INDONESIA

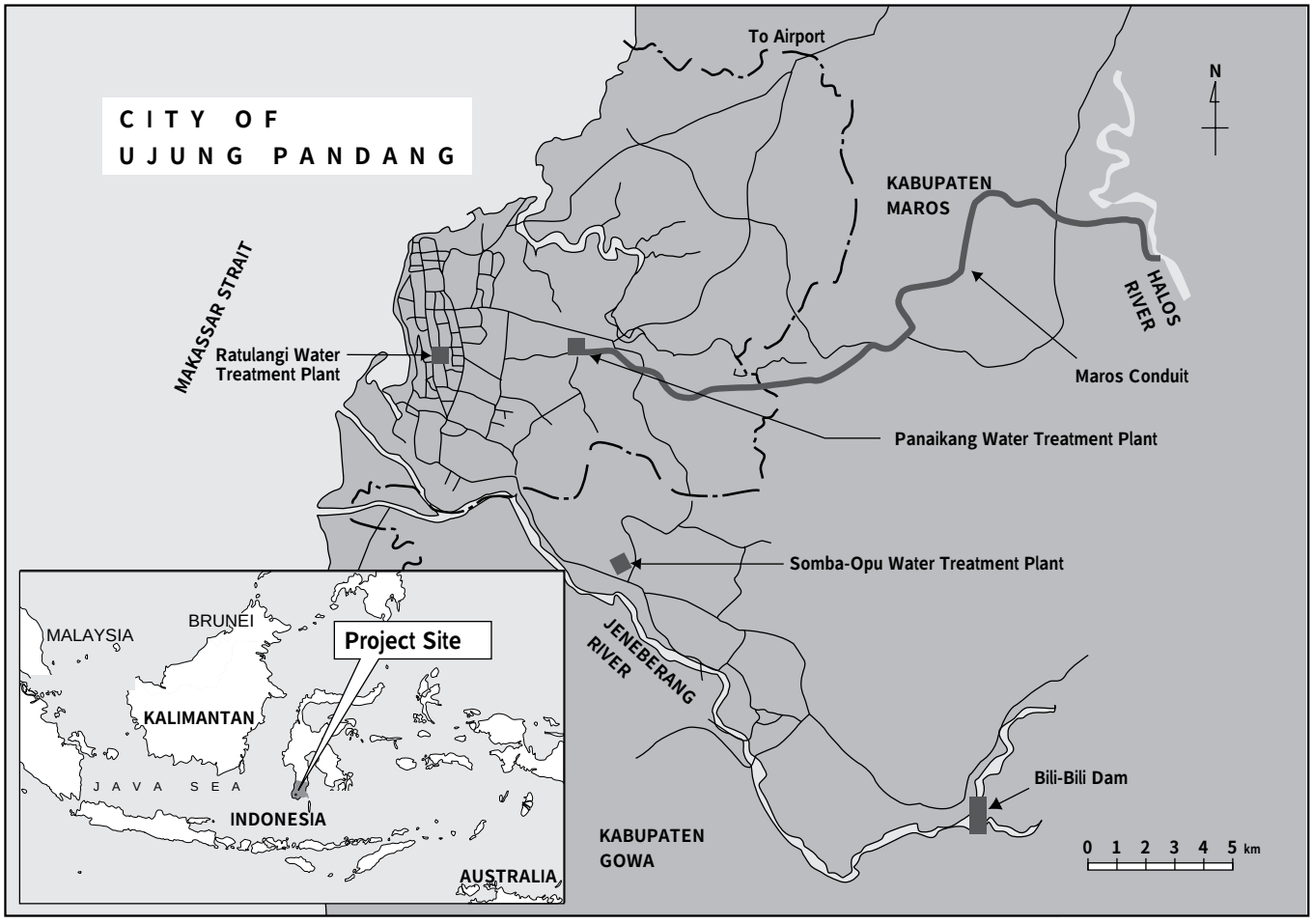
Ujung Pandang Water Supply Rehabilitation Project

Report Date: March 1999
Field Survey: Not implemented

1 Project Summary and JBIC's Cooperation

This project is aimed to improve the situation of water supply in Ujung Pandang, the capital city of Sulawesi Province in the Republic of Indonesia. It is designed to increase the volume of water supply and improve accounted ratio by rehabilitating the existing facilities (two water treatment plants in the city) and by reinforcing them (laying pipelines for aqueducts replacing old water pipelines, etc.).
The ODA loan covers the entire foreign currency portion and a part of local currency (administrative costs of the executing agency and taxes levied within Indonesia are subtracted from the project cost).

Borrower / Executing Agency	Government of the Republic of Indonesia / Directorate General of Human Settlements, Ministry of Public Works (Cipta Karya)
Exchange of Notes / Loan Agreement	April 1988 / July 1988
Loan Amount / Loan Disbursed Amount	· 1,364 million / · 1,151 million
Loan Conditions	Interest: 3.0%, Repayment period: 30 years (10 years for grace period), General Untied
Final Disbursement Date	September 1993



2 Evaluation Results

(1) Project Implementation

(i) Project Scope

According to the results of the detailed design ("Ujung Pandang Water Supply Rehabilitation Project (E/S)" (henceforth referred to as the E/S project) to which the loan was committed ahead of this project) completed after the appraisal of this project, the project scope was changed several times in the implementation stage. First, for the rehabilitation of Maros Conduit, its open water channel sections were originally planned pipeline laying, but then changed to fence installment and excluded from the ODA loan (and later covered by Indonesian funds). Further, as priority was given to an improvement in distribution capability with rehabilitation of conduit, rehabilitation of the water treatment plant was also excluded from the ODA loan and was implemented by Indonesian funds. On the other hand, branch conduit (65km) and service apparatuses (10,000 sets), were extended to main conduit 17km, branch conduit 140km and service systems 18,000 sets. These changes were adopted from a perspective of facilitating the water supply to residents and can be judged appropriate in the light of the objective of the project.

*EIS: Engineering service loan. Refer to "Glossary".

(ii) Implementation Schedule

The cause of delay in project completion can be classified into one in starting the project and the other in the implementation schedule. Both are attributable to changes in plan mentioned above. As described above, admitting that the changes themselves were appropriate, these changes as well as the delay might have been avoided if the appraisal of this project had been made after the result of the E/S project came out.

(iii) Project Cost

While the amount of loan commitments was ¥1,364 million, the disbursed amount was ¥1,151 million. The reasons are the cancellation of pipeline construction in the Maros Conduit (36% of the total project cost at the time of appraisal), and a decrease in amount of yen payment to the rupee based contract due to the strong yen and weak rupee at the time.

Comparison of Original Plan and Actual

(1) Project Scope	Plan	Actual
Rehabilitation of Maros Conduit	Pipeline construction of 4km in the downstream area	Installation of 4km fence in the downstream area (countermeasure against littering)(Note)
Improvement of Ratulangi Water Treatment Plant	Replacement of filtering sand, installation of flow meter, injection of sterilizer	Same as planned(Note)
Improvement of Panaikang Water Treatment Plant	Reinforcement of injection facility, installation of sedimentation basin	Same as planned(Note)
Replacement of existing conduits	Main conduit: No plan Branch conduit: 65km	17km 140km
Rehabilitation of water-service installation (including meters)	10,000 points	18,000 points
Detailed design of Somba-Opu Water Treatment Plant	No plan	Implemented
Consulting service		
Foreign:	98 M/M	174 M/M
Local:	48 M/M	34 M/M
Total:	146 M/M	208 M/M
(2) Implementation Schedule		
Selection of Consultant	January 1988 ~ June 1988	July 1988 ~ July 1989
Installation of equipment and materials (civil works)	February 1989 ~ January 1991	December 1990 ~ July 1993
Procurement of equipment	January 1989 ~ December 1989	January 1990 ~ May 1993
Consulting service	July 1988 ~ January 1991	July 1989 ~ July 1993
(3) Project Cost		
Total project cost (covered by ODA loan)	· 1,364 million	· 1,151 million
Foreign currency portion (covered by ODA loan)	· 993 million	· 793 million
Local currency portion (covered by ODA loan)	Rp.3,941 million	Rp.5,337 million
Exchange rate	Rp.1 = · 0.094	Rp.1 = · 0.067

(Note) Implemented by the budget of Indonesian government.

(2) Organization of the Executing Agency (implementation and operation/maintenance after completion)

(i) Implementation Scheme

The executing agency was the Directorate General of Human Settlements under the Ministry of Public Works (Cipta Karya). Construction works were supervised by a Japanese consultant continuously which had been employed at the master plan and feasibility study stages. Contractors were chosen in international competitive bids (4 lots) and domestic competitive bids (3 lots) for equipment and materials, and in domestic competitive bids for civil works. Although there were delays in implementation schedule because of several changes in the project plan, none were derived from consultants and contractors. Since there were no particular technical problems in the project, it can be evaluated that the implementation scheme itself did not have any particular problem.

(ii) Operations and Maintenance Scheme

After completion, facilities were transferred from Cipta Karya to PDAM Ujung Pandang, and currently operated by PDAM. PDAM is a public corporation under the Ujung Pandang City Government (Mayor is serving concurrently as President), with approximately 400 staff.

(iii) Operations and Maintenance

As a result of the project, the non-accounted ratio which was 52% before implementation was reduced to 39% in 1993.

(3) Project Effects and Impacts

(i) In the city of Ujung Pandang, the number of beneficiaries of water supply increased from 300,000 (1988) to 400,000 (1993), with an increase in service area from 40km^2 to 70km^2, respectively.

Status of Water Supply Diffusion

	Service Area	Diffusion Rate	Service Population	Total Population
Before Implementation (1988)	40km^2	37%	301,000	813,000
After Implementation (1993)	70km^2	40%	408,000	1,020,000

(Source) PDAM

(ii) An improvement in water quality has brought about effects, including the prevention of water-related epidemics.

(ii) Through newly installment of service meters, and training of PDAM staff carried out in the E/S project, the PDAM's pending problem of collecting money due from accounts has been improved, augmenting PDAM's financial constitution. (The recovery time for money due from accounts has improved from 17.5 months in 1989 to 10.1 months in 1992.)

3 Lessons Learned

In order to ensure the sustainability of the project, it is important to put the executing and operating agency on a sound financial footing. To that end the use of consulting services to train staff where necessary is an effective measure.

At the time of appraisal for E/S projects, the municipal water corporation's slow rate of recovery of money due from accounts was indicated as a problem. A portion of the consulting service was used for the education and training of staff.

By now the state of recovery of money due from accounts has improved dramatically (the recovery time improved from 17.5 months in 1989 to 10.1 months in 1992), which shows the benefit of training staff in E/S projects in addition to the construction of the project's hardware (the installation of new water meters).

In order to guarantee the sustainability of the project putting the executing and operating agency on a sound financial footing is important. To that end, the use of consulting services to train staff where necessary is an effective measure.

(Note: In light of the efficacy of the such measure, JBIC intends to include consulting services for training in the project.)