Project Administration Manual

Project Number: 40080-024
Loan Number:
October 2014

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

Contents

Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with government of Viet Nam (Government) and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The Ha Noi People's Committee (HPC) and Department of Transport (DOT) are wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by HPC and DOT of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At Loan Negotiations the borrower and ADB shall agree to the PAM and ensure consistency with the Loan agreement. Such agreement shall be reflected in the minutes of the Loan Negotiations. In the event of any discrepancy or contradiction between the PAM and the Loan Agreement, the provisions of the Loan Agreement shall prevail.

After ADB Board approval of the project's report and recommendations to the President (RRP) changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the ADB Project Administration Instructions) and upon such approval they will be subsequently incorporated in the PAM.

The PAM includes references and arrangements for the ADB Clean Technology Fund (CTF) financed portion of the Strengthening Sustainable Urban Transport for Ha Noi Metro Line 3 Project. The ADB will fully administer the ADB CTF financing and the administrative and management arrangements are effectively the same as those for ADB financing. There will be no separate agreement between the Government and ADB Clean Technology Fund.

Abbreviations

ADB	=	Asian Development Bank
AFS	=	Audited financial statements
AP	=	Affected Persons
CIF	=	Climate Investment Fund
CQS	=	consultant qualification selection
CTF	=	ADB Clean Technology Fund
DOT	=	Department of Transport
DMF	=	design and monitoring framework
DSC	=	design and supervision consultant
EMP	=	environmental management plan
ESMS	=	environmental and social management system
FIDIC	=	International Federation of Consulting Engineers
HPC	=	Ha Noi People's Committee
HUTMP	=	Ha Noi urban transport master plan
ICB	=	international competitive bidding
IEE	=	Initial environmental examination
LIBOR	=	London interbank offered rate
MRB	=	Ha Noi Metropolitan Railway Management Board
MOF	=	Ministry of Finance
MONRE	=	Ministry of Natural Resources and Environment
MPI	=	Ministry of Planning and Investment
NCB	=	national competitive bidding
NGOs	=	nongovernment organizations
PAI	=	project administration instructions
PAM	=	project administration manual
PDO	=	project description outline
PID	=	project implementation division
QCBS	=	quality- and cost based selection
RRP	=	report and recommendation of the President to the Board
SBD	=	standard bidding documents
SBV	=	State Bank of Vietnam
SGIA	=	second generation imprest accounts
SOE	=	statement of expenditure
SPS	=	Safeguard Policy Statement
SPRSS	=	summary poverty reduction and social strategy
TOR	=	terms of reference
UTPMU	=	Urban Transport Project Management Unit

NOTES

1 The fiscal year (FY) of the Government and its agencies ends on 31 December.

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

I. PROJECT DESCRIPTION

1. **Rationale.** The Government of Viet Nam has planned and is making major public transport infrastructure investments to induce a substantial switch by urban citizens from private to public modes of transport.[1] A failure to invest in public transport infrastructure and to encourage this shift away from the use of private vehicles in Viet Nam's large cities will hurt economic growth and accelerate the degradation of the urban environment. The government is supporting climate change mitigation efforts by adopting a low-carbon transport growth path that will be more energy efficient and reduce greenhouse gas emissions. ADB's 2011–2015 country partnership strategy for Viet Nam supports the government's program to improve urban transport infrastructure and promote the use of public transport systems.[2]

2. Ha Noi is at an early stage of urban transport development, having moved from heavy usage of bicycles to motorcycles in the last 10 years and now increasingly to cars. Private vehicles dominate urban transportation, with motorcycles being the most prevalent means at about an 90% share. Continued increasing car ownership, together with a significant increase in the number of motorcycles has resulted in severe congestion during peak hours, resulting in degradation of urban environment and a rise in traffic accidents. The situation is expected to worsen if the current traffic growth trend of 9% continues and more motorbike users convert to cars. The existing public transport system consists of an inadequate bus network that is becoming less competitive with private modes of transport.[3] Traffic planning and parking management is weak and inadequate to effectively control traffic and demand. Importantly, there are no policy and regulatory measures to discourage private modes of transport, so the inadequate public transport system cannot attract private vehicle users.

3. Ha Noi People's Committee (HPC) plans to develop a city-wide mass transit system, and four metro lines and one bus rapid transit line are currently under development. Construction of phase 1 for Metro Line 3[4] is financed by ADB, Agence Française de Développement (AFD), European Investment Bank and Direction Générale du Trésor, with works commenced in October 2010 and expected to be operating in 2018. The three other metro lines are expected to be completed by 2020. However there is a need to carefully design complementary measures to ensure the emergence of an integrated public transport system that is attractive, accessible and affordable and build upon other technical assistance provided to improve public transport. The Project will support a multimodal, integrated and transport system to attract passengers from private vehicles to public transport services. This modal shift will promote inclusive low carbon transport, thereby reducing GHG emissions and environmental pollution.

4. **Project Components.** The Project will directly support the integration of Metro Line 3 into the public transport network by providing infrastructure to improve connectivity to Metro Line 3 stations through feeder bus links. The Project will develop integrated multi-modal stations for Metro Line 3 with parking plans and "park and ride" facilities to improve station accessibility. The supporting infrastructure, public transport services and other facilities will be designed to

[1] Socialist Republic of Viet Nam, 13th National Assembly. 2011. *Socio-Economic Development Plan for the 2011–2015 Period*. Ha Noi

[2] ADB. 2012. *Country Partnership Strategy: Viet Nam, 2012-2015.* Manila

[3] Improvements to the bus system are expected under an ongoing World Bank project that will implement a bus rapid transit line, establish a Public Transport Authority and improve bus operations/management systems by 2016.

[4] ADB. 2011. *Report and Recommendation of the President to the Board of Directors: Proposed loan and Administration of Loan to the Socialist Republic of Viet Nam for the Ha Noi Metro Rail System Project (Line 3: Nhon – Ha Noi Station Section).*Manila.

incorporate gender sensitive features that will complement similar measures under the Metro Line 3 project. In addition, policy and regulatory measures developed will be fully inclusive by addressing needs of all groups of potential public transport users. The proposed project management and institutional capacity building measures for Metro line 3, together with expected policy and regulatory reforms, will also help achieve an improved public transport system and reduce GHG emissions.

5. The overall Project structure consists of: (i) construction of accessibility measures and public transport facilities along 12.1km of Metro Line 3 from Nhon to Ha Noi main railway stations, primarily around the 12 stations; (ii) procure and install systems and equipment to support public transport measure improvements, including the Metro line 3 station enforcement system equipment, and bus information system at the bus control center, and; (iii) consulting services for design and construction supervision of the contracts, support DOT and UTPMU for project management and implementation, development of multi-modal transport and traffic management modeling platforms and for urban transport sector development to address street management system, establishment of a parking policy to support public transport and assist in the development of a framework for pricing all public and private transport in Ha Noi.

6. The consulting services for sector development and implementation support will provide critical strengthening of DOT and UTPMU, which is necessary to ensure that the Project components can be timely and successfully implemented. The implementation of CTF funded integrated sustainable transport projects will complement Metro Line 3 works and the measures will enhance the attractiveness and competitiveness of the system in order to achieve forecast ridership levels.

7. **Impact.** The impact of the Project will be the public transport system serving six districts of Ha Noi is enhanced.[5] This will support the HUTMP in achieving the city-wide public transport modal share targets.

8. **Outcome.** The outcome will be proposed Metro Line 3 stations integration with other modes of public and private transport is improved.

9. **Outputs.** There are three outputs: (i) improved proposed accessibility at Metro Line 3 stations, (ii) the improvement of public transport systems, and (iii) the formulation of public transport policy.

(i) **Metro Line 3 station proposed accessibility improved:** These improvements, including public transport facilities, will be constructed along the first stage of Metro Line 3 from Nhon to Ha Noi main railway station, up to 500 meters of four underground and eight elevated stations along the 12.5 kilometer line. Civil works will include pedestrian subways and footbridges, bus stops and feeder links, dedicated taxi stands, park-and-ride facilities for two-wheeled vehicles, and waiting areas for other public transport service providers. All infrastructure and other facilities will have gender-sensitive and universal accessibility features and safe passageways for pedestrians. The project will also establish a station access management system to facilitate the efficient flow of people and traffic around Metro Line 3 stations. Enforcement measures will be improved to ensure clear pedestrian access and smooth traffic flow and to manage parking of private vehicles around the MRT stations. The project will finance consulting services for

[5] Tu Liem South, Tu Liem North, Cau Giay, Ba Dinh, Dong Da and Hoan Kiem Districts.

detailed design and supervision of construction of the civil works and goods and services contracts, as well as for overall project management.

(ii) **Public transport systems improved:** The project will provide 52 buses to service bus feeder lines and information system along Metro Line 3. It will be linked to the main bus control center in Ha Noi to provide real-time bus and train arrival information that will make the public transport system more convenient and reliable. The project will be responsible for installing the equipment for the information system at the Metro Line 3 stations, including equipment required on buses and bus stops for the system.

(iii) **Public transport policy developed:** To support the HUTMP's objectives and make public transport more financially sustainable, the project will provide consulting services to develop (i) a station access management system and enforcement measures to ensure clear pedestrian access and proper use of public space by venders around the stations; (ii) a station parking policy to provide for the efficient flow of vehicles to and from the Metro Line 3 stations; and (iii) a policy framework on public transport ticketing, the pricing of public and private transport in Ha Noi to promote a modal shift from private vehicles to the public transport system. The project will include capacity development and training to enable the Ha Noi transport agencies to implement and enforce the new policies and regulations.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

10. The Project is already at an advanced stage of development. Detailed design of the works will commence once the loan becomes effective, but advance action for design consultant will commence later in 2014. The first contract is expected to be award in middle of 2015 and all works completed by end of 2018.

11. The draft readiness criteria, at fact finding requires: (i) feasibility study appraised and approved by EA, (ii) PDO approved by Prime Minister, (iii) Project Administration Manual[6] agreed, (iv) counterpart fund agreed, (v) Project Management Unit staffing and Terms of Reference (TOR) agreed, (vi) draft IEE and RP completed and agreed, and (vii) Consultant inputs, TOR and RFP data completed. The feasibility study was approved in July 2014. The PDO for the project was approved in November 2013. The PAM draft contents, Project Management Unit (PID) staffing and consulting inputs have been discussed and agreed with DOT/UTPMU, with further discussion on specific details to be undertaken in order that the PAM will be finalized prior to loan negotiations. The draft IEE was approved on 16 June 2014.

12. Prior to loan negotiations, the following government readiness criteria need to be complied; (i) Project Administration Manual confirmed; (ii) Counterpart Funds for First Year of Implementation confirmed; (iii) Project unit establishment with key staff appointed; (iv) Project Implementation Plan agreed; (v) IEE and RP action plans confirmed; (vi) Procurement Plan confirmed; and (vii) auditing arrangements and TOR confirmed. The draft PAM, implementation plan, procurement plan, draft IEE and auditing arrangements were agreed. Arrangements for establishing the PID and counterpart funding will be completed in August 2014. DOT/UTPMU and MRB should confirm with SBV the requirements are met prior to loan negotiations. A list of all readiness criteria, their current status and target dates is detailed in Table 2.1. In the period up to loan approval, HPC, and DOT/UTPMU will provide preparation activities to support readiness criteria completion.

[6] Includes procurement plan, project implementation plan, and auditing arrangements.

Table 2.1 – Program Readiness Criteria

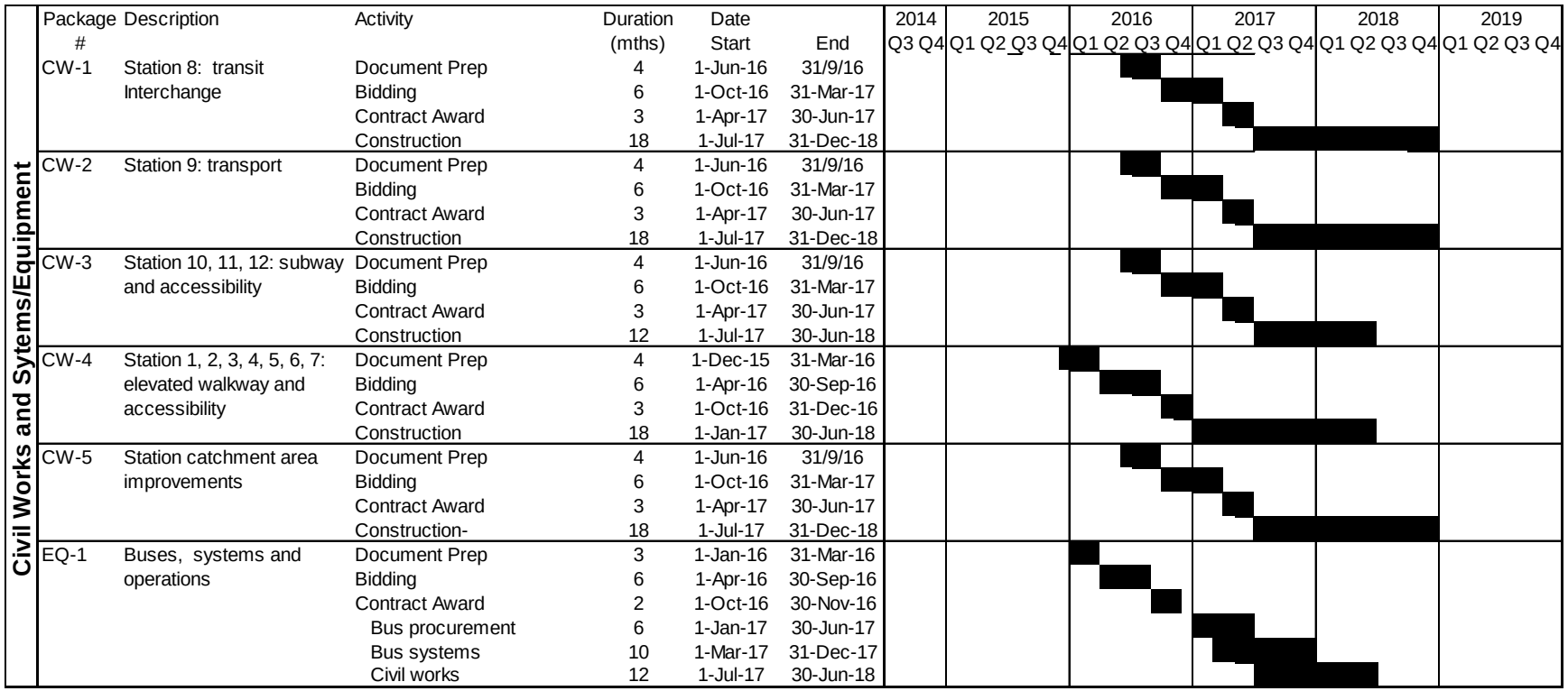
	Indicative Activities	2014 Months							2015 Months		Who
		May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Responsible
1	FS Approved			X							HPC
2	Project Administration Memorandum approved						X				DOT/UTPMU/ADB
3	Counterpart funds for first year confirmed						X				HPC
4	Establishment of the PMU (PID) with key staff in place				X						DOT/UTPMU
5	Project Implementation Plan agreed						X				DOT/UTPMUADB
6	IEE agreed		X								DOT/HPC
7	Procurement Plan confirmed						X				DOT/UTPMU/ADB
8	Auditing arrangements						X				UTPMU/ADB
9	ADB Board approval								X		ADB
10	Government legal opinion provided										SBV (Feb 2015)
11	Loan signing										SBV/ADB (Mar 2015)
12	Loan effectiveness										ADB (May 2015)

ADB = Asian Development Bank, FS = feasibility study, HPC = Ha Noi People's Committee, IEE = Initial Environmental Examination, PID = project implementation division, PMU = project management unit, SBV = State Bank of Vietnam, UTPMU = Urban Transport Project Management Unit
Source: Asian Development Bank

B. Overall Project Implementation Plan

13. The project physical components, works and systems/equipment, are largely tied to the implementation schedule of the ongoing construction of the Metro Line 3 project, which is expected to be completed by end of 2018. Therefore the implementation of the first contract is scheduled to commence in 2016 and all contracts are expected to be completed by 31 December 2018. The loan closing will be on 30 June 2019. The overall Project implementation is shown in Figure 2.1.

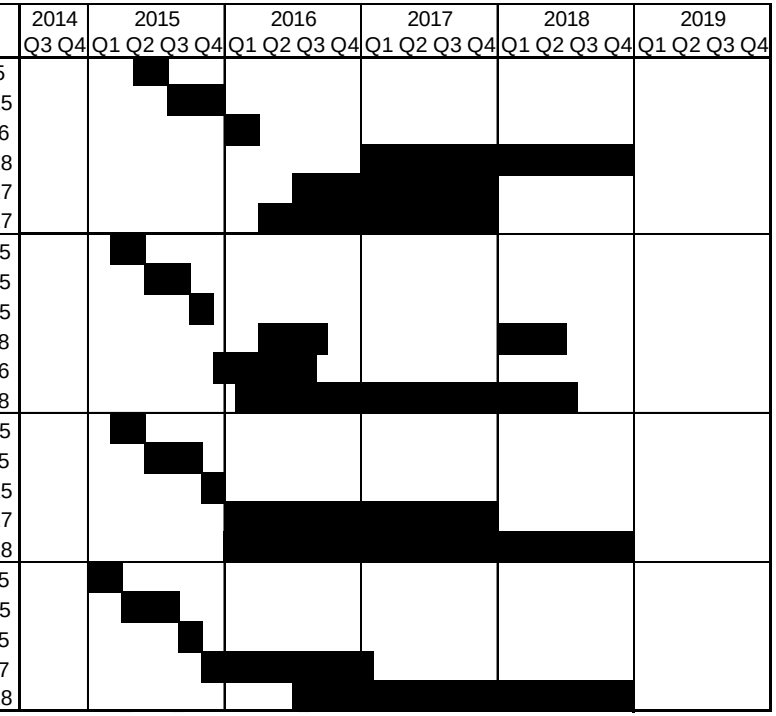
Figure 2.1 - Project Implementation Plan (works, systems and equipment)



	Package #	Description	Activity	Duration (mths)	Date Start	End
Civil Works and Sytems/Equipment	CW-1	Station 8: transit Interchange	Document Prep	4	1-Jun-16	31/9/16
			Bidding	6	1-Oct-16	31-Mar-17
			Contract Award	3	1-Apr-17	30-Jun-17
			Construction	18	1-Jul-17	31-Dec-18
	CW-2	Station 9: transport	Document Prep	4	1-Jun-16	31/9/16
			Bidding	6	1-Oct-16	31-Mar-17
			Contract Award	3	1-Apr-17	30-Jun-17
			Construction	18	1-Jul-17	31-Dec-18
	CW-3	Station 10, 11, 12: subway and accessibility	Document Prep	4	1-Jun-16	31/9/16
			Bidding	6	1-Oct-16	31-Mar-17
			Contract Award	3	1-Apr-17	30-Jun-17
			Construction	12	1-Jul-17	30-Jun-18
	CW-4	Station 1, 2, 3, 4, 5, 6, 7: elevated walkway and accessibility	Document Prep	4	1-Dec-15	31-Mar-16
			Bidding	6	1-Apr-16	30-Sep-16
			Contract Award	3	1-Oct-16	31-Dec-16
			Construction	18	1-Jan-17	30-Jun-18
	CW-5	Station catchment area improvements	Document Prep	4	1-Jun-16	31/9/16
			Bidding	6	1-Oct-16	31-Mar-17
			Contract Award	3	1-Apr-17	30-Jun-17
			Construction-	18	1-Jul-17	31-Dec-18
	EQ-1	Buses, systems and operations	Document Prep	3	1-Jan-16	31-Mar-16
			Bidding	6	1-Apr-16	30-Sep-16
			Contract Award	2	1-Oct-16	30-Nov-16
			Bus procurement	6	1-Jan-17	30-Jun-17
			Bus systems	10	1-Mar-17	31-Dec-17
			Civil works	12	1-Jul-17	30-Jun-18

Figure 2.2 - Project Implementation Plan (consulting services)

	Package #	Description	Activity	Duration (mths)	Date Start	End
Consulting Services	CS01	Station area development program	shortlist	3	1-May-15	31-Jul-15
			RFP	5	1-Aug-15	31-Dec-15
			negotiate/award	3	1-Jan-16	31-Mar-16
			Enforcement program	24	1-Jan-17	31-Dec-18
			Station TOD development	18	1-Jul-16	31-Dec-17
			Parking and demand	21	1-Apr-16	31-Dec-17
	CS02	Bus system improvement and implementation support	shortlist	3	1-Mar-15	31-May-15
			RFP (issue/evaluate)	4	1-Jun-15	30-Sep-15
			negotiate/award	2	1-Oct-15	30-Nov-15
			Bus network redesign	32	1-Mar-15	30-Jun-18
			Bus program update	9	1-Jun-15	31-Mar-16
			PT Implementation support	30	1-Oct-15	31-Mar-18
	CS03	Fares, ticketing and transport pricing study	shortlist	3	1-Mar-15	31-May-15
			RFP	5	1-Jun-15	31-Oct-15
			negotiate/award	2	1-Nov-15	31-Dec-15
			Fares and ticketing	24	1-Jan-16	31-Dec-17
			Pricing and finance	36	1-Jan-16	31-Dec-18
	CS04	Design, supervision and implementation support	shortlist	3	1-Jan-15	31-Mar-15
			RFP	5	1-Apr-15	31-Aug-15
			negotiate/award	2	1-Sep-15	31-Oct-15
			Civil design	18	1-Nov-15	31-Jan-17
			Civil implementation support	30	1-Jul-16	31-Dec-18



C. Assessment of Physical Progress during Implementation

14. Each project implementation activity carries certain weight and should be accounted for while computing the physical progress. In this respect, Table 2.2 shows guidelines for computing physical progress of the Project. This will be used both by UTPMU and ADB for the assessment of physical progress at any time during the project implementation.

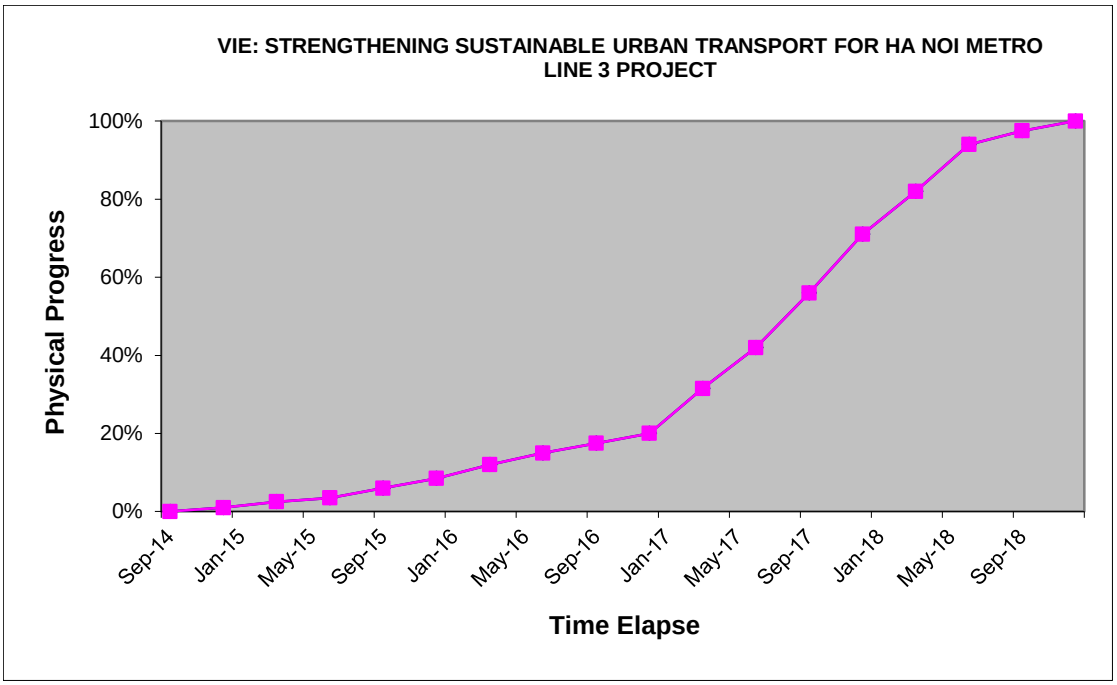
Table 2.2 – Project Implementation Progress

Activities	2014	2015	2016	2017	2018	(a) Assigned weight	(b) Actual Progress	(a) x (b) Weighted progress
Consultant recruitment						5%	0%	0%
Detailed design and documents						5%	0%	0%
Tendering of contracts						5%	0%	0%
Physical civil works						40%	0%	0%
Provision of Systems and equipment						30%	0%	0%
Urban transport development and studies						15%	0%	0%
						100%		
								0%

D. Physical Progress S-Curve

15. Figure 2.2 shows graphs of anticipated overall physical progress over the life of Project. This graph will help identify the status of project either achieving the anticipated targets or underperforming with delays. This data will also be used for the project performance rating (PPR) and as an early warning system, which are explained in Section VIII.

Figure 2.2 – Project Physical Progress S-Curve



III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations – Roles and Responsibilities

16. The executing agency will be the HPC and the implementing agency will be DOT. DOT will implement all the project components. In terms of HPC, in the past different projects report to different agencies, which make it difficult to implement as part of an overall system and deal with common issues. A project management steering committee will be established by HPC to be responsible for project monitoring and coordination. Overall oversight of the project by the government is the responsibility of Director General, Foreign External Relations Department, Ministry of Planning and Investment. Also HPC proposes to develop a Public Transport Authority (PTA) with responsibility for planning, developing and regulating all public transport modes, and is expected to be established in 2015.

17. UTPMU will be responsible to DOT for implementation of the Project. UTPMU was established in 1985 then strengthened in 1998 through a merger of three other HPC PMUs. UTPMU has strong leadership, a sound organizational structure and the capability to further develop its institutional capacity as the public transport system expands. UTPMU will establish a project implementation division (PID) for the Project under the Director, which will be responsible for the day to day management and coordination of implementation. The PID head will ensure compliance with ADB procurement and consulting guidelines and ADB safeguard policies. The PID staff will be assisted by experienced engineers, accountants, and other staff from UTPMU, as required. The project management requirements are further detailed in the PAM, Section III. UTPMU has the capacity and finance and resource management to implement the Project, with training to be provided in some areas where there are specific needs to build capabilities of UTPMU for implementing international financed projects.

18. To strengthen the capabilities of UTPMU and other city public transport agencies, capacity development will be provided through consulting services, training and urban transport sector development studies. The capacity development will be provided through: (i) project implementation support – consultant services to support UTPMU and PID for the implementation of the Project, (ii) capacity building of UTPMU – training in urban transport issues as part of proposed technical assistance under the Project on select policy and regulatory aspects and (iii) urban transport studies – to examine enforcement, parking policy and urban transport pricing issues, including means to promote public transport, discourage private transport modes and ensure long term sustainability through pricing and institutional measures.

19. Non-engineering functions such as environment, resettlement, financial management and procurement will be strengthened through both participation at ADB sponsored training courses held each year and capacity training courses conducted by consultants engaged to undertake the sector studies. New skills will need to be developed in the areas of (i) Project Management; (ii) public transport integration; and (iii) other key non – engineering areas. A greater integration of functions within UTPMU will be needed, by putting necessary procurement, technical, etc. staff within PID.

Project implementation organizations	Management Roles and Responsibilities
• Government	➢ Sign the Loan Agreement ➢ Monitor of the investment program implementation and provide respective coordination and facilitation ➢ Endorse to ADB the authorized staff with approved signatures for withdrawal application processing ➢ Process and submit to ADB any request, when required, for reallocating the loan proceeds ➢ Compliance with loan covenants
• HPC/Major project steering committee	➢ Overall responsibility for execution of the project ➢ Review the Project implementation progress ➢ Timely provision of agreed counterpart funds for project activities ➢ Allocate and release counterpart funds ➢ Provide policy guidance to DOT/UTPMU ➢ Monitor and coordinate different agency activities ➢ Review and endorse any proposed changes in project scope ➢ Compliance with loan covenants ➢ Provide oversight on transport policies and regulations. ➢ Approval of major change in scope of project components
• DOT/UTPMU	➢ Establishment of project implementation division (PID) ➢ Involving beneficiaries and civil society representatives in all stages of project design and implementation ➢ Public disclosure of project outputs ➢ Quality assurance of works and services of consultants and counterpart staff ➢ Strengthening financial management system, establishment and maintaining records for imprest account, submitting timely withdrawal applications to ADB, arranging timely financial audits as per agreed timeframe and taking recommended actions ➢ Approval of award of contracts for civil works and consultant services within approved procurement plan ➢ Complying with all loan covenants (urban transport sector reforms, social and environmental safeguards, financial, economic, and others) ➢ Ensuring projects' sustainability during post implementation stage and reporting to ADB on the assessed development impacts
• Project Implementation Division (PID)	➢ Recruiting consultants ➢ Finalizing survey, detailed design, bidding documents and contract awards ➢ Monitoring and evaluation of project activities and outputs, including periodic review, preparation of review reports identifying issues and action plans

	➢ Preparing regular periodic progress reports, and project completion reports and their timely submission to ADB.
• Asian Development Bank	➢ Assist DOT/UTPMU and its PIDs in providing timely guidance at each stage of the program for implementation in accordance with the agreed implementation arrangements ➢ Review all the documents that require ADB approval ➢ Approve the procurement activities ➢ Conduct periodic loan review missions, a mid-term review, a completion mission for each project under the program, and an overall program completion mission ➢ Ensure compliance of all loan covenants (transport sector reforms, social and environmental safeguards, financial, economic, and others) ➢ Timely process withdrawal applications and release eligible funds ➢ Ensure the compliance of financial audit recommendations ➢ Regularly update the project performance review reports with assistance of DOT/UTPMU ➢ Regularly post on ADB website the updated project information documents for public disclosure, and also the safeguards documents as per disclosure provision of the ADB safeguard policy statement

B. Key Persons Involved in Implementation

Implementing Agency

DOT	Mr. Nguyen Hoang Linh Vice Director No. 2 Phung Hung St, Ha Dong district Ha Noi Tel: +84 4 3354 6293 Fax: +84 4 3382 4984 Email: nguyenhoanglinh_sogtvt@hanoi.gov.vn
UTPMU	Mr Nguyen Chi Cuong Director No. 75 To Hien Thanh, Hai Ba Trung Ha Noi Tel: +84 4 3974 5748 Fax: +84 4 3976 3549 Email: chicuongmpmu@yahoo.com
Project Implementation Division (UTPMU)	Mr Bui Manh Cuong Head of Planning Department No. 75 To Hien Thanh, Hai Ba Trung Ha Noi Tel: +84 4 3974 5748

	Fax: +84 4 3976 3549 Email: buimanhcuong24@gmail.com

ADB

Transport and Communications Division	Hideaki Iwasaki Director Tel: +63 2 632 6433 Fax: Email: hiwasaki@adb.orb
Viet Nam Resident Mission	Tomoyuki Kimura Country Director Tel: +84 4 3933 1374 Fax: +84 4 3 933 1373 Email: tkimura@adb.org
Mission Leader	Robert Valkovic Principal Transport Specialist Tel: +63 2 632 5958 Email: rvalkovic@adb.org

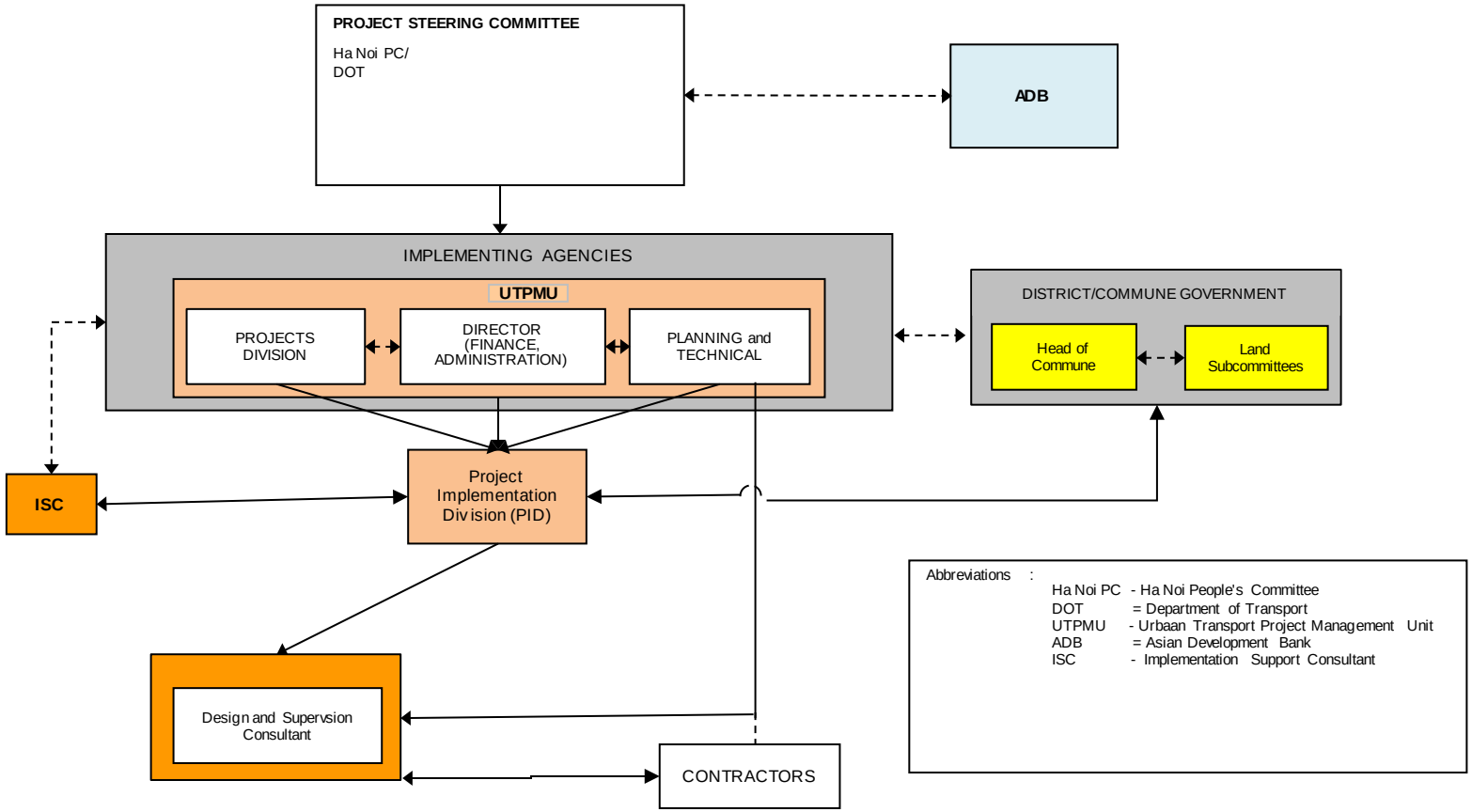
C. Project Organization Structure

20. The organizational structure of HPC agencies for planning, development and regulation of the public transport system is being strengthened with clear assignment of responsibilities to ensure affectivity of the urban transport objectives. Presently the Project Management Units for different projects report to different agencies. This is under consideration for improvement, but in the meantime HPC will implement strategic policies for the transport system to insure (i) the integration of Metro Line 3 with other lines and modes is well developed, (ii) standards and Operations and Maintenance (O&M) are developed by DOT for project components, (iii) measures are undertaken for integrated fares, restricting private vehicle parking and enforcement of traffic regulations and (iv) the overall levels of capital and recurrent funding requirements for the implementation and operation of the whole public transport system are being reviewed.

21. The HPC proposes to establish a Public Transport Authority (PTA) with responsibility for planning, developing and regulating all public transport modes in Ha Noi, including the MRT system.[7] The timeframe for establishment and resourcing of the PTA is under review, but expected by end of 2015. Critical strategic issues need to be studied in the near term in order to have a well-integrated public transport system in place at the opening of the first Metro line, line 2A, at end of 2015.

[7] Hanoi Urban Transport Development Project, World Bank

Figure 3.1 Organization Chart



IV. COSTS AND FINANCING

A. Cost Estimates by Expenditure Category

22. The tentative total project investment cost is estimated at $58.95 million, consisting of $44.10 million in base costs (including local taxes and duties), $13.70 million for contingencies and $1.15 million for financing charges during construction. The project investment costs broken down by expenditure category are detailed in Table 4.1 and the detailed cost estimates by expenditure category are detailed in Table 4.2.

Table 4.1 – Project Investment Plan
($ million)

Item			Total [a]
A.	**Base Cost [b]**		
	1. Metro Line 3 station proposed accessibility improved		21.81
	- civil works	18.81	
	- design, supervision and implementation support	3.00	
	2. Public transport system improved		16.58
	- civil works	1.80	
	- buses and equipment	13.67	
	- design, supervision and implementation support	1.11	
	3. Public transport policy and systems developed		4.57
	- station accessibility, parking and street management	1.45	
	- fares, ticketing and transport pricing study	3.12	
	4. Incremental administration		1.14
	Sub-total (A)		**44.10**
B.	**Contingencies [c]**		**13.70**
C.	**Financial Charge During Implementation [d]**		**1.15**
	Total (A+B+C)		**58.95**

[a] Includes local taxes and duties of $4.65 million, to be financed from government resources.
[b] December 2013 prices.
[c] Physical contingencies: 10% of civil works and goods and equipment, with no allowance for other items. Price contingencies: 1.9% for foreign exchange costs in 2014 declining to 1.8% in 2015 and thereafter; and 8.2% for local currency costs in 2013 declining to 6.5% in 2018; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate. Price contingencies are applied to all Base Cost items.
[d] Includes interest and commitment charges. ADB (ADF): 5-year grace and 25 year loan period, an interest charge of 2.0% per annum during the loan tenor

CTF: 10-year grace and 30 year repayment. 0.25% interest. Commitment: 0.18% pa.

ADB = Asian Development Bank, ADF = ADB Special Fund, CTF = Clean Technology Fund.

Source: Asian Development Bank estimates.

Table 4.2 – Detailed Cost Estimates by Expenditure Category

Item		Total
A.	**Investment Cost**	
	1. Civil works	18.74
	2. Systems and equipment	13.02
	3. Consultants	
	a. design, supervision and implementation support	2.84
	b. policy and systems development	5.06
	Sub-total (A)	**39.65**
B.	**Recurrent Costs**	
	Incremental Administration	**1.14**
C.	**Taxes and duties**	
	1. Civil works	1.87
	2. Systems and equipment	0.65
	3. Consulting services	0.79
	Sub-total (c)	**3.31**
D.	**Contingencies**	
	1. Physical	3.47
	2. Price	10.53
	Sub-total (D)	**13.70**
E.	**Financial Charge During Implementation**	**1.15**
	Total (A+B+C+D+E)	**58.95**

B. Allocation and withdrawal of Loan Proceeds

23. Table 4.3 and 4.4 shows allocation and withdrawal of funds under all the categories of the Project for the ADB and CTF loans, respectively in their loan currencies. [For the ADB loan, the SDR to USD exchange rate on the date of conversion of X XXX 2014 is X.XXXXX, and the actual SDR to USD exchange rate will change based on date of payment].

Table 4.3 – Allocation and Withdrawal of ADB Loan Proceeds

Number	Item	Total Amount Allocated for ADB Financing (SDR) Category	Percentage and Basis for Withdrawal from the Loan Account
1	Consulting services (Public Transport Policy Development)	2,349,000	85% of total expenditure claimed*
2	Interest charge	147,000	100% total amount due
3	Unallocated	314,000	
	Total	**2,810,000**	

* exclusive of taxes and duties imposed within the territory of the Borrower

Table 4.4 – Allocation and Withdrawal of ADB CTF Loan Proceeds

Number	Item	Total Amount Allocated for ADB Financing ($)		Basis for Withdrawal from the Loan Account
		Category	Sub-Category	
1	Works	18,740,000		100% of total expenditure claimed*
2	Systems and Equipment	13,020,000		100% of total expenditure claimed*
3	Consulting Services	4,390,000		
3a	Design, supervision and implementation support		3,750,000	100% of total expenditure claimed*
3b	Policy and regulatory development		640,000	15% of total expenditure claimed*
4	Interest charge	930,000		100% total amount due
5	Unallocated	11,870,000		
	Total	**48,950,000**		

* exclusive of taxes and duties imposed within the territory of the Borrower

C. Detailed Cost Estimates by Financier

24. The financing plan includes ADB Special Funds financing of $4.20 million equivalent for consulting services and interest during construction, and CTF cofinancing for $48.95 million for civil works, systems and equipment, consulting services and interest during construction. The balance of $5.80 million would be financed by the Government, which includes all taxes and duties, incremental administration and land acquisition and resettlement costs. Detailed cost breakdown by financier is provided in Table 4.5.

Table 4.5 – Detailed Cost Estimates by Financier

($ million)

	ADB		ADB CTF		Government of Viet Nam				Total
	Amount (cost)	%	Amount (cost)	%	Amount (cost)	Amount (taxes and duties)	Amount (total)	%	%
Base Cost									
1 Metro Line 3 station proposed accessibility improved									
- civil works	0.0	0.0%	17.10	90.91%	0.0	1.71	1.71	9.09%	18.81
- consulting services	0.0	0.0%	2.73	90.91%	0.0	0.27	0.27	9.09%	3.00
2 Public transport system improved									
- civil works	0.0	0.0%	1.64	90.91%	0.0	0.16	0.16	9.09%	1.80
- systems and equipment	0.0	0.0%	13.02	95.25%	0.0	0.65	0.65	4.75%	13.67
- consulting services	0.0	0.0%	1.02	90.91%	0.0	0.10	0.10	9.09%	1.12
3 Public transport policy and systems development									
- consulting services	3.52	63.08%	0.63	13.78%	0.0	0.415	0.42	9.09%	4.565
Subtotal (A)	**3.52**	8.19%	**36.14**	84.11%	**0.0**	**3.31**	**3.31**	7.70%	**42.96**
Incremental Administration	**0.0**	0.0%	**0.0**	0.0%	**1.14**	**0.0**	**1.14**	100%	**1.14**
Contingencies	**0.46**	3.36%	**11.88**	86.78%	**0.00**	**1.35**	**1.35**	9.86%	**13.70**
Financing Charges During Implementation	**0.22**	18.97%	**0.93**	81.03%	**0.0**	**0.0**	**0.0**	0.0%	**1.15**
Total Project Cost	**4.20**		**48.95**		**1.15**	**4.65**	**5.80**		**58.95**
% Total Project Cost		**7.13%**		**83.05%**				**9.82%**	

Note: The amounts and financing %'s may not sum precisely due to rounding
The cost of $25,000 for audited annual financial statement will be financed by the government

Table 4.6 – Detailed Cost Estimates by Component

($ million)

Item	Component 1 Amount	Component 1 %	Component 2 Amount	Component 2 %	Component 3 Amount	Component 3 %	Total
A. Investment Cost							
1. Civil works	17.10	91.2%	1.64	8.8%	0.00	0.0%	18.74
2. Systems and equipment	0.0	0.0%	13.02	100.0%	0.00	0.0%	13.02
3. Consultants							
a. design, supervision and implementation support	2.73	72.8%	1.02	27.2%	0.00	0.0%	3.75
b. Policy and systems development	0.00	0.0%	0.00	0.0%	4.15	100.0%	4.15
Subtotal (A)	**19.83**	50.0%	**15.68**	39.5%	**4.15**	10.5%	**39.66**
B. Incremental Administration	**1.14**	100%	**0.0**	0.0%	**0.0**	0.0%	**1.14**
C. Taxes and duties	**1.98**	59.8%	**0.91**	27.5%	**0.42**	12.7%	**3.31**
D. Contingencies	**6.10**	44.4%	**5.54**	40.4%	**2.08**	15.2%	**13.72**
E. Financing Charges During Implementation	**0.51**	44.3%	**0.44**	38.2%	**0.20**	17.5%	**1.15**
Total Project Cost	**52.41**		**8.91**		**3.68**		**58.95**
% Total Project Cost		**80.63%**		**13.71%**		**5.66%**	**100%**

Table 4.7 – Estimated Expenditure Categories by Year for the Project ($ million)

	Item	Total cost	2015	2016	2017	2018
A.	**Base Cost**					
	1 Civil works	20.61	1.54	6.96	4.80	7.32
	2 Systems and Equipment	13.67	0.0	7.34	6.33	0.00
	3 Consulting services	8.69	2.32	4.89	1.16	0.32
	5 Incremental administration	1.14	0.29	0.34	0.34	0.17
	Subtotal (A)	**44.57**	**4.15**	**19.53**	**12.63**	**7.81**
B	**Contingencies**	**13.70**	**0.68**	**5.05**	**4.28**	**3.58**
C	**Financing Charges during Implementation**	**1.15**	**0.11**	**0.24**	**0.36**	**0.43**
	Total Project Cost (A+B+C)	**58.95**	**4.94**	**24.92**	**17.24**	**11.82**
	% Total Project Cost	**100%**	**8.38%**	**44.54%**	**29.26%**	**20.05%**

D. Contract and Disbursement S-curve

25. Figure 4.1 shows the estimated disbursement progress over the implementation period for Project. This will assist to assess the disbursement performance at any time during the project implementation. In case of delays and poor disbursements, this will help as an early warning system for taking timely remedial measures. Tables 4.8 and 4.9 indicate contract award and disbursements by quarter each year, based on contract base costs (excluding contingencies) but including VAT.

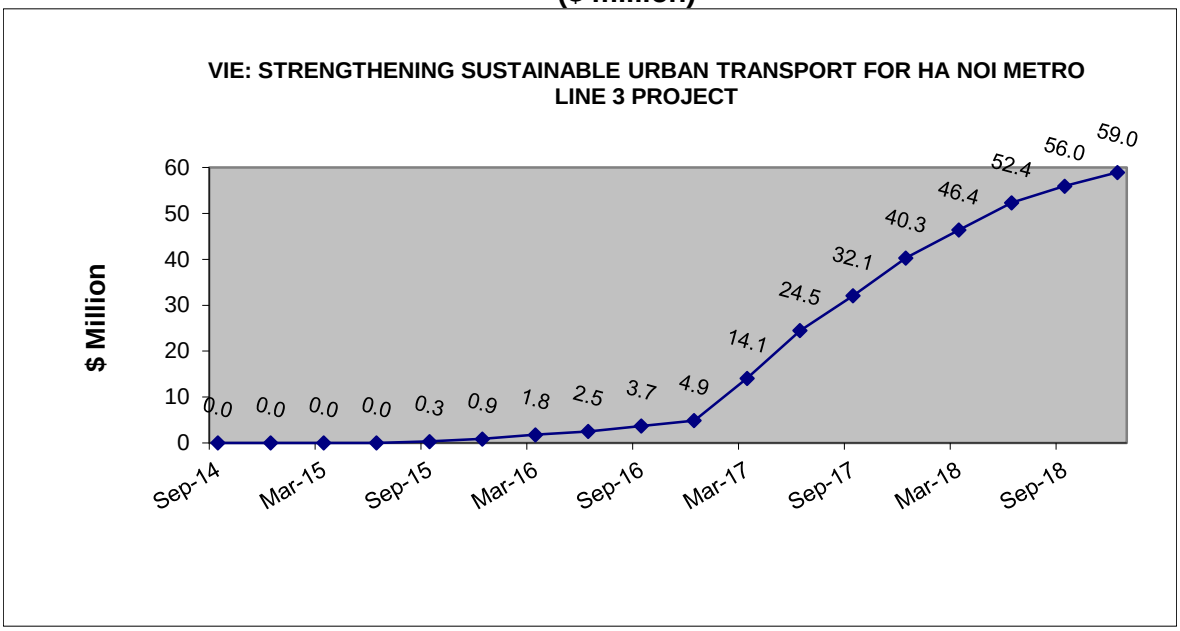
Table 4.8 Contract Awards
($ million)

Year	Q1	Q2	Q3	Q4	Total
2015		4.8	2.3		7.1
2016		1.4		19.3	20.7
2017		15.3			15.3
2018					

Table 4.9 Disbursement
($ million)

Year	Q1	Q2	Q3	Q4	Total
2015			0.24	0.40	0.64
2016	0.66	0.54	0.87	0.87	2.94
2017	6.76	7.60	5.57	6.02	25.95
2018	4.47	4.36	2.64	2.19	13.66

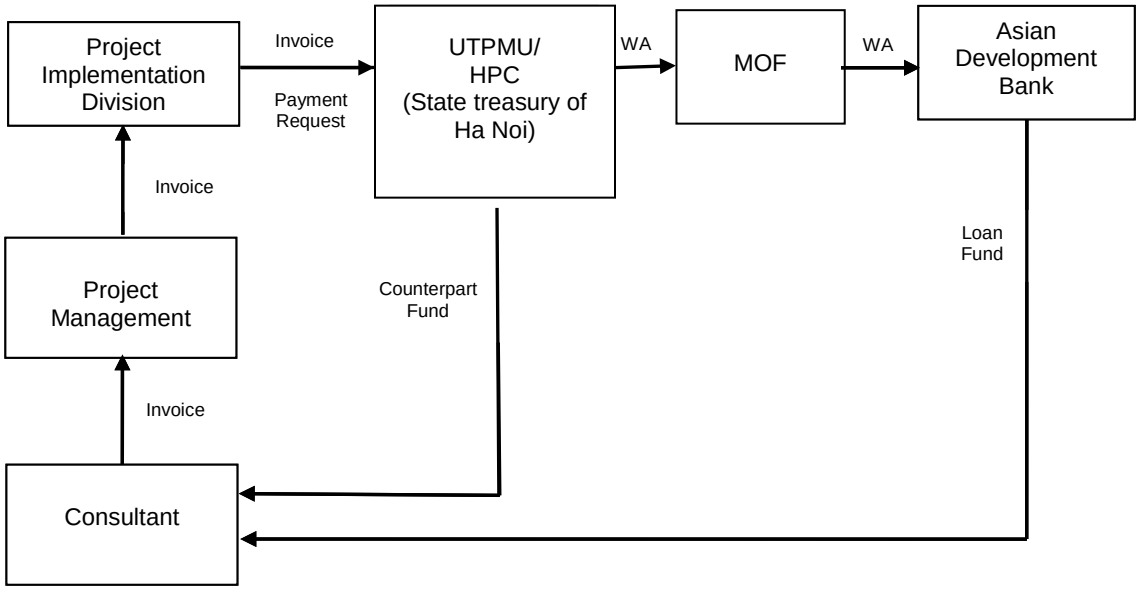
Figure 4.1 – Project Disbursement S-Curve
($ million)



E. Fund Flow Diagrams

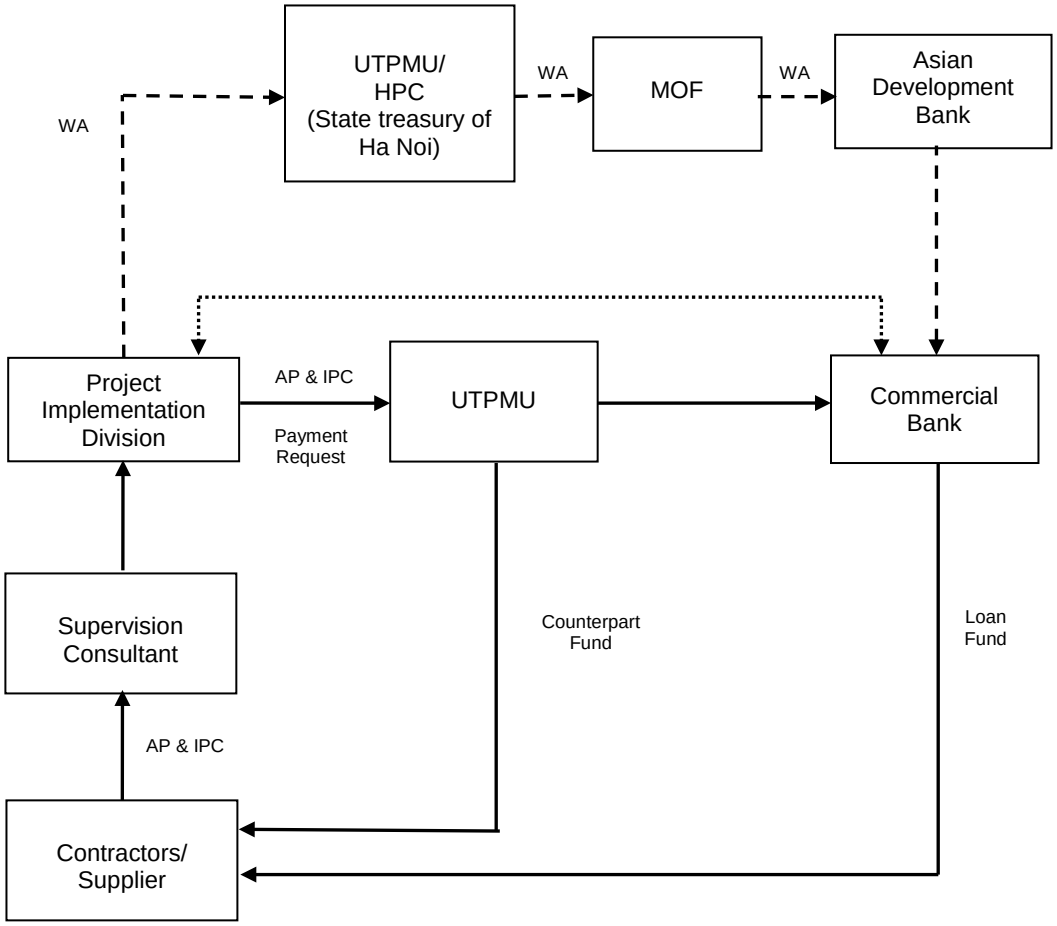
26. The Fund flow diagrams are included below in Figures 4.2 and 4.3 which show how the funds will flow from ADB and the Government to implement the Project.

Figure 4.2 - Direct Payment for Consulting Services



AP : Advance payments
HPC : Ha Noi People's Committee
UTPMU : Urban Transport Project Management Unit
IPC : interim payment certificates
MOF : Ministry of Finance
WA : Withdrawal application

Figure 4.3 - Imprest Account



Payment to consultants

AP : Advance payments
HPC : Ha Noi People's Committee
UTPMU : Urban Transport Project Management Unit
IPC : interim payment certificates
MOF : Ministry of Finance
WA : Withdrawal application

V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

27. A financial management assessment of UTPMU was undertaken during project preparation and the main findings are indicated in Table 5.1 below[8]. The HPC, the executing agency for the project, has had some experience in managing foreign funded projects, including ADB projects, and the financial management arrangements are expected to follow a similar system used on other ADB funded projects.

28. The Implementing Authority for the Project is to be the DOT/UTPMU. UTPMU was established in 1985, under DOT. UTPMU is a relatively new agency with procedures being tested as they are put in place and little institutional experience in project management. As a state agency, UTPMU is obliged to follow the regulations and procedures set out in the various statutes and guidelines referred to above, and several of these are specific to ODA projects. This gives some assurance that procedures will meet the necessary accounting and reporting standards. UTPMU has successfully implements several ODA funded projects, although still will need to improve its capacity to manage funds involved in the Project to the standards required by ADB, by financial unit staff undertaking relevant ADB financing management training courses – held annually by ADB Vietnam Resident Mission.

29. Staff participating in training provided by ADB should be reviewed again following this training and prior to project commencement to ensure that UTPMU staff has the necessary ADB procedure knowledge s to manage Project finances. UTPMU should submit its staffing plans and seek ADB's approval at each of these review stages. Based on an assessment of training needs, the following training programs have been identified:

(i) understanding the basis on which the cost of the Project was estimated, contract packages determined, financier contributions identified and disbursement schedules established;
(ii) ADB's policies and procedures on disbursement and financial management;
(iii) ADB's policies and procedures on procurement and contract management;
(iv) ADB reviews during project implementation; and
(v) measures to ameliorate foreign exchange risks during implementation of the Project.

Table 5.1 – Summary of the Financial Management Assessment

Particulars	Conclusions
A. Funds Flow Arrangements	The arrangements for the flow of funds will use both direct payment and imprest account method, which are detailed in Figure 4.2 and 4.3. Under the Government guidelines on financial management of official development assistance (ODA) programs, (Circular 108/2007/TT-BTC of Ministry of Finance (MOF), the mode of transfer will be determined in the project investment decision.
B. Staffing	UTPMU is headed by a Director, and there are 4 Vice Directors who have responsibilities for specific areas of activities. As of July 2013 UTPMU has 150 staff. UTPMU has 9 divisions, including one Project Implementation

[8] Financial management assessment was undertaken in accordance with ADB Financial Management Guidelines and Financial Due Diligence Methodology Note.

	Division (PID), established for this Project. Most UTPMU staff has little previous experience in implementation of externally-financed projects. The exceptions are the staff, who have had some exposure to work on the TAs and ODA funded transport projects. UTPMU has indicated that it is actively recruiting new staff with previous ODA project experience. A detailed capacity assessment will be carried out and the Project includes management support and training to UTPMU/HPC staff to assist with the successful implementation of the Project.
C. Accounting Policies and Procedures	At present UTPMU uses the accounting system prescribed by MOF Decision No. 214/2000/QD-BTC. Vietnam Accounting Standards (VAS) and its accounting software have been developed, installed and used. Detailed information on staff responsibilities in the Finance and Accounting Division was provided, and staff accountability is in accordance with general Government of Vietnam policies and procedures, but procedures will need to be enhanced for Project needs.
D. Internal and external audits	HPC is responsible for internal audit and inspection function, which plays the role of checking, supervision of policies, including financial issues and reporting. Inspections are conducted based on the Government guidelines and focused on reviews of plans, expenditures, contracts and compliance. Financial statements of UTPMU are to be audited annually by independent external auditors, which are hired through bidding process, in accordance with the International Standards on Auditing, which complies with the requirements of ADB
E. Reporting and monitoring	UTPMU will follow the reporting mechanisms for the implementation of ODA programs and projects as set out in Decree 38/2013/ND-CP by the Government. This Decree also provides for the use of the Aligned Monitoring Tool which allows users and lending agencies access to monitor the project.
F. Information Systems	The UTPMU accounting, financial and management reporting system has been computerized but will need enhancement to meet the specific needs of the Project, including Improved data safeguarding and confidentiality need to be implemented.

30. UTPMU is following the accounting system for project owners as set out in MOF Decision No. 214/2000/QD-BTC. Accounting vouchers, bank account, chart of accounts and financial statements are coded and classified by the project components, categories of expenditure, and sources of funds. If properly applied the system satisfies the following FMA criteria:

i. Controls are in place concerning the preparation and approval of transactions
ii. The chart of accounts is adequate to properly account for and report on project activities and disbursement categories
iii. The General Ledger and subsidiary ledgers are reconciled and in balance
iv. All accounting and supporting documents are retained on a permanent basis in a defined system that allows authorized users easy access.

31. The Financial Management Action Plan (FMAP) for UTPMU includes strengthened internal controls through regular technical and financial audits of project activities, strengthened payment validation procedures to reduce risks of fraud, segregation of some financial functions

from the rest of project management to maintain checks and balances, documentation of Project and financial management procedures in this manual to guide project staff, and steps to train Project staff in financial management procedures.

Table 5.2 – Financial Management Action Plan

Action Expected	Output	Due Date
A. Project Organization and Staffing 1. Project Implementation Division (PID) established and staffed. Further review the organization to ensure adequate segregation of duties between project financial verification functions and project management.	UTPMU policy which sets out the project's organizational structure and FM staff appointments are acceptable to the Bank.	PID has been established
2. Recruitment of financial management specialist consultant to help prepare the Interim Financial Reports.	Acceptable terms of reference and qualification of financial management consultant.	30 Nov 2014
B. Project Administration Manual (PAM) A Manual to document procedures to be followed by implementing unit covering all aspects of procurement and financial management. This should include inter alia, all financial management and disbursement procedures for this project. Also included should be annual budgets and work programs for at least the first year, stronger payment validation procedures, segregation of duties among payment authorization and "commitment maker" functions at central level, financial reporting formats, supervision, internal audit arrangements community oversight arrangements and anti-corruption plan.	Draft Project Administration Manual acceptable to ADB. Final Project Administration Manual acceptable to the ADB.	30 Jun 2014 31 Jul 2014
C. Training for UTPMU staff who will require the necessary skills to carry out respective project management duties as described in the Project	Consultant support to UTPMU and on the job training as identified by capacity assessment of UTPMU	2014/2015
D. Internal Audit Risk-based Internal Audits to be systematically undertaken for all project activities at regular intervals, jointly by private/public sector audit firms and the UTPMU, based on terms of reference acceptable to the ADB. Copies of these	Incremental operating cost of internal audits included in the Project cost estimates. Terms of reference on responsibility for internal	2015

audit reports to be provided to the Bank.	audits of project activities to be issued.	
E. Auditing Arrangement of the project annual audit in accordance with a specific TOR and by independent auditors acceptable to the ADB.	Terms of reference and letter to auditor (including TOR) confirming the audit arrangements.	July 2015

32. **Risk Analysis:** During the implementation phase, the PID/UTPMU will encounter some risks, which can be segregated into two main categories: (i) country level and (ii) organization/project level. Together with project specific risks and activities to mitigate them are summarized in Table 5.3 below. Financial management risks shall need to be considered and updated throughout the life of the Project. Risk mitigation measures will also need to be updated as appropriate.

Table 5.3 – Risk Assessment and Mitigation Measures

Risk	Risk Assessment	Risk Mitigation Measures
Inherent Risk		
1. Country specific **- Budgeting**	M	• Annual budgets and work programs will be required. • Budgeting control procedures of Government of Viet Nam and HPC to be followed
2. Entity specific **- PMU Capacity**	M	Current UTPMU and consultants will assist PID to be strengthened in implementing ADB financed project. Extensive training on ADB procedures shall be carried out under ADB's annual VIE training program.
3. Project specific **- procurement: collusion**	L	A Project Administration Manual (PAM) to include a clear description of financial management procedures for guidance of Project staff.
- Internal control and Accounting	M	Strengthened internal controls to include regular internal technical and financial audits, stronger payment validation procedures and specific requirements for accounting evidence. Payment verification function to be segregated from project management.
Overall Inherent Risk	M	
Control Risk		
1. Implementing Agency	M	Organizational capacity augmentation with the induction of experienced PID staff will support the existing organizational structure
2. Funds Flow *UTPMU currently operate an account in Ha Noi Treasury Department, and all expenditures are controlled by the Treasury Department.*	S	UTPMU to set up dedicated imprest account to channel loan disbursements. Under the loan, foreign and local equipment will be paid directly to the contractors. This could be through commitment or direct payment procedures. Other payments could be through reimbursement or imprest procedures.
Overall Control Risk	Moderate	

* H = High, S = Substantial, M = Moderate, L = Low or Negligible

B. Disbursement

33. The ADB and CTF Loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2012, as amended from time to time),[9] and detailed arrangements agreed upon between the Government and ADB.

[9] Available at: http://www.adb.org/documents/loan-disbursement-handbook.

34. Loan proceeds will generally be disbursed directly to contractors, suppliers, and consultants, based on an approved contract using direct payment procedures, where ADB pays a designated beneficiary directly. A signed withdrawal application (Appendix 7A of Loan Disbursement Handbook) must be submitted to ADB together with a summary sheet (Appendix 7B of Loan Disbursement Handbook) and the required supporting documents. A separate withdrawal application is required for each different currency.

35. Payments should be certified by the Engineer in the form of monthly interim payment certificate for the civil works contracts. The monthly certificates will then be split into the relevant funding portions for each contract (ADB and the Government) by the sub project manager. The sub-project manager will provide payment request form (SPP) and if this is in order and supported by approved order, Government will issue a Payment Order (SPM). The Government (or UTPMU through HPC) will submit a separate Withdrawal Application for each request for each currency.

36. As UTPMU staff currently lack the capacity to manage funds to ADB standards, financial management and disbursement training should be provided and demonstration of sufficient capacity should exist before imprest fund and SOE procedures may be used for the project. Upon completion of the required training and demonstration of sufficient capacity, a request for change in project implementation should be submitted to ADB by the borrower to request the use of such procedures. Assuming the use of such procedures is approved by ADB, the imprest fund and SOE procedures may be utilized, in accordance with the below details.

37. An imprest account for ADB and CTF loan will be established for the Project at a commercial bank selected by State Bank of Vietnam, administered by UTPMU. The currency of the imprest account is US dollar. The imprest account should be used exclusively for ADB and CTF's share of eligible expenditure. The UTPMU, who established the imprest account in its name is accountable and responsible for its proper use of advances to the imprest account.

38. The ceiling of the imprest account is 10% of the ADB and CTF loan. UTPMU may request for initial and additional advances to the imprest account based on an Estimate of Expenditure Sheet,[10] setting out the estimated expenditures to be financed through the account for the forthcoming six (6) months. Supporting documents should be submitted to the ADB or retained by UTPMU in accordance with ADB's Loan Disbursement Handbook when liquidation or replenishing the imprest account.

39. The statement of expenditure (SOE) procedure may be used to reimburse/liquidate eligible expenditures per individual payment not exceeding $100,000 equivalent. Supporting document and records for the expenditures claimed under the SOE should be maintained and readily available for review by ADB's disbursement and review missions, upon ADB's request for submission of supporting documents on a sample basis, and for independent audit. Reimbursement and liquidation of individual payments in excess of the SOE ceiling should be supported by full documentation when submitting the withdrawal application to ADB. UTPMU will be responsible for (i) preparing disbursement projections and (ii) requesting budgetary allocations for counterpart funds.

[10] Available in Appendix 10B of the Loan Disbursement Handbook

40. Before the submission of the first withdrawal application, SBV should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is US$100,000 equivalent, unless otherwise approved by ADB. Individual payment below this amount should generally be paid through the imprest fund procedure, or by the UTPMU and subsequently claimed to ADB through reimbursement. ADB reserves the right not to accept WAs below the minimum amount.

C. Financial Accounting and Auditing

41. UTPMU will maintain separate project books and records by funding source for all expenditures incurred on the Project. Project financial statements will follow international accounting principles and practices.

42. The HPC will cause the detailed Project financial statements to be audited in accordance with International Standards on Auditing and in accordance with the Government's audit regulations by an independent auditor acceptable to ADB. The audited financial statements will be submitted in the English language to ADB within 6 months of the end of the fiscal year by the executing agency.

43. The annual audit report will include an audit management letter and audit opinions which cover (i) whether the project financial statements present a true and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting framework; (ii) whether loan and grant proceeds were used only for the purposes of the project or not; and (iii) the level of compliance for each financial covenant contained in the legal agreements for the project.; (iv) compliance with the imprest fund procedure; and (v) compliance with use of the statement of expenditure procedure certifying (a) to the eligibility of those expenditures claimed under SOE procedures, and (b)proper use of the SOE and imprest procedures in accordance with ADB's Loan Disbursement Handbook and the project documents.

44. Compliance with financial reporting and auditing requirements will be monitored by review missions and during normal program supervision, and followed up regularly with all concerned, including the external auditor.

45. The Government and HPC have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited financial statements. ADB reserves the right to require a change in the auditor (in a manner consistent with the constitution of the recipient, or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

46. Public disclosure of the project financial statements, including the audit report on the project financial statements, will be guided by ADB's Public Communications Policy (2011)[11]. After review, ADB will disclose the project financial statements for the project and the opinion of the auditors on the financial statements within 30 days of the date of their receipt by posting them on ADB's website. The Audit Management Letter will not be disclosed.

47. The annual audit report will include a separate audit opinion on the use of the imprest

[11] Available from http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications

account and the SOE procedures. The Government and HPC have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited accounts. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures. For revenue generating projects only, ADB requires audited financial statements (AFS) for each executing and/or implementation agency associated with the project.

VI. PROCUREMENT AND CONSULTING SERVICES

48. All works and consulting services to be partially or fully financed out of the proceeds of the ADB and CTF Loan shall be subject to and governed by ADB's Procurement Guidelines[12] (March 2013, as amended from time to time), and Guidelines on The Use of Consultants by Asian Development Bank and Its Borrowers[13] (March 2013, as amended from time to time). The issuance of invitations to bid under advance contracting will be subject to ADB approval.

49. Advance contracting. Advance action is expected for the Project for the procurement of goods and works, and recruitment of consulting services..

A. Procurement of Goods, Works and Consulting Services

50. All procurement of goods and works will be undertaken in accordance with ADB's Procurement Guidelines.

51. International competitive bidding procedures will be used for civil works contracts estimated to cost $5 million or more, and supply contracts valued over $1 million. Civil works will be procured through ICB without prequalification, using single stage one envelope procedure. ADB's prior review procedures will be followed. The HPC agreed to include the relevant sections of ADB's Anticorruption Policy (1998) in all bidding and contractual documents.

52. For national competitive bidding (NCB), before the start of any procurement ADB and the Government will review the public procurement laws of the municipal and central government to ensure consistency with ADB's Procurement Guidelines. NCB will be applied to all civil works as the works timing is stagger based on Metro Line 3 and mostly small minor works items, so would not be attractive to international firms. For NCB, the first draft English language version of the procurement documents (Prequalification, bidding documents, draft contract) should be submitted for ADB approval regardless of the estimated contract amount. Subsequent procurements are subject to post review.

53. An 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages and national competitive bidding guidelines is in Section C.

54. All consultants will be recruited according to Guidelines on The Use of Consultants by Asian Development Bank and Its Borrowers.[14] The terms of reference for all consulting services and individual consultants are detailed in Section C annexes.

55. An estimated 974 person-months (239 international and 735 national) of consultant services is required to undertake (i) station area development, enforcement and parking strategies (ii) bus and intelligent transport system (ITS) equipment, software and hardware measures, (iii) public transport fares, ticketing and transport pricing approach, and (iv) accessibility and public transport design and supervision. Consulting firms will be engaged using the quality- and cost-based selection (QCBS) method with a standard quality:cost ratio of 80:20 or 90:10 for services that require higher specialization of experts, being CS1, CS2 and CS3.

[12] Available at: http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf.
[13] Available at: http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Consultants.pdf.
[14] Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: http://www.adb.org/documents/handbooks/project-implementation/ .

B. Procurement Plan

56. The procurement plan for the Project is detailed below in Table 6.1, and will be updated during the course of implementation. The Loan involves 5 NCB packages for civil works, 1 ICB packages for systems and equipment, and 4 packages for consulting services, as well as a several smaller contracts for utility diversion.[15] Five NCB packages for civil works have been proposed as the nature of the works with small items is not attractive to international contractors and will ensure make implementation efficiency as contracts can be timely sequence to match the completion of the Metro Line 3 stations. For the NCB procurement, before the start of any procurement ADB and UTPMU will review the Government's public procurement laws to ensure consistency with ADB's Procurement Guidelines. Any necessary modifications or clarifications to the Government's procedures will be reflected in the procurement plan.

57. The procurement plan covers the first 18 months of procurement activity, which shall be finalized at the loan negotiations. Within one year after the date of loan effectiveness, the UTPMU shall submit a revised procurement plan to ADB for approval that captures all ongoing procurement and that planned for the following 18 months. The plan shall be updated annually (or as required after every loan review mission or after award of each major ICB contract), on the same basis for the duration of the project.

Table 6.1 Procurement Plan
Basic Data

Project Name: Strengthening Sustainable Urban Transport for Ha Noi Metro Line 3 Project	
Project Number:	**Approval Number**: TBD
Country: VIET NAM	**Executing Agency**: Ha Noi People's Committee (HPC)
Project Financing Amount: $58.95 million **ADB Financing: $4.2 million** **Non-ADB Financing: $48.95 million**	**Implementing Agency:** Department of Transport/Urban Transport Project Management Unit
Date of First Procurement Plan:	**Date of this Procurement Plan**:

Methods, Thresholds, Review and 18-Month Procurement Plan

58. Procurement and Consulting Methods and Thresholds: Except as the ADB may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works		
Method	**Threshold**	**Comments**
International Competitive Bidding (ICB) for Works	$10,000,000	First pre review, others post review
National Competitive Bidding (NCB) for Works	Beneath that stated for ICB, Works	
International Competitive Bidding for Goods	$1,000,000	
Shopping	Below $100,000	If Needed

[15] Packages are expected to be implemented through separate small contracts related to utility provider's requirements and financed from the Ha Noi city government's non-project resources.

59. Goods and Works Contracts Estimated to Cost $1 Million or More: The following table lists goods and works contracts for which the procurement activity is either ongoing or expected to commence within the next 18 months, including ADB administered financing from CTF.

Package Number	General Description	Estimated Value[a] ($ million)	Procurement Method	Review (Prior / Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
CW-1	Station 8: transit Interchange	2.55	NCB	Prior	1S1E	Q4/2016	Small works CTF
CW-2	Station 9: transport interchange	4.28	NCB	Prior	1S1E	Q4/2016	Small works CTF
CW-3	Station 10, 11, 12:subway and accessibility	4.39	NCB	Prior	1S1E	Q4/2016	Small works CTF
CW-4	Station 1, 2, 3, 4, 5, 6, 7: elevated walkway and accessibility	3.40	NCB	Prior	1S1E	Q4/2016	Small works CTF
CW-5	Station catchment area improvements	4.19	NCB	Prior	1S1E	Q4/2016	Small works CTF
CW-06	Bus Systems Works	1.80	NCB	Prior	1S1E	Q4/2016	Small Works CTF
EQ-1	Buses, systems and operations	13.67	ICB	Prior	1S1E	Q2/2016	Large Goods CTF

1s1e = one stage one envelope bidding, ADB = Asian Development Bank, CTF = ADB Clean Technology Fund, ICB = international competitive bidding, NCB = national competitive bidding,

[a] Not including value added tax, to be financed by Borrower and includes physical and price contingencies and indirect taxes

60. Consulting Services Contracts Estimated to Cost $100,000 or more: The following table lists consulting services contracts for which the recruitment activity is either ongoing or expected to commence within the next 18 months, including ADB administered financing from CTF

Package Number	General Description	Estimated Value[a] ($ million)	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
CS-1	Station area development program	1.39	**QCBS**	Prior	Q2/2015	FTP	International 90:10 ADB/CTF financed
CS-2	Bus system improvement and implementation support	2.04	**QCBS**	Prior	Q4/2014	FTP	International 90:10 ADB/CTF financed
CS-3	Fares, ticketing and transport pricing study	2.26	**QCBS**	Prior	Q1/2015	FTP	International 90:10 ADB/CTF financed
CS-4	Design, supervision and implementation support	3.00	**QCBS**	Prior	Q4/2014	FTP	International 80:20 CTF financed

ADB = Asian Development Bank, CTF = ADB Clean Technology Fund, FTP = full technical proposal, QCBS = quality- and cost-based selection.

[a] Not including value added tax, to be financed by Borrower and includes physical and price contingencies and indirect taxes

61. Goods and Works Contracts Estimated to Cost Less than $1 Million and Consulting Services Contracts Less than $100,000 (Smaller Value Contracts): Nil

62. When a need arises during project implementation to change procurement arrangements (threshold, review requirements, method of procurement, contract packaging), UTPMU, in consultation with the ADB Project Officer, will prepare a letter justifying the change submitted together with an updated procurement plan, and present it for ADB approval. In the case of a variation, which would in aggregate increase the original amount of the contract by more than 15 percent of the original price, the EA shall seek ADB's no objection to the proposed extension, modification, or change order providing detailed justification validated by the Engineer. If ADB determines that the proposal is inconsistent with the provisions of the financing agreement and/or procurement plan, it shall promptly inform the EA and state the reasons for its determination. A copy of all amendments to the contract shall be furnished to ADB for its record.

63. For the purpose of oversight and monitoring, ADB will be responsible for posting the initial procurement plan and subsequent updates on ADB website.

64. For national competitive bidding (NCB) contracts, UTPMU will utilize the latest NCB guidance note, available of the ADB website, which should be checked prior to the submission and approval of draft bidding documents.

C. Consulting Services

65. Consulting services will be financed by ADB and CTF loans. Consulting services will be provided for; (i) station area development program (ii) bus system improvement and implementation support, (iii) fares, ticketing and transport pricing study, and (iv) accessibility design, supervision and implementation support.

66. The outline terms of reference for all consulting services are detailed in Annex 1 to 4 for Section VI, and are summarized as follows:

- **Station area development program: –** A total of 39 person-months of international consultant inputs and 75 person-months of national consultants will be required. Consultant services are expected to take place over 36 months and commenced in April 2016. The consultant team will assist DOT, UTPMU and other relevant agencies with; (i) better station enforcement program and training, (ii) integration of future developments with stations, and (iii) parking and demand management. The outline scope of services is described in Annex 1.

- **Bus system improvement and implementation support: –** A total of 61 person months of international consultant inputs and 111 person-months of national consultants will be required. Consultant services are expected to take place over 36 months and commenced in June 2015. The consultant team will assist UTPMU, Through TRAMOC, in (i) bus network redesign, (ii) bus development program 2015-2020 review and updating, and (iii) implementation support to TRAMOC for design, specification, supervision and project management of public transport measures. The outline scope

of services is described in Annex 2.

- **Fares, ticketing and transport pricing study:** - A total of 64 person months of international consultant inputs and 124 person-months of domestic consultants will be required. Consultant services are expected to take place over 36 months and commenced in January 2016. The consultant team will assist UTPMU to; (i) Fares and Ticketing, and (ii) Urban transport charges and finance. The outline scope of services is described in Annex 3.

- **Accessibility design, supervision and implementation support:** A total of 81 person months of international consultant inputs and 387 person-months of domestic consultants will be required. Consultant services are expected to take place over 42 months and commenced in July 2015. The consultant team will assist (i) UTPMU with preparation and approval of the detailed design for civil works, systems, equipment and studies, (ii) procurement of all contracts and consulting services packages; (iii) construction supervision services, and (iv) project management support to UTPMU. The outline scope of services is described in Annex 4.

67. To strengthen the capabilities of DOT/UTPMU and their PID, it is considered that additional capacity building is an essential requirement, which has been incorporated into the respective consulting services packages, as well as participation in ADB financed training programs conducted in Vietnam.

Annex 1: Station area development program
Outline Terms of Reference

A. Introduction

Background: Ha Noi is the capital city of Viet Nam, with a population of the greater urban area over 6 million that is expected to grow to 10 million by 2025. Ha Noi is at an early stage of urban transport development, having moved from heavy usage of bicycles to motorcycles in the last 10 years and now increasingly to cars. Private vehicles dominate urban transportation, with motorcycles being the most prevalent means at about a 90% share. Continued increasing car ownership, together with a significant increase in the number of motorcycles has resulted in severe congestion during peak hours, resulting in degradation of urban environment and a rise in traffic accidents. The situation is expected to worsen if the current traffic growth trend of 9% continues and more motorbike users convert to cars. The existing public transport system consists of an inadequate bus network that is becoming less competitive with private modes of transport. Traffic planning and parking management is weak and inadequate to effectively control traffic and demand. Importantly, there are no policy and regulatory measures to discourage private modes of transport, so the inadequate public transport system cannot attract private vehicle users.

The Prime Minister of Vietnam approved in 2009 the Ha Noi Urban Transport Master plan (HUTMP) that proposes to develop a network of nine urban mass rapid transit (MRT) lines, improvements and expansion of the bus system and traffic management system improvements, all of which will support a modal shift from private to public transport. Together with improvements to the road system and supporting policy and regulatory measures, the HUTMP objective is for public transport to achieve 45% of transport demand by 2030. The HUTMP will establish a comprehensive network of public transport services in Ha Noi. (A detailed description of the public transport environment in 2013 and proposed developments can be found in the "Project development background and policy overview" report that was prepared as part of the ADB funded TA 7894 VIE: Strengthening sustainable urban transport for Ha Noi Metro line 3 project)[16].

Metro Line 3

The Government of Socialist Republic of Viet Nam has received a Loan from the Asian Development Bank (ADB) towards the cost of "Ha Noi Metro Rail System Project (Line 3: Section Nhon to Hanoi railway station section)". Metro Line 3 will facilitate public transport connectivity and access in six central districts of Ha Noi (Districts: Ba Dinh, Cau Giay, Dong Da, Hoan Kiem, Tu Liem North and Tu Liem South), as well as being an integral part of the public urban transport system to support the HUTMP.

Strengthening Sustainable Urban Transport for Ha Noi Line 3 Project

In order to ensure integration of public transport occurs in six districts along Metro Line 3, ADB has funded a project preparatory technical assistance (PPTA) for the "Strengthening Sustainable Urban Transport for Ha Noi Line 3 Project" to support the development of sustainable low carbon urban transport measures and programs in Ha Noi.

[16] The sentence in parenthesis could be a reference in a footnote.

Integration will be addressed through the implementation linking key inter-connected urban transport measures under four main components of packages; (i) Component 1 - Metro Line 3 station proposed accessibility improved; (ii) Component 2 - Public transport system improved; (iii) Component 3 - Public transport policy and systems developed and (iii) Component 4 – Metro Line 3 implementation supported. Component 1 and 2 are to be implemented through other consulting service contracts under the proposed ADB and ADB Clean Technology Fund loans

Component 3 - Public transport policy and systems

Integration measures and services that were considered as important measures for the sustainability of urban transport for Ha Noi Metro Line 3 were assessed. These are required to provide integrated public transport services to complement the other Project components to achieve the overall sustainability objective of the Project. Four key policy goals were identified as important to support the successful implementation of the HUTMP, as follows:

A. Encouraging public transport usage
B. Limiting usage of private vehicles
C. Limiting emission through selection of appropriate public transport vehicles and developing a technology innovation program for public transport
D. Developing a smart ticketing system.

Possible changes to policies and regulatory measures (or possible new policies and regulatory measures) to support the station accessibility and PT measures and achieve the project objectives were developed under the four key goals and discussed at a Policy Workshop on January 30th, 2013.

The selected policies and measures are listed below under the Goals to which they relate.

Goal A: Encouraging Usage of Public Transport
- Bus Service Expansion - Bus Network Redesign
- Bus Service Expansion - Public Transport Development Program 2015 - 2020 Review
- Development of Fares Policy
- Financial Support for Bus and Metro Operations and Maintenance
- Promotion of walking (to stops and stations) as a travel mode
- Transit Orientated Development (TOD) around stations

Goal B: Limiting Usage of Private Vehicles
- Parking Controls and Enforcement
- Parking Strategy, Policy and Management
- Demand Management/Mobility management
- Appropriate Vehicle ownership and usage charges

Goal C: Limiting emission through selection of appropriate public transport vehicles and developing a technology innovation program for public transport
- Select Low emission vehicles
- Define Technology Innovation Program

Goal D: Developing a smart ticketing system

Some of these measures are being examined in other Projects. For Component 3 of this Project, activities supporting the four goals were grouped into two subcomponents: (A) implementation support and capacity development, and (B) public transport policy and regulatory development. The eight measures that were selected to be included under Component 3 of the Project are:

3A Implementation support and capacity development
- 3A1 Better station enforcement program and training
- 3A2 Bus network redesign
- 3A3 Integration of future developments with stations
- 3A4 Implementation support to bus system improvements

3B Public transport policy and regulatory development
- 3B1 Fares and Ticketing
- 3B2 Bus development program 2015-2020 review and updating
- 3B3 Parking and demand management
- 3B4 Urban transport charges and finance

For the provision of technical assistance, these activities have been grouped into three consulting services (CS) packages:

CS 1 Station area development program
(comprising sub-components 3A1, 3A3 and 3B3)
CS 2 Bus system improvement and implementation support
(comprising subcomponents 3A2, 3A4 and 3B2)
CS 3 Fares, ticketing and transport pricing
(comprising sub components 3B1 and 3B4)

This is the TOR for CS 1 Station area development program

As set out above, this consulting services package will cover three linked issues, being the (i) better station enforcement program and training (Part B), (ii) integration of future developments with stations (Part C), and (iii) Parking and demand management (Part D). The Consultant will work directly with the Urban Transport Project Management Unit (UTPMU) and their project implementation division (PID) to implement these services, and work closely with associated agencies that the services will have a direct impact, as described in more detail below.

B. Better station enforcement program and training

Background / Rationale

In order to encourage public transport usage (Policy A) the areas around the stations will need to be kept clear of parked vehicles and other obstructions (including informal restaurants and other commercial activity so that people can walk easily to the station entrances. This will require enforcement of restrictions on parking around stations and keeping the pedestrian access routes clear of obstructions. (Enforcement of parking restrictions will also support Policy B Limiting Usage of Private Vehicles). Based on proposed plans of the Ha Noi Metropolitan Railway Management Board (MRB) for Metro line 3 stations, it has indicated that this will be achieved as follows;

1. The metro line will have its' own security guards for areas within the station
2. Hanoi Traffic Police will be in charge of enforcing parking restrictions, including

restrictions on parking on pavements[17]

3. Police of the six Districts (Ba Dinh, Cau Giay, Dong Da, Hoan Kiem, Tu Liem North and Tu Liem South) will have responsibility for keeping security and order in the station area

It is considered that these three enforcement agencies will need assistance to coordinate their different roles and the new tasks.

Objective

To ensure areas around the station are kept free of parking and commercial activities through provision of assistance on; (a) changes required to existing policies and regulations, and (b) training in enforcement and coordination of enforcement across the different agencies.

Overall Scope

Design and implementation of revised policies and regulations, procedures, enforcement personnel and technology to provide enforcement support for the physical measures for improving station accessibility in Component 1 of the Project.

The following main tasks are required to implement the proposed package:

i. Confirm in detail roles and responsibilities of the three authorities in managing the road carriageway and footpaths and enforcing existing regulations

ii. Formulate detailed revisions to policies and regulations on parking and footpath management by Department of Transport (DOT) and Districts to ensure sustainable operation of stations

iii. Undertake public acceptance survey to assess public attitudes to proposed revised management regulations for carriageways and footpaths

iv. Determine levels of funding and human resources required to ensure adequate enforcement of revised regulations, including for purchase, operations and management of the proposed closed circuit television (CCTV) and other equipment. Identify funding sources and budget allocations by agency

v. Assist the three agencies in identifying/recruiting the required staff.

vi. Assist the three agencies in the selection of appropriate equipment for the Footpath Management System (FMS), the locations for placement of this equipment and the monitoring centre (or centres).

vii. Develop procedures/operations manuals for integrated enforcement by staff of the three agencies, including use of the FMS and smooth information exchange and incident responsiveness.

viii. Design and deliver Training Programs for the staff of the three agencies

ix. Footpath Management System - Assist in the development of the implementation plan, especially the human resource and procedures aspects. (Note the overall implementation plan including the specification, procurement, installation and acceptance testing of equipment, preparation of plans for location of equipment and monitoring centres should be one of the tasks in Component 1 Station Accessibility)

[17] To be verified with MRB. Under current regulations, the Police of the six Districts are responsible for enforcement of parking controls on pavements

Inputs

The specific tasks required staffing and specific expertise to carry out the services, together with their qualification and key tasks are detailed below in Table A1.1. The policy and institutional specialist will lead the team associated with this sub-component, but the overall team leader role will be under part C. A summary of the required expertise and expected duration of expert engagement is summarized in Table A1.2 below. All positions are expected to be provided on an intermittent basis, depending on the progress of consultations, workshops and governments own internal processes for approval of necessary changes to regulatory or procedural processes.

Table A1.1 Key Staff summary

	Position	**Qualifications and Experience**	**Key Tasks**
1	**Policy and Institutional Specialist** **International** 4 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification. At least 15 years experience in public transport policy and planning, including on projects funded by ADB or other IFI. Demonstrated experience in the design and implementation of parking policy. Demonstrated management, client liaison skills and capacity building skills Experience in developing countries	Leads i,ii, iii, iv
2	**Enforcement HR and Training Specialist** **International** 3 person Months	Bachelors Degree or equivalent in a relevant discipline and an internationally recognised professional qualification At least 15 years experience in training of personnel for enforcement of parking controls and activities similar to footpath management Experience in developing countries	Leads vii, viii Assist with vi,v
3	**IS Specialist** **International** 2 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification At least 10 years experience in the design and implementation of IS systems, including equipment selection, process design, selection and training of people to use the systems. Experience in developing countries	Leads ix Assist with iv, vi
4	**Transport Planner** **Local** 9 person months	Bachelors Degree in a relevant discipline At least 3 years experience, including in the design and implementation of parking policy.	Support undertaking I, ii, iii, vi, vii, ix
5	**Technical Assistants** **Local** 12 person	Bachelors Degree in a relevant discipline At least 5 years experience in a administrative or team assistant role, including working on projects funded by ADB or other IFI	Translation, report preparation, support technical discussions and meetings, administrative work including arranging and preparing meeting notes, obtaining documents and data,

	months		and logistical support to the other consultants

Table A1.2: Expertise inputs

Position	Person months
International	
Policy and Institutional Specialist	4
Enforcement HR and Training Specialist	3
Information System Specialist	2
Sub-total	**9**
National	
Transport Planner	9
Technical Assistant	12
Sub-total	**21**
TOTAL	**30**

There will also be other inputs required office administration support for translation, reporting and undertaking surveys, public consultations and workshops. No equipment is expected to be required to be purchased for the services.

Output / Deliverables

Main deliverables and outputs of these services are:

(i) Revisions to regulations and clear definition of the roles and responsibilities of different agencies
(ii) Design and implementation of the operational procedures for the FMS
(iii) Design and delivery of Training Programs for the staff of the agencies.

The content, and number of training programs and the number of staff to be trained will be determined during the course of the assignment.

Progress report and technical reports are required to monitor the progress and results from the nine main tasks, incorporating major comments from DOT and all related stakeholders in Ha Noi, including all international financing institutions involved in public transport.

Associated agencies and working arrangements

Related agencies for package include DOT, DOT Transport Management and Operations Center (TRAMOC), MRB, Police and other related stakeholders in Ha Noi. Associated agencies' staff who will be trained include MRB, Hanoi Traffic Police, Police of the six Districts (Ba Dinh, Cau Giay, Dong Da, Hoan Kiem, Tu Liem North and Tu Liem South). Working and training arrangements among these related agencies need to be proposed and finalized as one of the output/deliverables.

Timing

Review of policies and classroom training should be provided in advance of the opening date of Metro Line 3 at end of 2018. Due allowance will be needed to ensure proper public consultations are conducted during program development and sufficient socialization of

regulations are conducted, in each district and affected communes. On the job training should be provided in the first week after opening, and during the first year of operation.

Therefore the implementation of this package in expected to begin in January 2017 and end on 31 December 2018, with duration of 24 months.

C. Integration of future developments with stations

Background / Rationale

It is recognised that transport and land use are linked and that one way to encourage public transport usage (Policy A) and limit usage of private vehicles (Policy B) is by the type of development around metro stations. This is known generically as Transit Orientated Development (TOD) and it includes the development of multi modal interchanges.

The investigations for the preparation of this project and discussions with HAUPA have shown that within the catchment area of the station many new developments which should be integrated with the station are in planning and design. Given the time frame and budget for this project, it has been decided (in order to have the project approved in 2014) to proceed to Basic Design and FS for Station Concept Option 1[18], except at the key interchange stations of Nhon, Cau Giay and Kim Ma. However planning and design work should continue on integration of new developments along the corridor with all the Metro stations, including coordination with investors, HAUPA and HUPI, as such developments are proposed. DOT/TRAMOC (or the PTA when established) will need capacity building to do this work.

Objectives

To encourage usage of Metro Line 3 and limit usage of private vehicles by facilitating Transit Orientated Development adjacent to stations, and integrating such development with the stations.

Overall Scope

Provide support to DOT and MRB in coordinating the planning, design and implementation of Transit Orientated Development adjacent to Metro stations with developers and other HPC agencies..

Main Tasks

The following main tasks are required to implement the proposed package:

i. Establishment of guidelines and procedures for review and joint working on TOD between DOT, MRB, TRAMOC, HAUPA and HUPI,

ii. Continuous in house advice to DOT and MRB staff, including liaison with HAUPA

iii. Monitoring of proposed building development within 500 metres of Metro Line 3

iv. Preparation and delivery of training programs

v. Drafting of "pro forma" briefs for developers and other agencies on the requirements for TOD

Inputs (Required Expertise)

[18] This option was based on an objective to avoid any land acquisition over and above that already provided for in the Line 3 Master Plans prepared by SYSTRA.

The specific tasks required staffing and specific expertise to carry out the services, together with their qualification and key tasks are detailed below in Table A1.3. The urban transport planner will lead both the team associated with this part (C), and be the overall team leader for the whole services CS1 package of consultants. A summary of the required expertise and expected duration of expert engagement is summarized in Table A1.4 below.

Table A1.3 Key Staff summary

	Position	Qualifications and Experience	Key Tasks
1	**Urban Transport Planner/Team Leader** **International** 10 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification. At least 15 years experience in urban transport and development policy and planning, including on projects funded by ADB or other IFI. Demonstrated experience in the design and implementation of TOD policy. Demonstrated management, client liaison skills and capacity building skills Experience in developing countries	Leads i, ii, iii Assist with iv, v
2	**Policy and Institutional Specialist** **International** 3 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification. At least 15 years experience in urban transport and development policy and planning, including on projects funded by ADB or other IFI. Demonstrated experience in the design and implementation of institutional arrangements for policy implementation. Demonstrated management, client liaison skills and capacity building skills Experience in developing countries	Assist with i, ii
3	**Private Sector Development Specialist** **International** 3 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification At least 10 years experience in the design and implementation of private sector and PPP development. Experience in developing countries	Leads v Assist with i, ii
4	**Training Specialist** **International** 2 person Months	Bachelors Degree or equivalent in a relevant discipline and an internationally recognised professional qualification At least 15 years experience in training of personnel to undertake roles in newly established organizations Experience in developing countries	Leads iv
5	**Urban Planner** **Local**	Bachelors Degree in a relevant discipline At least 3 years experience, including in the preparation of detailed plans for development within the Master Plan.	Assist in the undertaking of all tasks i, ii, iii, v

	12 person months		
6	**Technical Assistants** **Local** 24 person months	Bachelors Degree in a relevant discipline At least 5 years experience in a administrative or team assistant role, including working on projects funded by ADB or other IFI	Translation, report preparation, support technical discussions and meetings, administrative work including arranging and preparing meeting notes, obtaining documents and data, and logistical support to the other consultants

Table A1.4: Expertise inputs

Position	Person months
International	
Urban Transport Planner/Team Leader	10
Policy and Institutional Specialist	3
Private Sector Development Specialist	3
Training Specialist	2
Sub-total	**18**
National	
Transport Planner	12
Technical Assistant	24
Sub-total	**36**
TOTAL	**54**

There will also be other inputs required office administration support for translation, reporting and undertaking surveys, public consultations and workshops. No equipment is expected to be required to be purchased for the services.

Output / Deliverables

Main deliverables and outputs of these services are:

(i) Procedures and guidelines for review and joint working on TOD between MRB, TRAMOC, DOT, HAUPA and HUPI;
(ii) Definition of pedestrian and motor cycle access routes to stations and typical improvements;
(iii) As required, briefs for developers and other agencies on the requirements for TOD; and
(iv) Training programs.

The content, and number of training programs and the number of staff to be trained will be determined during the course of the assignment.

Progress report and technical reports are required to monitor the progress and results from the nine main tasks, incorporating major comments from DOT and all related stakeholders in Ha Noi, including all international financing institutions involved in public transport.

Associated agencies and working arrangements

Related agencies for package include DOT, TRAMOC, MRB, HAUPA and other related stakeholders in Ha Noi. Associated agencies' staff who will be trained include MRB, TRAMOC,

HAUPA. Working and training arrangements among these related agencies need to be proposed and finalized as one of the output/deliverables.

Timing

Review of policies and classroom training should be provided in advance of the opening date of Metro Line 3 at end of 2018. Due allowance will be needed to ensure proper public consultations are conducted during program development and sufficient socialization of regulations are conducted in each district. Training should be provided once frameworks have been developed for TOD procedures and guidelines

Therefore the implementation of this package in expected to begin in July 2016 and ends on 31 December 2017, with duration of 18 months.

D. Parking and demand management

Background / Rationale

Policy Goal B is Limiting Usage of Private Vehicles. Two of the ways of doing this that are generally acknowledged internationally are through controls on parking and managing the demand for the use of provide vehicles through pricing and management measures which encourage the use of walking, cycling or usage of public transport. Only limited work appears to have been undertaken which would assist HPC in the formulation of parking policy and in the management, supply and pricing of parking in Hanoi. (Some work was undertaken by ADB as part of a Regional Study of Parking).

Objectives

To limit usage of private vehicles through formulation of parking policies and demand management strategies that could be applied in Hanoi, with associated implementation arrangements.

Overall Scope

To develop a detailed Parking Strategy covering the areas around the metro stations, as well as the centre of Hanoi. The Strategy would include the review of standards for provision of parking spaces in buildings, extent of on street parking, rules for parking on footpaths, and responsibilities for enforcement of parking controls.

To review other demand management measures in use internationally to limit usage of private vehicles, in order to select measures appropriate for use in Hanoi. Once preferred demand management methods are selected by HPC, assistance will be provided to develop programs for their implementation.

Main Tasks

The following main tasks are required to implement the proposed package:

i. Parking
    a. Review of standards for provision of parking spaces in buildings,
    b. Determination of the extent of on street parking in the central city and in the Line Corridor within 500 metres of metro stations, including numbers of spaces and time limits
    c. Review of rules for parking on footpaths
    d. Responsibilities for enforcement of parking controls
    e. Assess current pricing

f. Develop options for Parking Strategy covering the areas around the metro stations, as well as the centre of Hanoi, and assess changes in supply and pricing under for each strategy.
g. Develop preferred Strategy for Line 3 Corridor and City Centre

ii. Demand Management
   a. Review techniques of demand management in use internationally
   b. Develop TDM plans for businesses that discuss the messages of:
      i. Reducing the need to travel (through home working)
      ii. Retiming the journey to avoid peak periods
      iii. Changing modes to reduce vehicular travel
      iv. Changing routes to avoid congested locations
   c. Assess which are the most appropriate for use in Vietnam/Hanoi
   d. Prepare outline strategy for implementation of recommended measures

Inputs (Required Expertise)

The specific tasks required staffing and specific expertise to carry out the services, together with their qualification and key tasks are detailed below in Table A1.5. The policy and institutional specialist will lead the team associated with this part (D), but the overall team leader role for the CS1 package of consulting services will be under part C. A summary of the required expertise and expected duration of expert engagement is summarized in Table A1.6 below.

Table A1.5 Key Staff summary

	Position	Qualifications and Experience	Key Tasks
1	**Urban Transport Planner** **International** 6 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification. At least 15 years experience in urban transport policy and planning, including on projects funded by ADB or other IFI. Demonstrated experience in the design and implementation of parking policy and TDM. Demonstrated management, client liaison skills and capacity building skills Experience in developing countries	i, ii.
2	**Parking Specialist** **International** 3 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification. At least 15 years experience in urban transport policy and planning, including on projects funded by ADB or other IFI. Demonstrated experience in the design and implementation of parking policy. Demonstrated management, client liaison skills and capacity building skills Experience in developing countries	Support for i
3	**Transport Demand Management Specialist**	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification At least 10 years experience in the design and implementation of TDM	Support of ii

	International 3 person Months	Experience in developing countries	
4	**Transport Planner** **Local** 6 person months	Bachelors Degree in a relevant discipline At least 3 years experience, including in the design and implementation of parking policy.	Assist in the undertaking of all activities in tasks i, ii
5	**Technical Assistants** **Local** 10 person months	Bachelors Degree in a relevant discipline At least 5 years experience in a administrative or team assistant role, including working on projects funded by ADB or other IFI	Translation, report preparation, support technical discussions and meetings, administrative work including arranging and preparing meeting notes, obtaining documents and data, and logistical support to the other consultants

Table A1.6: Expertise inputs

Position	Person months
International	
Urban Transport Planner	6
Parking Specialist	3
Transport Demand Management Specialist	3
Sub-total	**12**
National	
Transport Planner	6
Technical Assistant	12
Sub-total	**18**
TOTAL	**30**

There will also be other inputs required office administration support for translation, reporting and undertaking surveys, public consultations and workshops. No equipment is expected to be required to be purchased for the services.

Output / Deliverables

Main deliverables and outputs of these services are:

(i) Recommendations on Parking policy, pricing, implementation mechanisms and enforcement mechanisms
(ii) Recommendations on Demand Management policy, pricing, implementation mechanisms and enforcement mechanisms
(iii) Implementation plan for parking and demand management, including necessary milestones

Progress report and technical reports are required to monitor the progress and results from the nine main tasks, incorporating major comments from DOT and all related stakeholders in Ha Noi, including all international financing institutions involved in public transport.

Associated agencies and working arrangements

Related agencies for package include DOT, TRAMOC, HAUPA, relevant districts and other related stakeholders in Ha Noi. Working arrangements among these related agencies need to be proposed and finalized as one of the output/deliverables.

Timing

Review of policies training should commence as soon as possible after loan effectiveness, to ensure all recommendations are in place in advance of the opening date of Metro Line 3 at end of 2018. Due allowance will be needed to ensure proper public consultations are conducted during program development and sufficient socialization of regulations are conducted in each district.

Therefore the implementation of this package in expected to begin in April 2016 and ends on 31 December 2017, with duration of 21 months.

Annex 2: Bus system improvement and implementation support
Outline Terms of Reference

A. Introduction

Background: Ha Noi is the capital city of Viet Nam, with a population of the greater urban area over 6 million that is expected to grow to 10 million by 2025. Ha Noi is at an early stage of urban transport development, having moved from heavy usage of bicycles to motorcycles in the last 10 years and now increasingly to cars. Private vehicles dominate urban transportation, with motorcycles being the most prevalent means at about a 90% share. Continued increasing car ownership, together with a significant increase in the number of motorcycles has resulted in severe congestion during peak hours, resulting in degradation of urban environment and a rise in traffic accidents. The situation is expected to worsen if the current traffic growth trend of 9% continues and more motorbike users convert to cars. The existing public transport system consists of an inadequate bus network that is becoming less competitive with private modes of transport. Traffic planning and parking management is weak and inadequate to effectively control traffic and demand. Importantly, there are no policy and regulatory measures to discourage private modes of transport, so the inadequate public transport system cannot attract private vehicle users.

The Prime Minister of Vietnam approved in 2009 the Ha Noi Urban Transport Master plan (HUTMP) that proposes to develop a network of nine urban mass rapid transit (MRT) lines, improvements and expansion of the bus system and traffic management system improvements, all of which will support a modal shift from private to public transport. Together with improvements to the road system and supporting policy and regulatory measures, the HUTMP objective is for public transport to achieve 45% of transport demand by 2030. The HUTMP will establish a comprehensive network of public transport services in Ha Noi. A detailed description of the public transport environment in 2013 and proposed developments can be found in the “Project development background and policy overview” report that was prepared as part of the ADB funded TA 7894 VIE: Strengthening sustainable urban transport for Ha Noi Metro line 3 project

Metro Line 3

The Government of Socialist Republic of Viet Nam has received a Loan from the Asian Development Bank (ADB) towards the cost of “Ha Noi Metro Rail System Project (Line 3: Section Nhon to Hanoi railway station section)”. Metro Line 3 will facilitate public transport connectivity and access in six central districts of Ha Noi (Districts: Ba Dinh, Cau Giay, Dong Da, Hoan Kiem, Tu Liem North and Tu Liem South), as well as being an integral part of the public urban transport system to support the HUTMP..

Strengthening Sustainable Urban Transport for Ha Noi Line 3 Project

In order to ensure integration of public transport occurs in six districts along Metro Line 3, ADB has funded a project preparatory technical assistance (PPTA) for the “Strengthening Sustainable Urban Transport for Ha Noi Line 3 Project” to support the development of sustainable low carbon urban transport measures and programs in Ha Noi.

Integration will be addressed through the implementation linking key inter-connected urban transport measures under four main components of packages; (i) Component 1 - Metro Line 3 station proposed accessibility improved; (ii) Component 2 - Public transport system improved;

(iii) Component 3 - Public transport policy and systems developed and (iii) Component 4 – Metro Line 3 implementation supported. Component 1 and 2 are to be implemented through other consulting service contracts under the proposed ADB and ADB Clean Technology Fund loans

Component 3 - Public transport policy and system integration measures and services that were considered as important measures for the sustainability of urban transport for Ha Noi Metro Line 3 were assessed. These are required to provide integrated public transport services to complement the other Project components to achieve the overall sustainability objective of the Project. Four key policy goals were identified as important to support the successful implementation of the HUTMP, as follows:

A. Encouraging public transport usage
B. Limiting usage of private vehicles
C. Limiting emission through selection of appropriate public transport vehicles and developing a technology innovation program for public transport
D. Developing a smart ticketing system.

Possible changes to policies and regulatory measures (or possible new policies and regulatory measures) to support the station accessibility and PT measures and achieve the project objectives were developed under the four key goals and discussed at a Policy Workshop on January 30th, 2013.

The selected policies and measures discussed are listed below under the Goals to which they relate..

Goal A: Encouraging Usage of Public Transport
- Bus Service Expansion - Bus Network Redesign
- Bus Service Expansion - Public Transport Development Program 2015 - 2020 Review
- Development of Fares Policy
- Financial Support for Bus and Metro Operations and Maintenance
- Promotion of walking (to stops and stations) as a travel mode
- Transit Orientated Development (TOD) around stations

Goal B: Limiting Usage of Private Vehicles
- Parking Controls and Enforcement
- Parking Strategy, Policy and Management
- Demand Management/Mobility management
- Appropriate Vehicle ownership and usage charges

Goal C: Limiting emission through selection of appropriate public transport vehicles and developing a technology innovation program for public transport
- Select Low emission vehicles
- Define Technology Innovation Program

Goal D: Developing a smart ticketing system

Some of these measures are being examined in other Projects. For Component 3 of this Project, activities supporting the four goals were grouped into two subcomponents; (A) implementation support and capacity development, and (B) public transport policy and

regulatory development. The eight measures that were selected to be included under component 3 of the Project are:

- 3A Implementation support and capacity development
  - 3A1 Better station enforcement program and training
  - 3A2 Bus network redesign
  - 3A3 Integration of future developments with stations
  - 3A4 Implementation support to bus system improvements
- 3B Public transport policy and regulatory development
  - 3B1 Fares and Ticketing
  - 3B2 Bus development program 2015-2020 review and updating
  - 3B3 Parking and demand management
  - 3B4 Urban transport charges and finance

For the provision of technical assistance, these activities have been grouped into three consulting services (CS) packages:

- CS 1 Station area development program (comprising sub-components 3A1, 3A3 and 3B3)
- CS 2 Bus system improvement and implementation support (comprising subcomponents 3A2, 3A4 and 3B2)
- CS 3 Fares, ticketing and transport pricing (comprising sub components 3B1 and 3B4)

This is the TOR for CS 2 Bus system improvement and implementation support.

This consulting services package will cover two linked issues, being the (i) bus network redesign (part B), and (ii) bus development program 2015-2020 review and updating (part C), as well as provide implementation support to TRAMOC for design, specification, supervision and project management of public transport measures (part D). The Consultant will work directly with the Urban Transport Project Management Unit (UTPMU) and their project implementation division (PID) to implement these services, and work closely with associated agencies that the services will have a direct impact, as described in more detail below.

B. Bus network redesign

Background / Rationale

To encourage public transport usage (Policy A) it is vital that the bus system (including the network, routes and frequencies) is reviewed on an annual basis by the DOT Transport Management and Operations Centre (TRAMOC) as new BRT and Metro are opened, and restructured as required to ensure integration and the best possible level of service to passengers. This is standard international practice, as demonstrated in Hong Kong and Singapore.

The Project FS report provides a concept for increasing bus services prior to the opening of Metro Line 3, and for the restructuring of services associated with the opening of the Metro Line 3. TRAMOC will need to put these concepts into practice during the period leading up to the opening of the Metro Line 3 and will need additional technical support to ensure there is adequate capacity to do this work.

Objectives

To encourage usage of Metro line 3 by; (a) increasing bus services so as to increase public transport usage prior to opening of metro Line 3, and (b) ensuring that bus services are adjusted to make the most effective and efficient use of the line, to improve accessibility to metro stations and to provide for a easy journey using the two modes.

Overall Scope

Design and implementation of bus network redesign in the Metro Line 3 Corridor for two separate years. The first network redesign exercises in 2015 and the second in 2018 just prior to the opening of the Metro Line 3, with adjustments to bus services during the following 12 months.

This work will complement the development of a phased 5 year network development plan as part of the detailing (under part C below) of the Bus Development Program.

Main Tasks

The following main tasks are required to implement the proposed package will be the same for the two different bus network design exercises in 2015 and 2018:

i. Assess the existing bus network and routes that intersect Metro Line 3 alignment, including necessary user surveys

ii. Determine alternative routing, or introduction of different types of services that nay meet the current and projected demands

iii. Prepare a plan to enhance and modify the bus network plan for adoption by TRAMOC

iv. Assist TRAMOC with the implementation and monitoring of accepted bus network route changes and introduction of new routing, as needed.

Inputs (Required Expertise)

The specific tasks required staffing and specific expertise to carry out the services, together with their qualification and key tasks are detailed below in Table A2.1. The urban transport planner will lead the team associated with this part, but the overall team leader for the package will be under part D below. A summary of the required expertise and expected duration of expert engagement is summarized in Table A2.2 below.

Table A2.1 Key Staff summary

	Position	**Qualifications and Experience**	**Key Tasks**
1	**Urban Transport/bus Planner** **International** 8 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification. At least 15 years experience in public transport policy and planning, including on projects funded by ADB or other IFI. Demonstrated experience in the redesign of bus route networks parking policy. and implementation of the results of the redesign Demonstrated management, client liaison skills and capacity building skills Experience in developing countries	Leads i, ii, iii, iv
2	**Bus**	Bachelors Degree or equivalent in a	Assist with ii, iv

	Operations Specialist **International** 4 person Months	relevant discipline and an internationally recognised professional qualification At least 15 years experience in operational planning of bus services including the scheduling, of bus services and rostering of crews, as well as in bus company/depot operations Experience in developing countries	
3	**Bus Systems Planner** **International** 3 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification At least 10 years experience in the design and implementation of adjustments to and expansion of bus networks and services, including definition of bus, depot and ITS systems needed to support services. Experience in developing countries	Assists with i, ii, iii
4	**Transport Planner** **Local** 12 person months	Bachelors Degree in a relevant discipline At least 3 years experience, including in the design and implementation of parking policy.	Support undertaking i, ii, iii, vi
5	**Technical Assistants** **Local** 12 person months	Bachelors Degree in a relevant discipline At least 5 years experience in a administrative or team assistant role, including working on projects funded by ADB or other IFI	Translation, report preparation, support technical discussions and meetings, administrative work including arranging and preparing meeting notes, obtaining documents and data, and logistical support to the other consultants

Table A2.2: Expertise inputs

Position	Person months
International	
Urban Transport Planner	8
Bus Operations Specialist	4
Bus Systems Planner	3
Sub-total	**15**
National	
Transport Planner	12
Technical Assistant	12
Sub-total	**24**
TOTAL	**39**

There will also be other inputs required including office administration support for translation, reporting and undertaking surveys, public consultations and workshops. No equipment is expected to be required to be purchased for the services.

Output / Deliverables

Main deliverables and outputs of these services will be bus network restructuring plans and implementation programs. These plans will contain a package of measures listing routes to be cancelled or truncated, changes in frequency, and feeder services. They are also to include estimates of buses required, operating costs and capital costs (if any), as well as a detailed implementation schedule.

Progress report and technical reports are required to monitor the progress and results from the nine main tasks, incorporating major comments from DOT and all related stakeholders in Ha Noi, including all international financing institutions involved in public transport.

Associated agencies and working arrangements

Related agencies for package include DOT, TRAMOC, TRANSERCO and other bus operators. Working arrangements among these related agencies need to be proposed and finalized as one of the output/deliverables.

Timing

Consultants would be appointed by June 2015 with the first redesign plan to be completed by 31 December 2015. The second redesign to be completed prior to the opening date in 2018. Due allowance will be needed to ensure proper public consultations are conducted during program development and sufficient socialization of regulations are conducted in each district. Training should be provided once frameworks have been developed for TOD procedures and guidelines

Therefore the implementation of this package in expected to begin in November 2015 and ends on 31 December 2018, with duration of 42 months, but in two sets of 6 month periods of inputs.

C. Bus development program 2015-2020 review and updating

Background / Rationale

The opening of each successive BRT and Metro line will have a major impact on travel patterns, and a substantial proportion of metro users will 'ride in' and make a bus/rail interchange. To encourage public transport usage (Policy A) the bus network should be evaluated and planned as a whole to integrate with mass transit lines. A medium term (5 year) phased network plan should be developed for the period 2015 to 2020, with each phase implemented as mass transit lines open.

The existing Bus Development Program provides the framework within which such a plan can be developed. It also provides the strategic planning framework for the detailed tactical planning of other aspects of the bus system in the period from 2015 to 2020. These would include service delivery standards, fleet expansion and renewal, passenger information systems; capital works program and recurrent budget forecasts. It is acknowledged by TRAMOC that the Development Program does not adequately address the details of integration of bus and metro services, and the policies and financial resources needed.

Objective

To encourage public transport usage by ensuring provision of bus services and infrastructure in advance of demand through preparation of detailed operational and tactical plans, programs and budgets for the period 2015 – 2020 and to continue to limit emissions by ensuring selection of appropriate public transport vehicles and by developing a technology innovation program for public transport.

Overall Scope

Provide assistance to TRAMOC to update the approved Bus Development Program 2015-2020, and to prepare the 5 year Bus System Tactical Program for 2015 to 2020.

The following main tasks are required to implement the proposed package:

i. Review service delivery standards, fleet expansion and renewal, passenger information systems, capital works program and recurrent budget forecasts

ii. Confirm in detail roles and responsibilities of the authorities in managing the bus network, including potential role of the proposed Public Transport Authority (PTA)

iii. Formulate detailed revisions to policies and regulations on bus development, if needed.

iv. Undertake public acceptance survey to assess public attitudes to existing and proposed bus services standards

v. Develop procedures/operations manuals and guidelines for service delivery standards and passenger information systems.

vi. Develop a fleet expansion and renewal, capital works program and recurrent budget forecasts

vii. Assist in the development of the implementation plan for the Tactical Program 2015-2020, especially the human resource, financial and procedures aspects. (Note the implementation plan for the bus system improvement works to be funded in the Project - including the specification, procurement, installation and acceptance testing of equipment, preparation of plans for bus services - should be one of the tasks in part D below)

Inputs

The specific tasks required staffing and specific expertise to carry out the services, together with their qualification and key tasks are detailed below in Table A2.3. The urban transport planner will lead the team associated with this sub-component, but the overall team leader role will be under part D below. A summary of the required expertise and expected duration of expert engagement is summarized in Table A2.4 below. All positions are expected to be provided on an intermittent basis, depending on the progress of consultations, workshops and governments own internal processes for approval of necessary changes to regulatory or procedural processes.

Table A2.3 Key Staff summary

	Position	**Qualifications and Experience**	**Key Tasks**
1	**Urban Transport Planner** **International** 6 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification. At least 15 years experience in public transport policy and planning, including on projects funded by ADB or other IFI. Demonstrated experience in the design and implementation of public transport. Demonstrated management, client liaison skills and capacity building skills	Task Leader – oversight of all tasks. Specific inputs to tasks i,ii, iii, vi & vii.

		Experience in developing countries	
2	**Bus Operations Specialist** **International** 4 person Months	Bachelors Degree or equivalent in a relevant discipline and an internationally recognised professional qualification At least 10 years experience in operational planning of bus services including the scheduling, of bus services and crews, as well as in bus company/depot operations. Experience in developing countries	Lead v, vii, viii Assist with iii, vi,
3	**Bus Systems Planner** **International** 3 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification At least 10 years experience in the design and implementation of adjustments to and expansion of bus networks and services , including definition of bus, depot and IS systems needed to support services. Experience in developing countries	Lead i, iii, iv, Assist v, vi, & vii
4	**Public Transport Planner** **Local** 6 person months	Bachelors Degree in a relevant discipline At least 3 years experience, including in the planning, design and implementation of bus service delivery.	Support undertaking all i, ii, iii, iv, v, vi, vii
5	**Technical Assistants** **Local** person months	Bachelors Degree in a relevant discipline At least 5 years experience in a administrative or team assistant role, including working on projects funded by ADB or other IFI	Translation, report preparation, support technical discussions and meetings, administrative work including arranging and preparing meeting notes, obtaining documents and data, and logistical support to the other consultants

Table A2.4: Expertise inputs

Position	Person months
International	
Urban Transport Planner	6
Bus Operations Specialist	4
Bus Systems Planner	3
Sub-total	**13**
National	
Public Transport Planner	6
Technical Assistant	12
Sub-total	**18**
TOTAL	**31**

There will also be other inputs required office administration support for translation, reporting and undertaking surveys, public consultations and workshops. No equipment is expected to be required to be purchased for the services.

Output / Deliverables

Main deliverables and outputs of these services are Detailed Bus Development Tactical Plan 2015 - 2020.

Progress report and technical reports are required to monitor the progress and results from the nine main tasks, incorporating major comments from DOT and all related stakeholders in Ha Noi, including all international financing institutions involved in public transport.

Associated agencies and working arrangements

Related agencies for package include DOT, TRAMOC and bus operators. Working arrangements among these related agencies need to be proposed and finalized as one of the output/deliverables.

Timing

The outputs from this review and updating would determine the nature and timing of city wide bus services changes and the resources required during the period when a number of metro and BRT lines are due to open. As some elements of the plan may require implementation prior to the opening of Metro Line 2A, the work should be completed in 2015 if possible. Due allowance will be needed to ensure proper public consultations are conducted during program development and sufficient socialization of regulations are conducted, in each district and affected communes.

Therefore the implementation of this package in expected to begin in June 2015 and ends on 31 March 2016, with duration of 10 months.

D. Implementation support to bus system improvements

Background / Rationale

Implementation support to bus system improvements is required for TRAMOC to implement the design, Specification, Supervision and Project Management for Component II, which includes a greater value of equipment than civil works. This activity is therefore is separate from and additional to the activities for design and construction of civil works in Component I.

Objectives

To ensure that the equipment and works in component II are appropriately designed and specified in accordance with GoV and ADB requirements, that procurement is undertaken to ADB guidelines, so that functioning, efficient and effective public transport services can be provided to support Line 3.

Overall Scope

Subcomponents 1,2,3 of component II: Specification, procurement and deployment of clean, accessible, passenger friendly and technologically advanced buses to provide services to support the metro line and act as prototypes for future bus procurement by HPC and bus operators.

Subcomponents 4, 5 of II: Detailed design, procurement and construction supervision of on street works to support bus operations in the line 3 corridor and catchment.

Main Tasks

The following main tasks are required to implement the proposed package:

D1 Buses and equipment

i. Functional and (as required) technical specification of buses

ii. Functional and (as required) technical specification of equipment (particularly Intelligent Transport System (ITS) equipment),

iii. Definition of processes for use of ITS equipment and operational control of buses from central control room.

iv. Preparation of training manuals for staff in use of ITS equipment and procedures for selection of staff for the operations control room.

v. Preparation of procurement documents including appropriate forms of contract.

vi. Provision of procurement support to the UTPMU in: the selection of suppliers, acceptance testing of buses and equipment supplied and

vii. Performance monitoring during the defects liability period

viii. Ensuring bus maintenance training programs and documentation for staff are provided by suppliers and monitoring of training.

D2 Bus corridor improvements

i. Detailed engineering design, undertaking of any necessary topographical or other surveys,

ii. Design of deployment of bus related ITS equipment in the Line 3 corridor , including real time passenger information at bus stops

iii. Preparation of procurement documents including drawings, specifications, and bills of quantities.

iv. Provision of procurement support to the UTPMU in the selection of contractors.

v. Construction supervision of the selected contractor in the implementation of the works. The construction supervision is to be carried in accordance with FIDIC procedures, and include the signing off of works as completed, and processing of any claims by contractors for works not clearly defined in the contract

vi. Review techniques of demand management in use internationally

Inputs (Required Expertise)

The specific tasks required staffing and specific expertise to carry out the services, together with their qualification and key tasks are detailed below in Table A2.5. The public transport specialist will lead the team associated with this part, but will also act as the overall team leader for this consulting services package. A summary of the required expertise and expected duration of expert engagement is summarized in Table A2.6 below.

Table A2.5 Key Staff summary

	Position	Qualifications and Experience	Key Tasks
1	**Public Transport Specialist/Team Leader** **International** 9 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification. At least 15 years experience in public transport policy, planning and projects, including on projects funded by ADB or other IFI. Demonstrated experience in the design and implementation of bus priority and operational improvement strategies and measures Demonstrated management, client liaison skills and capacity building skills Experience in developing countries	• Project management of implementation of all tasks • Overall direction and leadership of the team • Provide technical leadership to the bus design and procurement process, and to ensuring operational effectiveness and integration of ITS and bus priority measures
2	**Bus Design Engineer** **International** 3 person Months	Bachelors Degree or equivalent in a relevant discipline and an internationally recognised professional qualification. At least 15 years experience in development of specifications for urban buses, and evaluation of subsequent performance. Experience in developing countries. Through knowledge of current developments internationally in the bus industry and current capital and operating costs. Experience in developing countries	Task D1 (ii) Assist vii
3	**Bus maintenance and operations engineer** **International** 3 person Months	Bachelors Degree or equivalent in a relevant discipline and an internationally recognised professional qualification. At least 15 years experience in maintenance and operation of urban buses Through knowledge of current developments internationally in the bus maintenance and current capital and operating costs. Experience in developing countries	Task D1 i, v vi, viii
4	**ITS System Designer** **International** 2 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification At least 10 years experience in the design and implementation of ITS systems, including equipment selection, process design, selection and training of	Task D1 ii Assisting in Task D1 iii

		people to use the systems. Experience in developing countries	
5	**ITS Equipment Designer** **International** 1 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification At least 10 years experience in the design and deployment of ITS equipment, including "off the shelf" equipment selection, and process design. Experience in developing countries	Task D1 ii, v, vi Assisting Task D1 iii
6	**ITS Operations Specialist** **International** 2 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification At least 10 years experience in the use of ITS systems in urban bus operations, including equipment and software selection, process design, and training of people to use the systems Experience in developing countries	Lead for Task D1 iii
7	**Procurement Specialist** **International** 4 person months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification At least 10 years experience, including 5 years experience in procurement and in developing countries.	Task D1 vi Task D2 iii, iv
8	**Traffic Engineer (Bus Priority and Facilities)** **International** 6 person month	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification At least 5 years experience in designing bus priority and associated measures, including experience in developing countries.	Task D1 i, iii Task D2 i, ii, v
9	**ITS deployment and implementation engineer** **International** 1 person month	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification At least 10 years experience in the use of ITS systems in urban bus operations, including equipment and software selection, process design, and training of people to use the systems	Assist Tasks D1 i, v vi, vii Task D2 ii
10	**Mechanical Engineer** **Local** 12 person months	Bachelors Degree in a relevant discipline At least 3 years experience, including in the design and implementation of …...	Assist Tasks D1 i, ii, v, vi, vii
11	**Electronic/electrical engineer** **Local** 12 person months	Bachelors Degree in a relevant discipline At least 3 years experience, including in the design and implementation of …...	Assist Tasks D1 iii, iv, vi
12	**Bus Operations centre operator**	Bachelors Degree in a relevant discipline	Assist Tasks D2 i, iii, iv

	Local 3 person months	At least 3 years experience, including in the design and implementation of …...	
13	**Traffic Engineer (Bus Priority and Facilities)** **Local** 3 person month	Bachelors Degree in a relevant discipline At least 3 years experience, including in the design and implementation of in designing bus priority and associated measures,	Assist Tasks D1 v, vi and D2 i, ii, iii
14	**Cost estimator** **Local** 2 person month	Bachelors Degree in a relevant discipline At least 3 years experience, including in the design and implementation of …...	Assist Tasks D1 v, vi and D2 I, iii
15	**Procurement and Contract admin. Specialist** **Local** 10 person month	Bachelors Degree in a relevant discipline At least3 years experience, including 5 years experience in procurement and contract administration	Assist Tasks D1 i, v, vi, vii and D2 iii, iv, vi
5	**Technical Assistants** **Local** 24 person months	Bachelors Degree in a relevant discipline At least 5 years experience in a administrative or team assistant role, including working on projects funded by ADB or other IFI	Translation, report preparation, support technical discussions and meetings, administrative work including arranging and preparing meeting notes, obtaining documents and data, and logistical support to the other consultants

Table A2.6: Expertise inputs

Position	Person months
International	
Public Transport Specialist/Team Leader	9
Bus Design Engineer	3
Bus maintenance and operations engineer	3
ITS System Designer	2
ITS Equipment Designer	1
ITS Operations Specialist	2
Procurement Specialist	4
Traffic Engineer (Bus Priority and Facilities)	6
ITS deployment and implementation engineer	1
Sub-total	**33**
National	
Mechanical Engineer	12
Electronic/electrical engineer	12
Bus Operations centre operator	3
Traffic Engineer (Bus Priority and Facilities)	6
Cost estimator	2

Procurement and Contract admin. Specialist	10
Technical Assistants	24
Sub-total	**69**
TOTAL	**102**

There will also be other inputs required office administration support for translation, reporting and undertaking surveys, public consultations and workshops. No equipment is expected to be required to be purchased for the services.

Output / Deliverables

Main deliverables and outputs of these services are:

(i) Specifications and associated documents for the procurement of buses and included ITS equipment
(ii) Buses (and associated ITS equipment) procured and deployed as designed, on time, on budget and to the required quality, and performing satisfactorily in revenue service
(iii) Effective use being made of ITS for management of bus operations
(iv) Detailed designs, specification and associated procurement documents for on street bus priority measures and other corridor improvements
(v) On street priority and other measures completed as designed, on time, on budget and to the required quality.

Progress report and technical reports are required to monitor the progress and results from the nine main tasks, incorporating major comments from DOT and all related stakeholders in Ha Noi, including all international financing institutions involved in public transport.

Associated agencies and working arrangements

Related agencies for package include DOT, TRAMOC, bus operators and other related stakeholders in Ha Noi. Working arrangements among these related agencies need to be proposed and finalized as one of the output/deliverables.

Timing

Review of policies training should commence as soon as possible after loan effectiveness, to ensure all recommendations are in place in advance of the opening date of Metro Line 3 at end of 2018. Due allowance will be needed to ensure proper public consultations are conducted during program development and sufficient socialization of regulations are conducted in each district.

Therefore the implementation of this package in expected to begin in October 2015 and ends on 30 September 2017, with duration of 24 months.

Annex 3: Fares, ticketing and transport pricing study
Outline Terms of Reference

A. Introduction

Background: Ha Noi is the capital city of Viet Nam, with a population of the greater urban area over 6 million that is expected to grow to 10 million by 2025. Ha Noi is at an early stage of urban transport development, having moved from heavy usage of bicycles to motorcycles in the last 10 years and now increasingly to cars. Private vehicles dominate urban transportation, with motorcycles being the most prevalent means at about a 90% share. Continued increasing car ownership, together with a significant increase in the number of motorcycles has resulted in severe congestion during peak hours, resulting in degradation of urban environment and a rise in traffic accidents. The situation is expected to worsen if the current traffic growth trend of 9% continues and more motorbike users convert to cars. The existing public transport system consists of an inadequate bus network that is becoming less competitive with private modes of transport. Traffic planning and parking management is weak and inadequate to effectively control traffic and demand. Importantly, there are no policy and regulatory measures to discourage private modes of transport, so the inadequate public transport system cannot attract private vehicle users.

The Prime Minister of Vietnam approved in 2009 the Ha Noi Urban Transport Master plan (HUTMP) that proposes to develop a network of nine urban mass rapid transit (MRT) lines, improvements and expansion of the bus system and traffic management system improvements, all of which will support a modal shift from private to public transport. Together with improvements to the road system and supporting policy and regulatory measures, the HUTMP objective is for public transport to achieve 45% of transport demand by 2030. The HUTMP will establish a comprehensive network of public transport services in Ha Noi. A detailed description of the public transport environment in 2013 and proposed developments can be found in the “Project development background and policy overview” report that was prepared as part of the ADB funded TA 7894 VIE: Strengthening sustainable urban transport for Ha Noi Metro line 3 project.

Metro Line 3

The Government of Socialist Republic of Viet Nam has received a Loan from the Asian Development Bank (ADB) towards the cost of “Ha Noi Metro Rail System Project (Line 3: Section Nhon to Hanoi railway station section)”. Metro Line 3 will facilitate public transport connectivity and access in six central districts of Ha Noi (Districts: Ba Dinh, Cau Giay, Dong Da, Hoan Kiem, Tu Liem North and Tu Liem South), as well as being an integral part of the public urban transport system to support the HUTMP..

Strengthening Sustainable Urban Transport for Ha Noi Line 3 Project

In order to ensure integration of public transport occurs in six districts along Metro Line 3, ADB has funded a project preparatory technical assistance (PPTA) for the “Strengthening Sustainable Urban Transport for Ha Noi Line 3 Project” to support the development of sustainable low carbon urban transport measures and programs in Ha Noi.

Integration will be addressed through the implementation linking key inter-connected urban transport measures under four main components of packages; (i) Component 1 - Metro Line 3

station proposed accessibility improved; (ii) Component 2 - Public transport system improved; (iii) Component 3 - Public transport policy and systems developed and (iii) Component 4 – Metro Line 3 implementation supported. Component 1 and 2 are to be implemented through other consulting service contracts under the proposed ADB and ADB Clean Technology Fund loans

Component 3 - Public transport policy and system integration measures and services that were considered as important for the sustainability of urban transport for Ha Noi Metro Line 3 were assessed. These are required to provide integrated public transport services to complement the other Project components to achieve the overall sustainability objective of the Project. Four key policy goals were identified as important to support the successful implementation of the HUTMP, as follows:

A. Encouraging public transport usage

B. Limiting usage of private vehicles

C. Limiting emission through selection of appropriate public transport vehicles and developing a technology innovation program for public transport

D. Developing a smart ticketing system.

Possible changes to policies and regulatory measures (or possible new policies and regulatory measures) to support the station accessibility and PT measures and achieve the project objectives were developed under the four key goals and discussed at a Policy Workshop on January 30th, 2013.

The selected policies and measures discussed are listed below under the Goals to which they relate.

Goal A: Encouraging Usage of Public Transport

- Bus Service Expansion - Bus Network Redesign
- Bus Service Expansion - Public Transport Development Program 2015 - 2020 Review
- Development of Fares Policy
- Financial Support for Bus and Metro Operations and Maintenance
- Promotion of walking (to stops and stations) as a travel mode
- Transit Orientated Development (TOD) around stations

Goal B: Limiting Usage of Private Vehicles

- Parking Controls and Enforcement
- Parking Strategy, Policy and Management
- Demand Management/Mobility management
- Appropriate Vehicle ownership and usage charges

Goal C: Limiting emission through selection of appropriate public transport vehicles and developing a technology innovation program for public transport

- Select Low emission vehicles
- Define Technology Innovation Program

Goal D: Developing a smart ticketing system

Some of these measures are being examined in other Projects. For Component 3 of this Project, activities supporting the four goals were grouped into two subcomponents; (A)

implementation support and capacity development, and (B) public transport policy and regulatory development. The eight measuresthat were selected to be included under component 3 of the Project are:

3A Implementation support and capacity development
- 3A1 Better station enforcement program and training
- 3A2 Bus network redesign
- 3A3 Integration of future developments with stations
- 3A4 Implementation support to bus system improvements

3B Public transport policy and regulatory development
- 3B1 Fares and Ticketing
- 3B2 Bus development program 2015-2020 review and updating
- 3B3 Parking and demand management
- 3B4 Urban transport charges and finance

For the provision of technical assistance, these activities have been grouped into three consulting services (CS) packages:

CS 1 Station area development program
(comprising sub-components 3A1, 3A3 and 3B3)
CS 2 Bus system improvement and implementation support
(comprising subcomponents 3A2, 3A4 and 3B2)
CS 3 Fares, ticketing and transport pricing
(comprising sub components 3B1 and 3B4)

This is the TOR for CS 3 Fares, ticketing and transport pricing.

As set out above, this consulting services package will cover two linked issues, being the (i) Fares and Ticketing (part B), and (ii) Urban transport charges and finance (part C). The Consultant will work directly with the Urban Transport Project Management Unit (UTPMU) and their project implementation division (PID) to implement these services, and work closely with associated agencies that the services will have a direct impact, as described in more detail below.

B. Fares and Ticketing

Background / Rationale

This TOR discusses three distinct concepts:

- Integrated ticketing – involving a common ticketing system making use of an appropriate technology that permits convenient travel on the entire public transport system on one ticket and convenient “back office” revenue clearing and handling.
- Integrated fares **–** *public transport ticket prices implicitly involve a two-part fare structure, consisting of a “flag fall” (an initial amount related to boarding a vehicle) and a distance-related part.* Integrated fares requires that *only a single flag fall be paid, i.e.* a passenger who needs to transfer between public transport modes or vehicles to undertake their journey should not be penalized because the public transport system does not allow them to make the trip on a single mode/vehicle.

- Uniform fares - Uniform fares means some standardization of the distance-(or zone) related portion of fares. Some consideration can be given to different distance-related fares to reflect cost and quality attributes of public transport models, e.g. MRT, and non air-conditioned and air-conditioned bus services

Integrated Ticketing . A number of studies are currently underway for the design of separate ticketing systems for each metro line by the metro line project owners. The lines and the ticketing standards adopted are:

Metro Line 1 (Yen Vien – Ngoc Hoi) –

Metro Line 2A, (Cat Linh – Ha Dong) scheduled to open in 2015 - ISO 18092 and JIS – X 6319-4.

Metro Line 2 (Thang Long South – Tran Hung Dao) - ISO 14443 class A

Metro Line 3 Stage 1, (Nhon – Hanoi railway station (scheduled to open in 2018). ISO 14443 classes A and B

BRT Line 1 scheduled to open in 2015 – applying open ticketing standards

Existing bus system – using Q Ticket – ISO 14443 classes A and B and ISO 18092

A study is also underway to assist MRB in establishing a Metro Operating Company for all metro lines[19]. One of the activities of this study is the consideration of ticketing systems for the metro lines to be managed by MRB.

MoT has been considering the requirements for the technology and standards for ticketing systems which could be applied nationally. Concern has been expressed by Hanoi and HCMC PC with some of the technical standards being considered by MoT, in particular in relation to the smart card formats, so such standards are still being discussed.

There is a more pressing concern that with the opening of three lines between 2016 and 2018 there is currently no agreed set of guidelines, functional or technical standards in Hanoi for the development of an integrated ticketing system. The intention is that such as system would enable passengers to use one form of ticket across all the proposed lines, BRT and buses.

DoT recognized these problems and proposed to HPC[20] a policy and e-ticketing technology framework be established, within which the ticketing system would be developed. HPC accepted the DoT proposal and assigned responsibility to DOT to coordinate these various activities[21].

Fares In contrast with the effort going into design of the Ticketing system, there has been limited discussion (since completion of the FS for the Line 3 Project) on possible fare levels for the metro, or on the options for public transport fare levels, systems (e.g. distance based, zonal, flat) and types of discounts (e.g. monthly passes,, multi trip tickets) or persons who should receive “concession” (discounted) fares (e.g. students, elderly, war veterans). The level of fares and integration of ticketing has a major impact on encouraging public transport usage, and the annual budget for provision of public transport services HPC. HPC has recently been

[19] Full reference to be added (when obtained from JICA)
[20] DoT Submission Letter Ref 1178/TTr-SGTVT of August 12th 2013.
[21] HPC Decision 5579/QD-UBNND of September 13th, 2013.

expressing concern over these budget requirements. The DoT led working group does not appear to be considering fares.

Overall Objectives

The overall objective is to encourage public transport usage in Hanoi by ensuring that an integrated fare and ticketing system is developed which allows passengers to conveniently use all public transport modes with a single e ticket (smart card). This would encourage public transport usage in Hanoi.

Overall Scope

The work would cover assistance to HPC in the formulation and implementation of an integrated ticketing and fare policy for application across all public transport modes.

B1 Ticketing System

Objectives

The policy and e ticketing technology framework shall be the basis for the implementation of all e ticket work for the metro, BRT and existing bus services in Hanoi.

The e ticketing system adopted for Hanoi shall be under the management of a central system administrative centre and has to be compatible with different e ticketing technologies.

The e ticketing system has to be capable of operation with different fare systems (such as distance based or zonal) on different modes.

Overall Scope

Assistance will be provided with the activities for detailing and implementation of the policy and e ticketing technology framework, integrated with the development of a fare policy. This assistance would focus on the activities for the development of an integrated ticketing system which are not currently being undertaken by other studies/donors.

In particular, provide support to DoT led Working Group, and also provide support in relation to fares and ticketing to the Hanoi Public Transport Policy Steering Committee[22] (The members of this Policy Steering Committee include all the key agencies with an interest in fare and ticketing policy and system development).

There are two basic approaches for implementing integrated ticketing:

1. Integrating the different systems proposed for the different metro lines, BRT and existing buses by the use of a interoperability standard. This is the approach currently being used by the DoT Working Group
2. Implementation of a single system across all metro Lines, BRT and existing buses which is the approach generally adopted.

[22] Established on July 11, 2013 under HPC decision No. 4278/QD-UBND.

A third approach is to start with stand alone systems for Metro Line 2A and BRT line 1 (as they are scheduled to open in 2015) while planning and design work continues for the single system. Then as the equipment for these lines needs to be replaced (in say 10 years from start of operation) move to Option 2.

Main Tasks

The indicative main tasks envisaged are listed below. The focus would be on providing techincal support and guidance to the Working Group established by DoT, starting with the tasks identified by DoT in their proposal to HPC. It is envisaged that this support would include assistance with the following tasks. The scope and staging of the tasks will be refined as the work of the DoT led Working Group proceeds.[23] While inputs to techincal standards is listed as one of the main tasks, this will not be the predominant task of the consulting services. Much work on this aspect of this ticketing system will already have been undertaken by the anticpated start date of these services in early 2016.

i. Policy and e ticketing framework.
    a. Further development and refinement
    b. Advice on implementation of the framework to all public transport services in relation to design, investment, construction, development, operation and management, for all service providers and by all ticketing system suppliers.

ii. Functional Specification - Defining what each of the differnet stakeholders is expcting from the ticketing system. The stakeholders in this context are the various metro and bus operators and HPC agencies with some reponsibility for aspects of the system. The expectations would be set out as a set of functional (as opposed to technical) specifications for the system. These would define the requirements in terms of , user friendliness, ease of use, interoperability between modes and lines, financial systems, IT systems and overall management.

iii. Technical Standards and Interoperability:
    a. Detailing the necessary technical standards to be applied in the design and operation of the ticketing system, including IT and financial management. The system shall conform to these ISO standards for an open system.
        - ISO/IEC 7810-4; FIPS 197 and FIPS PUB 46-3; ISO/IEC 15408; ISO/IEC 24014-1
        - Ticket card standards: ISO/IEC 1443 (part 2-4) or ISO/IEC 18092; ISO/IEC 14443-1 or ISO/IEC 7810
        - Technical requirements of the ticket readers: ISO 14443 and ISO 18092 (NFC). (Besides, readers are suggested to be able to read other traditional readers, such as Calipso, FeliCa, Mifare, etc.)
        - Minimum card contact speed is 106kbps with at least 2 contact plugs SAM ISO
    b. Advice on the specifications for the application of the ticketing system, to ensure that the system has these characteristics:
        - Able to be integrated with different ticketing technologies,
        - Able to be expanded in future
        - Able to provide “one e ticket” access to all PT passengers.

[23] Input to this refinement process could be sought form the individual Fare and Ticketing Specialist to be hired by DoT in mid 2014.

- Able to adapt to adjustments in pricing and service expansion,
- Capable of early detection and prevention of cyber attacks and acts of fraud from within and outside the system
- High level of confidentiality, security of data and personal information of passengers.

c. Assist in the appraisal of ticketing systems proposed for different PT projects, to ensure connectivity and compatibility with the overall system.

iv. Management Model for the Operation and Maintenance of the Ticketing System. The ticketing system is to ensure connections to all stakeholders, including DoT (as system manager), and other HPC agencies, ticketing system operator (s), PT service providers and users. DoT is to be the system manager through a central Administration Centre, with responsibilities to distribute revenues, manage ticket issuance, register stakeholders, and submit to HPC proposals for regulations for system management and operations. Providing advice on the options for DoT to exercise this management function, including DOT outsourcing certain activities, but retaining oversight.

v. Procurement:

a. Definition of the options for procurement of all or parts of the system, including further scoping, detailed design, implementation strategy and timing, operation and financial management.

- Assist in the formulation, appraisal and procurement of the preferred procurement option – either an overall system or different packages of equipment and works. This assistance could include (as required)
- Preparation of TOR for the preliminary design and preparation of procurement documents for the preferred option for system procurement and associated draft contracts for system management.
- Assistance with the selection of the team to undertake the preliminary design and system scoping.
- Assistance with review of the outputs of the preliminary design team Including the procurement documents) and detailed recommendations for system procurement.
- Assistance with procurement of the overall system.

vi. Clearing House Functions – Depending on the fare policy adopted, there will be a need for financial reconciliation and distribtion of fare revenues between operators. Advice on the options for provision and management of these “clearing house” functions. As with the the options for DoT for the operation and maintenance of the central administraion of the system in Task iv, this could DOT outsourcing certain activities to a bank or other financial institution.

The detailed scope and timing of the main tasks are influenced by the dates when decisions have to be made for the procurement of ticketing equipment for Metro Lines 2, 2A & 3 and BRT Line 1.

B2 Fares:

Objective

Develop a fare system in such a way that it encourages public transport usage, and meets HPC financial requirements for cost recovery.

Overall Scope

Provide assistance with the activities for design and implementation of an integrated fare system for Hanoi, integrated with the development of the ticketing system. This would focus on the activities for the development of a fares system which are not currently being undertaken by other studies/donors.

Main Tasks

The main tasks are listed below. Currently a fare system is only in operation on buses, which are the only current PT mode in Hanoi. Given the limited consideration of fares to date, the focus should be on presenting and recommending options before the detailed design of any system. All options have to be compatible with the e ticketing framework and any financial requirements of HPC.

Assemble and analyse data on the fare system on the existing bus services and the systems under consideration for the metro and BRT lines being designed or implemented. This should include descriptions of the type of fares (distance based, flat, zonal etc), concession (discount) arrangements and the persons eligible for concessions, and actual or envisaged cost recovery.

i. Set out the common definitions (that can be used by the operators of different modes) for (a) passenger types, including those passengers entitled to discounted or "concession" fares and (b) fare types
ii. Describe and discuss the advantages and disadvantages of different fares systems, including in relation to the e ticketing system and level of subsidies required. Include a discussion of factors such as (a) the potential for different fares for different modes related to the service quality of the mode and (b) use of distance based (or zonal) fares with a trip or daily price "cap".
iii. Examine the impact on financial position of operators and HPC of each option
iv. Examine the implications of each option for the functional and technical requirements of the ticketing system
v. Undertake consultation with key stakeholders on the options, and incorporate the results of this consultation into the design of the options.

Present the options at Workshops with operators and HPC agencies with a view to obtaining a concensus on a preferred option (or options) for further study.

vi. Present preferred option (s) to HPC and after obtaining an HPC decision, prepare detailed proposals for the HPC preferred option.
vii. Conduct a socialization and public awareness campaign on the proposed fare system, in order to gain public acceptance

Inputs (Required Expertise)

The specific tasks required staffing and specific expertise to carry out the services, together with their qualification and key tasks are detailed below in Table A3.1. The public transport specialist

will lead the team associated with part (B) and be the overall team leader. A summary of the required expertise and expected duration of expert engagement is summarized in Table A3.2 below. All positions are expected to be provided on an intermittent basis, depending on the progress of consultations, workshops and governments own internal processes for approval of necessary changes to regulatory or procedural processes.

Table A3.1 Key Staff summary

	Position	Qualifications and Experience	Key Tasks
1	**Transport Planner (Public Transport Specialist)/Team Leader** **International** 10 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification. At least 20 years experience in transport policy and planning, including on projects funded by ADB or other IFI. Demonstrated experience in a senior role in the design and implementation of fare and ticketing systems in a number of cities. Demonstrated management, client liaison skills and capacity building skills Experience in developing countries.	• Project management of implementation • Overall direction and leadership of the team • Provide leadership to the planning design and procurement process, and to ensuring operational effectiveness and integration of Fares and ticketing, as well as IT and PT operational requirements.
2	**Public Transport Fares Specialist** **International** 3 person Months	Bachelors Degree or equivalent in a relevant discipline and an internationally recognised professional qualification. At least 10 years experience in development of specifications for PT ticketing systems and evaluation of subsequent performance.. Through knowledge of current developments internationally in fare systems for urban PT Experience in developing countries	Assists in Tasks B1 ii and iv Overall responsibility for Tasks B2 i - ix
3	**Public Transport Ticketing Specialist** **International** 5 person Months	Bachelors Degree or equivalent in a relevant discipline and an internationally recognised professional qualification. At least 15 years experience in development of fare systems for multi modal PT systems and evaluation of subsequent performance. Through knowledge of current developments internationally in ticketing systems for urban PT and current capital and operating costs. Experience in developing countries.	Lead tasks B1 i, ii, iii, iv, vii, viii Assists with Tasks B1 v and vi, ix, x, xii, xii
4	**Public Transport Operations Specialist** **International** 2 person Months	Bachelors Degree or equivalent in a relevant discipline and an internationally recognised professional qualification. At least 10 years experience in the PT operations, including ticketing systems Experience in developing countries. Through knowledge of current operations internationally in ticketing systems for urban PT and current capital and operating costs.	Assists with Tasks BI, ii, iii, iv and vi, vii, viii Assists with Tasks B2 i – iii and vii

5	**ITS System Designer** **International** 4 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification At least 10 years experience in the design and implementation of IT systems for ticketing systems, including equipment selection, process design, selection and training of people to use the systems. Through knowledge of current developments internationally in IT systems for urban PT ticketing. Experience in developing countries	Assists with tasks B1 ii, iii, iv, vi
6	**Financial Specialist** **International** 4 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification At least 10 years experience in financial management and financial systems in a banking/financial services environment. Experience in developing countries	Financial analysis for Tasks B1 ii, iii, iv, vi and Tasks B2 iii, iv, viii
7	**Procurement Specialist** **International** 3 person months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification At least 10 years experience, including ticketing and IT systems and including 5 years experience in procurement in developing countries.	Technical lead for Tasks B1 v Assists tasks x, xi
8	**Communication Specialist** **International** 4 person months	Bachelors Degree in a relevant discipline. Experience in the public (as well as private) sector. Experience on projects funded by ADB or other IFI.	Develops Communication Strategy to ensure all stakeholders and (as necessary) the public are kept informed of the progress of the study.
9	**Transport Planner** **Local** 12 person months	Bachelors Degree in a relevant discipline At least 5 years experience in public transport planning, including on projects funded by ADB or other IFI.	Deputy Team Leader Supports Team Leader with project management of implementation, and in liaison with local agencies.
10	**Ticketing System Specialist** **Local** 6 person months	Bachelors Degree in a relevant discipline Knowledge of current developments internationally in ticketing systems for urban PT. Experience of working on ticketing systems. Experience on projects funded by ADB or other IFI.	Assists with Tasks B1 i - vi
11	**Bus Operations specialist** **Local** 6 person months	Bachelors Degree in a relevant discipline At least 3 years experience, in bus operations, including in the operation of ticketing systems.	Assists with Tasks B1 i, ii, iii, vi and Tasks B2 i, ii, iii, iv, providing bus inputs
12	**Metro Operations Specialist**	Bachelors Degree in a relevant discipline Experience, in the planning and design	Assists with Tasks B1 i, ii, iii, vi and Tasks B2 i ii, iii, iv providing metro inputs

	Local 6 person months	of metro operations, including in the design of ticketing systems	
13	**Financial Analyst** **Local** 12 person months	Bachelors Degree in a relevant discipline At least 5 years experience in financial management and financial systems in a banking/financial services environment.	Assists with financial analysis for Tasks B1 i, ii, iii, iv, vi and Tasks B2i, iii, iv, viii
14	**Publicist** **Local** 12 person months	Bachelors Degree in a relevant discipline. Experience in the public (as well as private) sector. Experience on projects funded by ADB or other IFI.	Supporting the Communications Specialist in ensuring all stakeholders and (as necessary) the public are kept informed of the progress of the study.
15	**Technical Assistants** **Local** 24 person months	Bachelors Degree in a relevant discipline At least 5 years experience in a administrative or team assistant role, including working on projects funded by ADB or other IFI	Translation, report preparation, support technical discussions and meetings, administrative work including arranging and preparing meeting notes, obtaining documents and data, and logistical support to the other consultants

Table A3.2: Expertise inputs

Position	Person months
International	
Public Transport Specialist/Team Leader	10
Public Transport Fares Specialist	3
Public Transport Ticketing Specialist	5
Public Transport operations Specialist	2
ITS System Designer	4
Financial Specialist	4
Procurement Specialist	3
Communication Specialist	4
Sub-total	**35**
National	
Transport Planner	12
Ticketing Systems Specialist	6
Bus Operations specialist	6
Metro operations specialist	6
Financial Analyst	12
Publicist	12
Technical Assistants	24
Sub-total	**78**
TOTAL	**113**

There will also be other inputs required office administration support for translation, reporting and undertaking surveys, public consultations and workshops. No equipment is expected to be required to be purchased for the services.

Output / Deliverables

Main deliverables and outputs of these services are:

Ticketing System

The deliverables for this aspect will be refined as the work of the DoT led Working Group proceeds, but are expected to include:

(i) Definition of functional requirements for the Integrated Ticketing System
(ii) Report consolidating of the necessary technical standards for the Integrated Ticketing System
(iii) Report on ways to integrate the different ticketing systems on the different modes and projects into the overall e ticketing framework
(iv) Report on options for the management and operation of the overall ticketing system (under DoT)
(v) Report on Options for the procurement of the Integrated Fare and Ticketing System either an overall system or different packages of equipment and works.

Fares

(i) Report on Options for the Fare System (s) for Hanoi for consultation with stakeholders
(ii) Report on Options for the Fare System (s) for Hanoi and recommendation on the preferred option for presentation to HPC
(iii) Report detailing the design and implementation of the fare system option selected by HPC.

Progress report and technical reports are required to monitor the progress and results from the main tasks, incorporating major comments from DOT and all related stakeholders in Ha Noi, including all international financing institutions involved in public transport.

Associated agencies and working arrangements

Related agencies for package include DOT, TRAMOC, bus operators and other related stakeholders in Ha Noi. Working arrangements among these related agencies need to be proposed and finalized as one of the output/deliverables.

Timing

Review of policies training should commence as soon as possible after loan effectiveness, to ensure all recommendations are in place in advance of the opening date of Metro Line 3 at end of 2018. Due allowance will be needed to ensure proper public consultations are conducted during program development and sufficient socialization of regulations are conducted in each district.

Therefore the implementation of this package in expected to begin in January 2016 and ends on 31 December 2017, with duration of 24 months.

C. Urban transport charges and finance

Background / Rationale

Hanoi is just starting to develop metro lines and extend bus services, and has limited experience of the financial impacts. Key aspects to achieving Policy A Encouraging use of public transport and Policy B Limiting private vehicle usage are the costs of using the different modes and the extent of government finance allocated to each of them. A balance needs to be struck between the relative costs of the two modes without increasing the financial burden on the city.

The work will take account of the paper on financing undertaken by TA-7894 entitled "Domestic and Climate Financing for Urban Transport in Vietnam." This paper reviewed relevant mechanisms that had the potential to impact on revenue and some aspect of transport policy.

Three measures were assessed to have high potential for early implementation. These are: (i) removal of parking price controls in selected activity centers served by MRT within a comprehensive parking policy framework; (ii) negotiated infrastructure provision along elevated MRT lines where adjacent development funded connections to MRT may be feasible; and (iii) adjusting fuel taxes – likely focusing on increasing the environmental rate which was introduced in 2012. The first two measures are small scale but very practical measures. The third has significant revenue potential and transport policy merit.

Four measures were assessed to have moderate potential. Excluding bonds which require repayment of the debt with revenue raised through the mechanisms described here and regular budget, the four remaining measures are:

- Public transport fares and cost recovery – focusing on improving bus services, integrating with MRT, introducing competitive tendering, optimizing fares with regard to quality of services but ensuring affordable fares for the poor.
- Vehicle excise taxes, registration fees and ownership fees – adjusting rates of excise taxes and initial registration charges (for issuing of the number plate etc) to achieve a better balance with usage charges (fuel taxes, new vehicle use fee).
- Vehicle use fee – there is potential to increase this fee and differentiate among vehicle types on the basis of environmental or other characteristics.
- Non residential off street parking levies – has revenue raising and demand management potential (but is best applied within a comprehensive parking policy framework).

The other measures are assessed as having low potential for early implementation but all are important e.g.: (i) improving the efficiency of the Land and Housing Tax that would facilitate measures such as Tax Increment Financing (TIF) and betterment charges; (ii) congestion charging; and (iii) expanding PPPs. Limited but worthwhile PPP opportunities exist in the short term through involvement of the private sector in bicycle share, and car parking schemes. These opportunities tend to be of modest cost and of limited complexity.

Objectives

To encourage use of public transport and limit usage of private vehicles through formulation of pricing policies and sustainable (by government and HPC) financing strategies that could be applied to public and private transport in Hanoi.

Main Tasks

To achieve the objective, the current work will focus on policies and mechanisms that influence the:

(i) Cost for the ownership and usage of private vehicles, and whether this has a tendency to encourage or discourage use of a car or motor cycle once it is acquired. It will also look at whether revenues from private vehicles are adequate to cover at least the operations and maintenance (O & M) costs of the Hanoi road system. (The study on parking in CS1 Package 1 Part D will inform this work).

(ii) Future requirements for the funding of public transport (metro, bus and BRT) operations and maintenance. Estimates will be made of the likely levels of fare revenue under different scenarios of overall fare levels and fare systems (e.g. distance based, zonal, flat). Other potential revenue sources will be estimated if relevant. These scenarios would include: (a) trend - or a continuation of current policies; and (b) an alternative more optimistic but feasible scenario.

(iii) The overall financial support required from HPC to sustain the public transport system, and roads through to 2025, and the impact that this support will have on the overall HPC budget.

(iv) framing of an appropriate policy on urban transport financing in the context of needed policies for: (a) financial sustainability of roads and public transport; and (b) achieve demand management or environmental objectives. Development of timeline for preparation and implementation of the policy.

(v) Preparation and approval of necessary relevant regulations to support the proposed urban transport financing policy, including timeline with key milestones

(vi) Socialization and public awareness campaign to introduce the regulations, to gain higher public acceptance

(vii) Identification of administrative units who are stakeholders in the development and implementation of UT financing policy, and development and implementation and of proposals for institution building of these units, training and capacity building of staff.

Inputs (Required Expertise)

The specific tasks required staffing and specific expertise to carry out the services, together with their qualification and key tasks are detailed below in Table A3.3. The Transport Planner (Financial Specialist) specialist will lead the team associated with this sub-component, but the overall team leader role for this consulting services package will be under part B. A summary of the required expertise and expected duration of expert engagement is summarized in Table A3.4 below.

Table A3.3 Key Staff summary

	Position	**Qualifications and Experience**	**Key Tasks**
1	**Transport Planner (Financial Specialist)/Team Leader** **International** 8 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification. At least 15 years experience in urban transport financial planning, including on projects funded by ADB or other IFI. Demonstrated experience in urban transport financial policy analysis, including the design of transport taxes, charges, revenues and costs. Demonstrated management, client liaison skills and capacity building skills	• Project management of implementation • Overall direction and leadership of the team

		Experience in developing countries.	
2	**Institutional Specialist** **International** 4 person Months	Bachelors Degree or equivalent in a relevant discipline and an internationally recognised professional qualification. At least 10 years experience in development of institutional and arrangements for sustaianable transport finance. Experience in developing countries. .	Leads tasks vii Provides Institutional inputs to Tasks ii, iii, iv.
3	**Communications Specialist** **International** 6 person Months	Bachelors Degree in a relevant discipline. Experience in the planning, design and implementation of public consultation for the presentation, discussion and obtaining feedback on complex policy issues public in the public (and/or as well as private) sector. Experience on projects funded by ADB or other IFI. Experience in developing countries	Task vi
4	**Financial Specialist** **International** 6 person Months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification Demonstrated experience in public sector financial policy analysis, including urban transport Experience in developing countries	Assists with Tasks i, ii, iii
5	**Transport Economist International** 4 person months	Bachelors Degree in a relevant discipline and an internationally recognised professional qualification Demonstrated experience in public sector economic policy analysis, including urban transport Experience in developing countries	Leads Tasks i – iv
6	**Public Transport Fares Specialist** **International** 3 person months	Bachelors Degree or equivalent in a relevant discipline and an internationally recognised professional qualification. At least 10 years experience in development of fare systems for multi modal PT systems and evaluation of subsequent performance. Through knowledge of current developments internationally in fare systems for urban PT. Experience in developing countries.	Assists with Tasks ii, iii, and iv.
7	**Transport Planner** **Local** 10 person months	Bachelors Degree in a relevant discipline At least 3 years experience in public transport financial planning, including on projects funded by ADB or other IFI	Deputy Team Leader Supports Team Leader with project management of study, and in liaison with local agencies.
8	**Institutional specialist**	Bachelors Degree in a relevant discipline Knowledge of institutional arrangements	Institutional information to assist Task i, ii, iii, iv

	Local 4 person months	for transport taxes, charges, revenue collection, budgeting and expenditure.	
9	**Financial Analyst** **Local** 8 person months	Bachelors Degree in a relevant discipline At least 5 years experience in public sector budgeting, policy analysis and financial management.	Assists financial analysis for Tasks I, ii, iii, iv
10	**Publicist** **Local** 8 person month	Bachelors Degree in a relevant discipline. Experience in the public (as well as private) sector. Experience on projects funded by ADB or other IFI.	Assists task vi
11	**Technical Assistants (2)** **Local** 16 person months	Bachelors Degree in a relevant discipline At least 5 years experience in a administrative or team assistant role, including working on projects funded by ADB or other IFI	Translation, report preparation, support technical discussions and meetings, administrative work including arranging and preparing meeting notes, obtaining documents and data, and logistical support to the other consultants

Table A3.4: Expertise inputs

Position	Person months
International	
Transport Financial Specialist/Team Leader	8
Institutional Specialist	4
Communications Specialist	6
Financial Specialist	4
Transport Economist	4
Public Transport Fares Specialist	3
Sub-total	**29**
National	
Transport Planner	10
Systems Specialist	4
Financial Analyst	8
Publicist	8
Technical Assistants	16
Sub-total	**46**
TOTAL	**75**

There will also be other inputs required office administration support for translation, reporting and undertaking surveys, public consultations and workshops. No equipment is expected to be required to be purchased for the services.

Output / Deliverables

Outputs will include working papers on:

(i) Adjustments to Local and National Fees and Charges for Ownership and Usage of Private Vehicles. This output would set out: (i) the current situation on relevant charges and fees and impacts; (ii) diagnosis based on own analysis; and (iii) promising proposals for immediate changes if required.

(ii) Public Transport Fares Policy and Financial Support: taking account of the development of the bus system and MRT to 2025 and the potential for higher quality travel opportunities to permit higher average fares potentially differentiated by mode, time of travel. This output would set out: (i) the current situation on relevant charges and impacts; (ii) diagnosis based on own analysis; and (iii) promising proposals for immediate changes if required.

(iii) Overall levels and share of HPC budget for public and private transport, and

(iv) A sustainable urban transport financial policy and regulations for Hanoi.

Progress report and technical reports are required to monitor the progress and results from the nine main tasks, incorporating major comments from DOT and all related stakeholders in Ha Noi, including all international financing institutions involved in public transport.

Associated agencies and working arrangements

Related agencies for package include DOT, TRAMOC, bus operators and other related stakeholders in Ha Noi. Working arrangements among these related agencies need to be proposed and finalized as one of the output/deliverables.

Timing

Review of policies training should commence as soon as possible after loan effectiveness, to ensure all recommendations are in place in advance of the opening date of Metro Line 3 at end of 2018. Due allowance will be needed to ensure proper public consultations are conducted during program development and sufficient socialization of regulations are conducted in each district.

Therefore the implementation of this package in expected to begin in January 2016 and ends on 31 December 2018, with duration of 36 months.

Table A3.5: Expertise inputs
Parts B & C Combined

Position	Person months	Person months	Person months
	B	**C**	**TOTAL**
International			
Public Transport Specialist/Team Leader	10	8	18
Public Transport Fares Specialist	3	3	6
Public Transport Ticketing Specialist	5		5
Public Transport Operations Specialist	2		2

ITS System Designer	4		4
Financial Specialist	4	4	8
Procurement Specialist	3		3
Communication Specialist	4	6	10
Institutional Specialist		4	4
Transport Economist		4	4
Sub-total	**35**	**29**	**64**
National			
Transport Planner	12	10	22
Ticketing Systems Specialist	6		6
Bus Operations specialist	6		6
Metro operations specialist	6		6
Financial Analyst	12	8	20
Publicist	12	8	20
Institutional Specialist		4	4
Technical Assistants	24	16	40
Sub-total	**78**	**46**	**124**
TOTAL	**113**	**75**	**188**

Annex 4: Accessibility design, supervision and implementation support Outline Terms of Reference

A. Introduction

Background: Ha Noi is the capital city of Viet Nam, with a population of the greater urban area over 6 million that is expected to grow to 10 million by 2025. Ha Noi is at an early stage of urban transport development, having moved from heavy usage of bicycles to motorcycles in the last 10 years and now increasingly to cars. Private vehicles dominate urban transportation, with motorcycles being the most prevalent means at about a 90% share. Continued increasing car ownership, together with a significant increase in the number of motorcycles has resulted in severe congestion during peak hours, resulting in degradation of urban environment and a rise in traffic accidents. The situation is expected to worsen if the current traffic growth trend of 9% continues and more motorbike users convert to cars. The existing public transport system consists of an inadequate bus network that is becoming less competitive with private modes of transport. Traffic planning and parking management is weak and inadequate to effectively control traffic and demand. Importantly, there are no policy and regulatory measures to discourage private modes of transport, so the inadequate public transport system cannot attract private vehicle users.

The Prime Minister of Vietnam approved in 2009 the Ha Noi Urban Transport Master plan (HUTMP) that proposes to develop a network of nine urban mass rapid transit (MRT) lines, improvements and expansion of the bus system and traffic management system improvements, all of which will support a modal shift from private to public transport. Together with improvements to the road system and supporting policy and regulatory measures, the HUTMP objective is for public transport to achieve 45% of transport demand by 2030.

The Government of Socialist Republic of Viet Nam has received a Loan from the Asian Development Bank (ADB) towards the cost of “Ha Noi Metro Rail System Project (Line 3: Section Nhon to Hanoi railway station section)”. Metro Line 3 will facilitate public transport connectivity and access in six central districts of Ha Noi (Districts: Ba Dinh, Cau Giay, Dong Da, Hoan Kiem, Tu Liem North and Tu Liem South), as well as being an integral part of the public urban transport system to support the HUTMP. The HUTMP will establish a comprehensive network of public transport services in Ha Noi. A detailed description of the public transport environment in 2013 and proposed developments can be found in the “Project development background and policy overview” report that was prepared as part of the ADB funded TA 7894 VIE: Strengthening sustainable urban transport for Ha Noi Metro line 3 project.

This will be addressed through the implementation linking key inter-connected urban transport measures under four main components of packages; (i) Component 1 - Metro Line 3 station proposed accessibility improved; (ii) Component 2 - Public transport system improved; (iii) Component 3 - Public transport policy and systems developed and (iii) Component 4 – Metro Line 3 implementation supported. Component 1 and 2 are to be implemented through other consulting service contracts under the proposed ADB and ADB Clean Technology Fund loans

In order to ensure integration of public transport occurs in six districts along Metro Line 3, ADB has funded a project preparatory technical assistance (PPTA) for the “Strengthening Sustainable Urban Transport for Ha Noi Line 3 Project” to support the development of sustainable low carbon urban transport measures and programs in Ha Noi.

Component 1 - To enhance the capacity to access the Metro Line 3 stations, civil works were developed to improve station accessibility – within the station Realm (100 metres), and on pedestrian access routes within 500 metres of the station.

The Scope of Civil Works under Output (i) includes:

a. Major Accessibility Improvement Measures

    i. Station 7 - Chua Ha: Elevated walkway underneath metro structure

    ii. Station 8 - Cau Giay : Transport Interchange

    iii. Station 9 – Ngoc Khanh : Underground Transit Area

    iv. Station 10 Cat Linh: Underground Transit Area and connnection to Line 2A

    v. Station 12 - Ga Hanoi : Subway from Metro station to RW station

b. Minor Accessibility Improvement Measures including, not limited to sidewalk repairs and improvement works, guard rails, tiling for the visually impaired, pedestrian crossing at street level /drop curbs, pedestrian signs, taxi, xe-om signs, landscaping within 100 metres from stations 1 – Nhon, 2 – Minh Khai, 3 – Phu Dien, 4 – Cau Dien, 5 – Le Duc Tho, 6 – National University, and 11 – Van Mieu

    The Project includes accessibility measures within the realm of Station No 1 (Nhon) but does not include the Transport Interchange associated with Nhon Station . Likewise, the minor accessibility improvement measures referred to above will also apply to stations 7, 8, 9, 10 and 12.

c. Improvement of pedestrian access routes within 500 metres catchment area of all stations. Small scale civil works on level 1 alleys include resurfacing or rehabilitation of the alley pavement and footpath; installation or upgrading of lighting; Improvement of drainage, signs and markings for pedestrian crossings and road safety; traffic calming measures and amenity improvements including landscaping

Implementation Arrangements

Ha Noi People's Committee (HPC) is the executing agency for the Project, with overall responsibility for project implementation. The Department of Transport (DOT) will be the implementing agency for the project represented by the Urban Transport Project Management Unit (UTPMU) as the Employer in accordance with the FIDIC Conditions of Contract adopted for the civil works.

The Consulting firm herein after referred to as the DDCS Constant will be employed by the Employer to act as the "Engineer" in accordance with the FIDIC Conditions of Contract. The firm will appoint an individual, to exercise the authority of the Engineer. This individual will be a senior urban transport engineer with at least 15 years professional experience in construction supervision of Urban Transport development projects, including in Southeast Asia. He should have a proven record of managerial capabilities through the directing/managing of civil

engineering and highway works, including projects financed by a major (multilateral) international lending agency

The DOT is to be responsible for directing relevant agencies to closely coordinate with ADB Consultant for the completion of the investment project, ensuring to comply with regulations on the harmonization between ADB and Vietnamese regulations on implementation of investment project.

In accordance with the FIDIC-based contract between the Urban Transport Project Management Unit (UTPMU) and the contractors, the DDCS Consultant hereinafter referred to as the "Engineer" will have the following duties necessary for the adequate supervision of construction activities on-site: (i) represent the interest of UTPMU and HPC in any matters related to the construction contract and its proper execution; (ii) assess the adequacy of all inputs provided by contractors and methods of work in relation to the required rate of work progress; (iii) examine and make recommendations to UTPMU on all claims from contractors; (iv) compute quantities of approved and accepted work and materials; and check, certify, and make recommendations to UTPMU; (v) propose and present to UTPMU for approval any changes in the plans deemed necessary for the completion of the work; (vi) before issuance of the certificate of completion, carry out the necessary inspection, specify and supervise any remedial works required, and when completed recommend UTPMU conduct a final inspection and accept the Project.

The expected construction schedule of the works under the Strengthening Sustainable Urban Transport for Hanoi Metro Line 3 Project is 2014-2018 and will be tied in with the main Metro Line Construction Project. The overall implementation of the Project including defect liability period is expected to complete over a five-year period closing in early year 2020. The design period is expected to complete within 10 months from commencement of the services. The overall supervision period is expected to take 27 months from Contractor's Mobilization, not including defect liability period.

Detail Design

The consultant will be responsible for preparation of detailed engineering design of the civil works for the the Strengthening Sustainable Urban Transport for Hanoi Metro Line 3 Project from Nhon to Hanoi Station all in compliance with the Vietnamese applicable regulations and standards.

During detailed engineering design, the consultant will undertake the necessary field studies and document preparation activities including refinement as needed to the proposed accessibility improvement measures and engineering approach, required environmental and social work, and preparation of detailed engineering and bidding documents. The activities to be covered during the detailed engineering phase of the assignment include:

i. review and finalization of TA7894 basic design description and drawings, social and environmental screening of the proposed work program

ii. prepare a project manual, a work break down structure identifying all packages of the project including: glossary, project legal framework including regulations, applicable standard and design criteria, co-financiers requirements, and set up communication and documentation system

iii. topographical surveys will be carried out in different levels of detail depending on the section of the line which they cover, and on the existing map and field data availability. More detail will for example be collected at the locations of the proposed civil works especially at proposed accessibility improvement facilities. The topographical reference system will be defined and the required benchmarks will be installed. The relevant information will be made available in the appropriate format and level of detail both for the CAD design teams and the project GIS (geographic information system) proposed for use particularly at the key station areas

iv. utility surveys will cover infrastructure such as telephone, power supply, sewage, rain water drainage and water supply networks. Knowledge of the location and type of existing (and proposed) utilities has to be collected as part of this phase. Collecting this material will involve both desktop studies and field surveys. The information collected from the utility survey will be added as map layers to the project GIS. The GIS will be established in such a way as to facilitate interchangeability with the project CAD tools. Prepare the plan and cost estimate for diversion of utilities

v. infrastructure surveys to cover physical objects such as roads and buildings. The consultants will involve in building surveys, that the impact (red line) including land take of the Line 3 project has largely been fixed, and that the Design and Build contractor will be required to carry out precautionary building surveys where appropriate. During this phase will therefore carry out (as with the utility survey) a combined desktop and field survey to identify;

- proposed new road works and their timetable
- general condition and pavement structure of the existing roads

vi. geotechnical investigations including bore-holes as required for the foundation design of elevated walkways and underground transit areas; soil samples for the roads and culverts; and other laboratory tests and field tests as needed for detail engineering design of the Works

vii. disposal survey to identify the location and quantity of spoil created and the location and capacity of the disposal site for excavated materials; obtain the approval of relevant authorities, Propose optimal plan for handling of excavated materials, Propose procedures and regulations to minimize environmental impacts arising during the collection, transportation and disposal of excavated materials

viii. hydrological Investigations including (i) collect data on meteorology, hydrology and rainfall for Hanoi, from relevant meteorology stations in the area, (ii) collect data on water levels on hourly basis during the last 10 years from relevant gauging stations in the area, (iii) collect data on run off of all rivers and channels on the areas, and (iv) collect data on current status and planning of drainage and sewerage systems along main roads

ix. pavement surveys, including necessary sub-grade inspections; Dynamic Cone Penetrometer (DCP), trial pits and/or deflection testing

x. updating of passenger demand and flows within the project area. A detailed understanding of passenger flows at the proposed stations is essential for defining a

proper operations and design concept of accessibility Improvement measures. While the locations of the stations and patronage forecasts as given in the feasibility study are assumed to be fixed the capacity study for pedestrian access footpaths, corridors, walkways etc, need to be updated

xi. Tasks are (i) review traffic demand and flows for each station, (ii) agree priorities, program and spatial arrangement to accommodate the requirements, (iii) produce concept design interactively with relevant stakeholders and responsible agencies, and (iv) assess the impact of the design on adjacent structures and facilities and develop a scheme for integrating the development into the surrounding subterranean and surface level urban fabric

xii. Preparation of detail design for civil work / equipment system, establish design criteria and construction specifications. Preparation of detailed engineering drawings including plans for underground structures, elevated walkways, pavements, sidewalks, and other necessary items showing vertical and horizontal alignment, cross sections, longitudinal profiles, pavement structures, drainage, mechanical & electrical works, and all necessary detail as required

xiii. preparation of construction methods and schedules, including determination of most cost-effective construction methods and equipment/personnel needs, packaging of works, and accompanying schedules

xiv. preparation of traffic diversion concept and management plan for construction. Classify surrounding roads with on-site checks, Collect available information from involved parties in the affected areas, Prepare traffic diversion models according to possible construction programme (station areas, utilities), Develop traffic diversion procedure

xv. preparation of detailed cost estimates, including preparation of detailed analysis of inputs and prices for items such as labour, materials, equipment, tax, overhead, profit, etc, breakdown of the foreign currency and local currency requirements, and preparation of the related disbursement schedules

Tender Documents and Procurement Plan

Preparation of tender documents in accordance with the harmonized sample biding documents approved by ADB and the Government of Vietnam, including – relevant supporting documents such as invitation to tender, instruction to tenderers; tender forms; draft contract documents; conditions of contract; general and technical specifications, BOQs, and relevant drawings.

During the preparation of tender documents the Consultant will ensure that environmental issues are included in the design criteria e.g. for stations operations, work construction site, timing and phasing. The consultant will add specific outputs and recommendations of the Social including Gender Action Plan (GAP) and Initial Environmental Examination (IEE)/Environmental Management Plan (EMP) into the Detail Design and bidding documents for the contractors.

The specifications will include the Safety and Security requirements for Contractors, Client, Authorities, Emergency response organizations – e.g. Fire Department, Police, Medical emergency response organizations on Safety and Security topics during construction. Specifications to cover safety level to comply with, safety system concept taking the whole

system into account, fire protection and life saving, emergency response planning and changes to be proposed if deficiencies are identified, compliance monitoring and training.

It is critical that the tendering process including prequalification requirements is agreed between the Implementation Consultant and the Client and Financiers at an early stage so that the number and scope of packages may be determined and the documentation can be prepared to match.

A procurement plan will be prepared in accordance with the regulations of client and financing agencies including the ADB and CTF. Each of the Services funded by a particular Agency will be procured in line with the regulations and guidelines of that particular agency. Full reference will be made to the Funding Agency Procurement Regulations and to the Vietnamese requirements such as the Decree on Tendering (ref: 58-2008-ND-CP). The tender documents will be made available to the Client and the relevant funding agency during preparation for auditing and comment.

Construction Supervision

The consultant will be responsible to assist the Client with *construction supervision* of the civil works and specifically to act as the “Engineer” as defined in the construction contract documents.

During *construction supervision* the Engineer will delegate some of his authority to the site resident engineers, who will act as "the Engineers Representatives", as defined in the construction documents. Each civil work contract, or grouping of contracts will be supervised by a team consisting of the appropriate professional skills. Their scope of activities will generally be as follows:

i. Checking the construction design documentation submitted by the Contractor in order to verify its completeness, consistency and compliance with the detail Design. This task will also ensure compliance with the performance and technical characteristics stipulated in the Contract specifications and committed by the Contractor to the Employer in the Contract.

ii. provide such information as is necessary for the Contractor to set out the works and check that the setting out is correct

iii. review and approve the Contractor's proposals and working drawing to the extent required by the contract, advise modifications where necessary and approve these proposals;

iv. review and approve the Contractor's work program, during supervision, monitor the Contractor’s updated construction and implementation schedules, their forward planning provisions and capabilities, identify potential deficiencies and risks, where necessary request revisions of these to take account for the current status of the works, ensuring compliance with the construction schedule.

v. during construction and installation of the Works, monitor the Quality Assurance of the contractor, the management of project UTPMUs, configuration management, time schedule and follow up compliance with statutory regulations and technical standard, and propose and monitor corrective action, if and when necessary.

vi. through inspectors of works and other site staff as may be required, supervise the day-to-day operations of the contractor to ensure quality of workmanship and compliance of construction, delivery, assembly and installation of the works with the contract requirements, the applicable regulations and standards and the approved drawings; compliance with delivery of agreed construction techniques; compliance with environmental protection and traffic management rules.

vii. inspection of the appropriate use of materials and equipment in the construction process witnessing of tests of materials considered/used for construction and equipment used for installation, as well as witnessing tests of completed works. Test witnessing will be particularly important for any construction work or equipment that is to be covered or hidden from view, therefore test witnessing is required prior to subsequent construction / installation.

viii. provide laboratory staff for carrying out the field tests during the construction period. All the tests to be carried out by the Engineer will not replace the tests of the Contractor. Consultants testing will be only used for verifying and checking before acceptance during the supervision period. It is envisaged that the frequency of Consultant's testing will be about 40% of the testing carried out by the Contractor. Supervision will include the Contractor's provisions for the rectification of non-compliant works and deliveries.

ix. maintain detailed daily diaries, photographs and documents concerning relevant events and activities, call and keep minutes of routine site meetings between the parties to the Contract;

x. assist UTPMU in all activities required of the Engineer and Engineer's Representative to the Contract (as defined in FIDIC latest edition) and assist the Engineer to administer the execution of the construction contracts in accordance with Conditions of Contract including Contract and claim management for all packages and disciplines, agree with the Contractor on systems of measurement for interim payment certificates and verify the quantities for such certificates; approve certificates of payments as required by the Contract, maintain full and complete records of progress payments;

xi. make recommendations to the Client on any Contractor's claims for additional payment, extension of time and other matters. The Engineer will review the submitted request; recommend solution based on its interpretation of the Contract documents, the relevant site conditions and the Contractor's detailed submissions; and propose approval or modifications to the Employer all in accordance with the relevant provisions in the conditions of Contract.

xii. in the event of variations to the works being required, prepare the necessary documents, negotiate these with the Contractor and submit these to the Client for approval;

xiii. after the provisional acceptance of works, review the project documentation (as-built drawings and documents, Technical Instructions, and User Manuals) to be submitted by the Contractor for all the works, proposing their acceptance or rejection to the Employer.

xiv. prepare progress reports for each contract in a form acceptable to ADB and the UTPMU. These reports will include, as a minimum, details of the physical and financial status of each contract, details of delays and the budgetary effect of particular problems with suggested solutions;

xv. carry out final inspections of the works and recommend the issue of completion certificate; assist with the commissioning of the system including system integration, testing, trial runs, review of project documentation and test reports. The Engineer will participate in commissioning, system integration, and final acceptance, reviewing the Contractor's test procedures, verifying the conformity of the works (construction and deliveries) and their performance with the Design Baseline, recording and interpreting the results for acceptability and conclusively submitting a report on the results to the Employer.

xvi. check the Contractor's final accounts and certify them correct for payment;

xvii. Review the Contractor's final report after provisional acceptance prepare completion reports in a form acceptable to ADB and the Client;

Defect Liability Period

xviii. after provisional acceptance of the works support UTPMU with overall activities during the Defects Liability Period, timely check completion of outstanding works, removal of defective work, remedying of defects, additional testing as required, clearance of the site and fulfillment of any Contractor's obligation under the Contract.

xix. advise UTPMU with respect to carrying out the works following any appeal to arbitration or litigation related to the works; and

xx. provide any other specialized services as may be necessary and agreed upon.

Environmental monitoring

The Engineer will be responsible for implementation of the environmental impact assessment and environmental management plan for the Project, including;

i. review and endorse the site-specific environmental management plans to be prepared by contractors prior to conduct of site works;
ii. monitor environmental mitigation activities by contractors provided in the approved environmental impact assessment and environmental management plan; and prepare quarterly environmental monitoring reports during construction;
iii. monitor and report on the environmental impacts during construction and recommend measures to improve them as required;
iv. prepare a monitoring framework and/or mechanism, and communicate this to affected communities to provide guidance on how they can participate during monitoring of environmental effects (to be conducted by a third party monitor) and to monitor contractors' environmental performance.

Implementation Support

Project Management Support

The general scope of the project management support will consist of support for project administration, contract administrations, specialist advice on design and construction, project performance monitoring and evaluation, monitoring of social and gender issues related to implementation of works and other general activities to comply with government or financier requirements.

Project Administration and contract administration: The consultant will provide the following general tasks:

- Assist with contract administration, process management and project scheduling and cost control, including disbursement in compliance with financier requirements
- Assist in establishment, maintenance and monitoring of the project documentation system
- Verify the definition and division of interfaces between contracts and boundaries with external authorities and other stakeholders, and assist with coordination of project contract interfaces
- Assist with management of contacts and approvals with external stakeholders, including government and financiers
- Assist with maintenance of the project web site and other pertinent public awareness measures, including compliance with ADB's public disclosure policy.
- Monitor project risks identified and measures proposed to lower the risks
- Advice and assistance on advance action for consultant recruitment, the award of contracts, insurance matters, contract disputes, and recommendations for arbitration or mediation as appropriate.

Specialist advice on design and construction issues: The detailed design will be completed by other consultants, as well as contractor preparation of other construction implementation and management related matters. The consultant will provide, as necessary, independent advice, analysis and recommendations, on each of these submissions, either through local staff support on routine matters or use of international specialists.

Financial Management: As identified in the financial management action plan, the PMS will assist with strengthening internal financial controls, payment validation procedures review to reduce risk of fraud, organization review to ensure segregation of duties, support for training and preparation of financial reporting procedures. In addition, the PMS will undertake a review of the basic procedures and determine suitability to improve financial management information system used for the project.

Other General Activities: The consultant is required to undertake the general tasks, including but not limited to, the following general tasks;

(a) Project Performance Monitoring and Evaluation*:* At the beginning of project implementation, the consultant will establish baseline data for the performance indicator and targets for evaluating project performance in relation to its impacts, outcomes, and outputs in the Project's design and monitoring framework. The performance indicators and targets will be measured 6 months after project completion and compared with the baseline data. The consultant will prepare a report summarizing key findings of the project performance monitoring and evaluation.

(b) Other consultant services monitoring The consultant will undertake general monitoring of other consulting activities, particularly as they pertain to compliance with financier requirements. This would include (i) *environment*; to ensure that the bid docs for civil works include the ADB cleared IEE and that the contractor EMP is compliant with the requirements, to ensure that the CSC is undertaking required environmental monitoring and reporting based on the EMP and (ii) ensure recommendations are incorporated into the detailed design.

Gender
The consultant will assist UTPMU and PID to meet their responsible for guiding the implementation and monitoring and reporting on the GAP throughout the Project period.

Required Team Expertise
A summary of the required expertise and expected duration of expert engagement is summarized in Table A2.2 below.

Table A1.1: Expertise

Position	Person months		
	Design	**Project Management**	**Supervision**
International			
Urban Transport Specialist/Team Leader	8		
Project manager/Team Leader		8	10
Structural Engineer	2		1
Traffic Safety Engineer	2	2	1
Urban Transport Development Specialist	2	4	1
Contract Management and Cost Control Expert		10	
Public transport Specialist		3	
ITS Specialist		3	
Procurement Specialist		6	
Financial Management		4	
Social development specialist	1	1	
Environmental specialist	1	1	2
Contract administration specialist			8
Sub-total	**16**	**42**	**23**
National			
Urban Design Engineer /Deputy Team Leader	8	8	24
Structural Engineer (2 No)	12		6
Mechanical/Electrical Engineer	8		6
Traffic safety engineer	6		6
Urban Transport Specialist	6		2
Cost estimator	6		
Geotechnical engineer	4		
Hydrological engineer	4		
Procurement Expert		18	
Training Specialist		10	
Financial expert		12	
Environmental specialist	4		24
Gender Specialist	3		4
Technical support/CAD (3 No)	24		24
Civil supervision engineer (2 No)			48
Quantity engineer (2 No)			48
Quality Assurance engineer			24
Inspectors (4 No.)			96
Sub-total	**65**	**40**	**282**
TOTAL	**81**	**82**	**305**

VII. SAFEGUARDS

68. The primary objective of safeguards is to avoid adverse impacts of projects on the environment and people. If impacts become unavoidable to realize the intended positive project impacts, adverse impacts shall be minimized, mitigated or affected people compensated. Approved and acceptable planning procedures shall be used and will be part of project covenants. Such procedures and documents shall be acceptable and approved by approving authorities in Viet Nam and by ADB. They will be disclosed in accordance with the agreed procedures by ADB and the borrower

A. Involuntary Resettlement

69. All works are expected to be undertaken within the existing right of way or in land adjoining Metro Line 3 adjoining to Ngoc Khanh station, which will be acquired in 2015 under the main Metro Line 3 project in accordance with ADB's Safeguard Policy Statement (2009). As such, no Resettlement Plan (RP) is required for the project.

70. If during project implementation it is identified there is land acquisition and resettlement required, the Borrower shall ensure that any involuntary resettlement is carried out in accordance with the agreed Resettlement Plan (RP), ADB's Safeguard Policy Statement (2009), and the Borrower's laws and regulations on involuntary resettlement. In case of discrepancies between the Government's laws, regulations, and procedures, and ADB's Safeguard Policy Statement (2009), the ADB SPS will prevail.

71. The draft RP will be prepared following completion of detailed designs and will be submitted to ADB for review and concurrence. The RP will be updated through the conduct of consultations, census and detailed measurement survey (DMS) to determine the actual impacts on land and assets of displaced persons. A qualified appraiser will be engaged to carry out replacement cost survey for land and non-land assets during RP updating. The RP will be submitted to ADB for review and concurrence. Land acquisition, relocation of affected households, and clearance of land will not commence until the RP has been agreed between ADB and the Government.

72. HPC, through UTPMU, will be responsible for disclosing and disseminating the RP as required in the relevant laws of the Government and ADB Safeguard Policy Statement (2009). Copies of the resettlement external monitoring reports on RP implementation will be made available to project offices and affected communes.

73. HPC, through UTPMU, will ensure that within 1 month following the commencement of RP updating, an external monitoring agency (EMA), acceptable to ADB, is engaged to monitor and evaluate updating and implementation of the RP. The budget provided to the EMA will include funds sufficient, in the opinion of ADB, for the EMA to adequately perform its functions.

74. HPC, through UTPMU, will only issue a site possession notice to the civil works contract to commence construction activities for a specific section once the head of the district resettlement committee has officially confirmed in writing that (i) payment has been fully disbursed to the displaced persons and rehabilitation measures are in place for that specific section as per RP agreed between the Government and ADB; (ii) already compensated DPs for that specific section have been cleared from the area in a timely manner; and (iii) that the specific section of the project is free from any encumbrances.

75. HPC shall timely provide counterpart funds for land acquisition, resettlement and monitoring activities specified in the agreed RP, and will meet any unforeseen obligations in excess of the RP budget estimate in order to satisfy resettlement objectives.

B. Environment

76. The Borrower shall ensure that:

(i) the Project is implemented in accordance with the Borrower's laws and regulations on environment, as well as ADB's Safeguard Policy 2009 (ADB's SPS), and that there is no significant damage to the natural environment as a result of the design, construction, operation and maintenance of the Project facilities;

(ii) if there is any discrepancy between the Borrower's laws and regulations, and ADB's SPS, then ADB's policy shall apply;

(iii) the Works contracts under the Project include specific measures to mitigate negative environmental impacts caused by the construction activities in accordance with the requirements of the EMP prepared for the Project, and the EMP shall be included in the bidding and contract documents requiring contractors to comply with all applicable provisions and as a basis for the contractors to prepare site specific EMPs;

(iv) adequate budget and staff resources are allocated for the EMP implementation;

(v) the contractors engaged under the Works contracts are in strict compliance with all environmental impact mitigation and monitoring requirements set out in the EMP and contract documents;

(vi) environmental approvals required by the Government are obtained in a timely manner and copies of such approvals shall be submitted to ADB upon issuance;

(vii) construction works carried out by contractors are adequately supervised and monitored to ensure compliance with the monitoring and mitigation measures set forth in the EMP;

(viii) new or supplementary environmental assessment report shall be prepared in compliance with ADB's SPS if there are any additional components or changes in the Project such as specific location and design, among others, that will result to adverse environmental impacts and are not within the scope of the environmental assessment report approved by ADB; such documents shall be submitted to ADB for clearance prior to implementation of additional components or major changes and corresponding approval from the Borrower's (approving authority) shall be obtained in a timely manner;

(ix) if any unanticipated environmental impacts become apparent during project implementation, prepare a corrective action plan and submit this to ADB for clearance and ensure implementation of the corrective action plan;

(x) establish an environmental grievance redress mechanism, acceptable to ADB, to receive and facilitate resolution of affected peoples' concerns, complaints, and grievances about the Project's environmental performance;

(xi) the existence of this grievance redress mechanism is made public through public awareness campaigns; review and address environmental grievances of stakeholders in relation to the Project, any of the service providers, or any person responsible for carrying out any aspect of the Project; and proactively and constructively respond to such grievances; and

(xii) semi-annual reports on implementation of the EMP are submitted to ADB on a timely manner.

C. Execution of Civil Works Contracts

77. HPC, through UTPMU, will ensure that, subsequent to award of civil works contract, no section or part of the section for any project will be handed over to the contractor until the applicable provisions of the RP, particularly the timely delivery of compensation to affected families, have been complied with.

78. Any changes to the location, alignment of works, or environmental impacts arising from the detailed designs of any project will be subject to prior approval by ADB and the relevant government agency of Viet Nam.

VIII. GENDER AND SOCIAL DIMENSIONS

A. Poverty Reduction

79. The Project is a general intervention, with indirect poverty reduction impacts. Major beneficiaries will be the communes and districts along the project corridor and all public and private transport users. It is expected that local economies will improve, with lowered transport costs increase business opportunities, reduce congestion, better quality of life

80. The Project is expected to contribute in reducing bottlenecks in transport infrastructure, ease congestion and improve air quality in Ha Noi, although during construction traffic congestion and disruptions are expected to be exacerbated. The beneficiaries include students in universities and colleges along the Metro Line 3 alignment, workers and traders traveling between the western part of Ha Noi and the central business district and service/commercial establishments near the Metro stations. Women, children and older people, who are more inclined to use public transport, are expected to benefit the most from the improved transportation

81. Project district wards will benefit through temporary construction jobs, and routine maintenance will employ unskilled and semiskilled workers. Women will be encouraged to work and will be treated equitably. UTPMU will ensure that employment opportunities are announced to local communities and will also ensure that contractors conform to appropriate labor laws and standards. UTPMU will monitor the use of local labor and appropriate labor laws and standards within the first 3 months of the commencement of each construction contract and take appropriate action to improve the employment and compliance if needed.

B. Safety, Health and Gender Concerns

82. The potential adverse social impacts from the Project are increased risks of exposure to HIV/AIDS and human trafficking of women and children during construction and operation due to the influx of construction workers and increased commuter traffic. There will also be increased safety risks for the communities along the road due to higher concentration of pedestrian movements near stations. These risks will be addressed through the HIV/AIDS and human trafficking awareness and prevention program. All civil works contracts under the Project incorporate provisions and budgets to the effect that contractors carry out the HIV/AIDS and Human Trafficking Prevention Program in the construction campsites with such Program being held in coordination with the Government's programs and other initiatives.

83. Gender is an important variable which needs to be taken into consideration to ensure that the effectiveness and sustainability of Ha Noi development is maximized. Women and men have different transportation needs and behavior, and they also have different access and affordability to use transportation means. Women to a greater extent than men use public transportation, bicycles and motorbikes for transport. Generally they also take major part of bringing children to school and other activities, as well as purchase and carry home family food and consumer items. As more and more urban and suburban women are living and working in different areas, commuting to work, to children’s school and to markets/shops in overcrowded roads and streets takes an increasing part of their time. At the same time traffic is a major cause of stress due safety risks, and exhaust fume is causing health concerns. The Metro system will therefore provide a good transport alternative for women. However, gender aspects need to be integrated into all Project design, planning and implementation in order to ensure that the metro

system will be accessible, safe, secure, comfortable and affordable to women as well as to all different kinds of passengers.

84. Gender differences have to be understood and responded to in order to ensure the access and use of the transport system by different groups of passengers. A Gender Action Plan (GAP) has been prepared in accordance with ADB's Gender and Development Policy (1998) to ensure the sustainability of design, planning and implementation of the Project for both men and women, and an operation of a competitive and efficient public transport system that meets the needs of different users. Gender considerations will accordingly be mainstreamed into all Project phases and activities.

C. Gender Action Plan

85. Gender Action Plan has been prepared in order to ensure that gender aspects and issues will be considered in all Project-related issues and activities throughout the Project time period from preparatory stage to the start of the metro traffic operation. The GAP will be implemented through the project outputs and project management as follows:

a. **Output 1: Metro Line 3 station access improved**.

- Priority seating, handrails, and waiting spaces for women, elderly, and people with disability in all new bus stops/ shelters.
- Safe pedestrian and wheelchair access / walkways to the rail and subway stations and bus stops
- Adequate lighting and installation of CCTV around stations/ subways, near exits/entrances, bus stops, taxi and xe-om stands, and pedestrian/ elevated walkways
- Ensure subways are clean with clear directions and include restrictions on use by the homeless and others.
- Ensure pedestrian friendly traffic management and traffic calming measures, e.g., lights, traffic bumps, traffic police, etc., near all the stations and on feeder bus routes.
- Ensure that the above, pedestrian crossings as well as adequate NMT lanes/ walkways are in place, especially near the markets, hospitals, schools/ colleges/ university, the Temple of Literature, the Zoo, and in other areas with high number of pedestrians, including children and women.
- All NMT walkways and access roads for people with disability to include barriers for vehicles and restrictions on vendors blocking paths.
- Ensure road safety signage for the safety of women and children
- Ensure space allocation for women's shops/vendors to operate in/ around stations 9 and 10.
- Ensure 30% of the unskilled workers in civil works jobs as well as amenity improvements including landscaping and landscaping O&M are provided to women.
- All construction contracts for civil works include gender-specific core labor standards.
- Ensure separate female and male restrooms in station 9.

b. **Output 2: Public transport system improved.**

- Priority seating spaces for women, elderly, and people with disability in all new buses, including spaces for women with child, prams and large packages, and pregnant women.
- Installation of "help buttons" and security cameras in all new buses.
- Buses to include voice announcements on stops and distance to next stops for easy reference for people with disability.
- Ensure that the public transport information system and scheduling is developed based on an analysis of transport patterns/ needs of women and men and provides rail and subway trip schedules linked to the bus service, to support accessibility and facilitate trip planning by different groups of men and women.
- Ensure real-time traffic information electronic displays to help women and men to plan their waiting time;
- Ensure street and footpath management system and surveillance includes safety of pedestrians and street vendors, many of whom are women;

c. **Output 3: Public transport policy developed.**

- Ensure that all policy and regulations proposed are based on gender analysis and addresses gender dimensions of inter-modal public transport and needs of women and men transport users.
- Ensure that multi-modal public transport ticket pricing are integrated in timetable and ticketing systems and that these are affordable for poor men and women.
- Consider various modalities to support affordability and increase access., eg., passes to enable travel in multiple segments without paying fares; change fares to reduce cost during off-peak hours; or provide flat rates rather than fares by distance to reduce the burden of cost for the poor living in peripheral area.

86. Implementation Arrangements: The responsibility for implementing the gender action plan (GAP) lies with the People's Committee as EA and the Urban Transport Project Management Unit (UTPMU) as the IA for the project. The UTPMU will assign a Gender Focal within the Project Implementation Division (PID) for coordinating the implementation of the GAP. The UTPMU will be responsible for ensuring that all the relevant ToRs of relevant consultants in the Project Consultant team include relevant gender actions related to their scope of work; for example, the design engineers ToR will include all the relevant design features outlined in GAP against output 1. One national Gender Specialist Consultant will be recruited for 14 person months on an intermittent basis, in the UTPMU responsible for guiding the implementation and monitoring and reporting on the GAP throughout the Project period. UTPMU needs to ensure that the national Gender Specialist Consultant's work plan is aligned with the key milestones of the project outputs/ activities related to the gender action plan. The Gender focal with support from the Gender Specialist consultant needs to ensure that gender awareness and GAP implementation training is provided for IA staff . All IA female project implementation staff members will be included as participants in capacity development activities relevant to their positions. The national gender consultant will need to ensure that gender-related substantive content is integrated into capacity development activities and communication strategies of the

project, whenever appropriate. UTPMU needs to ensure integration of gender indicators in the project M&E system and provide an update/ report on the progress of GAP implementation to ADB on a bi-annual basis. GAP implementation progress will be included in regular reporting to ADB.

87. Indicators have been developed for monitoring the implementation of major GAP strategies and activities. Gender disaggregated baseline data will be collected in the preparatory phase of the Project, and activities will be potentially adjusted and detailed based on the results. Gender disaggregated indicators will also be developed for an integrated monitoring of gender, social and resettlement-related issues as specified in the GAP.

88. **Capacity Development Program.** Under the program to develop the capacity of UTPMU for project implementation, gender activities will be included that address (i) gender mainstreaming into UTPMU capacity development activities and targets for participation of female staff in all project-related capacity development activities, (ii) whenever relevant, gender aspects are considered in all TORs for consulting services and in studies and plans developed under the project, and (iii) separate targets for men and women in the HIV/AIDS and Human Trafficking Prevention Program developed for the Project.

GENDER ACTION PLAN

VIE: Sustainable Urban Transport for Ho Chi Minh City MRT Line 2 Project

Duration: 2015 – 2018

Impact: *The public transport system serving six districts of Ha Noi is enhanced*

Outcome: *Proposed Metro Line 3 stations integration with other modes of public transport improved*

Outcome indicator: 12% increase in public transport usage in project districts

Outputs	Gender Actions
Output 1: Metro Line 3 station access improved	• Priority seating, handrails, and waiting spaces for women, elderly, and people with disability in all new bus stops/ shelters. • Safe pedestrian and wheelchair access / walkways to the rail and subway stations and bus stops • Adequate lighting and installation of CCTV around stations/ subways, near exits/entrances, bus stops, taxi and xe-om stands, and pedestrian/ elevated walkways • Ensure subways are clean with clear directions and include restrictions on use by the homeless and others. • Ensure pedestrian friendly traffic management and traffic calming measures, e.g., lights, traffic bumps, traffic police, etc., near all the stations and on feeder bus routes. • Ensure that the above, pedestrian crossings as well as adequate NMT lanes/ walkways are in place, especially near the markets, hospitals, schools/ colleges/ university, the Temple of Literature, the Zoo, and in other areas with high number of pedestrians, including children and women. • All NMT walkways and access roads for people with disability to include barriers for vehicles and restrictions on vendors blocking paths. • Ensure road safety signage for the safety of women and children • Ensure space allocation for women's shops/vendors to operate in/ around stations 9 and 10. • Ensure 30% of the unskilled workers in civil works jobs as well as amenity improvements including landscaping and landscaping O&M are provided to women. • All construction contracts for civil works include gender-specific core labor standards. • Ensure separate female and male restrooms in station 9.
Output 2: Public transport system improved	• Priority seating spaces for women, elderly, and people with disability in all new buses, including spaces for women with child, prams and large packages, and pregnant women. • Installation of "help buttons" and security cameras in all new buses. • Buses to include voice announcements on stops and distance to next stops for easy reference for people with disability. • Ensure that the public transport information system and scheduling is developed based on an analysis of transport patterns/ needs of women and men and provides rail and subway trip schedules linked to the bus service, to support accessibility and facilitate trip planning by different groups of men and

	women. • Ensure real-time traffic information electronic displays to help women and men to plan their waiting time; • Ensure street and footpath management system and surveillance includes safety of pedestrians and street vendors, many of whom are women;
Output 3: Public transport policy developed	• Ensure that all policy and regulations proposed are based on gender analysis and addresses gender dimensions of inter-modal public transport and needs of women and men transport users. • Ensure that multi-modal public transport ticket pricing are integrated in timetable and ticketing systems and that these are affordable for poor men and women. • Consider various modalities to support affordability and increase access., eg., passes to enable travel in multiple segments without paying fares; change fares to reduce cost during off-peak hours; or provide flat rates rather than fares by distance to reduce the burden of cost for the poor living in peripheral area.

Implementation Arrangements: The responsibility for implementing the gender action plan (GAP) lies with the People's Committee and Urban Transport Project Management Unit (UTPMU). The UTPMU will assign a Gender Focal within the Project Implementation Division (PID) for coordinating the implementation of the GAP. The UTPMU will be responsible for ensuring that all the relevant ToRs of relevant consultants in the Project Consultant team include relevant gender actions related to their scope of work. One national Gender Specialist Consultant will be recruited for 14 person months on an intermittent basis, in the UTPMU responsible for guiding the implementation and monitoring and reporting on the GAP throughout the Project period. UTPMU needs to ensure that the national Gender Specialist Consultant's work plan is aligned with the key milestones of the project outputs/ activities related to the gender action plan. The Gender focal with support from the Gender Specialist consultant needs to ensure that gender awareness and GAP implementation training is provided for IA staff . All IA female project implementation staff members will be included as participants in capacity development activities relevant to their positions. The national gender consultant will need to ensure that gender-related substantive content is integrated into capacity development activities and communication strategies of the project, whenever appropriate. UTPMU needs to ensure integration of gender indicators in the project M&E system and provide an update/ report on the progress of GAP implementation to ADB on a bi-annual basis.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Project Design and Monitoring Framework

89. The Design and Monitoring Framework (DMF) for the Project is in Table 9.1 below.

Table 9.1 – Design and Monitoring Framework

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Impact			**Assumption**
Enhanced public transport system serving six districts of Ha Noi.	Public transport's share of overall passenger traffic in the six districts increases to 14% by 2023 (2014 baseline: 8%)	Government statistical publications by district Public transport operator statistics	Other planned metro lines are implemented as scheduled. **Risk** The public resists planned constraints on private vehicle usage.
Outcome			**Assumptions**
Improved integration of metro line 3 stations with other modes of public transport	Satisfaction with quality of metro line 3 access and public transport service improvements to more than 40% by 2018, for males, females, and persons with disabilities Greenhouse gas emission reduction of 8,400 ton CO2 equivalent per year in 2019 Passengers on urban rail- and bus-based mass transit systems built or upgraded increased by 15,635 per day in 2019	Public opinion survey by public transport authority Benefit monitoring and post evaluation reports Public transport operator statistics	Government resources are available to operate and maintain Metro Line 3. Higher acceptance levels by public of all public transit modes **Risk** Integrated public transit services are not planned, implemented and operated efficiently by city government
Outputs			**Assumption**
1. Metro line 3 station access improved	All metro line 3 accessibility measures for stations and local communities, including gender-sensitive features, completed by 2018 Station access management system implemented by 2018	Progress reports Project review mission reports Project completion reports	Metro Line 3 station works are completed on schedule. **Risk** Limited government experience in implementing urban transport improvements for an integrated transport system

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
			creates problems.
2. Public transport system improved	New buses with public transport information system linked to metro line 3 stations operational by 2018	Progress reports Project review mission reports	**Assumption** Bus operators and Ha Noi PC provide information system equipment on buses and at bus stops on time.
3. Public transport policy developed	Station access management system developed by 2016 Parking strategy developed by 2017 and pilot for metro line 3 stations implemented by 2018 Urban transport pricing framework developed by 2017, guided by gender assessment, and required policies or regulations approved by 2018	Progress reports Project review Mission reports Project completion reports Training assessment reports	**Assumption** Government demonstrates leadership to coordinate stakeholders. **Risks** Parking restrictions and enforcement are ineffective in supporting modal shift.

Activities with Milestones	**Inputs**
1. Proposed Metro Line 3 station access improved 1.1 Complete all detailed design by June 2016 1.2 Award civil works and systems contracts by October 2017 and all works completed by October 2018 1.3 Design staged public transport services by August 2016, and make all services operational by December 2018 **2.** Public transport system improved 2.1 Provision of new buses by December 2016 2.2 Develop revised feeder service routing by December 2015, with routes operational by April 2016 and revised in August 2018 **3.** Public transport policy and systems developed 3.1 Gain city government approval of station access management system by March 2017 3.2 Develop parking policy by June 2017, and pilot-test schemes by December 2018 3.3 Gain city government approval on proposed urban transport policy and regulatory measures by June 2017, with regulations enacted by December 2018	**Loan** **ADB ADF: $4.20 million** **ADB CTF: $48.95 million** **Government: $5.80 million**

ADB = Asian Development Bank, ADB CTF = ADB Clean Technology Fund, ADF = ADB Special Funds, GAP = gender action plan
Source: Asian Development Bank estimates.

B. Monitoring

90. **Project performance monitoring.** The UTPMU will establish a project performance monitoring system. ADB through the project performance reporting (PPR) system will rigorously monitor the overall performance of each project under the Project. UTPMU will refine the monitoring system within 6 months from project commencement and collect and update baseline data for performance monitoring. The key indicators and targets, assumptions, and risks outlined at the impact, outcome, and output levels in the investment program's design and monitoring framework will be the primary data required for analysis. For this purpose, ADB inception mission will provide to UTPMU a checklist of the above data, which will be updated in track changes and reported quarterly through the UTPMU's quarterly progress reports and after each ADB review mission. These quarterly reports will provide information to regularly update ADB's project performance reporting system.[24]

91. UTPMU will involve the beneficiaries in the collection of data on impacts and outcomes. During each review mission, the updated project performance will be shared with the interested representatives of project beneficiaries.

92. **Compliance monitoring**: Compliance for all the Loan agreement undertakings and loan covenants — urban transport sector reforms, social and environmental safeguards, financial, economic, and others — will be jointly monitored by UTPMU and ADB through monthly updates provided by UTPMU. In this respect, UTPMU will submit to ADB a status report on the covenants summary with the explanation and time-bound actions on partly or non-complied covenants. As part of the joint venture efforts, ADB's resident mission will hold quarterly review meetings with the UTPMU to ensure the full compliance of all the loan covenants.

93. In addition, HPC and ADB shall undertake, at the end of the third year of Project implementation, a comprehensive midterm review. At the conclusion of the mid-term review, ADB and the Borrower may agree on changes in both Project scope and implementation arrangements, as deemed necessary

94. **Safeguards monitoring**:

a. Environment

95. HPC and UTPMU, with assistance from the construction supervision consultant and other consultants, will (i) undertake monthly monitoringntractors' environmental performance in terms of implementation of mitigation measures indicated in the EMP; (ii) monitor and report on the environment impacts during construction, and recommend measures to improve the situation as required; (iii) undertake environmental effects monitoring on air quality, noise, water quality, etc. based on the EMP; and (iv) prepare semi-annual monitoring reports for submission to ADB.

b. Resettlement

96. If later identified as required, HPC and UTPMU will ensure that the RP will be updated following completion of detailed designs and will be submitted to ADB for review and concurrence. No land acquisition or site clearing will be done until and after the Final RP has

[24] ADB's project performance reporting system is available at: http://www.adb.org/Documents/Slideshows/PPMS/default.asp?p=evaltool

been agreed between HPC and ADB and those provisions in the Final RP have been implemented satisfactorily. In case of differences between the Borrower's laws and regulations and ADB's Safeguard Policy Statement (2009), ADB's Policy shall prevail.

97. The PID will submit quarterly monitoring reports to UTPMU and ADB starting from the commencement of RP finalization, which coincides with the conduct of the census, detailed measurement survey and implementation activities. An external monitoring agency (EMA) will also be engaged by UTPMU to carry out its independent monitoring and assessment. The external monitoring agency will submit semiannual monitoring reports to UTPMU and ADB. The budget provided to the EMA will include funds sufficient, in the opinion of ADB, for the EMA to adequately perform its functions. All monitoring reports will be uploaded on the ADB website.

98. HPC will provide to the EMA, at no cost, all documents required to monitor the resettlement process, specifically including the RP, detailed measurement survey documents, and all associated documents which may be reasonably requested by the EMA.

99. HPC, through UTPMU, will not issue a notice of possession of site for any works until the head of District Compensation and Site Clearance Committee has officially confirmed in writing that (i) payment has been fully disbursed to the affected persons and rehabilitation measures are in place as per updated RP agreed between HPC and ADB; (ii) already-compensated affected persons have cleared the area in a timely manner; and (iii) the area is free from any encumbrances.

100. HPC will timely provide counterpart funds for land acquisition, resettlement and monitoring activities specified in the agreed upon RP, and will meet any unforeseen obligations in excess of the RP budget estimate in order to satisfy resettlement objectives. HPC will ensure that counterpart funds for compensation and entitlements under the agreed upon RP are fully provided directly to affected persons prior to their displacement from housing and prior to loss of land, livelihood, income or other assets.

101. **Gender and social dimensions monitoring**: The UTPMU will submit quarterly reports to HPC and ADB on specific activities indicated in the agreed social action plan.[25] GAP implementation progress will be included in regular reporting to ADB.

102. HPC will ensure that all Works contracts under the Project incorporate provisions and budgets to the effect that contractors: (a) comply with the Viet Nam's applicable labor laws and related international treaty obligations and do not employ child labor; (b) provide safe working conditions, and water and separate sanitation facilities for male and female workers; (c) provide equal wages to male and female workers for work of equal value; (d) provide day care services for female construction workers; and (e) carry out the HIV, Illicit Drugs, and Human Trafficking Prevention Program in the construction campsites with such Program being held in coordination with the Government's programs and other initiatives.

C. Evaluation

103. Within 6 months of the loan effectiveness, UTPMU, assisted by the project supervision

[25] ADB's *Handbook on Social Analysis: A Working Document*, is available at: http://www.adb.org/Documents/Handbooks/social-analysis/default.asp, *Staff Guide to Consultation and Participation*: http://www.adb.org/participation/toolkit-staff-guide.asp, and, *CSO Sourcebook: A Staff Guide to Cooperation with Civil Society Organizations*: http://www.adb.org/Documents/Books/CSO-Staff-Guide/default.asp

consultants, will establish baseline data for the performance indicators and targets for evaluating project performance in relation to the Project's impacts, outcomes, and outputs. Within 6 months of physical completion of the Project, UTPMU will submit a project completion report to ADB.[26] The performance indicators and targets will be measured 6 months and 3 years after project completion, and compared with the baseline data. UTPMU will submit a report summarizing key findings of the project performance monitoring and evaluation to ADB.

104. ADB will field an inception mission within 3 months after signing of the loan agreement. Review missions will be carried out on a semiannual basis jointly by representatives of ADB, Borrower, and UTPMU. The review missions will assess the status of the project implementation including procurement, civil works, financing, compliance to environmental and social safeguards, and the road sector sustainability. Site visits are required for all projects with environment or social impacts. A mid-term review mission will be carried out 2 years after each loan becomes effective. Each mid-term review will evaluate compliance with the terms, conditions, and undertakings set out in the environmental and social safeguards, and loan covenants set out in the loan agreements. The review will allow for any necessary midcourse corrections to ensure successful implementation and the achievement of the project objectives. Within 6 months of physical completion of the project, UTPMU will submit a project completion report to ADB.[27]

D. Reporting

105. UTPMU will provide ADB with (i) quarterly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) updated procurement plan and (d) updated implementation plan for next 12 months; and (iii) a project completion report within 6 months of physical completion of the Project. To ensure the Project continues to be both viable and sustainable, project accounts and the executing agency AFSs, together with the associated auditor's report, should be adequately reviewed.

106. UTPMU will establish a project performance monitoring system within 6 months from loan effectiveness and collect baseline data for performance monitoring. The key indicators and assumptions outlined at the impact and outcome levels in the investment program’s design and monitoring framework will be the primary data required for analysis

E. Stakeholder Communication Strategy

107. Table 9.3 details the overall required disclosures.

Table 9.3 – Stakeholder disclosure requirements

Project Documents	Means Of Communication	Responsible Party	Frequency	Audience(s)
Project Information Document (PID)	ADB’s website	ADB	initial PID no later than 30	General Public

[26] Project completion report format available at: http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar.

[27] Project completion report format is available at: http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar.

			calendar days of approval of the concept paper; quarterly afterwards	
Design and Monitoring Framework (DMF)	ADB's website	ADB	draft DMF after post fact-finding mission	Project-affected people
Initial Environmental Examination	ADB's website	ADB	draft post fact-finding mission	General Public, project-affected people in particular
Resettlement Planning Documents	ADB's website	ADB	draft post fact-finding mission	General Public, project-affected people in particular
Reports and Recommendations of the President	ADB's website	ADB	within 2 weeks of Board approval of the loan	General Public
Legal Agreements	ADB's website	ADB	no later than 14 days of Board approval of the project	General Public
Initial Poverty and Social Assessment	ADB's website	ADB	within 2 weeks of completion	General Public, project-affected people in particular
Documents Produced under Technical Assistance	ADB's website	ADB	within 2 weeks of completion	General Public
Project Administration Memorandum	ADB's website	ADB	After loan negotiations	General Public
Social and Environmental Monitoring Reports	ADB's website	ADB	Routinely disclosed, no specific requirements	General Public, project-affected people in particular
Major Change in Scope	ADB's website	ADB	within 2 weeks of approval of the change	General Public
Progress Report on Tranche Releases	ADB's website	ADB	within 2 weeks of Board or management approval	General Public
Completion Reports	ADB's website	ADB	within 2 weeks of circulation to the Board for information	General Public
Evaluation Reports	ADB's website	ADB	Routinely disclosed, no specific requirements	General Public
Performance of the Project with clearly defined	The borrower's Website	The borrower (Executing	per project progress, no	General Public

information requirements and indicators, policy on roads construction and reconstruction, 5-year investment plan, business opportunities, bidding process and guidelines, results of bidding process, and summary progress reports of the ongoing projects.	Agency)	longer than monthly

X. ANTICORRUPTION POLICY

108. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy (1998, as amended to date) relating to the Project.[28] All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all Project contractors, suppliers, consultants and other service providers. Individuals/entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the Project.[29]

109. To support these efforts, relevant provisions are included in the Loan agreement and the bidding documents for the Project.

110. The Government and HPC will comply with, ADB's Anticorruption Policy (1998, as amended to date) and the Combating Money Laundering and the Financing of Terrorism Policy (2003). The Government (i) acknowledges ADB's right to investigate, directly or through its agents, any alleged corrupt, fraudulent, collusive or coercive practices relating to the Project; (ii) agrees to cooperate fully with, and to cause HPC to cooperate fully with, any such investigation and to extend all necessary assistance, including providing access to all relevant books and records, as may be necessary for the satisfactory completion of any such investigation; and (iii) agrees to refrain, and cause the HPC to refrain, from engaging in money laundering activities or financing of terrorism and shall allow, and cause HPC to allow, ADB to investigate any violation or potential violation of these undertakings.

111. HPC will conduct periodic inspections on the contractors' activities related to fund withdrawals and settlements, and the Government and HPC will ensure that all contracts financed by ADB in connection with the Project include provisions specifying the right of ADB to audit and examine the records and accounts of all contractors, suppliers, consultants and other service providers as they relate to the Project.

112. HPC will publicly discloses on the website information how Loan proceeds are being used, presenting (i) procurement contract awards, including for each such contract (a) the list of participating bidders, (b) name of the winning bidder, (c) basic details on bidding procedures adopted, (d) amount of the contract awarded, (e) list of Goods and/or services purchased, (f) intended and actual utilization of Loan proceeds under each contract, and (ii) internal and external resettlement reports. The website will be updated within 2 weeks after: (i) each award of contract, (ii) each submission of the EMA's quarterly resettlement report, and (iii) each submission of UTPMU's internal quarterly resettlement reports.

[28] Available at: http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf.
[29] ADB's Integrity Office web site is available at: http://www.adb.org/integrity/unit.asp.

XI. ACCOUNTABILITY MECHANISM

113. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.[30]

[30] For further information see: http://www.adb.org/Accountability-Mechanism/default.asp.

XII. RECORD OF PAM CHANGES

114. All revisions/updates during course of implementation should be retained in this Section to provide a chronological history of changes to implemented arrangements recorded in the PAM.

115. This document was reviewed and agreed between Department of Transport, Urban Transport Project Management Unit and the Asian Development Bank on 22 October 2014. During the project implementation, if any discrepancies are found, they will be reviewed and discussed by both UTPMU and ADB to ensure correctness, harmonization and compliance with the relevant regulations.