TECHNICAL ASSISTANCE PERFORMANCE AUDIT REPORT

ON THE

INSTITUTIONAL SUPPORT TO WATER SUPPLY ENTERPRISES
(TA No. 1713-INO)

IN

INDONESIA

August 1995

I. BACKGROUND

A. Introduction

1. The Technical Assistance (TA) No. 1713-INO, Institutional Support to Water Supply Enterprises was financed by the Government of France, and administered by the Bank under the Channel Financing Agreement between the Government of France and the Bank. The Bank approved the TA for an amount of $600,000 on 15 June 1992. The TA Agreement between the Government of Indonesia and the Bank was signed on 30 April 1993. The TA was completed on 4 January 1994 and the Technical Assistance Completion Report (TCR) circulated in September 1994. This Technical Assistance Performance Audit Report (TPAR) seeks to determine the quality of TA design and implementation and the sustainability of TA benefits, and explore future directions. It is based on a review of the TA Paper, TCR, and other relevant Bank documents and files, and on discussions with officials of the Government and the Executing Agency, the Directorate General of Human Settlements (DGHS/Cipta Karya) of the Ministry of Public Works (MPW), operatives of the other agencies concerned, and trainees and instructors who participated in the training program under the TA. The discussions were held in April-May 1995, during the visit of the Postevaluation Mission (PEM) to the three places where the training was conducted Jakarta, Pekanbaru, and Mataram and to associated water supply enterprises (WSEs) in Pekanbaru and Central Lombok.

2. The operation and maintenance of water supply systems in Indonesia is the responsibility of the provincial governments (PGs) through semiautonomous regional WSEs or Perusahan Daerah Air Minium (PDAM) of which there are 276 at present.[1] To assist and monitor the operation of PDAMs, the Government, through a joint decision of the MPW and the Ministry of Home Affairs (MHA), established provincial monitoring development units (PMDUs) in 25 of the 27 provinces[2] during 1985-1991, and placed them in the provincial public works offices (PPWOs). The PMDUs (i) undertake technical, managerial, and financial monitoring and evaluation of WSEs, (ii) provide assistance to PDAMs in the preparation of operational monthly reports submitted to PGs and annual reports submitted to MPW, and (iii) carry out training of PDAM staff. PDAMs are monitored primarily through a Water Enterprise Management Information System (WEMIS) or Sistem Informasi Managemen Pengelola Air Minium (SIMPAM), consisting of 36 main performance indicators.[3]

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1 Where PDAMs have not been established, a Transitional Water Supply Management Unit or Badan Pengelola Air Minium (BPAM) has been established by DGHS at the time of the commissioning of the corresponding water supply system. These are transformed into PDAMs and transferred to PGs at the appropriate time. At present there are 18 BPAMs.

2 The exceptions are Jakarta and East Timur.

3 Literally, Management Information System for Drinking Water Supply Enterprises. WEMIS was introduced in Indonesia in 1986 during the implementation of MPW's Human Resources Development Project, financed by the Netherlands Government, with the World Bank as Executing Agency. SIMPAM comprises static data and dynamic data. The static data is in six groups covering general information, financial data for the preceding year, data on fixed assets, data on consumers, explanatory (miscellaneous) data, and data on market price index, with 6-10 indicators in each group. Dynamic data comprises eight groups i.e., production data, efficiency indicators, financial information, other information (e.g., on employees and raw materials used), monthly figures, annual averages, population information data, and remarks. Based on this information, ratios and percentages are generated and SWOT analysis undertaken (SWOT stands for classification of indicators into strengths, weaknesses, opportunities, and threats) for each PDAM.

B. Rationale, Objectives, and Scope of the TA

3. The TA was in support of the Bank's substantial investment in the water supply sector in Indonesia to which it had provided seven loans totaling $168.05 million[1] and nine TAs totaling $2.185 million, and in line with its policy of supporting the strengthening of water supply sectoral management and operational efficiency. The main objective of the TA was to strengthen the operational management of PMDUs by establishing an appropriate formal training system for them within PPWOs. This was expected to lead to efficient monitoring and assistance, and consequently to sound technical, managerial, and financial operation of water supply systems. The focus of the TA was on producing instructors, training materials, and methods that would be used to conduct regular training at the PPWOs after completion of the TA. The TA provided (i) experts who prepared training materials and conducted comprehensive training sessions, and (ii) training materials and equipment. The TA was to (i) review existing training materials, (ii) prepare training modules, (iii) train instructors and the staff of PMDUs, and (iv) institutionalize a formal training program. The training program covered corporate planning, accounting, reduction of nonrevenue water, distribution systems, tariff analysis, billing and collection efficiency, and the community participation management approach. The scope of the TA included three training sessions of a month each in PMDU South Sulawesi to train 60 PMDU staff: six technical and financial staff from each PMDU in the ten eastern provinces of Indonesia in the islands of Sulawesi, Kalimantan, Malaku and Irian Jaya where trained manpower is scarce, and to four instructors from PPWOs. In response to the request of the Government, the TA scope was changed before the TA Agreement was signed, to substitute the four provinces of Riau, South Sumatra, Nusa Tenggara Barat (NTB) and Nusa Nenggara Timur[2] (NTT) for the ten eastern provinces.

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1 In addition, several Bank-assisted urban and regional development and irrigation projects included water supply components.

2 In Bahasa Indonesia, barat is west and timur east.

II. ASSESSMENT OF IMPLEMENTATION PERFORMANCE

A. Design of the TA

1. Appropriateness of Concepts and Approaches

4. The TA concept was appropriate, given the responsibilities of PMDUs and notwithstanding their still nebulous status in some provinces. There was a clear need for training operational (as distinct from supervisory) PMDU staff, most of whom have no work experience in a WSE, the working of which they supervise. But the TA approach had two flaws: (i) an attempt to train the overseers (PMDU staff) without training those being overseen (PDAM staff), a shortcoming rectified during implementation; and (ii) the focus on the ten eastern provinces of Indonesia,[1] servicing which was proposed upon the intervention of the Government,[2] without an in-depth assessment of the level of resources required to undertake the task,[3] or of the readiness of these provinces to benefit from the training. During implementation it was recognized that a differential approach was needed for training the participants from the eastern provinces for whom a simpler, more rudimentary course was appropriate, given the level of development there.

2. Degree of Recipient Agency Involvement

5. The TA as originally proposed was to cover four provinces in Sulawesi. At the insistence of the Executing Agency, the Directorate General of Human Settlements (DGHS), the area to be covered was expanded to be 10 provinces in eastern Indonesia and the TA paper was approved accordingly. However, DGHS did not agree to sign the TA Agreement unless it was revised to reflect the change in scope to the four provinces of Riau, South Sumatra, NTB and NTT as the Government considered the amount of TA funds inadequate to cover training effectively in 10 provinces.

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1 Comprising West Kalimantan, East Kalimantan, South Kalimantan, Central Kalimantan, South Sulawesi, Central Sulawesi, South East Sulawesi, North Sulawesi, Maluku, and Irian Jaya. This was called Region II (see map).

2 There was also a long gap, about two years, between TA fact-finding and TA approval due to delay in request for the TA from the Government.

3 The cost ceiling of $600,000 appears to have been the determinant of TA size, even though this meant spreading resources too thin. The cost estimates remained constant even though the scope of the TA was changed before its formulation from the four provinces in Sulawesi originally proposed to the ten provinces in eastern Indonesia.

3. Quality and Adequacy of Physical Inputs Provided

6. Instead of the six planned, eight desktop computers and printers were provided under the Project and are functional. The focus of the TA was on the provision of consultancy services to prepare training modules and to handle training. A total of 14 person-months of international consulting services in institutional development, curriculum development/training, financial analysis, and nonrevenue water management, and 25.5 person-months of domestic consulting services were provided. But the TA lacked a provision for a long-term training consultant who could have assisted each of the four instructors trained under the TA in undertaking one training program and overseeing the conduct of another by each (see para. 14).

4. Terms of Reference of Consultants

7. The terms of reference (TOR) of consultants were clear and compact. The time frame provided for the training was appropriate except for the lack of a long-term training specialist.

B. Engagement of Consultants

8. Consultants were engaged in accordance with the Bank's *Guidelines on the Use of Consultants*. Since training was to be conducted in Bahasa Indonesia, international consultants were required to know the language. In the event an Indonesian firm was selected as the international consultant in association with two foreign firms. The selection of consultants was not delayed once the TA agreement was signed.

C. Organization and Management

9. Pursuant to the change in TA scope in the TA Agreement (see para. 5), TORs were modified to shift the venue of the training to Jakarta; Pekanbaru, capital of Riau Province; and Mataram, capital of NTB. Consultants conducted surveys in the four target provinces to determine training requirements, and used the results to formulate proposals for better evaluation of PDAM activities by PMDUs in the Inception Report. Training modules were prepared in Bahasa Indonesia and later translated into English. Formal classroom training was limited to two weeks, with another week provided for workshops and site visits.[1] In Jakarta, a week's training was also provided in instructional techniques. The Interim Project Report containing a detailed description of the first training course as well as recommendations was submitted by the consultants to the Bank and the Government. The subsequent training program and the final report reflected the comments thereon. Copies of the training modules were prepared and sent to PMDUs throughout the country.

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[1] This was done in Jakarta and Pekanbaru, but not in Mataram.

D. Implementation Schedule and Financing Arrangements

10. The TA was implemented over the period of six months as envisaged. TA costs were $597,211 against the approved amount of $600,000. The funding was provided by the Government of France on a grant basis.

E. Supervision

11. Bank staff provided detailed comments on the Inception Report and on the Interim Project Report. There was adequate interaction between senior staff of DGHS and consultants during the training in Jakarta. DGHS played an active role in organizing and overseeing the training program and in providing counterpart staff and guest speakers. The quality and level of counterpart staff and facilities provided by the Government were appropriate.

12. The TCR is a descriptive and cryptic document with gaps in information and little analysis.[1] It overestimates very substantially the number of trainees under the TA and those trained by instructors trained under the TA at 156 and 2,000, respectively (see para. 14). Its claim of institutionalization of training in the four provinces is incorrect: 58 staff members have been trained in SIMPAM on an ad hoc basis. The four-week training given to the four instructors does not appear to have prepared them to work as instructors in formal training programs. There is no evidence to support the TCR's contention that the 44 training modules are used at the national level for ongoing training,[2] or that a preliminary training course for staff with lower absorption capacities has been designed. The TCR's claim, presented without supporting evidence, that the TA has improved the operational management of WSEs, is not verifiable. The efficient management of WSEs is a function of several complex factors. All a TA of this nature could be expected to do was to improve data collection and analysis for management information, with indirect consequential benefits.

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1 The basic data sheet does not provide breakdown of costs or of consultancy services. The TCR does not provide the dollar:rupiah parity or abbreviations. It glosses over the major change in TA scope and does not discuss the reasons for it; in fact para. 5 dealing with the subject is inaccurate; so is para. 2. The TCR has no appendixes. Supporting appendixes could have usefully provided information on the structure, staff, and logistics of the four PMDUs; on the PDAMs supervised by each PMDU; and on WEMIS indicators.

2 In fact, some provinces are covered by various water supply projects funded by other donors, each with distinct training components. All these projects are part of the national program of integrated urban infrastructure development.

III. EVALUATION OF OUTPUTS AND IMPACT

A. Adequacy and Quality of Reports and Services Provided

13. The major output of the TA was the training program and associated modules. The curriculum devised and the training provided were responsive to the TOR. A composite curriculum was adopted, covering all the major aspects of the work of PMDUs/PDAMs. It had a managerial orientation and a practical approach. Of the 44 modules prepared by the consultants, 22 were based on existing training materials; 22 new ones were developed (see Appendix 1). These modules are of good quality. But they were not equally accessible to all the trainees who participated in the program, given the differing absorptive capacity of trainees. It was decided that, using the 44 training modules, introductory course materials would be developed especially for trainees from the eastern provinces. The positive features of the training program included a participatory and interactive methodology, hands-on application of computers, utilization of the services of guest speakers, and field visits to PDAMs. The Final Report submitted by the consultants is comprehensive and useful.

B. Training and Transfer of Technology

14. The subjects covered in the training program are in Appendix 1. A total of 57 staff were trained under the TA, including 21 from PMDUs and 36 from PDAMs (see Appendix 2). Discussions with trainees indicated that the effectiveness of the training was highest in Jakarta, followed by that in Pekanbaru and Mataram, in that order, because of the differing absorptive capacities of participants in each place. The primary achievement of the training was to provide the participants an overview of the working of PDAMs and their problems, and to train some of them in the use of WEMIS/SIMPAM computer program, familiarity with and use of which have increased since training under the TA.[1] The TA provided PMDU staff training in the collection of information, and in the analysis of the information so collected, i.e., to generate the indicators necessary to observe the health or otherwise of each PDAM, to pinpoint problem areas, and thus to increase awareness of the problems of PDAMs and hence the need to solve them. Seven separate modules were prepared for instructors, and training in instructional techniques provided over a period of one week. However, a four-week course was not enough to make effective instructors out of trainees, many of whom were exposed for the first time to several subjects covered in the training. A total of 58 staff have been trained by instructors trained under the TA in the use of SIMPAM, individually or in groups of two or three, but no formal training program seems to have been conducted by any of these instructors.

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[1] Other programs and systems for water enterprise management support, such as the In-Service Support Package and Water Enterprises Performance Assessment (checklist), were also covered.

C. Institution Building Impact

15. The PMDUs are relatively new institutions that have not yet taken root. They are the Government's link to the WSEs for purposes of data collection, for coordination of sector policies and strategies, and for investment planning in the sector. However, their utility is circumscribed by their lack of authority, professional depth, and, in some cases, even an independent physical existence. Training under the TA helped to strengthen the operational capabilities of their staff. Management information system reporting started in South Sumatra only after training under the TA. In Riau, there was a quantum change in the quality of the reports prepared by the PMDU after the training. The information collected post-TA training by PMDUs and PDAMs is more focused, specific, accurate, and comprehensive, as well as better integrated, organized, and presented. The authenticity and internal consistency of the data have improved and are expected to improve further. Reports in PDAMs are generated monthly, but submitted every quarter by PDAMs to PMDUs. The indicators and figures generated (ratios and percentages) lead to an early and clear indication of problems, making timely action possible. The training resulted in a renewed emphasis in PMDUs in the four provinces on checking water transmission and distribution losses and defective meters, and upgraded some skills for use in the field. The training has helped trainees understand the principles of tariff-setting, and procedures for improving billing and collection.[1]

16. However, institution building in terms of capacity building for further training, and thus for the training to become self-generating, has not been achieved. The benefits of the TA are therefore vulnerable to erosion with the change of personnel, several of whom are assigned from PPWOs to PMDUs on a temporary basis.

D. Performance of Consultants

17. An Indonesian firm was selected in association with two firms from the United Kingdom as the international consultant for the TA. The performance of the consultants in the preparation of the training modules, arrangements for and conduct of the training programs, and submission of the required reports was satisfactory.

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[1] PDAM Central Lombok reported improved inventory management as a result of the training. PMDU Mataram claimed that the training could have contributed in helping two of the PDAMs in NTB (West Lombok and Central Lombok) improve their financial performance, which in turn has made them eligible for further investment loans. PEM felt that these could not be ascribed to the TA training alone.

E. Further Capacity Building of PMDUs

18. Attempts have been made under several donor-assisted projects to build the capacity of PMDUs, and such efforts continue. The success of these efforts has been constrained by the fact that they failed to address the structural problems of PMDUs and tried to focus solely on strengthening the operational capabilities of their staff. The following recommendations are offered for the sustainability of the benefits of the TA, and for further capacity building of the PMDUs, which constitute a vital link between the central Government and a large, sprawling water supply sector that is constantly undergoing expansion, upgrading and renewal, but is difficult for the Government to reach and service directly.

1. Structure

19. The PMDUs differ widely in their staff composition and capacities. While some have an independent office, others are only an assignment to other PPWO staff, e.g., in Pekanbaru. To establish PMDUs as distinct, permanent entities, develop staff commitment and morale, and increase their clout and effectiveness, they need to be given (i) a new name to indicate clearly their function, such as Provincial *Water Management* and Development Units (PWMDUs); (ii) statutory powers for collection of data;[1] (iii) dedicated physical space; (iv) dedicated, full-time, permanent staff with career progression possibilities,[2] which implies an independent budget. A decree could be issued addressing these requirements. Pending this, there is a need to minimize the change in PPWO staff seconded to PMDUs. If a change must be made, the replacement must be swift and based on appropriate criteria, to be devised jointly by MHA and MPW. The PMDUs should ideally be staffed by experienced PDAM personnel.[3]

2. Training

20. (i) Several training programs are being implemented in PMDUs and PDAMs without much coordination. These need to be rationalized and reorganized on the basis of the absorptive capacity of PMDUs and PDAMs.[4] (ii) To oversee the consolidation and coordination of training, a Training Unit comprising a director and two subdirectors, one each for technical and administrative/financial training, could be established in DGHS. This unit could prepare an umbrella training plan under which the various training programs would fit, categorized into managerial,

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1 This need not compromise the operational autonomy of the PDAMs.

2 Every PMDU should have a minimum of four full-time staff members (two technical and two financial/administrative) to begin with, funded from the PMDU's own budget.

3 Supervisory positions in PMDUs are often held on an ex officio or part-time basis by staff of provincial water supply schemes.

4 The PDAMs are already categorized on the basis of number of water connections. The PMDUs can similarly be categorized to make for three different levels of training: in the third generation SIMPAM i.e., with consolidation of data at the provincial level (Bali, Central Java, West Java, and East Java); in second generation SIMPAM, i.e., generation of PDAM indicator/ratios (Pekanbaru); and in first generation SIMPAM, or data collection. In addition, there can be basic, rudimentary training (several eastern provinces) to begin with. The institutional development of each category of PMDUs will proceed at a differential pace, but in tandem with the development of the PDAMs under their supervision.

general, and technical/specialized training. The Training Unit would oversee consistency and complementarity of training courses, curricula, materials and modules; the suitability of schedules and venues of training courses; and optimal utilization of instructors/consultants. (iii) Future training programs need to be long-term programs of in-depth training. Consultants should train instructors and oversee them handling training over an extended period of time. Training must help all trainees internalize SIMPAM and other relevant tools of the trade. (iv) Occasional briefing sessions for heads of districts/municipalities (kabupatens/kotamadyas) or their deputies in the management of water enterprises will help them to appreciate WEMIS ratios and indicators and sensitize them to the problems of WSEs.

3. Coordination

21. In view of the new approach to the provision of urban infrastructure in clusters of cities, which requires PMDUs to coordinate closely with other agencies concerned and with one another, PMDU capacities to handle intersectoral and interprovincial coordination need to be strengthened. Future training programs need to take account of this. The current level of coordination between the MHA and MPW in relation to PMDUs also needs to be upgraded.

4. Equipment

22. PMDUs/WSEs need to be provided equipment. Only one of the four PDAMs (and none of the eight BPAMs) in NTT has a computer. Every PDAM must have at least two computers to generate SIMPAM and other data and the relevant ratios. The availability of leak detectors, flow meters/pressure recorders, pipe locators, and water quality testers will help make the PMDUs more useful. PMDUs could charge PDAMs for the use of this equipment.[1]

5. Donor Assistance

23. Long-term assistance from donor agencies may be sought for continued capacity building of PMDUs.

IV. CONCLUSIONS

A. Key Issues

[1] Even now, PMDU field service costs are being picked up in some cases by PDAMs that can afford to pay.

24. There are three key issues in this TPAR: (i) whether the TA was an effective, sustainable intervention; (ii) whether the TA's ends and means matched each other; and (iii) whether the Government is determined to promote PMDUs as effective and sustainable institutions. The TA was a modest, one-shot, short-term attempt at capacity building with limited resources in a sector in which the Bank had made major interventions. While the TA was useful in providing support to the PMDUs, it is a matter of judgment whether it was effective for the long-term operations of PMDUs. TA objectives were overloaded given its means (see paras. 4 and 5). The evidence for (iii) is awaited (see paras. 18-23).

B. Overall Assessment

25. The TA assisted in strengthening the operational management of PMDUs as well as the management information system of PDAMs by training some of their operational personnel, but has not succeeded in establishing a formal training system for PMDUs. Of the three main outputs of the TA, one, i.e., production of training materials, was successfully achieved. The component pertaining to the training of instructors was partly achieved because, while instructors were trained and have trained 58 others in SIMPAM, they are not capable of conducting formal training programs, except perhaps in very limited, specific areas. TA benefits are not sustainable because institutionalization of a formal training program has not been achieved. In view of the foregoing, the TA is classified as partly successful.

C. Lessons Learned

26. First, an accurate assessment of the effective demand for the services to be provided and the absorptive capacity of the proposed beneficiary agencies are fundamental in advisory TAs. Second, results expected to be achieved should be proportionate to the means available. Third, the $600,000 TA approval limit by the President should not be the determining criterion for TA size to the extent that it stunts TA potential (see paras. 4 and 5). Fourth, in serious attempts at training instructors and institutionalizing training, there must be at least one long-term consultant to oversee a number of training courses conducted by instructors. It is not enough to give instructors one-week additional training in instructional techniques; they must have on-the-job training i.e., in conducting training courses.

D. Follow-Up Actions

27. Based on the foregoing, a number of follow-up actions are indicated. (i) PMDUs should be renamed to indicate clearly their function, given statutory authority to collect data, and provided dedicated staff, space, and budget; (ii) training programs in PMDUs and PDAMs should be rationalized, inter alia to cater to differing absorptive capacities of PMDUs and PDAMs, and be overseen by a small three-staff training unit to be created in DGHS; (iii) PMDUs should be provided computers and other appropriate equipment to make them effective; all WSEs must have computers for data processing; and (iv) long-term donor assistance should be sought by the Government on a continuing basis for building the capacity of PMDUs.