Sri Lanka

Environmentally Friendly Solutions Fund

External Evaluator: Kawakami Teruo (Asahi Ltd.)

Field Survey: November-December 2005

1. Project Profile and Japan's ODA Loan

Map of project area
All regions of Sri Lanka except the northern and eastern parts.

Wastewater treatment plant established

1.1 Background

At the time of the appraisal, Sri Lanka was witnessing an expansion in factory-based manufacturing industry such as textiles and clothing in addition to the traditional agricultural processing of tea, rubber and coconuts. The percentage of gross national product occupied by the manufacturing sector was rising year by year, reaching 21% in 1996. At the same time, industrialization in these fields was accompanied by ever greater levels of industrial pollution.

In 1980, the government established the Central Environment Authority (CEA) under the provisions of the National Environmental Act, which was enacted to establish a framework for environmental regulations. While efforts were made in the area of environmental regulations, studies conducted by the National Development Bank (NDB)[1], CEA and so on pointed out that no matter how much the regulated business might want to take steps to carry out environmental measures, they simply did not have the funds or technology. In order to respond to their demand for fund, the Pollution Control and Abatement Fund was established by NDB with the financial assistance from Kreditanstalt fur Wiederaufbal (KfW), and loans were financed to enterprises. This fund was completed in 1998, however,

[1] The NDB was originally established in 1979 under the National Development Bank Act. Set up as a 100% government-financed institution, the aim of the bank was to stimulate Sri Lanka's economy by providing medium- to long-term financing for development projects. When the bank was later incorporated and privatized, however, the government's stockholdings fell to 7.33%, its level as of the time of appraisal (1998). In August 2005, the NDB was converted from a special bank to a private commercial bank, at which point the privatization process was completed.

despite expectations that the need for funding for enterprises were expected to be continuously high.

1.2 Objective

The project's objective was to promote environment-related capital investment by the industrial enterpriser by providing interest-free loans to cover the cost for training and for hiring consultants who can provide support in technological and environmental issues, and low-interest financing for loans for capital investment in environmental measures to, and thereby contribute to improvement of environment in Sri Lanka through preventing and alleviating environmental pollution.

1.3 Borrower/Executing agency

The Government of Democratic Socialist Republic of Sri Lanka / National Development Bank

1.4 Outline of Loan Agreement：

Loan Amount Disbursed Amount	2,730 million yen 2,400 million yen
Exchange of Notes Loan Agreement	August 1998 September 1998
Terms and Conditions - Interest Rate - Repayment Period (Grace Period) - Procurement	 0.75%/year 40 years 10 years General untied
Final Disbursement Date	January 2004
Feasibility Study (F/S) etc.	1997: Preliminary Study by Japan Bank for International Cooperation（JBIC） 2004: Phase II Loan Agreement

2. Evaluation Results

2.1 Relevance

2.1.1 Relevance at the time of appraisal

The Central Environment Agency (CEA) was established in 1980 under the provisions of the National Environment Act (NEA). Under the 1988 amendment to the NEA, comprehensive regulations related to water pollution, waste matter, soil pollution, noise, and odor were established, and standards for noise and

effluent emissions were introduced. A framework for the enforcement of environmental regulations was set up, and enterprises that pollute the environment became obliged to acquire environmental protection licenses (EPLs)[2]. 1990 saw the enactment of regulations for water and soil pollution, while regulations for noise were established in 1996. To cope with the government's strengthening of environmental regulations, polluting enterprises urgently needed to obtain investment for environmental measures, and the need for this project as a way to respond to that need for funding was high.

2.1.2 Relevance at the time of evaluation

The National Environment Policy (NEP) was promulgated in 2003 by the CEA in part to harmonize development needs with environmental protection. The policy has had lasting importance in the area of pollution control. Regarding EPLs, in the year 2000 industries were classified by the degree to which they created environmental pollution. For industries designated as being engaged in highly polluting activities, the CEA (or the Board of Investment (BOI) entrusted by the CEA) issues EPLs. For those industries designated as being engaged in lightly polluting activities, it was decided that the right to bestow EPLs would be transferred to local governments. In August 2004, an enforcement and oversight department was set up within the CEA so as to establish a system for investigating and overseeing enterprises in violation of regulations. This way, it would be possible to deal swiftly with severe environmental damage resulting from the transgression of environmental protection laws. The project will continue to be of great importance as a way to help bolster the government's environmental regulations system.

2.2 Efficiency

2.2.1 Outputs

The project, the Environmentally Friendly Solutions Fund (or "E-FRIENDS Fund" short), comprised of the General Loan that provide low-interest financing for environmental measures by industrial enterprises; Technical Assistance Loan-Part A, which provide interest-free financing to cover cost for technical training or hiring of consultants for technological or environmental issues needed for

[2] Environmental Protection Licenses (EPLs) are issued to confirm that those responsible for pollution emissions observe the emissions standards set by the CEA. Some 80 highly polluting activities and 45 lightly polluting activities are designated as industrial activities that make necessary the acquisition of an EPL. Businesses are obliged to apply for an EPL for each relevant activity. At present, emissions standards have been officially released for wastewater, noise, vibrations, and incinerators.

investing in environmental measures; and Technical Assistance Loan - Part B, which provide low-interest financing for the NDB and the Participating Credit Institutions (PCIs) which implement the project to cover the cost of training or public relations activities that was needed to administer the loan program. Regarding the loans for industrial enterprises, as an “apex agency” (i.e., executing agency), the NDB appraised the refinances to general businesses by the PCIs. (As a PCI, the NDP also provides financing for industrial enterprises.)

Six institutions—the NDB, the Development Finance Corporation of Ceylon (DFCC), Bank of Ceylon, Seylan Bank, Hatton National Bank (HNB), and Sampath Bank—were all initially candidates to serve as PCIs. However, because the Participatory Agreement was not reached with the Bank of Ceylon, the agreement was signed with the Commercial Bank of Ceylon (CBOC), which did meet the eligibility criteria, instead.

(1) Environmentally Friendly Solutions General Sub-Loan (General Loan)

Planned and actual outputs (scope) for the General Loan are as shown in Table 1.

Table 1. Comparison of Planned and Actual Scope

Item	Plan	Actual
Eligible sub-project	Capital investment for environmental protection measures by industrial enterprises (Equipment to reduce emissions or to lower production of contaminants so as to comply with all relevant laws and regulations on the environment; equipment to reduce the usage of resources or to remove toxic substances; equipment to improve noise and toxin levels in working environments; factory relocations; and monitoring equipment relating to the above items.)	As planned.
Eligible sub-project	The ability to secure EPLs following sub-project completion.	As planned (see note).
Maximum loan amount	20 million rupees	Changed to 50 million rupees. Loans exceeding 50 million rupees became eligible with the prior concurrence by JBIC.
Financing ratio	100% max. （for nonprofitable endeavors） 70% max. （for profitable endeavors）	As planned.
Repayment period	10 years max.（including a 2-year grace period）	As planned.
Annual	8.5% max.	As planned

Item	Plan	Actual
interest rate		

Note: Sub-projects involving investment in equipments designed to save resources or energy were also considered eligible for financing under the General Loan, which did not necessarily aim to acquire or renew an EPL (see Table 4).

The maximum loan amount was raised from the planned figure of 20 million rupees to 50 million rupees in order to accommodate large-scale sub-projects like the construction of wastewater treatment plants. In addition, sub-projects like wastewater treatment facilities whose scale might exceed the 50 million rupee limit were made eligible for financing subject to prior concurrence by JBIC. Some 2,351 million of financing, or 94.8% of the planned figure of 2,480 million was provided. In all, 258 companies, compared to a planned figure of 240, were serviced. The total number of loans was 281.

Looking at the distribution of loans by scale of financing (Table 2), out of a total of 281 general loans, 171 loans (61%) were elow 5 million rupees; and 91 loans (33%) were between 5 and 20 million rupees. At the same time as responding to the needs of relatively small-scale investment in environmental measures, demands from large-scale enterprises to invest in environmental measures on a scale exceeding 20 million rupees were also flexibly met. Looking at the loans by region (Table 3), 128 loans or 45% of all loans were for enterprises in the Colombo or Gampaha areas, where businesses are concentrated and heavily polluting enterprises existed (In a 1989 study done by the CEA, 119 out of 291 enterprises surveyed which were considered to be heavy polluters were found in these area). Another 14 regions (excluding conflicted northern and eastern regions), received financing, thus following along the lines of the loan aiming to contributing to betterment of the environment in the whole of Sri Lanka. In terms of area of application (Table 4), 197 loans or roughly 70% were for investments aimed at resolving environmental problems by meeting regulations imposed by the CEA, BOI (which manages an industrial park), and local governments. The remaining 84 loans were financed to investments in energy and resource savings, resource recycling, etc, indicating that the loan program covered a wide range of environmental measures as planned. Except for interest rates[3], loan terms such as maximum loan amounts were made flexible. The project utilized the close relationship between each PCI's nationwide network and their end-users. In this way, it was thus possible to provide loans that balanced business scale, region, and area of application.

[3] It was confirmed in the ex-post evaluation that a review of interest rates was not made by the NDB, and as a result, the interest rate was a uniform 8.5% at each of the PCIs.

Table 2. Loan Distribution by Scale of Financing

Scale of Financing (Unit: millions of rupees)	No.	%
Less than 1	53	19
1 - 2	49	17
2 - 5	69	25
5 - 10	59	22
10 - 15	23	8
15 - 20	9	3
20 - 25	2	-
25 - 50	16	6
More than 50	1	-
Total	281	100

Table 3. Loan Distribution by Region

City	No.	%
Anuradhapura	3	1
Badulla	3	1
Colombo	71	25
Galle	23	8
Gampaha	57	20
Hambantota	1	-
Kalutara	16	6
Kandy	17	6
Kegall	5	2
Kurunegala	10	4
Matale	5	2
Matara	19	7
Nuwara Eliya	18	7
Polonnaruwa	2	-
Puttalam	13	4
Ratnapura	18	7
Total	281	100

Table 4. Loan Distribution by Area of Application

Area of Application	No.	%
Air pollution	10	4
Air pollution, wastewater treatment, resource savings, noise countermeasures	13	5
Energy recovery*	3	1
Noise countermeasures	5	2
Energy savings*	41	14
Energy savings, wastewater treatment, air pollution, resource recovery	28	10
Wastewater treatment	67	23
Wastewater treatment, energy savings, air pollution measures, resource recovery	11	4
Factory relocations	5	2
Recycling projects*	21	7
Recycling projects, wastewater treatment, noise countermeasures	3	1
Resource savings*	19	7
Resource savings, energy savings, exhaust gas reduction measures, wastewater treatment	55	20
Total	281	100

Note: Sub-project applications marked with an asterisk (*) were not seeking to obtain or renew an EPL

Sources: Tables 2-4 are based on data by the executing agency

Loans for borrower enterprises were financed through on-lending from the NDB, the “apex agency” (executing agency), to each participating credit institution (PCI). The numbers of borrower enterprises, numbers of loans, and loan amounts handled by each PCI are shown in Table 5.

Table 5. Number of Borrower Enterprises, Number of Loans, and Total Amount of Loan by PCI—General Loan/Disbursed Base

PCI	No. of borrower	No. of loans	Total amount of loans

	enterprises		(General Loan)		(General Loan)	
	No. of enterprises	%	No. of loans	%	Total amt. (Unit: millions of rupees)	%
NDB	141	54.7	155	55.2	1,180.4	65.5
DFCC	45	17.4	49	17.4	200.2	11.1
Seylan	17	6.6	19	6.8	116.4	6.5
Sampath	23	8.9	23	8.2	140.3	7.8
CBOC	21	8.1	24	8.5	126.5	7.0
HNB	11	4.3	11	3.9	383	2.1
Total	258	100.0	281	100.0	1802.1	100.0

Source: Based on data from the executing agency
Note: At times more than one loan was disbursed to the same enterprises, and so the number of loans exceeds the number of borrowers. (Fourteen enterprises received two loans, three received three loans, and one received four loans.)

(2) Environmentally Friendly Solutions Technical Assistance Loan - Part A

Table 6 shows the planned and actual scope for the Technical Assistance (TA) Loan - Part A.

Table 6. Planned and Actual Scope

Item	Plan	Actual
Eligible sub-project	Costs related to the transfer of technologies pertaining to environmental measures by potential users of the General Loan (hiring of consultants, technical training, etc.)	As planned.
Maximum loan amount	750,000 rupees	As planned.
Financing ratio	75% max	As planned.
Repayment period	5 years max with 1 year grace period	As planned.
Annual interest rate	Interest-free.	As planned.

Of a planned 190 million yen to be financed, actual loan amount was 15.9 million yen (8.4% of planned amount). And out of the planned loans, only 39 loans (31.7% of the plan) were financed. Reasons for underutilization of the TA Loan was that although it was interest-free, loans required repayment and in many cases, equipment suppliers provided technical guidance to small enterprises, thus many enterprises took a rather passive stance with respect to borrowing. Secondly, since it was interest-free, PCIs were not able to cover management costs and they had little incentive to encourage enterprises to actively make use of borrowing opportunities.

(3) Environmentally Friendly Solutions Technical Assistance Loan - Part B

Table 7 shows the planned and actual scope for the Technical Assistance (TA) Loan - Part B.

Table 7. Planned and Actual Scope

Item	Plan	Actual
Eligible user	NDB, PCI	Not used
Eligible sub-project	Costs to cover public relations activities and training for this project	Not used
Maximum loan amount	750,000 rupees	Not used
Financial ratio	75% max	Not used
Repayment period	5 years max with 1 year grace period	Not used
Annual interest rate	3.5%	Not used

This TA Loan were unused. The NDB and PCIs covered training costs by their own funds since the loan was not interest-free(3.5%). During the same period, public relations activities and training was supported by the grant aid from KfW, and thus there was little incentive to actively make use of this borrowing opportunity.

2.2.2 Project period

The project was completed in January 2004 as planned.

2.2.3 Project costs

Actual project costs were 2,400 million yen[4] or 86.9% of the planned cost of 2,730 million yen. The reasons for lower-than-planned cost were; the NDB was instructed by the Ministry of Industry to set the General Loan framework of 200 million rupees for the purpose of relocating the tanning industry in Sri Lanka's Southern Province, the relocation project had not been realized even the closing date of the ODA loan (December 2003). In addition, the actual amount of the TA Loans fell below their planned amount, as described earlier.

2.3 Effectiveness

2.3.1 Number of environmental protection licenses (EPLs) acquired and renewed

[4] As for the discrepancies in the totals for actual amount of the General Loan and actual amount of the TA Loan - Part A, prepayment was made in September 2004.

Out of a total of 281 general loans, 197 were financed for investments in environmental pollution countermeasures for which the acquisition or renewal of EPLs was sought. The remaining 84 loans were for investments in sub-projects related to energy recovery and savings, recycling, resource savings wherein the acquisition or renewal of EPLs was not aimed (see Table 4). Out of these loans, 131 EPL acquisitions and renewals were reported by the PCIs (Table 8). The rate of EPL acquisition and renewals achieved through capital investment financed by the loans was 66%.

Table 8 No. of EPLs Acquired and Renewed

PCI	EPL acquisitions & renewals
NDB	96
DFCC	15
Sampath	5
Seylan	6
CBOC	9
HNB	none
Total	131

2.3.2 Status of installation and operation of environmental equipments among borrower enterprises

According to the beneficiary survey conducted in the ex-post evaluation[5], 45 enterprises (86.5%) out of 52 that responded indicated that the rate of operation of environmental equipments installed through capital investment financed through the loans was 75% or higher (Table 9).

Table 9. Operation Rate of Environmental Equipments

Rate of Operation	No. of Responses	Percentage of Organizations
100%	33	63.4%
75-00%	12	23.1%
50-5%	3	5.8%
less than 50%	3	5.8%
no response	1	1.9%
Total	52	100.0%

For enterprises who responded that the operation rate was below 75%, the reasons given for the low rate of operation were varied. In one case, the fuel used for tea desiccators had been switched from firewood to fuel, but on account of a sudden rise in crude oil prices, the enterprise found itself needing to go back to its former fuel source. In some cases, the facilities installed were inefficient or

[5] Out of 258 enterprises received the General Loan, 145 were sent a questionnaire, and out of those, 52 enterprises (or 35.9%) responded. (Respondents thus represent 20.1% of all borrower enterprises.) When the respondents are broken down by type of business, 17 enterprises (32.7%) were in food processing, 14 (26.9%) were in tea production, 5 (9.6%) were in plastics processing, 4 (7.7%) were in rubber manufacturing, 4 (7.7% were in printing and paper processing, and 8 (15.4%) were in other fields.

ineffective. One company where plastic recycling equipment had been introduced simply could not operate due to a lack of raw materials and frequent power outages. One company had managed to purchase some of the equipment, but on account of insufficient funding, the remaining parts needed to start operation could not be procured.

2.3.3 Cost reductions and other outcomes observed in borrower enterprises

The beneficiary survey reported various positive outcomes, including a reduction in electricity fees and time- and energy-savings. The question asking whether the expected outcomes were observed by introducing the equipments, 26 out of 52 respondents reported that the expected savings were 100% achieved, and 4 companies reported that 75% or more of their expected benefits were achieved.

2.4 Impact

2.4.1 Spillover effect of the waste treatment and disposal issue in Colombo City

The project supplied low-interest loans for businesses involved in recycling and reusing garbage and other waste matter in the city of Colombo. A number of sub-projects were initiated as a result. One sub-project made use of Colombo city garbage for organic fertilizer, another recycled scraps of felt, and 17 sub-projects were set up to recycle plastic scraps. As a result, the effective utilization of waste matter in Colombo city was increased and the amount of garbage disposed of was reduced.

Fig. 1 Equipment for recycling felt scraps

2.4.2 Increased incentives for business-related pollution control and investment in environmental measures

Followed the revision of National Environment Act passed in November 2000, a list of 80 industrial activities deemed heavy polluters and another 45 industrial activities classified as light polluters was announced. The obligation of obtaining an EPL for enterprises engaged in such activities clearly specified, and environmental regulations were made more stringent. The NDB and CEA jointly conducted 5-6 public information seminars from September 2000 targeting enterprises that pollute the environment. The purpose of the seminars was to make them aware of the importance of resolving environmental issues by explaining the

effect that environmental problems have on people's health and lives. The seminars also sought to increase applications for the loans of the project by explaining the provision of low-interest loans for EPL acquisitions. Some 75 representatives from car mechanic shops attended a seminar aimed at garages, which were designated as being especially heavy polluters. Thereafter 68 garages in the Colombo area obtained their EPL. (Fifteen of those establishments received loans through the project.) This project can thus be said to have helped increase incentives for investment in environmental countermeasures and business-related pollution control. Based on interviews with managers and people in charge of enterprises conducted during field survey, environmental consciousness is especially high among enterprises running projects under EPL regulations.

2.4.3 Contribution to pollution prevention in enterprises in major cities throughout Sri Lanka

A study conducted by the CEA in 1989 reported that 4,606 out of 7,600 companies surveyed were polluting the environment. According to an environmental awareness survey conducted as part of the Preliminary Study by JBIC in 1996, out of some 250 responses, roughly 25 % of enterprises had yet to acquire EPLs, more than 40% had received complaints from residents, and 60% had been admonished by a public organization. Because 144 enterprises in the Colombo/Gambaha area had introduced environmental mitigation equipments through the loans of this project, and had thus exerted some control over water and air pollution, they had contributed to environmental conservation in those cities. According to a report by the NDP, the executing agency, 29 projects related to air pollution had been conducted, which accompanied measurable improvements to the environment had been noted. By introducing equipment to minimize dust, 93 tons of sawdust had been removed from lumber processing industries, and 580 tons of rubber dust had been recovered from tire manufacturing industries and could be recycled for use in rubber products. Furthermore, prior to the installation of equipment to capture carbon microparticles released during the rubber synthesis process, 4000 micrograms of carbon dust were found per cubic meter; following installation, the concentration was reduced to 200 micrograms per cubic meter, well below the CEA standard of 500. Through six sub-projects for noise control, noise levels which originally ranged from 70 and 105 dB levels reduced to daytime levels of 55 dB and nighttime levels of 45 dB, well below the CEA limit of 75 dB. Fourteen plastic waste recycling projects were undertaken, resulting in the reprocessing of 22 tons of plastic and polyethylene waste.

2.5 Sustainability

2.5.1 State of the Revolving Funds

By the end of 2005 the revolving funds had not been utilized (the balance as of the end of December 2005 was 950,660,000 rupees). Considering that the interest rate for Phase II of the project is set at 6.5%, which is lower than that of 8.5% of the project, and that repayment of principle to the Sri Lankan government began in 2003, at the present time (end of 2005), there is an insufficient balance to begin new loans, and parties will explore the use of the revolving funds at the stage when the past loans are fully recovered. In Phase II, the NDB serves as a PCI, and the likelihood of utilizing revolving funds in the future is high.

Table 10. State of the Revolving Funds (Unit: 1000 rupees)

		1999	2000	2001	2002	2003	2004	2005
1	Balance carried forward from the previous year	—	(492)	1,915	51,069	153,821	429,233	823,537
2	Disbursement from ODA loan	6,230	76,012	625,796	760,945	345,989	565	0
3	Principal repayment on the first generation sub-loan	0	2,437	35,526	122,117	232,706	349,309	313,784
4	RF sub-loan repayment	0	0	0	0	0	0	0
5	Interest and dividends received	0	1,628	21,634	63,682	82,027	75,732	57,986
6	Total revenue (2+3+4+5)	6,230	80,077	682,956	946,744	660,722	425,606	371,770
7	First generation sub-loan lending	6,722	76,892	626,544	811,945	328,003	-34,569	0
8	RF sub-loan lending	0	0	0	0	0	0	0
9	Repayment to ODA loan	0	0	0	1,560	3,230	3,587	184,450
10	Interest payment to ODA loan	0	778	7,258	30,487	54,077	62,284	60,196
11	Total expenditure (7+8+9+10)	6,722	77,670	633,802	843,992	385,310	31,302	244,645
12	Balance carried forward to the following year (1 + 6 - 11)	(492)	1,915	51,069	153,821	429,233	823,537	950,662

Source: Compiled based on NDB data.
Note: RF stands for “revolving fund.”

2.5.2 Executing agency

2.5.2.1 Technical capacity

The NDB conducted comprehensive training on environmental assessments at the Asian Institute of Technology in Thailand twice under the project. In total, 20 employees from the NDB and PCIs participated in the training, which aimed to develop the ability needed to appraise environmental sub-project. In actual appraisal of environmental sub-project, external consultants were hired in case of necessity. This enabled the PCIs' staff in charge to develop their capacity of appraisal for environmental sub-projects under the guidance of external specialists. In addition, during the project implentation, JICA experts in environmental loans were dispatched to the NDB to improve the initially sluggish financial performance (at the end of 2000, loan totals was only 83.61 million rupees in two years) , and instructed to conduct a public relations seminar jointly with the CEA to the NDB. In 2001, it was succeeded in financing 626.54 million rupees in loans. In Phase II of the project, the Commercial Bank of Ceylon and some other PCIs proactively cultivate borrowers by conducting public relations seminars.

2.5.2.2 Operation and Maintenance System

During the project implementation period, the Environmental Unit (EU) established at the NDB, the executing agency (apex agency), managed the appraisal, loan provision and collection for environmental measure related financing including the project. The NDB once again participates as a PCI in Phase II, though the above-mentioned EU no longer exists. At present, at the NDB and the other PCIs, senior engineers of the institutions (not necessarily environmental specialists), or entrusted external environmental technology specialists appraise environmental projects. In order to make sure that funds are being used appropriately, in each case the PCI stipulates rights of on-site inspection in an agreement with the borrower enterprise. In implementing the project, a Policy Coordination Committee was formed from representatives originating in the Ministry of Industrial Development, the NDB, the Export Development Agency, the Central Bank, and PCIs. As needed, the committee was supposed to check into such things as status of project progress or consistency with government policies. However, because the members came from the vice-ministerial level, it was difficult for them to hold meetings frequently, and in fact meetings were not held.

The extent of cash recovery and credit arrears at PCIs is as shown in Table 11.

Table 11. Cash Recovery and Credit Arrears (2004)

	NDB	DFCC	Seylan	Sampath	CBOC	HNB
Past Due Principal and Interest (Unit: millions of rupees)	199	19	14	n.a	n.a	n.a
Of which recovered (Unit: millions of rupees)	189	19	14	n.a	n.a	n.a
Cash recovery rate	95%	100%	100%	n.a	n.a	100%
Number of loans	154	46	11	n.a	n.a	n.a
Number of loans in arrears	6	0	0	n.a	n.a	n.a
Arrears ratio by number of loans	3.9%	0%	0%	n.a	n.a	n.a
Balance of loans (Unit: millions of rupees)	630	153	56	n.a	n.a	17
Amount of loans in arrears (Unit: millions of rupees)	16	0	0	n.a	n.a	0
Arrears ratio by amount of loans	2.5%	0%	0%	n.a	n.a	0%

Source: Based on data from the individual PCIs.
Note: Sampath and CBOC did not furnish data. A borrower enterprise financed by Sampath went bankrupt in 2004 due to poor management. A credit of 10 million rupees was passed to the credit recovery department.

At 95-100%, the cash recovery rate is good. Out of 281 general loans amounting to 1,802.1 million rupees, the NDB accounted for 155 loans for 1,180 million rupees. Of these NDB loans, 3.9% of the loans (or 2.5% of the credit amount) were in arrears as of end-2004 (Ex-ante evaluation of the Phase II set a target figure of 4.7% for the arrears ratio by number of loans, or 2.1% of the arrears ratio by amount of loans). At three other PCIs there were no loans in arrears, and overall, the performance at each of the institutions was satisfactory.

2.5.2.3 Financial status

The financial data for each of the PCIs during the project implementation is given in Table 12. The variation between the PCIs' financial capacities can be seen. Regarding the capital-to-asset ratio, whereas the NDB, the DFCC, and the CBOC are above 10%, Seylan Bank, Sampath Bank, and Hatton National Bank (HNB) have ratios between 5-6%. As for the return on asset, the table shows that there are many years in which Seylan Bank and HNB were below 1%, and profitability was relatively low. The NDB, the executing agency, converted from being a special bank to a general commercial bank in August 2005 and was completely privatized. Net interest income for the end of September 2005 (nine-month period) registered a 21% gain over the same period in 2004, and pre-tax profits were 1,380 million rupees, up 28% over the same period the previous year. The ratio of

Non-performing loans fell from a December 2004 level of 9.9% to 5.2%. Management results improved markedly following the completion of privatization. As mentioned above, the NDB continue to serve as a PCI in Phase II. The bank is looking at utilizing revolving funds three years from now, when the loans will have been fully recovered.

Table 12. Financial Conditions of PCIs

NDB

(Unit: millions of rupees)

Item	1999	2000	2001	2002	2003	2004
Operating profit	1,381	1,850	2,156	2,591	3,606	3,717
Pretax profit	745	556	559	1,043	1,221	806
Total assets	37,606	42,136	42,556	40,374	43,873	58,985
Equity capital	5,957	6,475	7,154	7,876	8,639	9,470
Return on assets	2.2	1.4	1.3	2.5	3.2	1.6
Return on equity	13.3	9.7	10.0	14.4	15.3	8.6
Capital-to-asset ratio	15.8	15.4	16.8	19.5	19.7	16.1

DFCC

(Unit: millions of rupees)

Item	1999	2000	2001	2002	2003	2004
Gross income	3,446	3,452	4,037	4,113	n.a.	n.a.
Operating profit	n.a.	n.a.	n.a.	n.a.	2,848	3,176
Pretax profit	530	627	857	1,131	1,355	1,350
Total assets	24,070	25,908	27,610	29,427	35,278	41,059
Equity capital	5,413	5,745	6,659	7,627	8,730	10,108
Return on assets	2.1	2.5	3.2	4.0	4.2	3.5
Return on equity	10.2	11.2	13.8	15.8	16.6	14.3
Capital-to-asset ratio	22.5	22.2	24.1	25.9	24.7	24.6

Seylan

(Unit: millions of rupees)

Item	1999	2000	2001	2002	2003	2004
Gross income	5,823	6,745	n.a.	n.a.	n.a.	n.a.
Operating profit	n.a.	n.a.	3,389	5,114	6,438	6,349
Pretax profit	172	246	273	668	591	383
Total assets	47,312	55,927	60,303	67,779	80,051	88,184
Equity capital	1,777	1,970	2,238	2,847	4,365	4,611
Return on assets	0.6	0.5	0.5	1.0	0.8	0.5
Return on equity	10.0	13.1	13.0	26.3	18.3	8.5
Capital-to-asset ratio	3.8	3.5	3.7	4.2	5.5	5.2

Sampath

(Unit: millions of rupees)

Item	1999	2000	2001	2002	2003	2004
Operating profit	1,556	2,235	2,165	2,643	3,442	4,094
Pretax profit	261	402	322	441	561	621
Total assets	27,327	34,596	38,781	43,017	54,054	67,483
Equity capital	1,465	2,290	2,534	2,887	3,383	3,918
Return on assets	1.2	1.3	0.9	1.1	1.2	1.0
Return on equity	14.0	18.9	13.3	16.3	17.9	17.0
Capital-to-asset ratio	5.4	6.6	6.5	6.7	6.3	5.8

CBOC

(Unit: millions of rupees)

Item	1999	2000	2001	2002	2003	2004
Operating profit	2,395	3,041	3,631	4,427	5,841	7,412
Pretax profit	658	936	1,010	1,204	1,477	1,685
Total assets	41,887	49,610	59,146	73,352	110,280	138,473
Equity capital	4,268	5,047	6,745	7,754	11,684	13,911
Return on assets	1.7	2.1	1.9	1.8	1.6	1.4
Return on equity	16.2	20.1	17.1	16.6	15.2	13.2
Capital-to-asset ratio	10.2	10.2	11.4	10.6	10.6	10.0

HNB

(Unit: millions of rupees)

Item	1999	2000	2001	2002	2003	2004
Operating profit	3,635	4,360	4,363	5,541	7,921	8,125
Operating cost	2,741	3,411	4,061	4,873	5,009	5,716
Pretax profit	718	800	303	589	1,008	976
Total asses	76,354	87,656	99,172	115,436	133,331	152,780
Equity capital	5,008	5,548	5,753	6,235	6,993	9,052
Return on assets	1.0	1.0	0.3	0.6	0.8	0.7
Return on equity	17.0	15.0	5.0	10.0	15.0	12.0
Capital-to-asset ratio	6.6	6.3	5.8	5.4	5.2	5.9

Source: Compiled based on the annual reports of the individual PCIs.

3. Feedback

3.1 Lessons learned

None.

3.2 Recommendations

3.2.1 Recommendations for JBIC and the executing agency

As mentioned earlier, the revolving funds are still not being used. The NDB has been privatized and can no longer function as the executing agency, but it serves as a PCI during Phase II, and the likelihood of utilizing the revolving fund in the

future is high. It is suggested to continue dialogues with the executing agency regarding measures to promote the use of the revolving funds, and to monitor the status of utilization of the funds. Moreover, it will be important to consider the consistency with the revolving fund schemes of precedent projects in forming the similar projects in the future, and take steps accordingly if incompatibilities arise.

3.2.2 Recommendations for JBIC and the executing agency

PCIs have self-financed their public relations initiatives and staff training exercises, and therefore awareness and demand for usage of the TA Loan - Part B has been low. PCIs recognize that seminars on loans for environmental mitigation measures implemented under the project were effective. It might be advisable for the executing agency to make these same funds available to all PCIs.

Borrower enterprises received technical guidance from the supplier in many cases, and thus usage rate of the TA Loan - Part A was low. Also, NDB's Environmental Unit was advising borrowers to have guidance from suppliers. This was also cited as part of the reason for this low usage rate of the TA Loan. As for technical assistance portions, consideration should be given to provide additional support to the executing agency through the application of JICA experts and JBIC studies, in addition to loan-based schemes.

3.2.3 Recommendations for JBIC

The number of EPLs acquired is an important indicator to monitor the project in Phase II, just as was the case in the project. In order to clarify the causal relation between provision of loans and EPL acquisitions and renewals, at the loan appraisal stage, not only should consideration be given to the equipments and funding plan; there also needs to be clean on whether or not the acquisition and renewal of EPLs will be necessary. If they are deemed necessary, then at the completion of each sub-project, there is a need to confirm as to whether EPLs were duly acquired or renewed.

Comparison of Original and Actual Scope

Item	Plan	Actual
(1) Output 1) General Loan a) Eligible sub-project	Capital investment for environmental protection measures for industrial enterprises (Facilities to reduce emissions or to lower production of contaminants so as to comply with all relevant laws and regulations on the environment; equipment to reduce the usage of resources or to remove toxic substances; equipment to improve noise and toxin levels in working environments; factory relocations; and monitoring equipment relating to the above items.)	As planned.
b) Eligible sub-project	The ability to secure EPLs following sub-project completion	As planned.
c) Max. loan amt.	20 million rupees	Changed to 50 million rupees. Loans exceeding 50 million rupees became be eligible on condition of the prior concurrence by JBIC.
d) Financing ratio	100% max. (non-profit) 70% max. (profit)	As planned.
e) Repayment period	10 years max. (with a grace period of 2 years)	As planned.
f) Annual interest rate	8.5% max.	As planned.
2) Technical Assistance Loan - Part A a) Eligible sub-project	Costs related to the transfer of technologies pertaining to environmental measures by potential users of the General Loan	As planned.
b) Max. loan amt.	750,000 rupees	As planned.
c) Financing ratio	75% max.	As planned.

Item	Plan	Actual
d) Repayment period	5 max. with a 1 year grace period	As planned.
e) Annual interest rate	Interest-free	As planned.
3) Technical Assistance Loan - Part B		
a) Eligible user	NDB,PCI	Unused.
b) Eligible sub-project	Costs to cover public relations activities and training for this project	Unused.
c) Max. loan amt.	750,000 rupees	Unused
d) Financial ratio	75% max.	Unused.
e) Repayment period	5 max. with a 1-yr. grace period	Unused.
f) Annual interest rate	3.5%	Unused.
(2) Project Period	September 1998-January 2004	As planned.
(3) Project Cost Foreign currency Local currency Total Portion covered by ODA loan	 0 yen 2,730 million yen 2,730 million yen 2,730 million yen	 0 yen 2,400 million yen 2,400 million yen 2,400 million yen

Note: The loan totals, including portions self-financed by the PCIs, are based on data from NDB.