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## The Philippines Subic Bay Freeport Environment Management Project

This project's objective was to rehabilitate existing landfills and to procure waste treatment equipment at the Subic Bay Freeport Zone (SBFZ) in order to improve the collection and disposal system, thereby promoting investment in the SBFZ and contributing to improvements in living and sanitary conditions.

Loan Amount/Disbursed Amount: 1,034 million yen/798 million yen Loan Agreement: March 1997 Terms and Conditions: Interest rate 2.5% (2.1% for consulting services); Repayment period 30 years (grace period 10 years); General untied Final Disbursement Date: July 2002 Executing Agency: Subic Bay Metropolitan Authority (SBMA)



In this project, except for the exclusion of Olongapo City from the area covered by the project, rehabilitation of existing landfill and equipment procurement in the SBFZ were conducted almost as planned. The project period was much longer than planned due to the replacement of the Chairman of Subic Bay Metropolitan Authority (SBMA), which resulted in internal disruption. However, the project cost was lower than planned.

As a result of this project, garbage handling capacity in the SBFZ increased from less than 100,000 tons in 1997 to approximately 260,000 tons in 2002, and could accommodate waste until 2006. Garbage collection capacity, which was lower than waste generation in 1996, was increased to approximately 120 tons/day in 2003 and the current system is more than capable of handling garbage generation (65 tons/day).

In the beneficiary survey, 48.2% of respondents stated that there had been either "a substantial decrease" or "a decrease" in street stench and 51.8% stated that illegal dumping in rivers, etc. had either "substantially improved" or "improved". Together with the development of infrastructure such as power distribution and waterworks, this project contributed to

Impacts of the project: improvement of water quality, separation of garbage, and increase in income of scavengers

After completion of this project, negative effects on water quality due to leachate from the landfill have been mitigated. As organizations of scavengers (people who earn their living by collecting and selling garbage) were established, collection and separation of garbage and monitoring of illegal dumping have come to be carried out through these organizations. As a result, garbage separation has been facilitated, and the income of scavengers has been increased and stabilized. (An impact assessment by Nomura Research Institute)





External Evaluator: Atsushi Fujino (KRI International Corp.) Field Survey: September 2004

investment promotion in the SBFZ where approximately 3,000 people live and 700 companies are located. Direct investments in the SBFZ increased from US\$2.59 million in 1998 to US\$4.16 million in 2003.

There is no problem with technical capacity and operation and maintenance system of SBMA, and its financial status is good. Aside from ensuring that the Phase 2 project is executed without delay and that sufficient waste disposal capacity is secured at the earliest time, there is also a need to shut down the existing landfill safely on completion of construction of new landfill so as to prevent accidents due to extending banks excessively.

## Third-Party Evaluator's Opinion

This project is well known as the most successful waste management and treatment system. For further improvement, regular monitoring of water quality of wells and rivers in the surrounding area is advisable.

Third-Party Evaluator: Ms. Rosalinda Gadugdug-Paredes (NGO) Obtained a master's degree in psychology from the University of San Carlos. Presently holds the post of Country Director of Feed the Children Philippines, Inc. Specializes in local administration, small business development, seashore resources management, etc.



Scavengers separating garbage