aspect, there were some concerns with the institutional and technical aspects because necessary institutional arrangements were still being prepared and the operation of the revolving fund had not yet started at the time of ex-post evaluation.

In light of the above, this project is evaluated to be partially satisfactory.

4.2 Recommendations

4.2.1 Recommendations to the Executing Agency

Preparation to start the operation of the revolving fund has been conducted, including preparation of an operation guideline and formatting of a subsidiary loan agreement. It is desired to expedite the preparation work and to commence the operation of the revolving fund as soon as possible in order to sustain the effects of this project.

4.2.2 Recommendations to JICA

None

4.3 Lessons Learned

Project monitoring based on the operation and effect indicators

This ex-post evaluation was conducted about five years after the completion of the project at which point more than ten years had passed since the commencement of the project in 2004. It was very difficult to obtain the information related to the operation and effect indicators, as the members of the PMU had been changed due to the reorganization of government ministries; some end-users had already finished their loan repayment and there was a limitation of information storage at some PCIs. As seen in this project, in the event that a two-step loan project whose operation and effect indicators have been decided at the time of ex-ante evaluation, it would be useful for effective and efficient project monitoring and ex-post evaluation to make sure that stakeholders have a clear understanding of the definition of the indicators and require those indicators be regularly reported in the progress report, or to ensure adequate storage of the database after project completion.

Introduction of measures to check the project implementation status

In this project, the audits conducted by the Auditor General's Department of the Government of Sri Lanka pointed out a lack of eligibility clearance, loan approvals over the maximum amount, a lack of proper approvals and so forth, and based on this result, a refund of about 23 % of the total disbursement to JICA has been decided. In order to avoid such a situation in the future, it is worth considering the introduction of a mechanism to check whether the project procedures are performed appropriately, including documentation management. For example, the procedure appropriateness, including documentation management, of some randomly selected sub-loans as well as sub-loans that require stipulated special procedures could be checked at a regular meeting of a project supervising committee and so forth. In particular, like in this project, in cases which a project executing agency from the previous phase is changed, the implementation status can be checked at an early stage in such a meeting as mentioned above; or, in cases which the PMU is transferred to another ministry due to reorganization of government ministries during the project implementation period, giving special attention to the complete transfer ought to be encouraged while the result of the transfer and implementation status of the new PMU can be checked at a regular meeting to be held immediately after the transfer takes place. It is considered that this would also contribute to enabling appropriate measures to be taken at an early stage

Comparison of the Original and Actual Scope of the Project

Item	Plan	Actual
1.Project Outputs	(a) General Loan: No planned value (b) Technical Assistance Loan A: No planned value (c) Technical Assistance Loan B: No planned value	(a) General Loan: 755 sub-loans (b) Technical Assistance Loan A: 38 sub-loans (c) Technical Assistance Loan B: 0 sub-loan
2.Project Period	December 2004 – March 2009 (52 months)	December 2004 – May 2010 (66 months)
3.Project Cost		
Amount Paid in Foreign Currency	0 million yen	0 million yen
Amount Paid in Local currency	5,236 million yen (4,257 million rupees)	5,172 million yen (5,597 million rupees)
Total	5,236 million yen	5,172 million yen
Japanese ODA Loan Portion	5,236 million yen	5,172 million yen
Exchange Rate	1 rupee = 1.23 yen (As of October, 2003)	1 rupee = 0.92 yen (Average between December, 2004 and December, 2011)