



Technical Assistance Report

Project Number: 51048-001
Transaction Technical Assistance (TRTA)
September 2017

Thailand: Bangkok Mass Rapid Transit South Purple Line Project

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 14 September 2017)

| | | |
|---------------|---|---------------|
| Currency unit | – | Thai Baht (B) |
| B1.00 | = | \$0.03016 |
| \$1.00 | = | B33.0615 |

ABBREVIATIONS

| | | |
|------|---|--|
| ADB | – | Asian Development Bank |
| APA | – | Alternative Procurement Arrangement |
| GDP | – | gross domestic product |
| LBL | – | London interbank offered rate-based loan |
| MRT | – | mass rapid transit |
| MRTA | – | Mass Rapid Transit Authority |
| UMIC | – | upper middle-income country |

NOTE

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

| | |
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CONTENTS

| | Page |
|--|-------------|
| TRANSACTION TECHNICAL ASSISTANCE AT A GLANCE | |
| I. THE ENSUING PROJECT | 1 |
| II. THE TECHNICAL ASSISTANCE | 1 |
| A. Justification | 1 |
| B. Outputs and Activities | 2 |
| C. Cost and Financing | 2 |
| D. Implementation Arrangements | |
| APPENDIXES | |
| 1. Cost Estimates and Financing Plan | 4 |
| 2. List of Linked Documents | 5 |

TRANSACTION TECHNICAL ASSISTANCE AT A GLANCE

| | | | |
|--|---|--|------------------------------|
| 1. Basic Data | | Project Number: 51048-001 | |
| Project Name | Bangkok Mass Rapid Transit South Purple Line Project | Department /Division | SERD/SETC |
| Nature of Activity | Project Preparation | Executing Agency | Mass Rapid Transit Authority |
| Modality | Regular | | |
| Country | Thailand | | |
| 2. Sector | | Subsector(s) | |
| ✓ Transport | Urban public transport | ADB Financing (\$ million) | |
| | | | 1.50 |
| | | Total | 1.50 |
| 3. Strategic Agenda | | Subcomponents | |
| Inclusive economic growth (IEG) | Pillar 2: Access to economic opportunities, including jobs, made more inclusive | Climate Change Information | |
| Environmentally sustainable growth (ESG) | Global and regional transboundary environmental concerns Urban environmental improvement | Mitigation (\$ million) | 0.05 |
| | | CO ₂ reduction (tons per annum) | 1,000 |
| | | Climate Change impact on the Project | Medium |
| 4. Drivers of Change | | Components | |
| Governance and capacity development (GCD) | Institutional development Organizational development | Gender Equity and Mainstreaming | |
| Knowledge solutions (KNS) | Knowledge sharing activities | Some gender elements (SGE) | ✓ |
| 5. Poverty and SDG Targeting | | Location Impact | |
| Geographic Targeting | No | Urban | High |
| Household Targeting | No | | |
| SDG Targeting | Yes | | |
| SDG Goals | SDG9 | | |
| 6. Risk Categorization | | Complex | |
| 7. Safeguard Categorization Safeguard Policy Statement does not apply | | | |
| 8. Financing | | | |
| Modality and Sources | | Amount (\$ million) | |
| ADB | | 1.50 | |
| Transaction technical assistance: Technical Assistance Special Fund | | 1.50 | |
| Cofinancing | | 0.00 | |
| None | | 0.00 | |
| Counterpart | | 0.00 | |
| None | | 0.00 | |
| Total | | 1.50 | |

I. THE ENSUING PROJECT

1. The ensuing project will improve urban transport system in Bangkok, Thailand for efficient and safe movements of people. It will contribute to the achievement of the government's goal of supporting sustainable and inclusive growth. The project will be aligned with the following impact: access to social and economic opportunities in support of inclusive economic growth enhanced under the twelfth National Economic and Social Development Plan.¹

2. The outcome of the project will be urban transport system in Bangkok improved. The outputs of the project will be (i) Bangkok mass rapid transit (MRT) South Purple Line constructed and operational, and (ii) capacity in implementing and managing urban rail MRT system strengthened.

3. The total estimated cost of the project is \$3,000 million, including physical and price contingencies, and local taxes and duties. The proposed ADB financing modality is a project loan of \$240 million from ordinary capital resources to finance the advance payments of all the civil works contracts and consulting services. The government will fund the remaining balance of civil work and consulting services. The government financing will also cover resettlement and incremental administration. Both the ensuing loan and this transaction TA are included in the ADB's Country Operations Business Plan 2017-2019 for Thailand.

II. THE TECHNICAL ASSISTANCE

A. Justification

4. The transaction TA (TRTA) will enhance readiness for the ensuing project. To satisfy ADB's due diligence requirements, the depth and coverage of technical, financial, and economic analyses will be verified, reviewed, updated, strengthened, and presented in the prescribed format. Supplementary analyses on social and environmental safeguards also need to be prepared to comply with ADB requirements. The TRTA resources will be used to prepare these analyses and documentation to be considered by ADB Board. In addition, the TRTA will strengthen capacity for sound implementation and management of urban rail MRT system, including the ensuing project, in future years.

B. Outputs and Activities

5. **Output 1: Due diligence on the proposed project completed.** The TRTA will support ADB to conduct full due diligence of the proposed project, including technical, economic and financial, governance, poverty and social, and safeguards aspects. The due diligence will build on top of, and augment the feasibility study and preliminary engineering design conducted by the government for the ensuing project, and ensure that the project is prepared to meet all ADB policies and requirements.

6. **Output 2: Urban rail MRT and multimodal transport integration network plan developed.** The TRTA will help the government to develop a multimodal transport network integration plan to achieve both fare and physical integrations between different urban rail MRT

¹ Government of Thailand. Office of National Economic and Social Development Board. 2016. 12th National Economic and Social Development Plan 2017-2021. Bangkok.

lines and public transport services to improve affordability and connectivity of the overall urban transport network to maximize its efficacy. The intention is for this multimodal transport network integration plan to be a strategic document, which will guide the efficient planning, implementation, and operations of an integrated urban transport network.

7. **Output 3: Capacity in implementing and managing urban rail operations and maintenance strengthened.** The government is technically highly competent in executing investment projects, including those with high complexity. Nevertheless, the government requires capacity strengthening in implementing and managing of urban rail operations and maintenance such as effective implementation and management of concessions through public-private partnership (PPP) to ensure value for money rendered by private sector. The output will articulate the function and role of the government as a regulator and define responsibilities of concerned agencies in urban rail projects planning, implementation and operations.

8. Furthermore, the TA will support the conduct of knowledge transfer of international best practices on topics which are to be covered under, or related to Outputs 2 and 3. Topics will be selected based on a needs assessment, and be delivered by consultants.

C. Cost and Financing

9. The TA is estimated to cost \$1.65 million, of which \$1.5 million will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other sources). The key expenditure items are listed in Appendix 1.

10. The government will provide counterpart support in the form of counterpart staff, and other in-kind contributions. The government was informed that approval of the TA does not commit ADB to finance any ensuing project.

D. Implementation Arrangements

11. ADB will administer the TA. ADB, through SETC of SERD, will select, supervise and evaluate consultants (details are in Table 1).

Table 1: Implementation Arrangements

| Aspects | Arrangements |
|---|--|
| Indicative implementation period | October 2017–December 2021 |
| Executing agency | Mass Rapid Transit Authority (MRTA) |
| Consultants | To be selected and engaged by ADB |
| | ICS 54 person-months \$1,308,000 |
| Procurement | To be procured by consultants |
| | Shopping 1 contract \$10,000 |
| Advance contracting | To expedite the conduct of TRTA, selection of key individual consultant positions will commence through advance contracting following PAI 2.04. Negotiation and signing of the consulting contract will only occur after the TA becomes effective tentatively in October 2017. |
| Disbursement | The TA resources will be disbursed following ADB's Technical Assistance Disbursement Handbook (2010, as amended from time to time). |
| Asset turnover or disposal arrangement upon TA completion | Software purchased under the TRTA will be handed over to the Executing Agency upon TA completion. |

ADB = Asian Development Bank, ICS = individual consultant selection, PAI = Project Administration Instructions, TA = technical assistance, TRTA = transaction technical assistance.

Source: Asian Development Bank staff estimates.

12. **Consulting services.** The TRTA will require approximately 36 person-months (PMs) of international consultants and 18 PMs of national consultants' inputs. These consultants will be recruited individually. Output based contracts will be maximized to extent possible to achieve administrative efficiency. For project due diligence where feasibility study is already prepared by the Mass Rapid Transit Authority of Thailand (MRTA) following government internal requirements, hiring individual consultants with short duration is more appropriate for quick mobilization of consulting services, and more cost-effective than firms. The consultants will procure goods, mainly in the form of software for use in transport demand modelling. Resource person contracts (maximum 2 PM) will be reserved to allow inputs from highly specialized experts with hand-on experience in rail management and operations, particularly to support capacity strengthening in managing rail operations and preparation of the MRT and multimodal transport network integration plan. ADB will recruit the consultants in accordance with ADB's Procurement Policy (2017, as amended from time to time) and ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).

COST ESTIMATES AND FINANCING PLAN
(\$'000)

| Item | Amount |
|--|----------------|
| A. Asian Development Bank^a | |
| 1. Consultants | |
| a. Remuneration and per diem | |
| i. International consultants | 956.0 |
| ii. National consultants | 132.0 |
| b. Out-of-pocket expenditures | |
| i. International and local travel | 150.0 |
| ii. Goods (rental and/or purchase) ^b | 10.0 |
| iii. Surveys | 20.0 |
| iv. Reports and communications | 20.0 |
| v. Miscellaneous administration and support costs ^c | 20.0 |
| 2. Surveys | 40.0 |
| 3. Training, seminars, and conferences | |
| a. Facilitators | 2.0 |
| b. Travel cost of ADB staff acting as resource person | 3.0 |
| c. Venue rental and related facilities | 20.0 |
| d. Participants | 15.0 |
| e. Representation | 10.0 |
| 4. Contingencies | 102.0 |
| Subtotal (A) | 1,500.0 |
| Total | 1,500.0 |

Note: The technical assistance (TA) is estimated to cost \$1.65 million, of which contributions from the Asian Development Bank are presented in the table above. The government will provide counterpart support in the form of counterpart staff, and other in-kind contributions. The value of government contribution is estimated to account for 9% of the total TA cost.

^a Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-other sources).

^b Includes software for transport demand modelling.

^c Includes costs for translation and interpretation.

Source: Asian Development Bank estimates.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/LinkedDocs/?id=51048-001-TARreport>

1. Terms of Reference for Consultants