

DEVELOPING BEST PRACTICES  
FOR PROMOTING PRIVATE SECTOR  
INVESTMENT IN INFRASTRUCTURE

WATER SUPPLY

The views, conclusions, and recommendations presented here are those of the study consultants, and should not be considered to represent the official views of the Asian Development Bank or its member governments.

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## FOREWORD

This report is one of a series of five commissioned by the Asian Development Bank (ADB) to identify and recommend best practices to be followed and specific steps to be taken, by ADB's developing member countries in order to encourage both private sector investment and competition in infrastructure development. The study was financed through a \$600,000 regional technical assistance grant - RETA 5753: *Developing Best Practices for Promoting Private Sector Investment in Infrastructure*. This report focuses on the water sector; the other reports cover the power, road, airport and air traffic control, and port sectors.

Water is an important resource that is essential for human existence. An efficient and competitive water sector reduces water losses and improves the quality of water supply. This benefits water users and enhances economic activity. The report examines the features of water supply, the need and options for private sector participation, and the institutional structures and incentives. It also recommends a framework for moving to private sector participation in water supply. It is hoped that the report will help ADB's developing member countries attract well managed and cost-effective private investment in the water sector.

The five reports have benefited from the support of and valuable contributions from many individuals, both inside and outside ADB. The reports were prepared by a team of individual consultants: Water Supply - Michael Porter of Tasman Asia Pacific; Power - Elliot Roseman of PricewaterhouseCoopers; Ports - John Arnold, an independent ports specialist; Airports and Air Traffic Control - Ian Jones of National Economic Research Associates; and Roads - Roger Aliport of Halcrow Fox. In ADB, Sean O'Sullivan, Senior Public/Private Sector Specialist managed the technical assistance implementation with the help of Marcelo Minc, Project Economist. ADB staff in the Energy; Transport and Communications; and Water Supply, Urban Development and Housing Divisions as well as the Private Sector Group helped in guiding the direction of the study and in reviewing the outputs. In December 1998, a workshop hosted by ADB as an integral component of the study, provided a forum for the exchange of ideas and experiences. Participation and contributions of delegates from many developing member countries and representatives from the private sector in the workshop were very much appreciated by ADB.

The publication of the five reports is especially timely as it coincides with the introduction of a new strategy for private sector development by ADB.

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## ABBREVIATIONS

|       |   |  |
|-------|---|--|
| ADB   | - | Asian Development Bank   |
| AFIC  | - | Asian Finance and Investment Corporation Ltd.                            |
| BOO   | - | build-own-operate  |
| BOOT  | - | build-own-operate-transfer   |
| BOT   | - | build-operate-transfer   |
| CSO   | - | community service obligations  |
| DMC   | - | developing member country  |
| EPA   | - | extra-ordinary price adjustments   |
| ESCAP | - | Economic and Social Commission for Asia and the Pacific                  |
| FIC   | - | Foreign Investment Committee   |
| FOREX | - | foreign exchange   |
| GDP   | - | gross domestic product   |
| IFC   | - | International Finance Corporation  |
| JV    | - | joint venture  |
| JWC   | - | Johor Water Company  |
| MIGA  | - | Multilateral Investment Guarantee Agency                                 |
| MWC   | - | Manila Water Company   |
| MWSC  | - | Macau Water Supply Concession  |
| MWSI  | - | Maynilad Water Services Inc.   |
| MWSS  | - | Metropolitan Waterworks and Sewerage System                              |
| NIA   | - | National Irrigation Administration                                       |
| NRMS  | - | natural resource management strategy                                     |
| NRW   | - | non revenue water  |
| ODA   | - | overseas development assistance  |
| OFWAT | - | Office of Water Services   |
| PHED  | - | Public Health and Engineering Department                                 |
| PPA   | - | power purchasing agreement   |
| PRC   | - | People's Republic of China   |
| PSP   | - | private sector participation   |
| PUC   | - | public utility commission  |
| PWA   | - | Provincial Waterworks Authority  |
| ROT   | - | rehabilitate-operate-transfer  |
| SAAM  | - | Sociedad de Abastecimento de Aguas de Macau (Macau Water Supply Company) |
| SCADA | - | Supervisory Control and Data Acquisition                                 |
| SCI   | - | Statement of Corporate Intent  |
| SOE   | - | state-owned enterprise   |
| SOERU | - | State-owned Enterprise Reform Unit                                       |
| UK    | - | United Kingdom   |
| US    | - | United States  |
| WSMC  | - | Water Supply to Macau Company  |

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