

ASIAN DEVELOPMENT BANK

TAR: OTH 37677

TECHNICAL ASSISTANCE
(Financed by the Japan Special Fund)

FOR

INFRASTRUCTURE DEVELOPMENT IN EAST ASIA

November 2003

ABBREVIATIONS

ADB	–	Asian Development Bank
DMC	–	developing member country
JBIC	–	Japan Bank for International Cooperation
JSF	–	Japan Special Fund
MDB	–	multilateral development bank
MDG	–	Millennium Development Goal
NGO	–	nongovernment organization
TA	–	technical assistance

NOTE

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

I. INTRODUCTION

1. The technical assistance (TA)¹ will support a joint effort of the Asian Development Bank (ADB), Japan Bank of International Cooperation (JBIC), and World Bank to produce a study for establishing a balanced approach to the provision of infrastructure in the medium term. The decision to jointly pursue the study is a result of consultation between the three sponsor institutions. The World Bank needs to reassess its strategy for infrastructure development because of its renewed focus on infrastructure lending in recent years. For JBIC and ADB, which have maintained relatively strong presence in the sector, the study will provide an opportunity to chart out, in broad concert with major stakeholders, a strategy for ensuring efficient and effective infrastructure service provision, contributing to economic growth while ensuring that social and environmental goals are met.

2. The study is focused on East Asia and includes Cambodia, People's Republic of China, Indonesia, Lao People's Democratic Republic, Malaysia, Mongolia, Papua New Guinea, Philippines, Thailand, Timor-Leste, Viet Nam, and the Pacific island countries. Lessons learned from several Asian countries such as Japan, Republic of Korea, Malaysia, and Thailand will also be considered. The TA framework is shown in Appendix 1.

II. ISSUES

3. According to a recent study of global trends of private participation in infrastructure,² the share of private infrastructure financing in East Asia and the Pacific grew from about \$14.6 billion in 1993, peaked at \$41.3 billion in 1997, and declined sharply to \$12.2 billion during the financial crisis in 1998. Recovery of investment levels has been painfully slow, so that in 2001, investments in the region have recovered only up to pre-1994 levels. This trend is mirrored in the entire developing world. Official development assistance to infrastructure in developing countries has also been declining since 1995, stemming largely from a predominant expectation that private funds would bridge the large infrastructure financing and service delivery gaps in the 1990s.

4. Meanwhile in ADB, infrastructure continued to be an important area of operations. During the last 5 years, about \$10 billion of ADB resources were channeled to public sector loans for infrastructure. Despite some decline in the share of loan resources going into infrastructure immediately after the Asian financial crisis, ADB continued to be strongly involved in infrastructure development in the region. ADB's public sector loan for infrastructure was 32% of its total portfolio in 1998 and increased to about 46% in 2002. To date, more than half of ADB's \$1.2 billion private sector operations have been channeled to infrastructure.³ To support such presence in the sector, TA resources devoted solely to energy, transport, and communications amounted to about \$316 million in the last 5 years. However, financing from ADB alone, or official development assistance, can only cover a small portion of the amount that developing member countries (DMCs) need for financing infrastructure.

¹ The TA was first listed in *ADB Business Opportunities* (Internet version) on 25 August 2003.

² World Bank. 2003. *Private Participation in Infrastructure: Trends in Developing Countries in 1990-2001*. Public-Private Infrastructure Advisory Facility. Washington, DC.

³ ADB defines infrastructure to include energy, transport, and communications for its public sector loans. For ADB's private sector operations, infrastructure is defined consistent with International Standard Industrial Classification codes to include electricity (power plants), collection, purification and distribution of water, land transport, including transport via pipelines, air transport, supporting and auxiliary transport/travel agencies, post and telecommunications, education and health, and social infrastructure.

5. The TA will support the larger effort to produce a study on infrastructure provision and financing in East Asia. A focus on East Asia is appropriate because it experienced a phenomenal increase in activities related to infrastructure development during 1990–1997 and suffered a precipitous decline thereafter. The wealth of lessons offered by this experience, and the need to address the continuing challenges, provide an opportunity for building strategic consensus on the way forward. The outcome of the joint effort is expected to have far-ranging implications on infrastructure provision in the region and in other parts of the developing world.

6. The scope of the joint study will include (i) reviewing lessons learned covering the many thematic issues affecting infrastructure development (para. 11); (ii) addressing strategic issues such as the direction of infrastructure provision and financing in the wake of the global downturn in financing for infrastructure (official and private flows) and the lingering effects of the Asian financial crisis; (iii) reviewing the experience in private sector infrastructure financing; (iv) assessing future requirements; and (v) recommending more balanced and sustainable approaches for infrastructure development. The study is expected to help build among stakeholders a consensus on strategic directions in infrastructure development in East Asia. The study is also expected to add value by reviewing the state of the infrastructure business in East Asia. Recent discussions between the three participating institutions suggest limiting the study to (i) economic infrastructure, especially power and piped gas; (ii) transport and communications; (iii) water and sanitation, in urban and rural areas; and (iv) hydropower and water reservoirs. The study will exclude upstream oil and gas, and other extractive industries.

7. ADB participation in the TA is expected to support its operations focus and provide clear recommendations on planning interventions in the sector to support ADB's overarching goal of poverty reduction and contribute to the achievement of the Millennium Development Goals (MDGs). The study process is designed to involve different groups of stakeholders to arrive at a broad consensus on the future course of actions to increase investments in the infrastructure sectors. ADB's emphasis will be to look at the broad strategies for infrastructure development within the context of ADB's experience and on engaging individual DMCs in this process. The TA will benefit ADB in terms of enhanced collaboration with DMCs at the country strategy and sector level and improved coordination of inputs and assistance with other funding agencies.

8. ADB's general approach to infrastructure development for DMCs has been relatively successful. The study is a valuable opportunity to develop appropriate models and solutions to infrastructure development and to systematically synthesize learning from ADB's general approach.

III. THE TECHNICAL ASSISTANCE

A. Purpose and Output

9. The study will generate practical guidance for policy makers, multilateral development banks, and other financing agencies on how to engage in infrastructure service provision and financing in the context of individual DMCs and in light of the lessons learned. The study is expected to develop a balanced approach to public and private solutions to infrastructure development by helping define the boundaries of public policy and public and private investments. Consultative activities with decision makers, development partners, and civil society will seek to achieve broad consensus on the study findings.

10. Under the study, the TA will complement ADB staff resources to support (i) the preparation of the main report, with JBIC and the World Bank; (ii) review of the technical

working papers for study focus areas that are initially identified; (iii) the preparation of at least two technical working papers for which ADB will take the lead; and (iv) participation in and conduct of three consultative workshops and one regional conference.

B. Methodology and Key Activities

11. Recent discussion and coordination between the sponsor institutions identified the following key themes for the study: (i) the importance of infrastructure in economic development; (ii) the linkage between economic growth and poverty reduction and the MDGs; (iii) an overview of the recent history of infrastructure provision in East Asia; (iv) the experience with private participation in infrastructure in the region; (v) decentralization and urbanization; (vi) competitiveness and regional integration; (vii) environmental and health concerns; (viii) assessment of infrastructure requirements in the region; (ix) appropriate roles of public and private actors in infrastructure planning; (x) financing, management, and service provision; (xi) regulation of infrastructure providers, whether public or private; (xii) financial issues, including facilitating domestic financing mobilization; and (xiii) an appropriate balance between growth and access, and meeting affordability and social concerns.

12. The main report will contain the main conclusions and recommendations of the study, incorporating the findings of the technical working papers and the consultative process so as to build credibility, and ownership around the study's strategic recommendations. The technical working papers will correspond closely with the key themes (para. 11), and will provide the background necessary for the main report to propose strategic directions for future sector development. The papers will also draw on ADB expertise, including previous analytical work,⁴ through the mechanisms described in Section D, Implementation Arrangements.

13. The two technical working papers for which ADB will take the lead will include (i) a review of the importance of infrastructure in development, economic growth, poverty reduction, making explicit linkages between infrastructure development, poverty reduction, and the achievement of MDGs; and (ii) a discussion of issues on competitiveness and regional integration, covering intra- and inter-regional trade and investment and focusing on "soft issues" such as logistics, customs, and red tape. The first working paper will (i) collate the literature on the topic; (ii) discuss international experience with a focus on the role that infrastructure played in the "East Asian Miracle" and relevant development experience from Japan, Republic of Korea, Malaysia, and Thailand; and (iii) recommend appropriate frameworks for planning infrastructure interventions with clear linkages to growth, poverty reduction, and the MDGs. The second working paper will draw on ongoing work focusing on the coordination of regional infrastructure networks, particularly in energy and transport.

14. The consultative workshops and conference are designed to support the participative process within the study. The first workshop will be held in Manila in January 2004 to obtain feedback from technical experts on the study coverage, important issues, and possible areas of further focus. A second workshop will be held after substantial completion of the major working papers and the draft main report. Another consultative workshop in the non-East Asia region will be held to extract relevant experience and lessons and to broaden the opportunity for sharing

⁴ Including ADB. 2000. *Technical Assistance for Assessing the Impact of Transport and Energy Infrastructure on Poverty Reduction*. Manila; ADB. 2000. *Technical Assistance for a Workshop on Information and Communications Technology Strategy for Developing Asia*. Manila; and ADB. 2000. *Technical Assistance for Reassessment of the Regional Transport Strategy*. Manila. Also, the work of ADB's Infrastructure Group within the Poverty Reduction Strategy Working Group.

strategies and decision frameworks. A regional conference will be held to present the final results of the main study.

15. The study will be challenging in breadth and in the consensus building necessary to recommend strategic directions. The study is expected to follow a process approach because it is envisaged as a significant learning exercise with dimensions of constituency building and advocacy. Thus, flexibility will be needed to allow new approaches to be incorporated during the course of the study and to facilitate the involvement of three sponsor institutions.

C. Cost and Financing

16. The total cost of the TA is estimated at \$500,000 equivalent, comprising \$430,000 in foreign exchange costs and \$70,000 equivalent in local currency costs. The TA will be financed on a grant basis from the Japan Special Fund, funded by the Government of Japan. The cost estimates and financing plan are in Appendix 2.

D. Implementation Arrangements

17. ADB will be the Executing Agency for the TA. The TA will be coordinated within ADB by the Infrastructure and Finance Division of the Regional and Sustainable Development Department with a task manager supported by a small group of infrastructure experts. A high level advisory group within ADB has been set up, with infrastructure directors from the operations departments and representatives of the Economics and Research Department, Operations Evaluation Department, and Strategy and Policy Department. The advisory group will play a key role in harnessing ADB's institutional knowledge and in building ownership for the study results within ADB. The TA task manager will ensure that the advisory group is well briefed and that the group's inputs are sought especially during major study milestones.

18. The three sponsor institutions will also organize a core team, with one member from each institution plus one full-time team leader. The core team will have the primary responsibility for drafting the terms of reference of the working papers, for commissioning the papers and undertaking quality control of the various outputs. The team will produce and oversee the final main report and play a key role in the consultation and dissemination activities throughout the region.

19. The TA will be implemented over 20 months starting in November 2003. The expected completion date is June 2005. The TA will involve about 12 person-months of international and about 18 person-months of domestic consulting services. A team of international and domestic consultants will be selected and engaged by ADB on an individual basis in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements satisfactory to ADB on the selection and engagement of domestic consultants. An outline of scope of work for consulting services is provided in Appendix 3.

20. All the working papers, draft reports, and recommendations will be submitted to ADB, JBIC, and World Bank, at least 4 weeks before the planned workshops/conference. The final report will incorporate conference discussions and results and will be disseminated through print and other modes of publication to local constituencies in DMCs and funding agencies, to promote understanding of the findings and the options for effective and sustainable infrastructure development (Appendix 4).

IV. THE PRESIDENT'S DECISION

21. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$500,000 on a grant basis for Infrastructure Development in East Asia, and hereby reports this action to the Board.

TECHNICAL ASSISTANCE FRAMEWORK

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
Goal	To complete a study to chart out a strategy for ensuring efficient and effective infrastructure service provision, contributing to economic growth while ensuring that social and environmental goals are met.	Consensus achieved during consultation workshops and regional conferences as well as incorporation of the study's recommendations in the preparation of multilateral development bank (MDB) long-term strategic frameworks, country strategies and assistance plans, and project-specific interventions.	
Purpose	To provide practical guidance to policymakers and MDBs and financing institutions on how to engage in infrastructure service provision and financing.	Main report and technical working papers.	Participating institutions undertaking the study will continue to support the study's directions, and the managements of the three sponsor institutions will "own" the results of the study.
Outputs	<p>Study on infrastructure provision and financing in East Asia and at least 10 technical working papers.</p> <p>Lead preparation by the Asian Development Bank of at least 2 technical working papers covering (i) infrastructure, development and growth, and poverty reduction; and (ii) competitiveness and regional integration.</p> <p>Three consultative workshops and one regional conference.</p>	<p>Documentation of review and comments. Back-to-office reports.</p> <p>Technical working papers and field missions, as necessary.</p> <p>Conduct of workshops and regional conference.</p>	Delivery of outputs in a timely manner before major external shock occurs (e.g., a regional financial and economic crisis, terrorism, epidemics) that interferes with the work.

Design Summary	Performance Indicators/Targets	Monitoring Mechanisms	Assumptions and Risks
Activities	<p>Coordination and review of the main report and technical working papers.</p> <p>Preparation of two technical working papers.</p> <p>Preparation and conduct of consultative workshops and regional conferences.</p> <p>Publication and dissemination of study findings widely and in more popular forms of media (e.g., television).</p>	<p>Technical assistance (TA) administration reports, back-to-office reports, documentation of review, working paper reports, publication, list of participants, and participant evaluation of workshops and conferences.</p>	<p>Timely delivery of outputs by consultants and external experts.</p> <p>Meaningful participation, engagement, and ownership of TA activities by key stakeholders in the region.</p>
Inputs	<p>Staff resources in coordination and TA supervision, including review of main report and other working papers.</p> <p>Twelve person-months of international and 18 person-months of domestic consulting services.</p> <p>Administrative support for 18 person-months.</p> <p>Resources to support consultative workshops and regional conference, including remuneration, travel, and per diem expenses.</p>	<p>Actual resources expended available from monitoring staff resource allocation, billing statements, and other supporting documentation.</p> <p>List of participants, and documentation to support their attendance to the consultative workshops and regional conference.</p>	<p>Timely and continued agreement on project objectives, scope, and processes among the three institutions jointly undertaking the study.</p> <p>Timely recruitment of consultants, resource persons, and other external support.</p>

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Foreign Exchange	Local Currency	Total Cost
Asian Development Bank Financing^a			
1. Consultants			
a. Remuneration and Per Diem			
i. International Consultants	216	0	216
ii. Domestic Consultants	54	0	54
b. International and Local Travel	30	15	45
c. Reports and Communications	10	5	15
2. Workshops and Conferences	60	35	95
3. Miscellaneous Administration and Support Costs	0	10	10
4. Contingencies	60	5	65
Total	430	70	500

^a Financed by the Japan Special Fund, funded by the Government of Japan.
Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE FOR CONSULTANTS

1. The study will adopt a process approach to implementation. There is an initial consensus between the three sponsor institutions that working papers will be closely coordinated, especially at the conceptualization stage. The Asian Development Bank (ADB) will take lead on two themes. The Japan Bank for International Cooperation (JBIC) and World Bank will support preparation of the remaining technical working papers. Terms of reference, study frameworks, study materials, and related documents pertaining to the cooperative effort will be shared between ADB, JBIC, and World Bank.

2. The international consultants will include experts on infrastructure economics, such as energy, transport, network and logistics, public-private provision of infrastructure, and rural and urban infrastructure. The consultants will also have cross-sectoral expertise with issues of governance, regulation, and sustainability (e.g., affordability, asset management and pricing, urbanization and political decentralization, shifting centers of competitiveness, greater regional integration, decentralization, social and environmental issues, and poverty reduction, as these relate to infrastructure development).

International Consultants (about 12 person-months)

3. The study coordinator within ADB (about 6.0 person-months intermittent over 20 months) will be an infrastructure economist with at least 10 years of experience in at least two major infrastructure sectors. The coordinator will have an excellent grasp of the key themes to be covered by the main study, as described in para. 11 of the main technical assistance paper. The study coordinator will lead ADB's consulting team.

4. The coordinator will be assisted in producing ADB's deliverables in the main report and the technical working papers for about 1 person-month each by the following international consultant: energy expert, transport expert, urban and rural infrastructure expert, infrastructure and poverty reduction specialist, public-private infrastructure specialist, and infrastructure networks and logistics expert. The division of responsibilities between the experts will be detailed after the constitution of the core team and upon agreement on the terms of reference for each technical working paper.

Domestic Consultants (estimated input, 18 person-months)

5. Two domestic infrastructure economists (about 8 person-months each) will support the work of the international consultants, including providing research assistance, preparing country and short sector background materials, and assisting with organizing the consultative activities under the TA.

6. An editor (about 2 person-months) will be employed to help package ADB's sections of the final main report, edit the technical working paper reports for publication, and prepare for public release the materials to be used in the consultative workshops and conferences.

OUTLINE OF THE FINAL REPORT

The final joint report is expected to broadly follow the tentative outline presented below:

I. EXECUTIVE SUMMARY

II. SETTING THE STAGE

- A. Importance of Infrastructure in Development, Economic Growth, Poverty Reduction, and Achievement of the Millennium Development Goals
- B. Recent History of Infrastructure Provision in East Asia
- C. Region's Experience with Private Participation in Infrastructure

III. EMERGING CHALLENGES

- A. Decentralization
- B. Urbanization
- C. Competitiveness and Regional Integration
- D. Environmental and Health Concerns
- E. Assessment of Infrastructure Requirements, Including Technology Options

IV. THE WAY FORWARD

- A. Balancing Public and Private Roles in Infrastructure Planning, Financing, Management, and Service Provision
- B. Regulating Infrastructure Providers
- C. Financing Infrastructure
- D. Meeting Affordability and Social Concerns

V. CONCLUSIONS