

# **ASIAN DEVELOPMENT BANK**

## **SAMUT PRAKARN WASTEWATER MANAGEMENT PROJECT**

### **SECOND SEMIANNUAL**

### **REPORT**

### **TO THE BOARD OF DIRECTORS**

### **ON THE**

### **IMPLEMENTATION OF THE RECOMMENDATIONS**

### **OF THE BOARD INSPECTION COMMITTEE**

### **AS ADOPTED ON 25 MARCH 2002**

**March 2003**

## I. BACKGROUND

1. On 25 March 2002, the Board of Directors of the Asian Development Bank (ADB) met to consider the recommendations of the Board Inspection Committee pursuant to the inspection of the ADB-funded Samut Prakarn Wastewater Management Project (the Project) in Thailand.<sup>1</sup> At that meeting, the Board noted the report of the Board Inspection Committee and, after due deliberation, approved its recommendations as quoted in paragraph 1 of Board document IN.251-02 dated 3 October 2002<sup>2</sup>.

2. This is the second semiannual report to the Board and covers 26 September 2002 to 25 March 2003. At the time of writing this report, staff were aware that ongoing investigations into the Project by the Government had resulted in the main turnkey contract being declared null and void. It is unclear at this stage what steps the Government will take next, or what form the Project may take as a result of the investigations. Staff are in discussion with the Executing Agency and the Ministry of Finance in Thailand on what the future of the Project will be.

## II. COMPENSATION PLAN

3. **The Board required Management to provide semiannual reports on the status of implementation of the resettlement plan, including payment of compensation.**

4. The criteria for compensation and the compensation packages for the two licensees in the economic exclusion zone have been discussed with the licensees, and a draft agreement has been prepared. The draft is currently being reviewed by the counsel of Thailand's Pollution Control Department (PCD). The compensation agreement and relocation were to have been made around November 2002. However, Project construction has been delayed which has allowed the licensees to continue farming for one more season, until around May 2003. Arrangements are also being made for the licensees to continue their mussel farming in a nearby area as of the next farming season (around October 2003), in order to provide them with a sustainable means of earning a livelihood. A compensation plan, including the formal agreement, is expected to be complete around mid-2003.

5. The community facilitator under ADB Technical Assistance (TA) 3517-THA<sup>3</sup>, supported by a team of researchers, has been consulting with the community on a daily basis, and has had a key role in negotiating the compensation plan. Progress meetings were held between PCD, ADB, and the Japan Bank for International Cooperation every month to discuss and monitor the compensation arrangements. The facilitator has also arranged for ADB staff to consult with the licensees, who have advised ADB that they are satisfied with the compensation arrangements. ADB continues to have an active role in the consultation process, and all other aspects of the Project, with the assistance of the Special Project Administration Mission in Thailand. The consultation process has also been instrumental in introducing and pilot testing enhanced mussel farming techniques in the area, supervised by Kasetsart University, together with a local community leader.

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<sup>1</sup> ADB. 1995. *Samut Prakarn Wastewater Management Project*. Manila.

<sup>2</sup> ADB. 2002. *Samut Prakarn Wastewater Management Project: First Semiannual Report to the Board of Directors on the Implementation of the Recommendations of the Board Inspection Committee as Adopted on 25 March 2002*. Manila

<sup>3</sup> ADB. 2000. *Community Assessment and Development for the Samut Prakarn Wastewater Management Project*. Manila

### III. MONITORING SYSTEMS

6. **The Board required Management to provide semiannual reports on the system for monitoring of socioeconomic impacts, based on baseline data.**

#### A. Socioeconomic Monitoring

7. The baseline data collection to mid-2002 is described in the first semiannual report. Since that time, a further attitudinal survey has been carried out among customers within the service area in late-2002/early-2003 by Assumption Bangkok University. The results are currently being collated and analyzed to enhance the knowledge of community profiles established under previous work. In respect of the Khlong Dan community, continuous awareness and consultation efforts under TA 3517-THA are providing qualitative supplementary baseline information, which indicates that awareness about the Project is improving within the community in general, and this is removing some of the concerns about the Project and its impacts. However, it should be noted that the community facilitator has not been able to engage the project opponents in any meaningful dialogue. This group continues to be staunchly opposed to the Project.

#### B. Public Health Monitoring

8. Since the first semiannual report, further data has been collected from the Samut Prakarn Public Health Office and the Bang Bo hospital (Bang Bo is district that includes Khlong Dan). The main indicators of waterborne diseases remain an area of concern. PCD has advised ADB that the monitoring committee, to be established before the plant starts operating, will be responsible for collecting and managing data. Details will be included in the benefit monitoring and evaluation program.

#### C. Environmental Monitoring

9. As stated in the first semiannual report, in late 1998 PCD put in place an extensive environmental monitoring program. The data collected constitutes the baseline situation for evaluating environmental impacts after the plant starts operating. Data collection covers coastal seawater in the vicinity of the outfall (every 3 months), inland khlongs (every 6 months), marine ecology around the area of the outfall (twice per year), coastal ecology (twice per year), pathogen levels in mussels and cockles (once per crop), heavy metals in mussels and cockles (once per crop), and heavy metal content in locally farmed fish (once every dry season). The meteorological data collection station established at the treatment plant site in December 2001 is enhancing PCD's baseline data, which will permit more accurate odor predictions and management.

10. The monitoring program for the marine environment off the coast of Samut Prakarn continues to indicate that the seawater quality is degraded. Coliform bacteria levels remain high, pollutant spikes from coastal industries are still noticeable, and heavy metal concentrations in the locally grown mussels and cockles are very high. The inland khlongs are extremely degraded due to the very high organic loads and very low oxygen levels, and are likely to become ecologically dead unless appropriate wastewater management is established in the area.

#### IV. COMMUNITY INVOLVEMENT

**11. The Board required Management to provide semiannual reports on the progress in community involvement.**

12. TA 3517-THA continues to help improve communication with the Khlong Dan community, and has assisted in creating a greater awareness of the Project. As noted in the first semiannual report, however, the TA has not been able to engage the group of project opponents in any meaningful dialogue. During the initial phase of TA 3517-THA, it was noted that community members were concerned about the impact of the Project on their livelihoods. The second phase of the TA, which commenced in July 2002, aims to address the concerns raised in the first phase, develop a compensation plan, and in consultation with the Khlong Dan community develop a community enhancement fund. The compensation plan is discussed in paragraphs 4-5. TA 3517-THA is supporting a continuing dialogue with the community on the types of small-scale development activities that could be implemented through the fund. TA consultants have explained to the community that the proposed fund be established by way of a small premium on the tariff, which could be managed locally. The issue however, is the time lag between the stimulation of community interest and ideas, and the time that the fund will be available—possibly in 2-3 years. This might lead to a loss of faith by the community, and is currently under review by PCD. Staff have noted during consultation visits that there appears to be much enthusiasm, and several ideas for the use of the community enhancement fund have been discussed, such as erosion protection works, flood protection works, and improved management practices for cockle farmers.

13. Also, under the second phase of TA 3517-THA, the possibility of establishing an environment guarantee fund may be explored, under which adverse environmental impacts arising from project operations could be addressed promptly. Funding would be by a levy on the wastewater tariff, in accordance with the “polluter pays” principle. Work on this initiative has been deferred until later in 2003, because start-up of the plant has been delayed, and PCD resources are constrained at this stage. This is a critical activity, as it will be the only opportunity for the community to become involved in identifying and assessing risks associated with the potential environmental impacts of the Project.

14. Since the first semiannual report, there has been a continued and effective dialogue with a cross-section of the Khlong Dan community, effected through the community facilitator and his team engaged under TA 3517-THA. Following the community partnership initiatives in Sriracha in August 2002 to enhance mussel farming methods and add value to the processing of mussels, Kasetsart University continues to work with the community in Khlong Dan to pilot new techniques for mussel farming. At this stage, some 10 pilot farms have been established off the coast of Khlong Dan. Within the community, awareness is growing about the facts surrounding the Project.

#### V. ODOR AND EFFLUENT MANAGEMENT

**15. The Board required Management to provide a semiannual report on problems associated with odor and effluent (if any), together with a description of measures taken.**

16. The issue of odor has been analyzed extensively since the early stages of the project design, and the impact at Klong Dan is expected to be very low. The meteorological station, built at the treatment plant site, continues to collect local data, which will be used to more accurately predict odor levels at the treatment plant site. Model refinement is currently being

carried out by Mahidol University at the Bang Poo industrial estate, where existing odor levels are being used to refine the calibration of the model. Odor will be monitored by the monitoring committee.

17. Effluent discharge will be managed both at the source of generation and at the final point of disposal. The cleaner production program for industry, as reported in the first semiannual report, now has over 600 members, and has resulted in reduced pollution bading that saves several million dollars each year. In addition, a set of regulations, termed "discharge requirements," has been drafted. These regulations are intended to encourage factories to connect to the system, while ensuring their wastes do not adversely impact the treatment system and the environment. Some factories appear to be claiming in the media that the legislative and regulatory frameworks will give them the option of discharging into the local khlongs and environment and, therefore, they do not need to pay the costs of connection and discharge. This situation will still lead to degradation of the local environment. PCD is consulting with the factory owners on this aspect, and is attempting to demonstrate the benefits of connecting to the system. PCD needs to increase its public relations efforts to address this aspect. A recent survey by Assumption Bangkok University, referred to in paragraph 7, indicates that over 60% of factory owners are interested in connecting to the system. The willingness of commercial premises to connect to the systems is 78% and that of residences 77%.

18. PCD has advised ADB that procedures for odor and effluent monitoring are essentially in place, in accordance with the environmental management plan, and can be implemented as soon as the plant starts operating. PCD has cautioned, however, that no budget has yet been allocated for the monitoring, and that this needs to be addressed urgently.

## **VI. CONCLUSIONS**

19. In conclusion,

- (i) a draft compensation plan, which has been developed in consultation with the project-affected persons, is substantially complete; completion has been delayed to around mid2003, but this has no adverse impact on the affected farmers;
- (ii) monitoring mechanisms are substantially in place to cover the environmental, socioeconomic, and public health aspects of the Project; however, budget to cover these activities after the plant starts operating needs to be identified and approved;
- (iii) to the extent possible, arrangements are being developed for community involvement in monitoring activities, and community involvement in the identification and assessment of environmental risks is planned, but needs to be monitored; and
- (iv) odor and effluent management measures are essentially in place, in accordance with the environmental management plan.

20. The future of the Project is uncertain given the recent developments concerning the turnkey contract (paragraph 2). Discussions are underway to ascertain the Government's plans on project implementation and management in order to determine a course of action in line with the loan agreements for the Project.