



Technical Assistance Report

Project Number: 40617
March 2007

Supporting Water Operators' Partnership in Asia (Financed by the Japan Special Fund)

Asian Development Bank

ABBREVIATIONS

ADB	–	Asian Development Bank
DMC	–	developing member country
GTZ	–	German Company for Technical Cooperation
GWP	–	Global Water Partnership
MDG	–	Millennium Development Goal
NRW	–	nonrevenue water
RSID	–	Energy, Transport, and Water Division
SEAWUN	–	Southeast Asian Water Utilities Network
SESS	–	Social Sectors Division
TA	–	technical assistance
UNSGAB	–	United Nations Secretary General's Advisory Board
USAID	–	United States Agency for International Development
WOP	–	Water Operators Partnerships
WUN	–	Water Utility Network

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	General intervention
Sector	–	Water supply, sanitation, and waste management
Subsector	–	Water supply and sanitation
Theme	–	Social development (human development), capacity development (institutional development, organizational development)

NOTE

In this report, "\$" refers to US dollars

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I. INTRODUCTION

1. Most water operators¹ located in the developing member countries (DMCs) of the Asian Development Bank (ADB) suffer from multiple weaknesses, ranging from inappropriate organization and structure to poor service performance. Although some exceptions exist (e.g. water utilities in Singapore, Manila (East), Hong Kong, China and Phnom Penh, whose organizational strength and superior service performance enables them to provide world class service to consumers), the majority of water operators are unable to effectively provide safe water and sanitation services in their coverage areas.

2. Recognizing these weaknesses, and in an effort to facilitate peer-based improvements among the water operators, the United Nations Secretary General's Advisory Board on Water and Sanitation (UNSGAB) announced its Compendium of Actions in March 2006.² The actions identified by UNSGAB include the need to help water operators improve service delivery through a structured program of cooperation among operators. In August 2006, ADB and the Global Water Partnership (GWP) signed an agreement, which includes collaboration in the establishment of a Water Operators Partnership (WOP) program in the Asian and Pacific regions.

3. In Southeast Asia such a partnership already exists, in the form of the Southeast Asia Water Utilities Network (SEAWUN), which is partially supported by ADB. The WOP program aims at establishment of similar networks of operators, initially planned in South, Central and East Asia. The establishment of such networks is specifically recognized in ADB's water policy.³ A design and monitoring framework for the proposed technical assistance (TA) to support the WOP program in Asia is set out in Appendix 1.

II. ISSUES

4. Water operators in Asia suffer from various problems, including structural and organizational weaknesses, poor service performance, weak financial performance, the absence of internal control, wasteful procurement practices, and poor consumer relations. Taken together, these deficiencies significantly hinder the ability of the water operators to deliver efficient and effective water and sanitation services. More importantly, they result in (i) insufficient consumer coverage; (ii) difficulties in financing system expansion and maintenance, which effectively denies consumers access to safe water and sanitation; and (iii) water operators remaining a continuing burden on federal and local finances. Cumulatively, these outcomes inhibit many DMCs from achieving Millennium Development Goal (MDG) 7, target 10, which calls for halving, by 2015, the proportion of people without sustainable access to safe drinking water and sanitation.⁴

5. With few exceptions, structural and organizational weaknesses in the water sector in Asia manifest as a lack of corporate status, insufficient autonomy and accountability, and a high degree of control by local governments. Improving the performance of water utilities is a process requiring commitment, support, and participation by all stakeholders, especially national and local governments. Governments should consider providing due autonomy to public utilities in

¹ Water operators include water and wastewater utilities, community-based water supply and sanitation organizations, and nongovernment organizations providing water supply and sanitation services.

² UNSGAB. 2006. *Hashimoto Action Plan – Compendium of Actions*. Mexico.

³ ADB. 2001. *Water for All: The Water Policy of the Asian Development Bank*. Manila.

⁴ ADB and United Nations Economic and Social Commission for Asia and the Pacific. 2006. *Asia Water Watch 2015*. Manila and Bangkok.

designing and implementing strategies designed to promote efficiency, effectiveness, transparency, accountability, and sustainability, and in efforts to combat corruption.

6. Water utilities in Asia are not equipped to operate on a sustainable basis, and usually deliver substandard service performance.⁵ System leakages are high—typically, nonrevenue water (NRW) ranges from 25% to 70%. Supplied water is either not metered or metering is problematic, and presents billing and collection difficulties. Water quality is generally poor, and there is lack of quality consciousness. Water is rarely supplied on a 24-hour basis; most urban consumers are fortunate to receive water—usually of indifferent quality—a few hours each day. Where water is supplied on a 24-hour basis, connection costs are high, and affordability is an issue in expanding coverage.⁶

7. Poor service performance translates into correspondingly poor financial performance. Tariff structures are poorly designed, handicapping tariff setting. The true costs of service provision are rarely recovered. Where they are, there is often significant operational inefficiency passed on to consumers, resulting in resistance among consumers to paying water bills, and impacting negatively on billing and collection. Little internal cash is generated, making it more difficult for operators to finance capital expenditures. Where debt has to be serviced, debt service ratios remain illusory. Investors remain shy of participating in capital projects, and concessionaires and management contractors are unwilling to risk money and reputation in ventures that show poor financial and operational results.⁷

8. The utilities in general suffer from substandard management capacity, often demonstrated by the inadequate educational background for specific tasks, lack of training and exposure to good practices, and a weak human resources development program that fails to reward excellence. Moreover, internal controls are generally absent, as evidenced by weak inventory management and poor procurement practices; where they do exist, controls are often inadequate and elementary. Several ADB-financed projects show evidence of weaknesses in these areas. In addition, consumer relations are generally unsatisfactory, with consumers alienated by poor service performance and high costs that are passed on to them. Persuading consumers that service quality has improved is often difficult.

9. Although the challenges are considerable, a small but growing number of water operators with steadily improving performance can transfer their good practice to relatively weaker operators, assisting the latter to increase their service and financial efficiency in ways that can be monitored. In particular, the Singapore Public Utilities Board, the Phnom Penh Water Supply Authority, and the Manila Water Company offer examples of world class service delivery and financial performance.

10. Against this background, the development of utility networks is seen as a key means to share knowledge and build capacity among utilities that are facing similar challenges. The impetus for improvement is internal, and is driven by (i) an understanding of comparative

⁵ ADB. 2004. *Asian Water Supplies*. Manila.

⁶ WSP. 2005. *Workshop Proceedings – Managing Karachi's Water Supply and Sanitation Services*. Karachi. This report revealed that in South Asia, many cities provide less than 10% of their service areas with a 24-hour piped supply. In fact, no city or town in South Asia has a water supply available 24-hours per day, 7 days per week. Lahore is the best performer in the subregion, and provides water 16 to 18 hours per day. New Delhi provides water for 5 hours, and Karachi for 8 hours each day Hyderabad (India) provides water 2 hours every second day.

⁷ ADB's *Asian Water Supplies* (footnote 5), show that tariffs in most Asian cities are so low that there is no possibility of achieving price elasticity of demand. Average tariffs are between \$0.01–\$0.05 per cubic meter (m³). In contrast, European urban water supply tariffs range from \$1.20–\$1.80 m³; Singapore's average domestic tariff is about \$1/m³, and the tariff charged by the Manila Water Company is \$0.40m³.

performance levels among utilities and (ii) success factors. Such networks will be designed to undertake a range of activities to support quality enhancements. SEAWUN,⁸ established in 2003, is a leading Asian example of a network that has quickly developed a broad knowledge and practice sharing program that allows members to seek gains in sustainable ways.

III. THE PROPOSED TECHNICAL ASSISTANCE

A. Impact and Outcome

11. The TA will contribute to attainment of the MDGs by enhancing service performance of water and wastewater utilities, enabling them to reach more people and improve their services to existing clients. This TA covering the next 2 years is part of a longer-term intervention that is envisioned to extend over a 5-year period. This TA was first listed in the *ADB Business Opportunities* in January 2007.

B. Methodology and Key Activities

12. The main outputs of the TA are (i) the establishment and operation of Water Utility Networks (WUNs), (ii) the development and implementation of capacity-building and twinning programs, (iii) the development and establishment of benchmarking systems, (iv) the adoption of change management processes that address specific areas of water utilities operations, and (v) a consensus on good practice institutional frameworks.

13. Separate water utilities networks will be established in a phased manner in South, Central and East Asia, modeled on the existing SEAWUN.⁹ Networks memberships are based on open invitation. Although the networks are targeting water utilities, membership may be extended to water associations or other interested parties, depending on the decision of the founding members, and as outlined in the charter establishing a specific the network. The members are expected to contribute a membership fee, which may be subsidized initially.

14. Linkages will be developed among the networks and with the global community of networks anchored by the United Nations Human Settlements Programme (UN Habitat). These networks are the platform for implementation of the capacity-building and twinning programs, and at the same time provide the utilities the critical mass and organizational strength to develop and promote an institutional reform agenda for the sector.

15. A capacity-building program will be designed and established within each network and also across them. Discrete programs of activities will be designed and implemented for each network, and will be continuously evaluated. The activities of SEAWUN will be enhanced and expanded to focus on twinning and training programs. More specifically, the TA will:

- (i) Develop twinning arrangements between operators that have already modernized their services and set high performance standards and those seeking support to improve their performance. These arrangements will be based on performance-related incentives, and on a not-for-profit approach. Activities under this twinning program include performance-based contracts, seconding expert personnel, exchange visits, and on-site demonstrations. A unique feature of the twinning program will be the establishment of direct relationships between

⁸ For detailed information see: <http://www.adb.org/Water/SEAWUN/default.asp>.

⁹ No activity under the regional TA will be commenced or financed in the territory of a DMC until the government of the DMC has given its "no objection."

practitioners working in and with utilities, rather than the use of academics or external consultants.

- (ii) Enable utilities to develop alternative organizational models that most appropriately reflect their missions. The emphasis will be on autonomy and accountability, with minimal government involvement. Commercially sound operating principles will be introduced, and utilities will be supported to run as water businesses.
- (iii) Support training programs and workshops that will allow members to adopt (a) enhanced financial management systems that focus on cost reduction, better asset management, proper tariff structures, and improved metering, billing and collection; and (b) improved technical management systems that focus on operation and maintenance, reducing NRW, increasing coverage and hours of service, and improving water quality.

16. The TA will undertake benchmarking exercises in each network to determine current performance parameters, including service levels, quality, operational efficiency, financial management, and customer satisfaction. The benchmarking exercises will follow the same approach as successfully implemented by SEAWUN, and supported by ADB.¹⁰ The purpose of the benchmarking is twofold: (i) to enable members to compare performance and the factors that govern it, and to identify the effect of applied skills; and (ii) to provide the driving force for applying the newly learned skills in order to attain the projected outcomes. In combination, the twinning arrangements, training programs, and benchmarking exercises will assist utilities in increasing their capacity and improving their service performance.

17. The key activities under the TA will support the delivery of the outputs identified above.

- (i) Workshops will be designed and conducted to discuss the merits and means of establishing WUNs in South, Central and East Asia. Two workshops for each region will be required for this purpose, with the second workshop being used to launch the network. The introductory workshop for South Asia was completed in December 2006 and an agreement was made to hold the second workshop to establish the WUN and launch the WOPs program in Islamabad, Pakistan in April 2007.¹¹ Locations for workshops in Central and East Asia have yet to be identified.¹²
- (ii) Membership and administrative facilities, modeled on the SEAWUN pattern, will be designed and established. A detailed program of activities for each network will be developed, including the establishment of a secretariat, fully costed and resourced, over the medium term. The support of development partners will be sought in designing and implementing the programs. The support for SEAWUN will be continued during the first year, after which the SEAWUN secretariat is expected to be self-sustaining through membership fees. Allocations for an annual meeting in 2008 for each of the networks have also been made, with planning and training workshops folded into these annual meetings.
- (iii) The twinning programs will be implemented upon the design and establishment of each network. A performance audit will be undertaken, and results and potential activities discussed between twinning partners. Twinning and training

¹⁰ <http://www.adb.org/Water/SEAWUN/ADB-support.asp>.

¹¹ A "no-objection" from the Government of Pakistan has been secured.

¹² A "no-objection" from the appropriate governments of the countries where these workshops will be held will be secured before any activity is begun.

- activities will be detailed at planning workshops that involve interested members. Initially the twinning program will be developed on a not-for-profit basis. It is recognized, however, that fee- or performance-based models need to be developed to ensure the required sustainability. Several training programs¹³ will be developed to help utilities improve their performance, covering: (a) NRW reduction, (b) asset management, (c) full cost recovery, (d) enabling water services delivery for the urban poor, (e) risk management, (f) regulation, (g) financial management, (h) water quality management, and (i) customer relations.
- (iv) A benchmarking exercise will be designed and conducted that will determine performance levels in core areas of water utility operations, including service levels and quality, operational efficiency, and financial management. The exercise will be supported by workshops to agree on a set of performance indicators, explain the benchmarking process, and ensure consistency in the data collected. Workshops to share the results, identify best practices, and eventually develop strategies for continuous improvement will also be organized.¹⁴ The benchmarking exercise will be conducted regularly (i.e., every 2 years).
 - (v) The results of the benchmarking exercise will allow for the introduction and implementation of change management processes that (a) identify priority areas needing improvement, and (b) develop appropriate activities and programs to address these.
 - (vi) The organization of WUNs will provide the opportunity for the exchange of ideas and experiences across borders. Assisted by the skills and information provided under the twinning and training programs, the utilities should be able to identify the institutional bottlenecks preventing optimal performance by the utilities. The TA supports water utilities in identifying and discussing these institutional issues, which are common across the Asian region, and will organize dialogues with the relevant decision makers in specific countries, to seek consensus on good practice institutional frameworks and identify possible solutions.

C. Cost and Financing

18. The total cost of the TA is estimated at \$2 million. It will be financed on a grant basis by the Japan Special Fund, funded by the Government of Japan. The cost estimates are in Appendix 2.

D. Implementation Arrangements

19. ADB will be the Executing Agency of the TA. The Social Sectors Division (SESS) in the Southeast Asia Department will be responsible for coordinating all TA activities. Activities will be carried out in close cooperation with the relevant regional departments and the Regional and Sustainable Development Department (RSDD). Coordination with the regional departments will be undertaken as necessary. Reporting will be done on semiannual basis to the Director of the Energy, Transport, and Water Division (RSID), who may call for a meeting to discuss progress and planned activities. Wider communication will take place through the community of practice. The TA will be implemented over 24 months, from April 2007 to March 2009.

¹³ A "no objection" from the respective Governments of the countries where these training programs will be conducted will be secured before commencing any activity.

¹⁴ A "no objection" from the respective Governments of the countries where these workshops will be conducted will be secured before any activity is begun.

20. About 25 person-months of international and 26 person-months of national consultants' time will be needed to implement the activities of the TA. Individual consultants will be contracted based on their qualifications for the assignment. The qualifications required will be established in consultation with the network members, based on their specific needs. The required areas of expertise may include, but will not be limited to (i) institutional, organizational, and sector restructuring; (ii) operation and engineering; (iii) nonrevenue water reduction; (iv) internal controls and financial management; (v) procurement and contract management; and (vi) personnel management. Additional international and national resource persons may be engaged to fill specific gaps in designing and implementing twinning arrangements, and in undertaking discrete training programs. The consultants will be recruited in accordance with ADB's *Guidelines on the Use of Consultants* (April 2006, as amended from time to time).

21. Outline terms of reference for consultants are shown in Appendix 3. Equipment and materials financed by the TA, such as computers and printers, will be procured by the networks in accordance with ADB's *Procurement Guidelines* (April 2006, as amended from time to time). Ownership of the equipment and materials that have been purchased for specific activities in the course of networking activities or twinning arrangements implementation will be transferred to the networks after TA completion.

IV. THE PRESIDENT'S RECOMMENDATION

22. The President recommends that the Board approve the provision of technical assistance not exceeding the equivalent of \$2 million on a grant basis for Supporting Water Operators' Partnership in Asia.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>Impact</p> <p>Achievement of MDG Goal 7, target 10: to halve, by 2015, the proportion of people without access to safe drinking water and sanitation</p>	<p>Significant improvement by countries in South, Central, East and South East Asia in meeting MDG targets</p>	<p>Countries' sector reports</p> <p>Asia Water Watch</p> <p><i>Asian Development Outlook</i></p> <p>UN and WHO reports</p>	<p>Assumption</p> <p>Governments will act on submissions on good practice institutional frameworks</p>
<p>Outcome</p> <p>Consensus on what constitutes a good practice institutional framework for water sectors</p> <p>Improved effectiveness and efficiency of participating water utilities</p>	<p>Network-endorsed submissions to governments</p> <p>100% of participating utilities improve their service, financial and management performance over their own initial benchmark baseline indicators on service, finance, and management</p>	<p>Country short- to medium-term development plans</p> <p>Utilities' performance reports</p> <p>Network annual reports</p>	<p>Assumptions</p> <p>Water utilities have incentives to apply management methods learned from twinning, change management, and benchmarking. There are no external obstacles to applying management methods learned from twinning, change management, and benchmarking.</p>
<p>Outputs</p> <p>1. Three new water utilities networks in place, in (i) South Asia, (ii) Central Asia, and (iii) East Asia</p>	<p>Charter establishing networks signed by at least 10 member utilities in each subregion (by fourth quarter 2007 in South Asia, first quarter 2008 in Central Asia, and third quarter 2008 in East Asia)</p> <p>A work program prepared for South Asia (second quarter 2007), Central Asia (first quarter 2008), and East Asia (fourth quarter 2008).</p>	<p>Workshop reports</p> <p>Network charters or agreement to form the networks</p> <p>Network secretariat reports</p>	<p>Assumption</p> <p>Utilities in South Asia, Central and East Asia agree to form networks of water utilities</p>

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>2. Existing water utilities network in Southeast Asia (SEAWUN) strengthened</p> <p>3. Twinning program operational</p> <p>4. Benchmarking service operational</p> <p>5. Change management capacity established to address specific areas of water utility operations</p>	<p>Financing plans prepared for South Asia (second quarter 2007), Central Asia (first quarter 2008), and East Asia (third quarter 2008).</p> <p>At least 40 members for South Asia and at least 15 for each of Central and East Asia networks by end of fourth quarter 2008</p> <p>SEAWUN secretariat operations financially self-sustaining by end 2008</p> <p>Membership of SEAWUN increased to 100 by fourth quarter 2008</p> <p>SEAWUN member satisfaction survey on network benefits scores 4 (on a scale of 1–5)</p> <p>10 twinning arrangements designed and established (includes secondment of expert personnel, on-site demonstrations and exchange visits) by fourth quarter 2008</p> <p>75% of utilities in each network participate in regular benchmarking exercises</p> <p>Data books published and at least 1,000 copies distributed by fourth quarter 2008. Satisfaction feedback indicates rating of 3.7 or better (scale of 1–5)</p> <p>Five workshops conducted and 400 participants trained. Satisfaction rating of 3.7 or better (scale of 1–5)</p>	<p>Network secretariat reports</p> <p>Network secretariat financial report</p> <p>Membership survey</p> <p>SEAWUN annual reports</p> <p>SEAWUN annual reports</p> <p>SEAWUN secretariat report</p> <p>Twinning agreements and/or performance-based contracts</p> <p>Secretariat reports</p> <p>Secretariat reports</p> <p>Workshop reports</p>	<p>Utilities in Southeast Asia continue to support network of water utilities.</p> <p>Sufficient demand from weak utilities and willingness of stronger utilities to participate in the twinning program.</p> <p>Utilities have the incentive and willingness to participate</p> <p>Utilities have the incentive and willingness to participate and act on their benchmarking results</p>

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
6. Good practice institutional framework developed and consensus achieved	Four workshops and/or conferences attended by decision makers in participating countries Draft report on desirable framework available before beginning of first quarter 2008	Workshop/ conference reports Secretariat reports	Governments recognize the need for institutional reforms in the water sector.
Activities with Milestones 1.1. Introduction workshops, by: Third quarter 2007 for Central Asia, and second quarter 2008 for East Asia 1.2. Inauguration workshops, by: Second quarter 2007 for South Asia, first quarter 2008 for Central Asia, and third quarter 2008 for East Asia 1.3. Work programs and financing plans agreed prior to inauguration workshops. 2.1 Continued financial and administrative support until end of 2008 2.2 Financing of one annual conference in each of the networks in 2008 3.1 Development of pro forma twinning agreement by third quarter 2007 3.2 Four twinning agreements for Southeast Asia operational by fourth quarter 2007 3.3 Four twinning agreements for South Asia operational by second quarter 2008 3.4 Two twinning agreements for East Asia operational by fourth quarter 2008 4.1 Financing of one benchmarking workshop in 2007 (for South Asia) 4.2 Benchmarking proposals developed and agreed with network secretariats, by: Third quarter 2007 for South Asia, second quarter 2008 for Central Asia, and third quarter 2008 for East Asia. 4.3 Benchmarking data books produced and published, by: First quarter 2008 for South Asia, third quarter 2008 for Central Asia, and first quarter 2009 for East Asia. 5.1 Change management workshops designed by third quarter 2007 5.2 Conduct workshops for member utilities commencing by third quarter 2007 and complete by first quarter 2009 6.1 Development of survey method and identification of institutional issues that impact service delivery, by third quarter 2007 6.2 Survey network members, by third quarter 2007 for SEAWUN and South Asia, and first quarter 2008 for Central Asia. 6.3 Meetings to discuss and develop consensus on preferred framework by second quarter 2008 for SEAWUN and South Asia, and fourth quarter 2008 for Central Asia.			Inputs • ADB: \$2 million (JSF), staff resources • Cofinancing: to be identified during developing financing plans • Beneficiaries; membership fees, staff resources

ADB = Asian Development Bank, JSF = Japan Special Fund, MDG = Millennium Development Goal, SEAWUN = Southeast Asian Water Utilities Network, UN = United Nations, WHO = World Health Organization.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Total Cost
Asian Development Bank Financing^a	
1. Consultants	
a. Remuneration and Per Diem	
i. International Consultants	325.00
ii. Domestic Consultants	124.50
b. International and Local Travel	100.00
c. Reports and Communications	12.00
2. Equipment ^b	11.25
3. Training, Seminars, and Conferences	
a. Workshops	820.00
b. Training Program	405.00
4. Miscellaneous Administration and Support Costs	17.25
5. Contingencies	185.00
Total	2,000.00

^a Financed by the Japan Special Fund, funded by the Government of Japan.

^b Equipment comprises desktop computers and high-speed printers.

Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. The outline terms of reference for consultants describe the main tasks under this technical assistance. The program of activities will be coordinated by the Asian Development Bank through the Social Sectors Division of the Southeast Asia Department, in close consultation with other regional departments and with the Regional and Sustainable Development Department.

2. International and domestic water specialists, and non-specific resource persons, will be engaged on an individual, intermittent, or fulltime basis to undertake the following tasks:

A. Design and Establish Water Utilities Networks

3. The objective is to assist in establishing the legal and administrative structure, and developing the activity program of water utilities networks in South, Central and East Asia. The projected input is 2 person-months of intermittent service of international consultant. Specific tasks are, to:

- (i) undertake feasibility assessments for establishing water utilities networks for Central and East Asia; establish the parameters for network constitution and operation consistent with utility member organizational structure and circumstances;
- (ii) design, organize, and manage workshops to introduce basic network concepts and programs of activities; develop network mandates and operational frameworks; establish clear operating principles; design financing plans for networks;
- (iii) design, organize, and manage workshops to formally launch networks; secure network approval and undertake development of work programs;
- (iv) establish network secretariats consistent with sound administrative principles and arrangements; specify secretariat tasks including financial management and reporting (i.e., the production of an annual report); and
- (v) design, prepare, and manage annual meetings of networks in coordination with network secretariats and produce the required reports; evaluate network performance against objectives and make recommendations for prospective plans and programs.

B. Develop Twinning program

4. The consultant is required to develop 10 twinning programs between well- and poor-performing water operators. The projected input is 5 person-months of intermittent service of international consultant. Specific tasks are, to:

- (i) identify features of twinning arrangements and develop pro forma twinning agreements;
- (ii) identify candidate utilities for twinning and establish feasibility and rationale for suggested twinning;

- (iii) undertake comprehensive performance audit of mentored utility to establish baseline standards and assess capacity to improve performance to measurable levels;
- (iv) develop and finalize twinning agreements in consultation with both parties, and identify required resources;
- (v) initiate elements of twinning agreements (e.g. exchange of personnel, specific training, performance improvement programs); and
- (vi) monitor agreement performance and make periodic evaluations, with recommendations for improved implementation of agreement.

C. Benchmarking Service

5. The purpose is to develop benchmarking systems for each network, and publish benchmark data of the member utilities. The projected input is (i) four international experts at 2 person-months each, (ii) four national benchmarking coordinators at 2 person-months each, and (iii) four national database coordinators at 1 person-month each:

- (i) define benchmarking processes and timetable; review international good practice, including similar work undertaken by the Southeast Asia Water Utilities Network;
- (ii) select and finalize benchmarking participants; design, organize, and manage workshops to brief participants on process and expectations; mentor participants on conducting benchmarking at site;
- (iii) collate and conduct a participatory review of benchmarking results; identify major factors that influence the results, and conduct benchmarking results workshops that link with the proposed change management workshops;
- (iv) develop proposals for ongoing benchmarking; recommend improved ways to establish benchmarks and monitor achievements; and
- (v) design, finalize, and publish data books on benchmarking results.

D. Change Management Processes

6. The consultants' task is to assist with the development of an improved management program, through training and workshops. The projected input is (i) international change management expert at 6 person-months of intermittent service, and (ii) national change management expert at 8 person-months of intermittent service. Specific tasks are, to:

- (i) determine the availability and adequacy of internal change management programs in participant organizations; if inadequate, design simple but effective programs; design training packages, and conduct workshops for participants;
- (ii) using benchmark data, assist participating utilities to design individual change programs; facilitate in initiating these change programs and evaluate results;
- (iii) confirm (or establish, if necessary) that participating utilities have the means of sustaining their programs; design, organize, and manage workshops for utilities to share experience on driving change; and
- (iv) undertake annual evaluation of the impact of change management programs on achievement of benchmark objectives; make recommendations for follow-up.

E. Institutional Issues Survey and Follow-up

7. The consultant is to assist in identification of the barriers that prevent the efficient and sustainable delivery of the utilities' services, and assist with the development of consensus on eliminate these barriers. The projected input is (i) international institutional expert at 4 person-months of intermittent service, and (ii) national institutional expert at 6 person-months of intermittent service. Specific tasks are, to:

- (i) develop survey methods and identify institutional issues that broadly impact on service delivery and utility performance (i.e. regulatory frameworks, potential for corporatization); survey participating utilities on views concerning institutional factors; summarize issues;
- (ii) design, organize, and manage workshops with network secretariat and decision makers within each region, seek consensus on these institutional issues, and identify solutions; and
- (iii) design country-based proposals to facilitate network secretariat intervention with national agencies; monitor progress and impact of recommendations.