Philippines

Environmental Infrastructure Support Credit Program (I)

External Evaluation: Taro Tsubogo

Field Survey: December 2004

1. Project Profile and Japan's ODA Loan

Project site location map

Project-installed sewage treatment facilities

1.1 Background

Seriously degraded air and water quality attributable to ongoing population growth and economic development had become a major problem in urban centers of the Philippines and particularly in the Metropolitan Manila area. Pollution from industrial sources was estimated to account for approximately 40% of the total pollution and had become a major cause for concern. In consequence, pollution controls by corporations was urgently required. In order for companies to comply with the Pollution Control Law enacted in 1977 and national standards on emissions and environment, not only strict legislature and environmental monitoring but also concessional finance to encourage environmental investment were crucial measures.

1.2 Objectives

This project's objective was to affect improvements in the disposal of gas emissions, wastewater and solid waste, and in production processes, by providing credit to support environmental investment through Development Bank of the Philippine (DBP), thereby contributing to improvements in environmental quality and the efficient use of resources.

1.3 Borrower/Executing Agency

Development Bank of the Philippine (underwritten by the Philippine government)/ Development Bank of the Philippine (DBP)

1.4 Outline of Loan Agreement

Loan Amount/Disbursed Amount	5,158 million yen/5,058 million yen
Exchange of Notes/Loan Agreement	March 1996/March 1996
Terms and Conditions -Interest Rates -Repayment Date (Grace Period) -Procurement	 2.5% (sub-loans)/2.5% (consulting services) 30 years (10 years) General untied
Final Disbursement Date	July 2002
Main Agreement	-
Contracted Consultants	UNICO International Corporation (Japan)
Feasibility Study (F/S), etc.	F/S: 1992, World Bank Study on Banking Reform Proposals for the Philippine Government: 1995, OECF Research Institute of Development Assistance

2. Results and Evaluation

2.1 Relevance

2.1.1 Relevance of project plans at appraisal

The five-year Medium-Term Philippine Development Plan (1993-1998), which was ongoing at the time of appraisal, placed an emphasis on environmental protection and the prevention of the industrial pollution accompanied with population growth and economic development. Furthermore, emission and environmental quality standards for air, water quality and solid waste had been established with the enactment of the Pollution Control Law of 1977, and thus tackling pollution from industrial sources had become a pressing issue in the nation's bid to attain these standards. Accordingly, the Environmental Infrastructure Support Credit Program (EISCP) was a highly relevant project in that, by the development of a concessional credit scheme, the program intended to encourage companies to invest in environmental infrastructure and to undertake pollution control activities.

2.1.2 Relevance of project plans at evaluation

In the current five-year Medium-Term Philippine Development Plan (2004-2010), environmental protection such as the prevention of air and water pollution and the management of solid waste is still a prioritized issue. In addition, current environmental protection legislation, such as the Clean Air Act of 1999 and the Ecological Solid Waste Management Act of 2001, also point to the necessity of preventing industrial pollution. Therefore, the EISCP still maintains its relevance at the time of this ex-post evaluation.

2.2 Efficiency

2.2.1 Outputs

(1) Capital Investment Component (2-step loans[1])

EISCP was executed without any changes to original scope. As shown in the table below, the loans for investment in pollution control facilities were made on compliance with the terms and conditions agreed at the appraisal of the EISCP. Loan contracts were closed for 18 companies (21 sub-loans), with interest applied at a fixed rate of 11% across the board. The interest rate has not been renegotiated.

Table 1: Comparison of Planned and Actual Scope (investment eligibility: coverage and conditions)

	Planned	Actual
a) Eligible projects	- Installation of pollution control facilities - Pollution control/reduction through process improvements - Installation of recycling facilities for byproducts - Consulting services for the above - Procurement of in-house emissions monitoring equipment	As planned, specifically: - Installation of air quality control equipment - Installation of wastewater/sewage treatment plants - Installation of resource/raw materials recycling equipment - Modernization of production processes - Installation of emissions monitoring equipment, etc.
b) Eligible companies	Government-run companies and companies in which the government has a stake of 70% or more (no limit on gross assets)	As planned No. of companies funded: 18 (21 sub-loans)
c) Terms and conditions		
- Loan limit	80% of total project costs (eligible components)	As planned
- Interest	11%, fixed	As planned
- Repayment	3-15 years (maximum deferral: 5 years)	As planned

Of the eighteen companies funded, eleven used the credit to fund the installation of wastewater or sewage treatment facilities. Among those companies that executed sub-projects combining several components, for example air pollution, water pollution, solid waste management and recycling measures, nine borrowed funds primarily to cover investment in wastewater and/or sewage treatment facilities.

Further, eleven of the eighteen companies (13 of the sub-loans) were located in Metro Manila, Region III or Region IV, while the remainder were scattered across the nation. In

[1] A lending scheme that provides credit to local financial institutions, which then sub-lend the funds to local companies. The loans financed by the local financial institution to local companies are referred to as “sub-loans”; the projects financed by the sub-loans as “sub-projects”.

terms of industrial sectors, the credit program was used most heavily by the sugar and food processing industries, accounting for eight of the eighteen companies (9 sub-loans), and 37% of total lending. The largest loan, accounting for approximately 29% of total, was extended to a steel manufacturer; the second largest went to a power company. At the time of appraisal of the EISCP, it was anticipated that the EISCP would promote investment among SMEs (small and medium-size enterprises), but in fact loans to large companies accounted for the majority, while those to SMEs[2] amounted to six sub-projects, or 8.6% of total lending.

Eight of the sixteen companies, which provided answers to the questionnaire, used the funds to procure equipment for monitoring emissions in-house, all of which were in operation at the time of this ex-post evaluation. Four other companies also procured monitoring equipment and are submitting reports on the results of in-house monitoring to government agencies such as the Department of Environment and Natural Resources (DENR). The remaining companies have not installed monitoring equipment but are outsourcing the work to external contractors.

(2) Institution-Building and Technical Assistance Components (Consulting Services)

In addition to the capital investment component, institution-building and technical assistance extended to DBP via project consulting services also constituted important EISCP components. The following services were provided while the EISCP was ongoing.

Assistance for evaluation of environmentally-sound technologies (ESTs) in credit risk assessments: The consultant extended assistance to the DBP Environmental Management Unit[3] (EMU) by conducting a feasibility study on assessing Environmental Compliance Certificate (ECC) content and the technical aspects of environmental projects. In addition, the consultant also conducted screening for the 75 credit applications[4] accepted by DBP, 39 of which were recommended to DBP for formal credit risk analysis.

Training for DPB account officers on evaluating ESTs: Guidelines (covering six sectors[5]) and manuals (five, including due diligence[6], etc.) comprising eleven risk assessment categories were compiled for DBP. Lecturers and seminars (10 in total) focusing on explanations of the above documents were given, and OJT (on-the-job training)

[2] The DBP classifies company size in June 2004 on the basis of the latest Department of Trade and Industry definitions. Companies with gross assets, excluding land, of 100 million pesos or less are classified as SMEs.
[3] Environmental Management Unit of Program Management I of Development Banking Sector, DBP
[4] Telephone inquiries and incomplete applications were received from more than 100 companies.
[5] Namely, the cement, beverage, coconut oil refining, pig farming, seafood processing, paper and pulp industries.
[6] Detailed preliminary audits that are designed to determine the eligibility of loans and investments. For EISCP loans, the decisions taken by DBP on whether to extend funds were based on the application of environmental due diligence.

comprising participation in actual risk assessments, visits to companies targeted for assessment, and the compilation of assessment reports. According to DBP, approximately 60% (485 officers) of its staff has participated in the training.

Activities to promote environmental awareness among companies: Educational activities combining EISCP marketing and promotional work were undertaken across the country on some 60 occasions while the EISCP was in progress. These activities included information on the EISCP, explanations on the latest environmental policy, environmental legislation and standards, and environmental management systems (EMS), and introductions to specific pollution control technologies. The Department of Environment and Natural Resources (DENR) and the Industrial Association of the Philippines extended their cooperation by dispatching lecturers and encouraging companies to participate. Moreover, in some conferences, consultation booths were set up for companies that had expressed an interest in the EISCP.

2.2.2 Project Period

At the initial stages of the EISCP, many companies failed to prepare Emissions Compliance Certificates (ECC), emissions permits for pollutants and other necessary documentations for loan application, meaning that the screening and approval process took longer than anticipated in some cases; however, generally speaking, loan applications for sub-projects were processed smoothly and the project was completed on schedule in July 2002.

2.2.3 Project Costs

All EISCP costs were funded by foreign currency lending; actual sub-loan disbursements amounted to 5,058 million yen against a planned budget of 5,185 million yen, meaning that 100 million yen of the original loan went unused; however, the funds were allocated to individual sub-projects appropriately. The credit amount withdrawn from the ODA loan fund was limited to 80% of total sub-project costs.

2.2.4 Credit Risk Assessment Procedures and Loan Terms

In addition to the assessments of company finances and credit risk (ability to service the loan), collateral evaluations, and screening of management capabilities and company systems that are undertaken as part of the normal lending procedure, loan applications filed under the EISCP were also screened to determine whether they qualified as pollution control projects, and the relevance and feasibility of the technologies plus in-house environmental monitoring and assessment systems were also subject to assessment.

Of those applications formally accepted by DBP, loans were not approved for 1) companies that had had difficulty acquiring ECC, 2) technically-infeasible projects, 3) companies that had been unable to finance their own portion of funding, and 4) financially-unhealthy companies. Furthermore, on a number of projects that involved massive outlays for the construction of new plants or the introduction and/or rehabilitation of new production equipment, where environmental improvements and/or pollution controls were incidental components, unsuccessful fundraising of main projects resulted in the abundance of environmental components.

According to the survey of companies funded via the EISCP, twelve of the sixteen companies from which answers were received stated that the interest rate and loan terms were either attractive or appropriate. Given that the rate of interest at commercial banks was around 18-19% with a repayment period of between three to five years in the early stages of the EISCP, these responses are pertinent. Ten of the sixteen companies stated that they considered the loan application procedures convenient (appropriate), and even those companies that were dealing with DBP for the first time stated that they had received advice and support from the bank throughout the application preparation and screening process. Asked whether a review of screening procedures and loan terms was necessary, four companies stated “yes”, indicating the need for “expedited procedures” and “calculations of premiums that were commensurate with loan size”.

2.3 Effectiveness

(1) Status of Pollution Controls and Environmental Quality Improvements Resulting From Capital Investment

In the EISCP, types of sub-projects and those of environmental pollutants are varies but the types of sub-projects can be broadly divided into “emission reduction or treatment” and “efficient use or recycling of resources and raw materials”. According to the survey of companies funded by the EISCP in this ex-post evaluation, all of the sixteen companies, which provided responses, stated that the equipment and apparatus financed by this project were operating properly.

(a) Emissions reduction or treatment

Sixteen of the twenty-one sub-projects fall under this category (undertaken by 13 companies) and were all designed with the primary objective of complying with national emission standards (PNS: Philippine National Standards) by reductions in either the volume or concentration of pollutants. Many of the loans were used to fund the installation of wastewater treatment facilities, while air quality control systems, such as

electrostatic precipitators and flue gas desulfurization equipment, came a close second. Examples of the pollution control effects of sub-projects such as reductions in water and air pollutants are given in the table below.

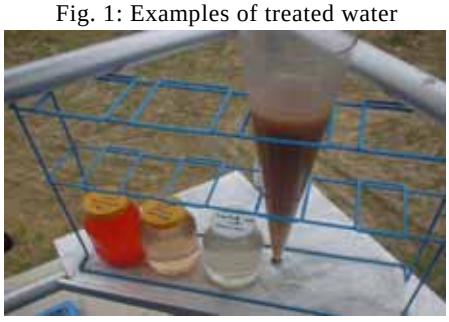
Table 2: Representative Examples of the Water and Air Pollution Reducing Effects of Sub-Projects

Company	Industry	Pre-project	Post-project	Emission cuts	Emissions concentrations (PNS)
Water pollution reductions					
Steel Corp.	Steel rolling/milling	BOD: N.A. COD: 28.9 kg/day TSS: 91.6 kg/day	BOD: N.A. COD: 8.3 kg/day TSS: 2.0 kg/day	N.A. 20.6 kg/day 89.6 kg/day	19 mg/l (50 mg/l) 66 mg/l (100 mg/l) 54 mg/l (70 mg/l)
Mekeni Foods Corp.	Food processing	BOD: 98.0 kg/day COD: 315.7 kg/day TSS: 27.7 kg/day	BOD: 2.0 kg/day COD: 310.5 kg/day TSS: 1.7 kg/day	96.0 kg/day 5.3 kg/day 26.0 kg/day	6.8 mg/l(120 mg/l) 30.0 mg/l(200 mg/l) 9 mg/l (150 mg/l)
Carmelray Industrial Corp.	Industrial estate mgmt.	BOD: 103.5 kg/day COD: 400.5 kg/day TSS: 18.9 kg/day	BOD: 10.0 kg/day COD: 154.0 kg/day TSS: 3.6 kg/day	93.5 kg/day 246.5 kg/day 15.3 kg/day	7.7 mg/l (50 mg/l) 87.7mg/l (100 mg/l) 11 mg/l (70 mg/l)
Air pollution reductions					
West. Mindanao Power	Electric power	N.A.	TSP: SO_2:	54.9 kg/day 865.2 kg/day	71 mg/Nm^3(150 mg/ Nm^3) 1,125mg/Nm^3 (1,500 Nm^3)

Source: DBP and questionnaire responses

BOD: Biochemical Oxygen Demand, COD: Chemical Oxygen Demand; both are representative indicators of water contamination, the reduction of which represents a reduction in the volume of organic pollutants contained in a body of water. TSS: Total Suspended Solids. TSP: Total Suspended Particulates. SO_2: sulfur dioxides; NOx: nitrogen oxide; CO: carbon monoxide.

Fig. 1: Examples of treated water



According to DBP environmental monitoring indicators from client companies, eleven of the thirteen companies (excluding the two for which data are unavailable) that received loans primarily to fund emissions reductions or treatment projects have succeeded in cutting the volume or concentration of emissions and report that they are now in compliance with PNS, which suggests that the EISCP has had satisfactory effects in terms of improvements in environmental quality and pollution control. The projected reductions of major pollutants by the EISCP (on the basis of available data) are given in the table below.

Table 3: Reductions in Major Pollutants (Projections) (kg/day)

Water pollutants	BOD	COD	TSS	Oil/grease
	13,720	24,701	1,539	2,825
Air pollutants	TSP	SO_2	NOx	CO
	399	4,327	292	1,654

Source: DBP and questionnaire responses

Taking BOD as an example, the cuts in the BOD loading of industrial effluents (13.7 tons/ day) by the EISCP equate to 2.8% of the projected throughput (487.0 tons/day)[7] for the Metro Manila area in 2000.

(b) Efficient use/recycling of resources and raw materials

Five of the twenty-one sub-projects fall under this category (undertaken by 5 companies) and were all designed with the primary objective of reducing emissions, minimizing waste, or increasing production efficiency by the efficient use of raw materials or resources. Examples of the effects from sample sub-projects are given in the table below. All five of the companies that received loans have succeeded in resource-use savings.

Table 4: Representative Examples of Sub-projects involving Efficient Use/Recycling of Resources/Raw Materials

Company	Industry	Collection/Reuse Volumes	Remarks
Bensan Industries Inc.	Oil recycling	Recycled oil: 3,500 drums/month Recycled lubricant: 1,100 drums/month Recycled asphalt: 12,672 kg/month	Pre-project level: 2,000 drums/month
Central Azucarera	Sugar milling	Recycled water: 212,550 m^3/day Water consumption savings: 7,000 m^3/day Volume of sugar extracted from raw materials: 3.4% increase	Total value of cost savings: 312,000 pesos/month
Panama Plastic	Chemicals	Recycled plastic trimmings: 6.5 MT/month	Value of cost savings: 338,000 pesos/month

Source: DBP and questionnaire responses

(2) Institutional Building and Technical Assistance Component

(a) Results of EST assessment assistance and training

The training, which was based on lectures and seminars to explain the loan screening guidelines and manuals and OJT primarily focusing on credit risk analysis, has been effective, and the average number of days to perform these assessments has been reduced from ten days in the initial stages of the EISCP implementation to five days at the time of this ex-post evaluation.

[7] This projection was made by the World Bank and represents generation minus emissions (both are presumptive).

(b) Effects of educational activities targeting companies

Educational activities combined with EISCP marketing and promotional work were undertaken across the country on some 60 occasions while the EISCP was ongoing. Eight of the sixteen companies, which responded to the survey, stated that, as the result of participation in these activities, they had interest in the EISCP and submitted loan applications to DBP. The survey shows that the educational activities had had some effect.

2.4 Impact

(1) Recognition of environmental changes among local residents

Interview were conducted with residents (68 people) living in the vicinity of four companies[8] that had undertaken sub-projects. The residents were asked about changes in environment brought about by the EISCP. Virtually all the respondents (99%) are aware of the location and business activities of the companies. According to the result of the interviews, the majority of residents (51%) stated that they had recognized an improvement in the local environment during the past five years, while the remainder said that they had noted no particular change (however, there were no remarks to indicate that the pollution had worsened over pre-project levels). Those residents who had recognized an improvement pointed out improvements in water quality, in solid waste management and in foul smells; specific comments include “the chemical odor of nearby rivers and lakes went away. The rivers and lakes are now cleaner” and “waste matters are properly disposed on the appropriate premises.”

Fig. 2: An interview in progress

(2) Impact on the health of local residents

From the results of the interview survey, it was not possible to conclude that local residents recognized that the EISCP attributes to their better health. However, 19% complained of coughing and 4% had migraine symptoms. Most of the residents (half (8 of 17) of the residents in this area) that have such symptoms live near Bensan (oil recovery), and believe that their symptoms are related to the pollution (the chemical stench from the plant) caused by that company’s activities[9].

[8] The four companies were Mekeni Food and JoNa’s International (both food processors), DSUL Hospital (a general hospital), and Bensan (oil recovery). Bensan has installed equipment for recycling used oil, Mekeni Food and JoNa’s have installed wastewater treatment plants as part of their modernization efforts and are recovering sludge, etc., while the main aim of the DSUL sub-projects was to install a wastewater treatment plan. All four of the companies are located in the metropolitan area or in industrial estates.

[9] The objective of the Bensan sub-projects was to expand the facilities for recycling chemicals, such as waste oil, which made the company eligible for financing under the EISCP (resource recycling), but this does not constitute a measure to reduce pollution, i.e. the odor generated during the recycling and refining process, which is why local residents continue to complain. Bensan has never been notified of an emissions standards violation by the DENR.

(3) Knock-on Effects of Institution-building Assistance

(a) Development of financing operations based on environmental due diligence

The EISCP stimulated DBP to develop its environmental management system (EMS) in accordance with the International Standard Organization (ISO) 14001 standards. On the basis of this system, DBP is attempting to employ environmental due diligence in respect of all loan and investment applications (projects), using environmental checklists specific to the various project types in screening process and conducting thorough evaluations of potential environmental impacts. In order to promote, as an environmental policy option for financial institutions, a certified EMS and strict environmental due diligence practices, DBP organizes seminars on its activities for other financial institutions.

(b) Environmental awareness in the industrial world

In addition, DBP provides assistance in the formulation of environmental management plans (EMPs) to six separate industry associations. This activity is under a DENR initiative, aiming at the development of action plans for each of the participating industry associations; these are designed to facilitate industries in attaining PNS and are based on domestic and international examples; DPB provided information on pollution control technologies accumulated from the EISCP and examples of best practices employed by domestic companies.

2.5 Sustainability

2.5.1 Sub-borrower Companies

(1) Credit Quality

In order to ascertain the sustainability of the EISCP as 2-step loans, data on credit quality (loan payment and default status) were obtained from DBP. Judged from the data shown in the following tables, the payment ratio for principal and interest (the amount of collected principal and interest /the amount of principal and interest coming due) averaged 85% between 1997 and 2003, while that for interest alone averaged 92%. Both of the ratios are at satisfactory levels.

Table 5: Cash Recovery Status

(thousand pesos)

	1997	1998	1999	2000	2001	2002	2003
Principal past due date	667	4,506	24,339	128,798	227,812	243,442	211,539
Interest past due date	8,657	70,128	126,996	134,777	113,977	94,700	58,801
Principal + interest past due date (a)	9,324	74,634	151,335	263,576	341,789	338,142	270,340
Principal recovered	667	4,506	24,339	128,798	170,669	251,856	85,879
Interest recovered	8,657	70,128	126,996	134,777	99,607	72,849	48,081
Principal + interest recovered (b)	9,324	74,634	151,335	263,576	270,276	324,705	133,960
Repayment ratio: (b)/(a)	1.00	1.00	1.00	1.00	0.79	0.96	0.50

Source: Executing Agency

Table 6: Delinquency Status

No. of sub-loans	1997	1998	1999	2000	2001	2002	2003
No. of projects in default (a)	6	12	16	17	18	16	14
No. of NPL (b)	-	-	-	-	1	3	3
NPL ratio: (b)/(a)	-	-	-	-	0.06	0.19	0.21

(thousand pesos)

Outstanding debts (c)	250,826	1,099,701	1,234,786	1,116,771	978,102	789,489	703,609
Outstanding NPL (d)	-	-	-	-	57,143	174,072	299,732
NPL ratio: (d)/(c)	-	-	-	-	0.06	0.22	0.43

Source: Executing Agency
NPL: Non-performing loans

However, as of 2003, the payment ratio had both deteriorated: 50% (principal and interest) and 82% (interest alone) respectively. That the largest loan in the EISCP (the loan to a steel manufacturer accounts for approximately 29% of gross lending) has been experiencing difficulties in servicing the said loan since 2001[10] is the main reason for the decline in the payment ratio. As a result, the non-performing loan ratio has increased from 6% in 2001 to 43% in 2003.

(2) Status of Environmental Monitoring Reports

DBP requires all its corporate borrowers to submit quarterly monitoring reports on environmental improvements; these reports are separate to the emissions status monitoring reports (on compliance with emissions standards) required by the DENR. The companies report on the incidence of effects (reductions in pollutant emissions or resource savings) and the extent of improvements from subprojects, along with the compliance status to national emission standards (if applicable). At the time of this ex-post evaluation, a few companies neglected their reporting. There are irregularities (late submission and data omissions) even among the companies that are reporting, and in such instances, DBP account officers occasionally visit companies in order to assist companies in report compilation or to collect reports.

[10] One other company (2 sub-projects) is behind in its repayment schedule, which means that two companies (3 sub-projects) are in default.

2.5.2 Executing Agency

Under the guidance of the DPB-Environmental Management Unit (EMU), the account officers responsible for the EISCP at the DBP head office and in local branches have been acquiring skills in sales, credit risk analysis, and supervision. Furthermore, DENR cooperated with the DBP in facilitating effective and efficient implementation of the EISCP. No other banks were involved in the project.

2.5.2.1 Technical Capacity

There is no technical problem in the sustainability of the EISCP. Although DBP sometimes requires external consultants to perform the technical assessments of loan applications for subprojects to use complicated and/or advanced technologies, EMU officers are capable of carrying out this task in most loan applications. At the time of this ex-post evaluation, EMU officers had established relationships with external organizations for continuous efforts to build skills and participated in seminars on new technologies and in training programs on environmental management systems (EMS).

2.5.2.2 Operating and Maintenance System

There is no problem in the system, and efforts to strengthen administrative capability are ongoing. Since the EISCP was completed, DBP has been attempting to standardize all EMU operational procedures from receipt of loan applications to monitoring activities. For in-depth handling of issues such as environmental protection and sustainable resource-use, there are plans to restructure the departments under EMU and to set up four issue-based program units[11].

2.5.2.3 Financial Status

DBP's financial status is in good shape, as the following summary table demonstrates. Although the decline in its interest margin in fiscal 2003 caused a dip in sales and operating profits, the bank is generating stable profits. Its non-performing loan ratio also improved marginally to 10.8% in fiscal 2003, and is lower than the average at other financial institutions (14.3%). Further, an NPL reserve ratio at DBP is 72.2%, as compared to the 54.6% bank average, shows DBP's conservative management.

[11] The four issues (programs) are energy resources, soil and water resources, air and water quality control, and solid and toxic waste management.

Table 7: Financial Status

(million pesos)

	Sales	Operating profits	Net profit	Capital adequacy ratio	NPL ratio
2001	14,013	3,599	1,837	12.5%	N.A.
2002	14,505	4,588	1,847	12.9%	11.3%
2003	13,549	3,862	1,949	12.9%	10.8%

Source: Executing Agency

The status of the EISCP revolving fund (the second generation fund) [12] is shown in the table below. Trends in the capital recovered from the first generation fund are recorded separately, but there have been no sub-loan from the second generation fund as yet. According to DBP, there has been no need for additional finance from the second generation fund because the second phase of the EISCP is ongoing. However, DBP anticipates that DBP withdraws fund from the revolving fund after fiscal 2005 onwards in order to meet the capital demand for investment in pollution control sub-projects.

Table 8: Administrative Status of the Revolving Fund

(thousand pesos)

	1997	1998	1999	2000	2001	2002	2003
Balance carried forward (a)	-	195,434	104,540	29,503	188,426	337,106	580,826
Amount of ODA loan disbursed (b)	446,260	757,981	60,047				
Principal paid from Phase 1 sub-loans (c)	667	4,506	24,339	128,798	227,812	243,442	211,539
Principal paid from RF sub-loans (d)	-	-	-	-	-	-	-
Total receipts: (e) = (b) + (c) + (d)	446,927	762,487	84,386	169,707	180,679	351,986	85,879
Phase 1 sub-loan lending (f)	251,493	853,380	159,424	10,783	32,000	108,266	-
RF sub-loan lending (g)	-	-	-	-	-	-	-
No. of RF sub-loans	-	-	-	-	-	-	-
Repayment of ODA loan principal (h)	-	-	-	-	-	-	-
Totally outlay (i) = (f) + (g) + (h)	251,493	853,381	159,424	10,783	32,000	108,266	-
Balance carried forward: (a) + (e) - (i)	195,434	104,540	29,503	188,426	337,106	580,826	666,705

Source: Executing Agency

RF: Revolving fund

2.5.3 System for Collaboration with Other Agencies

The EISCP was promoted in collaboration with the DENR Environmental Management Bureau (EMB), with the latter providing various types of assistance: introducing candidate companies, supporting companies in the acquisition of ECC, providing training to DBP account officers, and supporting DBP in educational activities (dispatching personnel to lecture on pollution control systems)[13]. DENR-EMB was also expected to continue extending its assistance for monitoring activities after the completion of the EISCP. However, according to DBP, since DENR is interested in corporate compliance

[12] Surplus funds generated by the gap between the sub-loan repayment period and the ODA loan repayment period. These funds are used to extend new loans.

[13] The Metro Manila Development Authority (MMDA), the Pollution Control Association of the Philippines, and the Philippine Industrial Association have extended their cooperation to the DBP.

with emission standards and the companies funded by the EISCP have achieved emission standards, DENR has limited opportunity to furnish guidance and DBP also sees little need for further cooperation with DENR. Environmental educational activities continued to be undertaken during the second phase of the EISCP.

3. Feedback

3.1 Lessons Learned

None

3.2 Recommendations

The EISCP have no preferential measure to SMEs. The lack of preferential measure presumably results in that the number of loans extended to large corporations outweighs those granted to SMEs. In order to stimulate the needs for environmental investment among SMEs and to link the needs with effective use of the revolving fund, DBP is advised to collaborate with agencies such as chambers of commerce and industry nationwide, and to continue and enhance its educational activities for environmental awareness and information dissemination.

Comparison of Original and Actual Scope

Item	Planned	Actual
(1) Outputs 1) Capital investment component (2-step loans)		
a) Eligible projects	Installation of pollution control facilities Pollution control/reduction through process improvements Installation of recycling facilities for byproducts Consulting services for the above Procurement of in-house emissions monitoring equipment	As planned; in specific terms: Installation of air quality control equipment Installation of wastewater/sewage treatment plants Installation of resource/raw materials recycling equipment Installation of sludge storage plants Modernization of production processes Installation of emissions monitoring equipment, etc.
b) Eligible companies	Government-run companies and companies in which the government has a stake of 70% or more (no limit on gross assets)	As planned No. of companies funded: 18 (21 sub-loans)
c) Terms and conditions - Credit limit	80% of total project costs (eligible components)	As planned
- Interest	11%, fixed	As planned
- Repayment	3-15 years (max. deferral: 5 years)	As planned
2) Institution building and technical assistance component (consulting services)	Assistance for evaluation of ESTs during credit risk assessments Training for DBP staff on EST evaluation Environmental awareness campaigns Foreign consultants: 31.0 M/M Philippine consultants: 96.0 M/M Total: 127.0 M/M	As planned Foreign consultants: 27.9 M/M Philippine consultants: 128.0 M/M Total: 155.9 M/M
(2) Project period L/A signing Consultant selection Consulting services/ technical assistance Loan	 March 1996 Jan. 1996 – Dec. 1996 Jan. 1997 – Dec. 2000 Jan. 1997 - Jul. 2002	 March 1996 Apr. 1996 – Aug. 1996 Nov. 1996 – Dec. 2000 Jan. 1997 – Jul. 2002
(3) Project costs Foreign currency Local currency Total ODA loan portion	 5,158 million yen 0 million yen 5,158 million yen 5,158 million yen	 5,058 million yen 0 million yen 5,058 million yen 5,058 million yen