



## Project Preparatory Technical Assistance

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Project Number: 40080  
October 2011

### Socialist Republic of Viet Nam: Strengthening Sustainable Urban Transport for Ha Noi Metro Line 3 Project

Asian Development Bank

## PROJECT PREPARATORY TECHNICAL ASSISTANCE

### A. Justification

1 This project preparatory technical assistance (PPTA) is needed to develop sustainable low carbon urban transport programs and projects in Ha Noi. The objective of the PPTA is to ensure integration of public transport occurs in six districts along Metro Line 3. The outcome of the PPTA will be the identification of energy efficient urban transport solutions which, in conjunction with the Ha Noi Metro line 3 project<sup>13</sup>, can lead to significant greenhouse gas (GHG) emission reductions for Ha Noi. The assistance will focus on identifying and developing a series of innovative and transformational interventions, which enhance the quality of public transport systems and which can significantly increase the modal share of public transport in Ha Noi.

### B. Major Outputs and Activities

2 Overview of the PPTA: The PPTA will be conducted in two phases, firstly to evaluate and determine suitable measures, then secondly to design the agreed measures. The first phase will evaluate existing urban transport developments in Ha Noi, determine suitable measures that can be implemented along metro Line 3 and recommend an overall program for consideration by government and ADB. Proposed measures could include physical infrastructure, further studies, capacity building and changes to relevant policies or regulations. This will be the basis for agreement with the government for project definition under the loan at the first tripartite meeting. For the measures that are agreed by government and ADB, the second phase will further conceptualize and undertake necessary feasibility design to prepare the project loan for ADB financing. The final project loan scope will be agreed at the second tripartite meeting.

3 The PPTA will focus on three key areas that are expected to ensure that Metro Line 3 is well integrated, being (i) improved accessibility for Metro Line 3 stations, (ii) improved connectivity for public transport serving the Metro line 3, and (iii) policy and regulatory changes to encourage public transport usage and discourage private vehicles.

4 The PPTA will consist of the following two components under each focal area:

- Component 1: Assessment and definition of public transport measures to be implemented under the Project in the three main areas including:
  - (i) Improved connectivity for Metro Line 3 stations: Assessment and development of measures, including; Metro station enhancements, improved pedestrian infrastructure including pedestrian priorities and facilities to and from stations, traffic management measures at junctions in proximity of stations, restricting parking on public pavements and commercial development opportunities
  - (ii) Integrated and innovative public transport services and measures connecting to Metro line 3 stations: detailed plan to reorganize and improve the public transport network connected to Metro Line 3, including (a) a plan for routing and rationalization of public transport routes and franchising arrangements, (b) a program for public transport fleet renewal to promote low emission vehicles that are suitable to serve different levels of demand in various areas of the city, (c)

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<sup>13</sup> ADB. 2010. *VIE: Loan 2731 – Ho Chi Minh City Urban Mass Rapid Transit Line 2 Investment Program*, Manila.

feeder services, (d) designs of an integrated Public Transport Management Centre and (e) multi modal interchange(s) and Park and Ride facilities.

- (iii) Support for transformational policies and regulatory measures to encourage modal shift to public transportation modes: Assessment and development of framework program of key public transport integration policy and regulatory measures required for parking, reduction of support measures to private transport modes and development of an integrated ticketing system.
- Component 2: Preparation of concept or feasibility designs for Metro Line 3 priority measures that have been identified, which will include (i) Kim Ma station for multi-modal interchange with Metro Line 2A and its surrounds, (ii) review and implementation assistance for measures at three Metro Line 3 stations<sup>14</sup> being prepared by other agencies, (iii) concept design of stations and surrounding areas access for remaining seven Metro Line 3 stations, and (iv) development of an innovative public transport technologies and measures program for all stations.

5 The PPTA will examine and determine necessary coordination for ongoing activities by the government and other financiers, as well as other measures proposed to be implemented or under consideration. The PPTA will closely coordinate with ongoing technical assistance provided by the World Bank to Department of Transport (DOT) for bus sector improvements, which is expected to be undertaken from 2010 to 2015. ADB proposes concurrent assistance to develop sustainable urban transport in Ho Chi Minh City for MRT line 2, and both projects' preparation and implementation will be closely coordinated, including between respective city governments. Coordination of urban transport measures will be enhanced by holding both informal and joint meetings between transport officials from Ha Noi and HCMC.

6 The government has been informed that approval of the TA does not commit ADB to finance any ensuing project. The major outputs and activities are summarized in Table A5.1.

**Table A5.1: Summary of Major Outputs and Activities**

Major Activities	Expected Completion Date	Major Outputs	Expected Completion Date
Scoping of project components by specialists	January 2012	Interim report that details definition of measures in each of three project areas identified.	January 2012
Preparation and finalization of priority measures	May 2012	Concept designs Preparation of feasibility design and draft Final report Final Report	March 2012 May 2012 September 2012

Source: Asian Development Bank staff

### **C. Cost Estimate and Proposed Financing Arrangement**

7 The total cost of the PPTA is estimated at \$1.1 million, of which \$1 million will be financed on a grant basis by the Clean Technology Fund. The Government will finance the remaining \$100,000. The detailed cost estimate is presented in Table A5.2.

<sup>14</sup> The three stations are Daewoo, Cau Giay and Nhon.

**Table A5.2: Cost Estimates and Financing Plan**  
(\$'000)

Item	Total Cost
<b>A. ADB Financing<sup>a</sup></b>	
1. Consultants	
a. Remuneration and per diem	
i. International consultants (22 person-months)	550.0
ii. National consultants (66 person-months)	148.0
b. International and local travel	74.0
c. Reports and communications	20.0
2. Workshops, training, seminars, and conferences <sup>b</sup>	40.0
3. Surveys	50.0
4. Miscellaneous administration and support costs	35.0
5. Contingencies	83.0
<b>Subtotal (A)</b>	<b>1,000.0</b>
<b>B. Government Financing</b>	
1. Office accommodation, meetings and transport	45.0
2. Remuneration and per diem of counterpart staff	45.0
3. Contingencies	10.0
<b>Subtotal (B)</b>	<b>100.0</b>
<b>Total</b>	<b>1,100.0</b>

<sup>a</sup> Financed by the Clean Technology Fund.

<sup>b</sup> Workshops, training, seminars, and conferences

Purpose

Urban transport coordination meetings

PPTA Tripartite meetings

Venue

Ho Chi Minh City, Viet Nam

Ha Noi, Viet Nam

Source: Asian Development Bank staff

## **D. Consulting Services**

8 For the PPTA, 22 person months of international and 66 person months of domestic consultants will be engaged using individual consultant and firm selection method. Consultant tasks will cover both PPTA components. Consultant selection will be done in accordance with ADB's *Guidelines on the Use of Consultants by Asian Development Bank and Its Borrowers* (2010, as amended from time to time). A summary of the consulting service requirements is listed in Table A5.2.

**Table A5.2: Summary of Consulting Services Requirement**

International Name of Positions	Person- months	National Name of Positions	Person- Months
Urban Transport Planner	5.0	Urban Planner	6.0
Public Transport/Institutional Specialist	4.0	Bus operations/public transport expert	4.0
Climate change economist	2.0	Urban transport expert*	5.0
Urban Transport Engineer*	5.0	Social/gender, resettlement, environment experts*	12.0
Low carbon transport specialist*	2.0	Documentation/Procurement expert*	5.0
Resettlement/Social Development Specialist*	2.0	Architect, Design Engineer, CAD/technical experts*	33.0
Environment Specialist*	2.0		

\* position under firm

Source: Asian Development Bank

9 The outline terms of references for the PPTA individual consultants are described in paras. 11 to 15, and for the firm consultant team in paras 16 to 23. Further elaboration of other required tasks or arrangements will be defined in the detailed terms of reference. The individual and firm consultants are expected to work closely and effectively be one team in undertaking their assessments and development of measures to address integration of Metro Line 3. Reports will be prepared jointly and tasks require interaction between the firm and individual consultants.

10 Each international specialist is expected to conduct a minimum of two training seminars of two days duration that is targeted for transport agency staff that will ensure adequate transfer of their knowledge and international experience for their respective expertise in areas applicable for the project. The level of assessment undertaken may be constrained by level of inputs under the PPTA, however recommendations should be made for needed further more extensive studies that need to be conducted under the loan that would be beneficial to both the project and the development of public transport in Ha Noi.

#### Individual consultants

11 **Urban Transport Planner** (5.0 international person-months): Minimum of bachelor degree in urban transport planning and 15 years experience, including developing countries. The urban transport planner will be primarily responsible to lead all expert services for development of public transport measures and coordination of tasks to ensure proposed solutions are well integrated, including consultations with government or stakeholders and incorporation of firm consultant outputs. Specific tasks related to expertise will include: (i) assessment of public transport planning and relevant aspects of the urban transport masterplan for Ha Noi, (ii) assess public transport policies and regulations to determine necessary reforms to encourage public transport usage and discourage private vehicles, (iii) assessment of existing public parking regulations to develop a parking strategy for Metro Line 3 stations, (iv) review current public transport ticketing and fare strategies, assess impacts of new Metro ticketing systems and develop an overall approach for integrated ticketing, (v) review of applicability of public private partnership for modal interchange infrastructure, (vi) review commercial development opportunities in station areas, (vii) assess the lending modality of the ADB and risk assessment, (viii) develop project indicators and collect baseline data, (ix) preparation of the draft detailed terms of reference for additional urban transport studies for inclusion under the loan, and (x) preparation and coordination of other expert inputs for Interim report to present at the first tripartite meeting, including a long list and recommendations for proposed measures for consideration.

12 **Urban Planner** (6.0 national person-months): Minimum of bachelor degree in urban transport planning and 10 years experience. The urban planner's main responsibility will be to assist the urban transport planner and more specifically to ensure adequate government participation and feedback in the development of solutions, including any necessary direct liaison.

13 **Public Transport/Institutional Specialist** (4.0 international person-months): Minimum of bachelor degree in a related degree for bus or public transport operations or public organization management and 10 years experience, including in developing countries. Tasks will include: (i) assessment of existing public transport operations for buses and taxis, proposed and ongoing developments for improvements, including measures under the ongoing World Bank funded Ha Noi Urban Transport Development Project, (ii) determine selected

improvement measures to be piloted for integration of bus services at Metro Line 3, (iii) determination of improvements to improve physical arrangements and assessment of organizational arrangements of all public transport modes, (iv) assessment of capacity of proposed implementation agencies, including recommendations for necessary capacity development programs, and (v) determine needs of information management systems for public transport and alternatives for integration mechanisms between bus and Metro systems.

**14 Bus Operations/Public Transport expert** (5.0 national person-months): Minimum of bachelor degree in transport related area and 10 years experience in public transport operations. The bus operations/public transport expert's main responsibility will be to assist the public transport/institutional specialist and to ensure adequate government participation and feedback in the development of solutions, including any necessary direct liaison. In addition, specific tasks will include development of bus services and necessary re-routing of services to meet forecast demands at Metro Line 3 stations

**15 Climate Change Economist** (2.0 international person-months): Minimum of master degree in transport economics, 10 years urban transport experience and experience in latest approaches to address climate change mitigation and GHG emission reduction methodologies. Tasks will include: (i) undertake the economic evaluation of all project components for each phase and to determine a prioritization mechanism for selection of measures, (ii) conduct willingness to pay or affordability studies, as needed, (iii) assessment of all proposed measures for GHG emission reductions, including methodology to monitor, record and verify for reporting and development of indicators, (iv) determine measures or mechanisms to capture indirect economic benefits and impacts for inclusion in the analysis, (v) identification and development of approaches to utilize other climate mitigation fund sources for the project, and (vi) identification and development of potential alternative funding mechanisms to address long term financing of Ha Noi public transportation system development, including additional specific provisions to address financing of pedestrian improvements

#### Firm Consultants

**16** The firm consultant team members will provide some initial inputs for the Interim report under the first phase to support the individual consultants during development of proposed measures for the project. Closer interaction is expected under second phase with the individual consultants, who will provide key input and recommendations for proposed measures to be developed and designed.

**17 Urban Transport Engineer** (5.0 international person-months): Minimum of bachelor degree in a related degree for urban transport and 10 years experience for international consultant. The urban transport specialist will lead the firm team and be responsible for all relevant deliverables. The primary task will be to develop concept and feasibility designs for each of the Metro Line 3 stations, based on solutions proposed by other firm and team members under this PPTA or developed under other technical assistance<sup>15</sup>. Specific tasks related to expertise will include; (i) assessment of final Metro line 3 station layouts and locations as proposed under the Metro Line 3 detailed design, (ii) concept and feasibility design of Metro Line 3 stations access features (excluding internal layout) and required inter-modal transfer facilities, including bus interchange solutions, (iii) develop catchment plans within a minimum of 500m for each Metro Line 3 station and prepare solutions to improve access along pedestrian

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<sup>15</sup> If the design of Daewoo, Cau Giay and Nhon stations has not been prepared when needed, the consultant will prepare concept designs only.

corridors, (iv) examine options for the expansion of catchment or accessibility at each Metro Line 3 station, (v) development of “park and ride” and “kiss and ride” measures, (vi) assess needs for other complimentary measures around Metro stations, (vii) assess traffic management around stations and along the Metro Line 3 corridor, (viii) undertake necessary consultations with government, community and other stakeholders once draft concept and feasibility designs are prepared, and (ix) preparation and coordination of other expert inputs for draft final report to present at the second tripartite meeting.

**18 Low Carbon Transport Specialist** (2.0 international person-months): Minimum of bachelor degree in transport engineering, 10 years experience as international consultant and experience in latest technology developments in urban transport. The primary task will be to determine viable innovative and effective measures that will reduce the carbon footprint of the proposed measures. Specific tasks will include; (i) an assessment of suitable alternative technologies for public transport modes that will have higher greenhouse gas reducing impacts, (ii) examination of use of low carbon or electric powered vehicles to support local commuter services to stations, (iii) development of pilot schemes for selected measures, including monitoring and assessment mechanisms, and (iv) capacity building assessment and program.

**19** Technical and support consultants are expected to support the urban transport and low carbon transport specialists complete their tasks and for the concept and feasibility designs at Metro Line 3 stations, as well as support other individual consultants for preparation of common documents. It is expected these services will be provided by national consultants that will consist of the following experts:

- Urban Transport Engineer (5.0 national person-months)
- Structural Engineer/Architect (6.0 national person-months)
- (2 No.) Design Engineers (6.0 national person-months each)
- (3 No.) CAD/Technicians (5.0 national person-months each)

**20 Documentation/Procurement Expert** (4.0 national person-months): Minimum of 10 years in preparation of project documents and 2 years with procurement of ADB or other international financing institution funded contracts. The consultants will assist with preparation of draft bidding and proposal documents, and assist the government for advance procurement actions as necessary for civil works or consulting services contracts for the project loan.

**21 Resettlement/Social Development Specialist** (2.0 international person-months): Minimum of bachelor degree in a relevant degree for specialist area and 10 years experience for international consultant. Tasks will include; (i) initial assessment of resettlement, social development and gender issues for all proposed measures, and final assessment for agreed measures, including completion of necessary documentation for compliance with ADB's Safeguard Policy Statement (2009), poverty reduction, gender and development guidelines, (ii) development, preparation and conducting the consultation and participation process, (iii) review and assess social development impacts of the proposed measures, particularly for vulnerable groups, to ensure inclusiveness of proposed measures, (iv) evaluation and development of gender sensitive features for project components, and (v) determination of any capacity building requirements for implementation and monitoring of relevant social plans.

**22 Environment Specialists** (2.0 international person-months): Minimum of bachelor degree in a relevant degree for specialist area and 10 years experience for international consultant. Tasks will include: (i) initial assessment of environmental issues for all proposed measures, and final assessment for agreed measures, including completion of necessary

documentation for compliance with ADB's Safeguard Policy Statement (2009), (ii) assist with development of consultation and participation process, and (iii) determination of any capacity building requirements for implementation and monitoring of relevant environmental issues.

23 Local consultants are expected to support the resettlement/social development and environmental specialists complete their tasks each phase of the concept and feasibility designs at MRT2 stations, as well as support other individual consultants for preparation of common documents. The consultants will be sufficiently experienced that they can effectively contribute and prepare draft documents for the international specialists. These services will be provided by national consultants that will consist of the following experts:

- Gender/Social Expert (4.0 national person-months)
- Resettlement Expert (4.0 national person-months)
- Environmental Expert (4.0 national person-months)

## E. Implementation Arrangements

24 The executing agency will be the Ha Noi Peoples Committee (HPC) and the main implementing agency will be the Ha Noi Department of Transport (DoT), with other implementing agencies for expected specific components to be Ha Noi Metropolitan Rail Transport Project Board (HRB) and Traffic Management and Operations Centre (TRAMOC). The government will provide in-kind contributions with counterpart staff with facilities and transportation, arrangements for project and consultations meetings, provision of relevant documentation and provision of office space for use by consultants. All procurement will be done in accordance with ADB's *Procurement Guidelines* (2010, as amended from time to time).

25 The proposed technical assistance processing and implementation schedule is listed in Table A5.3. The technical assistance is expected to commence on 1 November 2011, completed on 30 November 2012 and financially closed by 31 May 2013.

**Table A5.3: Proposed Technical Assistance Processing and Implementation Schedule**

Major Milestones	Expected Completion Date
Approval of PPTA	October 2011
Consultant Recruitment	November 2011
Inception report	December 2011
Tripartite meeting (component 1)	February 2012
Draft final report	May 2012
Tripartite meeting (component 2)	June 2012
Final report	September 2012
Completion of services	November 2012
Financial Closure	May 2013

Source: Asian Development Bank staff