

Project Administration Manual

Project Number: 49229-003

Grant Numbers: {GXXXX; GXXXX}

Draft as of 21 July 2016

Islamic Republic of Afghanistan: Preparation of
Central Asia Regional Economic Cooperation
Corridors 5 and 6 (Salang Corridor) Project

CONTENTS

ABBREVIATIONS

I.	PROJECT DESCRIPTION	1
II.	IMPLEMENTATION PLANS	3
A.	Project Readiness Activities	3
B.	Overall Project Implementation Plan	4
III.	PROJECT MANAGEMENT ARRANGEMENTS	5
A.	Project Implementation Organizations – Roles and Responsibilities	5
B.	Key Persons Involved in Implementation	6
C.	Project Organization Structure	6
IV.	COSTS AND FINANCING	8
A.	Detailed Cost Estimates by Expenditure Category	8
B.	Allocation and Withdrawal of Grant Proceeds	8
C.	Detailed Cost Estimates by Financier	9
D.	Detailed Cost Estimates by Year	9
E.	Contract and Disbursement S-curve	10
F.	Fund Flow Diagram	10
V.	FINANCIAL MANAGEMENT	11
A.	Financial Management Assessment	11
B.	Disbursement	15
C.	Accounting	15
D.	Auditing and Public Disclosure	16
VI.	PROCUREMENT AND CONSULTING SERVICES	17
A.	Advance Contracting and Retroactive Financing	17
B.	Procurement of Goods, Works and Consulting Services	17
C.	Procurement Plan	18
D.	Consultant's Terms of Reference: Feasibility study and detailed engineering firm	25
E.	Consultant's Terms of Reference: Independent Proof Check	47
F.	Consultant's Terms of Reference: Individual Consultants and Resource Persons	55
VII.	SAFEGUARDS	56
VIII.	GENDER AND SOCIAL DIMENSIONS	57
IX.	PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION	58
A.	Project Design and Monitoring Framework	58
B.	Monitoring	59
C.	Evaluation	60
D.	Reporting	60
E.	Stakeholder Communication Strategy	60
X.	ANTICORRUPTION POLICY	62
XI.	ACCOUNTABILITY MECHANISM	63
XII.	RECORD OF PAM CHANGES	64

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 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 Ministry of Public Works are wholly responsible for the implementation of ADB financed projects, as agreed jointly between the recipient and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by the Ministry of Public Works of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

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

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

Abbreviations

ADB	=	Asian Development Bank
ADF	=	Asian Development Fund
AFS	=	audited financial statements
AITF	=	Afghanistan Infrastructure Trust Fund
CAREC	=	Central Asia Regional Economic Cooperation
CQS	=	consultant qualification selection
DMF	=	design and monitoring framework
EA	=	executing agency
EARF	=	environmental assessment and review framework
EIA	=	environmental impact assessment
EMP	=	environmental management plan
ESMS	=	environmental and social management system
GACAP	=	governance and anticorruption action plan
GDP	=	gross domestic product
ICB	=	international competitive bidding
IEE	=	initial environmental examination
IPP	=	indigenous people plan
IPPF	=	indigenous people planning framework
km	=	kilometer
LARP	=	land acquisition and resettlement plan
LIBOR	=	London interbank offered rate
MOF	=	Ministry of Finance
MPW	=	Ministry of Public Works
NCB	=	national competitive bidding
NGOs	=	nongovernment organizations
O&M	=	operation and maintenance
PAI	=	project administration instructions
PAM	=	project administration manual
PMO	=	program management office
PIU	=	project implementation unit
QBS	=	quality based selection
QCBS	=	quality- and cost based selection
RRP	=	report and recommendation of the President to the Board
SBD	=	standard bidding documents
SGIA	=	second generation imprest accounts
SOE	=	statement of expenditure
SPS	=	Safeguard Policy Statement
SPRSS	=	summary poverty reduction and social strategy
TOR	=	terms of reference

I. PROJECT DESCRIPTION

1. **Background.** Afghanistan is the geographic center of gravity in Central Asia and has vast potential to serve as the nexus between north–south and east–west regional trade corridors. Yet within Afghanistan, one of the few viable land routes linking the south, including the capital of Kabul, with the north is the Salang Tunnel and associated connecting roads, collectively known as the Salang Corridor. Forming key sections of the Central Asia Regional Economic Corridor (CAREC) Corridors 5 and 6, the Salang Corridor is the only route that permits year round north-south passage of goods and people across the Hindu Kush mountain range, which has peaks over 7,700 meters above sea-level, making the Salang Tunnel one of the highest tunnels in the world. Given the lack of alternative routes, the vast majority of goods shipped to Kabul from the north traverse the Salang Corridor. Current conservative estimates suggest that over 5,500 vehicles per day transit the corridor, a throughput capacity of traffic for which the tunnel and connecting roads was not designed to carry.

2. Planned and designed over many years, construction of the 2.7 kilometer (km) Salang Tunnel eventually began in the early 1960s and was completed in 1964. After more than 50 years of service, where proper maintenance and rehabilitation did not regularly occur, if at all, due to the 30 years of internal conflict and associated effects on sector governance; vehicle accidents, fires, conflict-related acts, and constant usage have collectively contributed to the tunnel falling into a state of severe disrepair. Present conditions within the tunnel are dangerous to users because of inadequate ventilation, poor lighting, lack of proper modern safety features, and a failing road surface; all of which constrain the traffic flow and incur an estimated economic cost of \$60 million per year upon the country. Additionally, should the tunnel completely fail, the costs to the Afghan economy would be substantial and possibly would pose an additional risk to stability of the fragile and conflict-affected state.

3. In 2012, USAID completed a study that analyzed nine potential options to solve the capacity problem and failure risk associated with the Salang Corridor. Of those assessed, only one option was estimated as economically feasible in terms of a positive net present value and economic internal rate of return above the discount rate.¹ Although the USAID study was entitled *Salang Tunnel Feasibility Study*, limitations on budget and study scope actually produced what should be termed as a pre-feasibility study wherein route options for further refinement and future study were identified.² In discussing the results and given the very broad level of detail of this initial study, USAID and the government decided upon a few of the more promising and preferred options for future more in-depth geotechnical study and detailed engineering design, which would enable a better estimate of the costs as well as technical, economic, and financial viability.

4. In the interim, since publication of the USAID study, and given delays in moving forward with a longer term solution, the World Bank (WB) recently agreed to finance rehabilitation of some of the most damaged galleries in the existing tunnel, rehabilitate the road surface within the tunnel, and rehabilitate substantial sections of the approach roads as part of a larger project focused on rehabilitating the roads north of the tunnel from Baghlan to Bamyan (B2B Road), which will provide connectivity to the roads already rehabilitated or undergoing rehabilitation under ADB financed North-South Corridor Project and MFF Transport Network Development Investment Program (TNDIP), Tranche 3. However, this WB project will not result in a long-term solution to the corridor traffic capacity constraint, rather, it presents a short to medium term

¹ USAID. 2012. *Salang Tunnel Feasibility Study*. Kabul.

² Related, the study was limited to order of magnitude cost estimating.

solution to the Salang Corridor by keeping the existing tunnel open year round and precluding a total failure of the structure until a long term solution is agreed upon and implemented.³

5. **Impact and Outcome of the Proposed Ensuing Project.** The proposed ensuing project will improve regional and national connectivity by constructing a new tunnel and associated connecting roads. The ensuing project is consistent with the government's national infrastructure priorities; aligned with the objectives of ADB Interim Country Partnership Strategy (2014–2015), Midterm Review of Strategy 2020; and included in the Country Operations Business Plan (2016–2018).^{4,5,6}

6. ADB has assisted Afghanistan in rehabilitating CAREC Corridors 5 and 6 through (i) completion of the North-South Corridor Project;⁷ (ii) ongoing construction of the Jabul Seraj–Nijrab road; (iii) ongoing construction of the Kabul–Jalalabad road, and (iv) planned construction of the approved yet remaining un-rehabilitated link in the North-South Corridor between Dar-i-Suf and Yakawlang. The latter three interventions are being funded under the MFF TNDIP.⁸ Collectively, these two CAREC corridors form significant sections of Afghanistan's national transport network, providing connectivity between north and south and links to three of the four major urban centers: Mazar-e-Sharif, Kabul, and Jalalabad. Together with the other completed, ongoing, and planned ADB financed interventions, as well as the above stated project of the WB, the proposed project will increase the capacity, efficiency, and reliability of CAREC Corridors 5 and 6, specifically through rehabilitating the Salang Corridor with a long-term solution spanning a 50-year planning horizon.

7. The intended impact of the ensuing project will be enhanced regional connectivity and trade via the Salang Corridor, which forms a key section of CAREC Corridors 5 and 6. The outcome will be improved efficiency and safer movement of goods and people through the Salang Corridor. The ensuing project will: (i) reduce the cost of passenger and cargo transportation between southern and northern regions of Afghanistan and Central Asia by providing more efficient travel times, (ii) ensure reliability and year around use of the Salang Corridor, and (iii) promote trade and investment. Additionally, the ensuing project will produce road safety benefits and may provide a vehicle for introducing private sector participation in the transport sector through possible partial financing of construction and future operations and maintenance.

8. **Impact, Outcome and Outputs of the Project.** The Preparation of Central Asia Regional Economic Corridors 5 and 6 (Salang Corridor) Project (project), which this PAM focuses on, will be used to accelerate the implementation of the ensuing project contributing to improved efficiency and safer movement of goods and people in Afghanistan and across Central and West Asia. The outcome of the project will be the ensuing project designed and procured, ready for implementation. The outputs of the project are (i) feasibility studies on 3 alignment options completed, and (ii) Detailed engineering design, procurement documentation, and project and safeguard documents on selected option completed. The full project Design and Monitoring Framework is in section IX-A.

³ World Bank. September 2015. *Trans Hindukush Road Connectivity Project*. Project Appraisal Document.

⁴ ADB. 2014. *Interim Country Partnership Strategy: Afghanistan, 2014–2015*. Manila.

⁵ ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila.

⁶ ADB. 2015. *Country Operations Business Plan: Afghanistan, 2016–2018*. Manila.

⁷ ADB. 2013. *Project Completion Report: North-South Corridor Project*. Manila.

⁸ ADB. 2011. *Report and Recommendation of the President to the Board of Directors on Proposed Asian Development Fund Grant to the Islamic Republic of Afghanistan for the Multitranchise Financing Facility: Transport Network Development Investment Program*. Manila. (See Periodic Financing Requests for Tranches 1, 2, and 3).

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

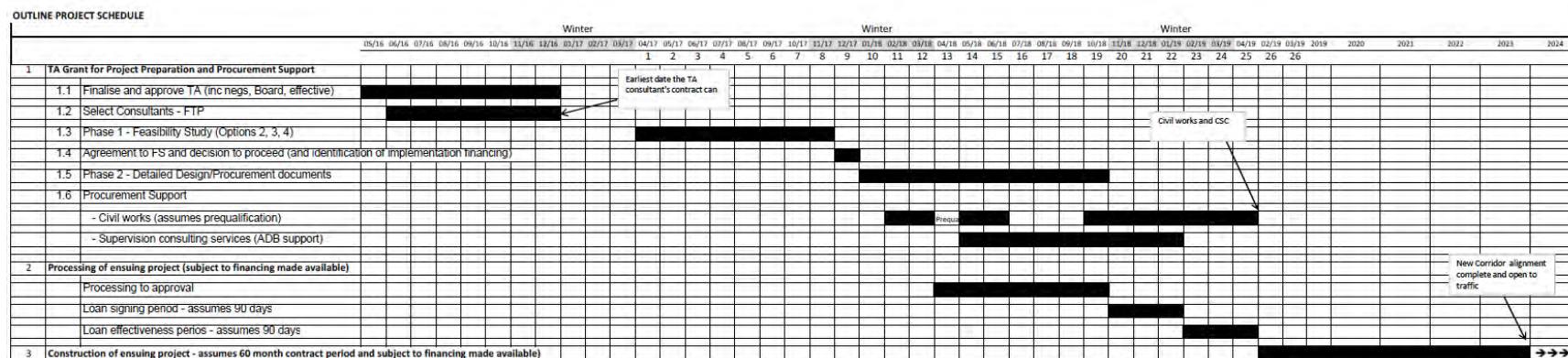
9. The Gantt chart below depicts activities to be undertaken to enhance project readiness.

Indicative Activities	2016							2017				Responsibility
	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Advance consultant recruitment actions	X	X	X	X	X	X	X					MPW/ADB
Establish project implementation arrangements	X	X	X									MPW/PMO
Grant Negotiations	X											ADB and government
ADB Board approval			X									ADB
Grant signing					X							ADB and government
Government legal opinion provided						X						government
Grant effectiveness							X					ADB and government

ADB = Asian Development Bank

B. Overall Project Implementation Plan

10. A Gantt chart outlining the overall implementation plan of the project and ensuing project is as below. The schedule for the processing and implementation of the ensuing project is subject to financing made available, and is hereby depicted for illustration purposes only. This Gantt chart will be developed further to record the key implementation milestones, including project management activities, on a monthly basis that is updated annually and submitted to ADB with updated contract and disbursement projections for the following year.



III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations – Roles and Responsibilities

Project implementation Management Roles and Responsibilities organizations

-
- | | |
|--|---|
| <ul style="list-style-type: none"> • Ministry of Finance (Recipient and Executing Agency) | <ul style="list-style-type: none"> ➤ Facilitate negotiation, signing, and execution of the grant agreements ➤ Monitoring project progress and instructing MPW to take corrective action to prevent significant variations and deviations from schedules and budgets (if any) ➤ Ensure timely submission of withdrawal applications to ADB |
| <ul style="list-style-type: none"> • Ministry of Public Works (Implementing Agency) | <ul style="list-style-type: none"> ➤ Focal point for communication with ADB on project related matters, and signatory to important documents such as consultancy service contracts, withdrawal applications, and audit reports ➤ Ensure timely and effective completion of project ➤ Ensure coordination with other concerned government agencies and development partners ➤ Ensure that PMO is fully staffed and functional during the entire period of implementation ➤ Ensure compliance with grant covenants, ADB's guidelines, procedures, and policies |
| <ul style="list-style-type: none"> • Program Management Office (Implementing Unit) | <ul style="list-style-type: none"> ➤ Day-to-day implementation of the project, including administration of all consultancy contracts (instructing the supervision of consultants, approving variations, suspending and terminating contracts) |
| <ul style="list-style-type: none"> • ADB | <ul style="list-style-type: none"> ➤ Supervise MPW's implementation of the project by: <ul style="list-style-type: none"> ○ Selecting the consultants ○ Reviewing and facilitating approval of project implementation and procurement documents submitted by EA ○ Disclosing project information to the public ○ Fielding review missions ➤ Facilitating knowledge sharing |
-

B. Key Persons Involved in Implementation

Grant Recipient and Executing Agency

Ministry of Finance

Dr. Mohammad Mustafa Mastoor
Deputy Minister
+93 706 333 5555
mmmastoor@yahoo.com
Pashtunistan Watt, Kabul, Afghanistan

Implementing Agency

Ministry of Public Works

Ahmad Wali Shairzay
Technical Deputy Minister
+93 (0) 744 96 33 55
ahwshairzay@mopw.gov.af
First Macroryan District 16, Kabul, Afghanistan

Program Management Office

Aminullah Hatam
Program Director
+93 (0) 786 155 489
aminhatam@hotmail.com
First Macroryan District 16, Kabul, Afghanistan

ADB

Division Director

Xiaohong Yang
Director, Transport and Communications Division (CWTC)
Central and West Asia Department (CWRD)
Telephone: +63 2 632 6765
Fax: +63 2 636 2428
Email address: xyang@adb.org
6 ADB Avenue, Mandaluyong City, 1550 Metro Manila, Philippines

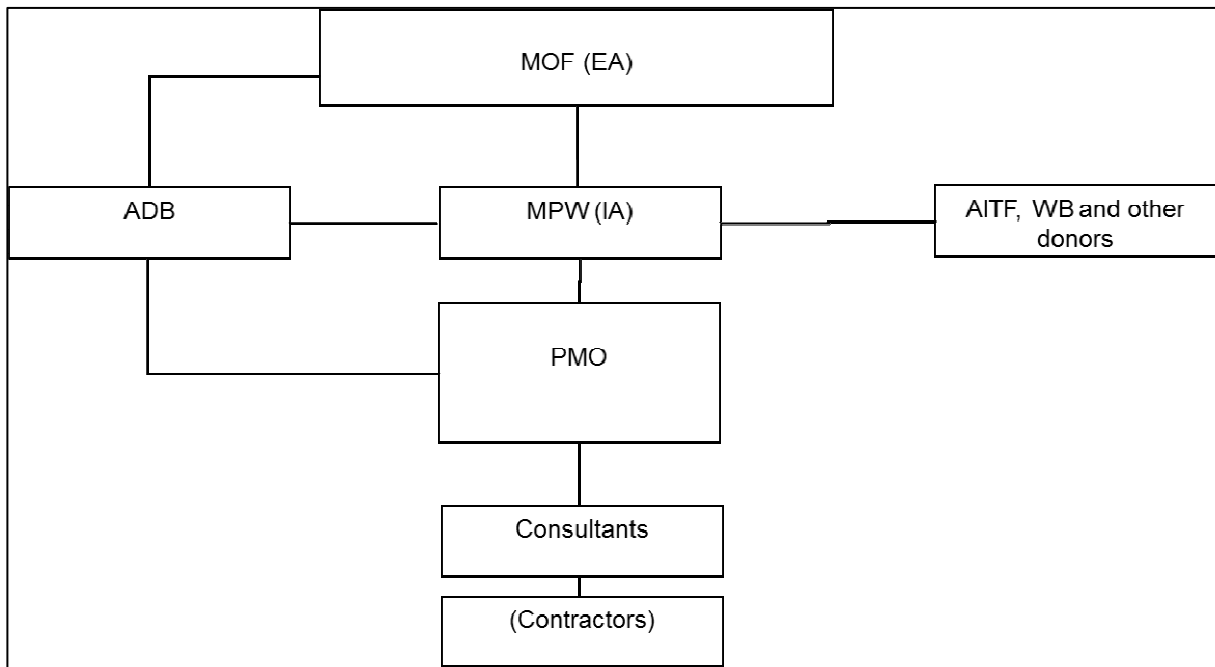
Mission Leader

Ko Sakamoto
Transport Economist, Central and West Asia Department
Telephone: +63 2 683 1664
Email address: ksakamoto@adb.org
6 ADB Avenue, Mandaluyong City, 1550 Metro Manila, Philippines

C. Project Organization Structure

11. MOF will be the recipient and executing agency (EA). MPW will be the implementing agency (IA), which has the mandate for planning, designing and implementing transport projects as well as policy and regulatory authority over the sector. The Program Management Office (PMO) that has already been established within MPW for day-to-day administration and execution of ADB-financed road sector projects will be responsible for day-to-day preparation and implementation the project, in accordance with the provisions of the Grant Agreements, this PAM, and related legal agreements. The PMO will be strengthened through consultants recruited under the project.

PROJECT ORGANIZATION STRUCTURE



AITF = Afghanistan Infrastructure Trust Fund, ADB = Asian Development Bank, MOF = Ministry of Finance, MPW = Ministry of Public Works, PMO = Program Management Office, WB = World Bank.

12. The PMO contains the PMO project director and key staff (procurement, engineering, financial management, and accounting). Under this project, PMO will handle day-to-day implementation activities, in particular (i) administering consultant contracts, (ii) verifying supporting documents submitted by consultants, (iii) obtaining ADB approvals, (iv) monitoring and evaluating project activities and outputs, (v) reporting the project progress to MPW and ADB, (vi) reviewing the project progress with ADB missions, and (vii) consulting with the public and disclosing project information to them in consultation with ADB.

13. MPW will ensure that, during the entire period of the project, a team of staff responsible for procurement, engineering, financial management, accounting, program monitoring and evaluation, legal, administrative, and secretarial work remains in place. MPW will ensure that a project manager be assigned in the PMO for the day-to-day management of the project. The consultants to be hired under the project will offer additional capacity to the PMO in areas such as procurement, environment safeguards, and social safeguards. PMO will also be equipped with the necessary office space, equipment, and facilities.

IV. COSTS AND FINANCING

14. The project is estimated to cost \$ 31.37 million, including taxes, duties and contingencies during the grant administration (Table 1).

Table 1: Project Investment Plan
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Output 1: feasibility studied on three alignment options	8.85
2. Output 2 detailed engineering design, procurement documentation, project and safeguard documents on selected options	19.02
Subtotal (A)	27.87
B. Contingencies^c	3.50
Total (A+B)	31.37

^a Includes taxes and duties of approximately \$2 million to be financed from ADF and AITF grant resources.

^b In mid-2016 prices.

^c Contingencies computed at 11.6% of base cost.

Source: Asian Development Bank estimates.

A. Detailed Cost Estimates by Expenditure Category

Item	Cost	% of total cost
A. Investment Costs		
1 Equipment	1.00	3.2%
2 Consultants	26.87	85.7%
Subtotal (A)	27.87	88.4%
Total Base Cost	27.87	88.4%
B. Contingencies		
1 Physical	2.65	6.8%
2 Price	0.850	2.9%
Subtotal (B)	3.50	11.6%
Total Project Cost (A+B+C)	31.37	100.0%

B. Allocation and Withdrawal of Grant Proceeds

15. The tables beneath show the allocation and withdrawal of grant proceeds for the AITF grant and the ADF grant respectively. These will be placed in the Grant Agreements to be shared with and agreed with the government, in the Schedule entitled 'Allocation and Withdrawal of Loan/Grant Proceeds'.

Number	Item	Total Amount Allocated for AITF Financing (\$)		Basis for Withdrawal from the Grant Account
		Category	Subcategory	
1	Consulting Services	14,920,000		56% of total expenditure claimed
2	Equipment	1,000,000		100% of total expenditure claimed
	Total	15,920,000		

Number	Item	Total Amount Allocated for ADB Financing (\$)		Basis for Withdrawal from the Grant Account
		Category	Subcategory	
1	Consulting Services	11,950,000		44% of total expenditure claimed
2	Unallocated	3,500,000		
	Total	15,450,000		

C. Detailed Cost Estimates by Financier

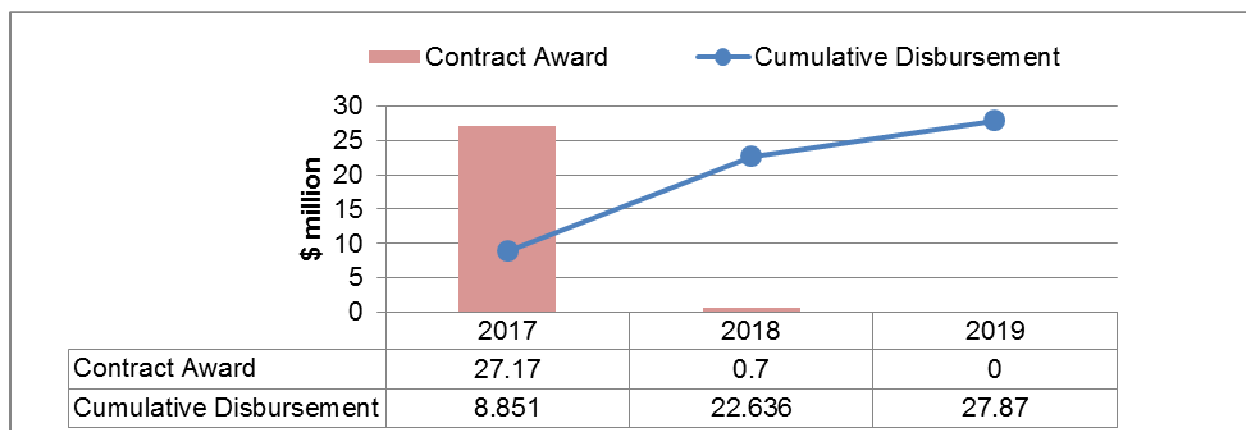
Item	AITF		ADF		Total Cost
	Amount	% of Cost Category	Amount	% of Cost Category	
	A	A/C	B	B/C	C
A. Investment Costs					
1 Equipment	1.00	100%		0%	1.00
2 Consultants	14.92	56%	11.95	44%	26.87
Subtotal (A)		0%		0%	27.87
B. Contingencies	0	0%	3.5	100%	3.5
Total Project Cost (A+B)	15.92		15.45		31.37
% Total Project Cost		51%		49%	100%

D. Detailed Cost Estimates by Year

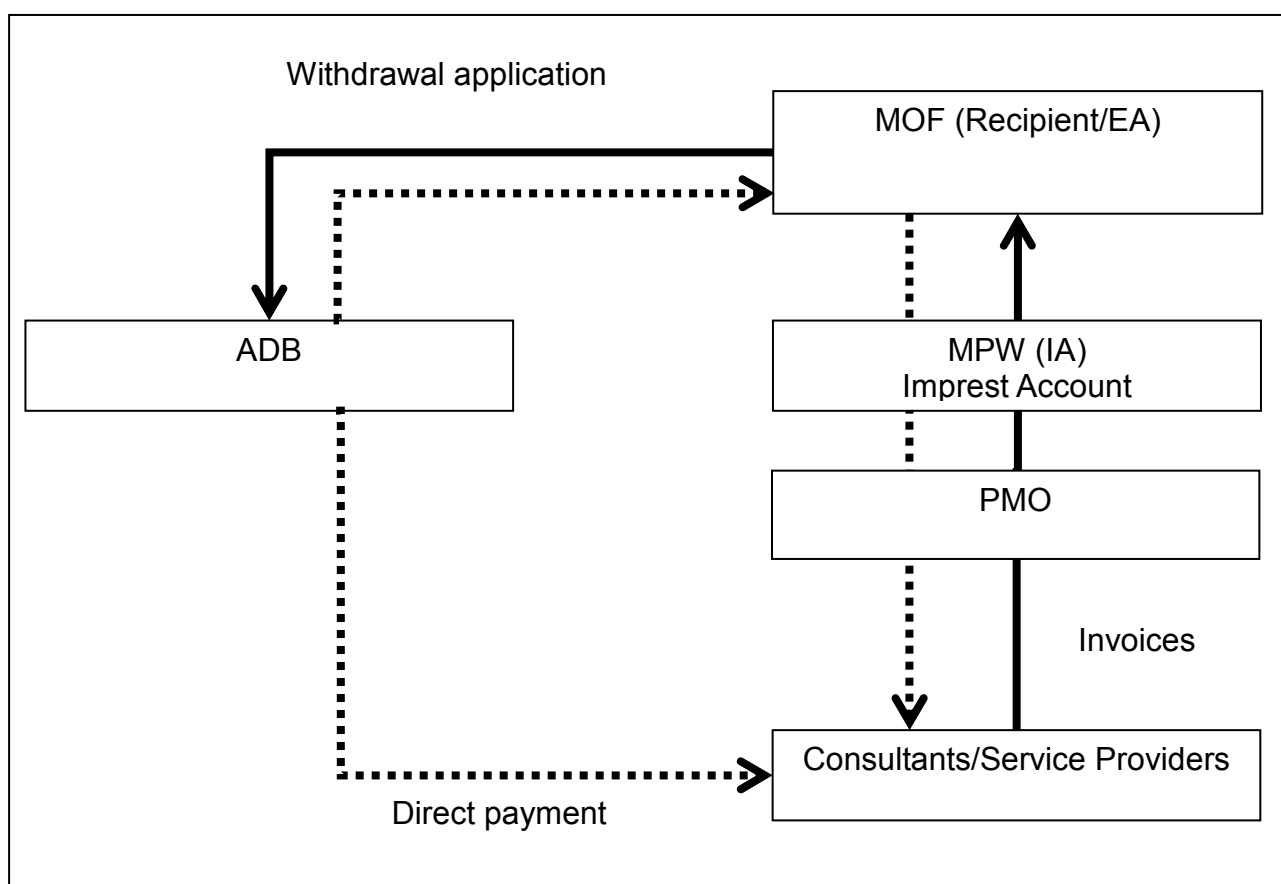
Item	Total Cost	2017	2018	2019
A. Investment Costs				
1 Equipment	1.00	1.00	0.00	0.00
2 Consultants	26.87	7.85	13.79	5.23
Subtotal (A)	27.87			
B. Contingencies	3.50	0	0	3.50
Total Project Cost (A+B)	31.37	8.85	13.79	8.73
% Total Project Cost	100%	28%	44%	28%

E. Contract and Disbursement S-curve

16. The graph below shows indicative contract awards and disbursement projections over the implementation period for the Project. These projections are subject to fine-tuning and revision.



F. Fund Flow Diagram



V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

17. **Objectives.** The objectives of the project's financial management are:
- (i) to ensure that funds are used only for their intended purposes in an efficient and economical way;
 - (ii) to ensure that funds are properly managed and flow smoothly, adequately, regularly and predictably in order to meet the objectives of the project;
 - (iii) to enable the preparation of accurate and timely financial reports;
 - (iv) to enable project management to monitor the efficient implementation of the project; and
 - (v) to safeguard the project assets and resources.
18. **Background and previous assessments.** As a part of a series of background assessments, diagnostics, and discussion papers commissioned by ADB to underpin the development of its Country Partnership Strategy (CPS), 2009-2013 for Afghanistan, ADB conducted a risk assessment of country level systems with focus on public sector management, procurement, and corruption mitigation measures. Additionally, ADB contributed to the World Bank's report on vulnerabilities and corruption assessments being responsible for sections of the report on the roads and energy sectors. Based on these reports, as well as firsthand experience from ongoing projects, ADB is cognizant of the financial management and procurement risks in Afghanistan that may impede or delay project implementation. Activities under the transport network management capacity development component are being implemented to further minimize and mitigate these risks through training, restructuring, and institutional strengthening. Similarly, activities under the project will strengthen the MPW-PMO in areas of procurement and safeguard compliance.
19. **Background on MPW and PMO.** MPW is responsible for development, operation, and maintenance of the regional, national, and provincial road networks. MPW is a large organization with staff stationed in every major provincial capital. Currently, MPW employs about 200 engineers and administrative staff, and 2,000 laborers at the regional maintenance centers and provinces. MPW's main focus is on managing donor-financed projects and executing budget-financed minor O&M works.
20. Over the years of conflict, MPW lost many of its trained staff. MPW requires substantial skills enhancement to perform their current duties as project managers. In addition, a restructuring of the organization and a business plan are needed to upgrade MPW commensurate with the envisaged sector governance role. The USAID funded Road Sector Sustainability Program is offering vital support in this regard.
21. MPW through the PMO has developed experience in handling internationally financed projects. Presently the PMO is implementing 13 investment projects financed by ADB (9 ongoing, 4 under procurement of which 2 will commence implementation in 2016). ADB closely monitors the PMO to allow timely interventions where necessary.
22. The PMO reports through a Director to the Deputy Minister (Technical). The PMO's scope of work includes:
- Project technical management and reporting
 - Project administration and financial management
 - Implementation of environmental and social safeguards

- Procurement and contract management

23. Experience from previous projects shows that the capacity of MPW and the PMO in project implementation was weak and there have been integrity issues. However, the recent (mid 2015) restructuring of the PMO and new leadership in MPW have significantly improved PMO performance and integrity.

24. **Assessment of the project financial management system.** As part of the pre-fact finding mission by ADB in May 2016, an updated financial management assessment of MPW and its PMO was undertaken, based on ADB's Guidelines on Financial Management and Analysis of Projects⁹ and Financial Management Assessment - Financial Management Technical Guidance Note.¹⁰

25. MPW with its PMO is responsible for overall project financial management, i.e., planning, accounting, disbursement, replenishment, reporting, maintaining adequate control of the accounting information, and ensuring its timely, full, and proper registration in the accounting system. The PMO has an emerging degree of financial management capability and maintains separate project accounts and records by funding source for all expenditure incurred.

26. **Personnel.** Staffing of the finance department of the PMO includes a manager, 5 accountants and one trainee, which is considered sufficient to manage this additional project. All staff members are on annual contracts following a 3-month probationary period. Staff members of the finance department all have relevant qualifications and were found to be highly motivated.

27. **Accounting policies and procedures.** The PMO has successfully maintained separate project accounts and records by funding source for all expenditures incurred on ongoing projects. Project accounts follow international accounting principles and practices.

28. Once a project grant agreement is in place, the PMO prepares an annual budget and sends a request to MoF for budget assignment/approval. With such approval in place, each project invoice can be managed for payment in about 12 days.

29. The PMO uses a single entry accounting system currently, but is in the process of moving to a double entry bookkeeping system once the procurement of new accounting system software (Enterprise Resource Planning or similar) is completed. Introduction of this system will also establish a system of control access levels to all financial data.

30. Invoices are received in Interim Payment Certificate (IPC) format, compared against the contract, budget and Bill of Quantities (BOQ).

31. The PMO was able to explain in sufficient detail to establish that it has satisfactory systems in place for the preparation and approval of transactions, with the necessary separation of duties between approvals and payments. The PMO follow the procedures of the ADB Loan Disbursement Handbook.

32. **Internal and external audit.** The PMO has been subjected to external audit for each project it manages. A system of annual auditing with the firm Alliot Gulf Chartered Accountants & Management Consultants is in place. A review of audited project financial statements (APFS)

⁹ Available at: <http://www.adb.org/Documents/Guidelines/Financial/default.asp>.

¹⁰ Available at: <http://www.adb.org/sites/default/files/page/82468/financial-management-assessment.pdf>

shows that the PMO and its operations are in conformity with International Public Sector Accounting Standard, that MPW/PMO have utilized proceeds of grants in accordance with the grant agreement, and that financial covenants of the grant agreements were complied with.

33. PMO undertakes quarterly project reporting to ADB and monthly, quarterly and annual financial reporting to MPW. They are also requested to submit periodic reports to MoF, the Ministry of Economy and Parliament. There are also periodic audits by the government's Audit Office. The Project will be subject to similar internal audits and reporting.

34. **Financial reporting systems, including use of information technology.** The PMO uses a single entry accounting system currently, but are in the process (as of May 2016) of moving to a double entry bookkeeping system once the procurement of new accounting system software (Enterprise Resource Planning or similar) is completed (expected by third quarter of 2016). Introduction of this system will also establish a system of control access levels to all financial data.

35. Project performance will be monitored based on quarterly and consolidated reports provided by the MPW. These reports will include: (a) progress achieved by activity as measured against the Implementation Schedule (Section II.A of the PAM), (b) key implementation issues and solutions; (c) updated procurement plan and (d) updated implementation plan for the next 12 months. To ensure the Project continues to be both viable and sustainable, the Project's financial statements, together with the associated auditor's report, should be adequately reviewed.

36. Grant covenants on policy, legal, financial, economic, environmental, labor standards and others will be monitored regularly through various reports (monthly progress reports, quarterly progress reports, and annual reports), and discussion during review missions.

37. The strengths and weaknesses of the MPW and in particular its PMO, with regard to financial management, is summarized in the table below.

Strengths	Weaknesses
<ul style="list-style-type: none"> • Staff of increasing caliber and qualifications, especially post the 2015 restructuring of PMO • Submitted audited project financial statements (APFS) for past projects generally in compliance with grant agreements and their covenants. • PMO is highly cognizant of ADB processes and procedures, and has good knowledge of the ADB Loan Disbursement Handbook. 	<ul style="list-style-type: none"> • Observed delays in submitting audited project financial statements • Single entry accounting system still in use, but this is soon to be upgraded to a double entry bookkeeping system with professional accounting software. • Earlier challenges observed in keeping copies of original receipts and boarding passes (which are required to be submitted to MOF and therefore unavailable for submission to ADB)

38. **Key risks.** The table below summarizes the result of the financial risk analysis, covering both (i) inherent risk related to the country, entity and project, as well as (ii) control risks from a financial management perspective.

Risk	Risk Assessment*	Risk-Mitigation Measures
Inherent Risk 1. Country-Specific Risks 2. Entity-Specific Risks 3. Project-Specific Risks Overall Inherent Risk	H M N M	Use of the PMO to offset the relatively weak general capacity of ministries for financial management. Competitive salary structure with long-term contracts (at least yearly) financed through ADB projects. The project itself will not involve any civil works, but rather consulting services. ADB will select the consultants on behalf of government, and play an active facilitation role in managing the project.
Control Risk 1. Implementing Entity 2. Funds Flow 3. Staffing 4. Accounting Policies and Procedures 5. Internal Audit 6. External Audit 7. Reporting and Monitoring 8. Information Systems Overall Control Risk	M M M S M M S M M	PMO with proven and increasing capacity to implement ADB financed projects. PMO is experienced in direct payment and imprest fund procedure and has managed them well in ongoing projects. Sufficient number and caliber of staff, and with provision for additional consultant support to augment any gaps. Some remaining risk of staff turnover. Single book system still in place. Modern accounting software and practices now being procured. Periodic internal audits conducted by MPW. External audits being conducted annually, with recent satisfactory results. PMO has demonstrated capacity to report and monitor project finances based on ADB requirements. However, there have been major delays in the submission of APFSs Computerized accounting system under procurement.

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

39. **Proposed actions.** In view of the findings of this financial management assessment, it is proposed that the following actions be taken.

Action	By when
Expedite the procurement and installation of modern accounting software and train relevant PMO staff in its use.	End of 2016
Attach an international financial management specialist, recruited under the project, to support PMO staff in the conduct of financial management. Support to focus on improving the timeliness of submission of APFSs of the project	Entire duration of project

B. Disbursement

40. The Grant proceeds including the ADB administered funds from AITF will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2015, as amended from time to time),¹¹ and detailed arrangements agreed upon between the Government and ADB. Online training for project staff on disbursement policies and procedures is available at: http://wpqr4.adb.org/disbursement_elearning. Project staff are encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

41. MPW's PMO will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds from MOF (if any), (iii) collecting supporting documents, and (iv) preparing and sending withdrawal applications to ADB.

42. The direct payment procedures will generally be used for disbursement under the project. Payments for individual consultants and purchase of armored vehicles may be made from an imprest account. The PMO will establish an imprest account at the central bank. The currency of the imprest account will be United States Dollars. The government may request for initial and additional advances to the imprest accounts based on 6 months estimated expenditures. The imprest account will be established, managed, and liquidated in accordance with ADB's *Loan Disbursement Handbook* and detailed arrangements agreed by the Government and ADB. ADB's *Loan Disbursement Handbook* describes which supporting documents should be submitted to ADB and which should be retained by the government for liquidation and replenishment of an imprest account.

43. The statement of expenditure (SOE) procedure may be used for reimbursement of eligible expenditures and to liquidate and replenish the imprest account for individual payments. SOE records should be maintained and made readily available for review by ADB's disbursement and review mission or upon ADB's request for submission of supporting documents on a sampling basis, and for independent audit.¹²

44. Before submitting the first withdrawal application, MPW will submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the government, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is set in accordance with the *Loan Disbursement Handbook*. Individual payments below this amount should be paid by the EA/IA and subsequently claimed to ADB through reimbursement or from the imprest accounts, unless otherwise accepted by ADB.

C. Accounting

45. The MPW will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project. The MPW will prepare consolidated

¹¹ Available at: http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf

¹² Checklist for SOE procedures and formats are available at:
http://www.adb.org/documents/handbooks/loan_disbursement/chap-09.pdf
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-100-Below.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Contracts-Over-100.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Operating-Costs.xls
http://www.adb.org/documents/handbooks/loan_disbursement/SOE-Free-Format.xls

project financial statements in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

D. Auditing and Public Disclosure

46. The MPW will cause the detailed consolidated project financial statements to be audited in accordance with International Standards on Auditing and with the Government's audit regulations, by an independent auditor acceptable to ADB. The audited project financial statements will be submitted in the English language to ADB within six months of the end of the fiscal year by the MPW.

47. The audit report for the project financial statements will include a management letter and auditor's opinions, which cover (i) whether the project financial statements present an accurate and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting framework; (ii) whether the proceeds of the grants were used only for the purposes of the project; and (iii) whether the recipient and executing agency was in compliance with the financial covenants contained in the legal agreements (where applicable).

48. 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.

49. The Government, MoF and MPW have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.¹³ 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.

50. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Public Communications Policy 2011.¹⁴ After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.¹⁵

¹³ ADB's approach and procedures regarding delayed submission of audited project financial statements:

- (i) When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (a) the audit documents are overdue; and (b) if they are not received within the next 6 months, requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- (ii) When audited project financial statements are not received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (a) inform the executing agency of ADB's actions; and (b) advise that the loan may be suspended if the audit documents are not received within the next 6 months.
- (iii) When audited project financial statements are not received within 12 months after the due date, ADB may suspend the loan.

¹⁴ Public Communications Policy: <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>

¹⁵ This type of information would generally fall under public communications policy exceptions to disclosure. ADB. 2011. *Public Communications Policy*. Paragraph 97(iv) and/or 97(v).

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

51. All advance contracting and retroactive financing, if any will be undertaken in conformity with ADB's *Procurement Guidelines* (2015, as amended from time to time) (ADB's *Procurement Guidelines*)¹⁶ and ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time) (ADB's *Guidelines on the Use of Consultants*).¹⁷ The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. MOF and MPW have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project nor the ensuing project.

52. **Advance contracting.** There will be no advance contracting under this project. However, advance action will be taken for the selection of the feasibility study and detailed design consultant for the project. The intention is that the complete selection process will be completed prior to grant effectiveness, to allow project implementation to commence immediately after the grant has been declared effective.

53. **Retroactive financing.** There will be no retroactive financing.

B. Procurement of Goods, Works and Consulting Services

54. All procurement of goods and works will be undertaken in accordance with ADB's *Procurement Guidelines* (2015, as amended from time to time).

55. The goods to be procured under the project are up to 4 armored vehicles, to be used by the consultants for implementing the project, as required for conforming to the UN's Minimum Operating Security Standards (MOSS).

56. 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.

57. All consultants will be recruited according to ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time).¹⁸ The terms of reference for all consulting services are detailed in Section D.

58. The project will require two consulting firm contracts: (i) for feasibility study and detailed design of the project; and (ii) for independent proof checking of the critical tunnel and galleries parts of the detailed design. The consulting inputs for the first of these will total 532 person-months, 261 international and 271 national. The consulting inputs for the second of these will be 16 person-months, all international. The consulting firms will be engaged using the quality and cost based selection method with a quality cost ratio of 90:10.

59. In addition, 48 person-months of individual international and national consultant/resource person inputs will be made for ad-hoc and high-level support in areas supported under this project. These individual specialists and resource persons will be recruited on an individual and

¹⁶ Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

¹⁷ Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

¹⁸ 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/>

short-term basis. Their roles include (i) provision of high-level advisory support to the project, (ii) resolution of matters of highly technical nature, and (iii) provision of specialist services which may be unavailable through firms.

C. Procurement Plan

Basic Data

Project Name: Preparation of Central Asia Regional Economic Cooperation Corridors 5 and 6 (Salang Corridor) Project	
Project Number: 49229-003	Approval Number: TBC
Country: Afghanistan	Executing Agency: Ministry of Finance
Project Procurement Classification: A	Implementing Agency: Ministry of Public Works
Procurement Risk: Low – ADB will select the consultants on behalf of the EA/IA	
Project Financing Amount: \$ 31.37 million ADB Financing: \$15.45m Cofinancing (ADB Administered): \$15.92m Non-ADB Financing:	Project Closing Date: 31 December 2020
Date of First Procurement Plan: 15 May 2016	Date of this Procurement Plan: 16 June 2016

Methods, Thresholds, Review and 18-Month Procurement Plan

1. Procurement and Consulting Methods and Thresholds

Except as the Asian Development Bank (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 for Goods	\$2,000,000 (maximum threshold)	Armored vehicles to be procured are likely to be available only from external suppliers. Hence ICB would be applied. Contracts shall include provision for operation and maintenance of vehicles.

Consulting Services	
Method	Comments
Quality and Cost Based Selection (QCBS)	Two contracts to be procured using this method

2. 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.

Package Number	General Description	Estimated Value	Procurement Method	Review [Prior / Post/Post (Sampling)]	Bidding Procedure	Advertisement Date (quarter/year)	Comments

3. 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.

Package Number	General Description	Estimated Value	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal ⁸	Comments ⁹
CS-1	Feasibility Study and Detailed Design	\$24.07 million	QCBS	Prior	2/2016	FTP	Ratio 90:10
CS-2	Independent Proof Check	\$0.80 million	QCBS	Prior	1/2017	STP	Ratio 90:10

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

The following table groups smaller-value goods, works and consulting services contracts for which the activity is either ongoing or expected to commence within the next 18 months.

Goods and Works								
Package Number ⁵	General Description	Estimated Value	Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sampling)]	Bidding Procedure ⁶	Advertisement Date (quarter/year)	Comments ⁷
G-1	Armored vehicles	\$1.00 million	1	ICB	Prior		3/2016	
Consulting Services								
Package Number	General Description	Estimated Value	Number of Contracts	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal ⁸	Comments ⁹
CS3	Individual consultants and resource persons	\$100,000 per contract	20	Individual		TBC	Individual	

Indicative List of Packages Required Under the Project

The following table provides an indicative list of goods, works and consulting services contracts over the life of the project, other than those mentioned in previous sections (i.e., those expected beyond the current period).

Goods and Works							
Package Number ⁵	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Review [Prior / Post/Post (Sampling)]	Bidding Procedure ⁶	Comments ⁷

Consulting Services							
Package Number	General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Review (Prior / Post)	Type of Proposal ⁸	Comments ⁹

List of Awarded and On-going, and Completed Contracts

The following tables list the awarded and on-going contracts, and completed contracts.

1. Awarded and On-going Contracts

Goods and Works							
Package Number	General Description	Estimated Value	Awarded Contract Value	Procurement Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award ¹⁰	Comments ¹¹

¹⁰ Date of ADB Approval of Contract Award is the date of No-Objection letter to the EA/IA.

¹¹ Indicate the Contractor's name and the contract signing date.

Consulting Services							
Package Number	General Description	Estimated Value	Awarded Contract Value	Recruitment Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award ¹⁰	Comments ¹²

¹⁰ Date of ADB Approval of Contract Award is the date of No-Objection letter to the EA/IA.

¹² Indicate the Consulting Firm's name and the contract signing date.

2. Completed Contracts

Goods and Works								
Package Number	General Description	Estimated Value	Contract Value	Procurement Method	Advertise ment Date (quarter/ year)	Date of ADB Approval of Contract Award ¹⁰	Date of Completion ¹³	Comments

¹⁰ Date of ADB Approval of Contract Award is the date of No-Objection letter to the EA/IA

¹³ The Date of Completion is the physical completion date of the contract.

Consulting Services								
Package Number	General Description	Estimated Value	Contract Value	Recruitment Method	Advertisement Date (quarter/ year)	Date of ADB Approval of Contract Award ¹⁰	Date of Completion ¹³	Comments

¹⁰ Date of ADB Approval of Contract Award is the date of No-Objection letter to the EA/IA

¹³ The Date of Completion is the physical completion date of the contract.

Non-ADB Financing

The following table lists goods, works and consulting services contracts over the life of the project, financed by Non-ADB sources.

Goods and Works				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Comments

Consulting Services				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Comments

National Competitive Bidding

1. General

National competitive bidding for the procurement of goods and related services shall conform to the provisions for Open Tender without prequalification as prescribed in the *Procurement Law* of October 2005 and elaborated in the *Rules of Procedure for Public Procurement* issued by the Ministry of Finance in April 2007, with the clarifications and modifications described in the following paragraphs required for compliance with the provisions of the ADB Procurement Guidelines.

2. Registration and Other Pre-Bid Requirements

- (i) Bidding shall not be restricted to Shortlists or Standing Lists.
- (ii) No bid shall be declared as ineligible on the grounds of debarment without ADB's prior concurrence.
- (iii) No bid shall be declared ineligible on the grounds of government regulations that restrict sources without ADB's prior concurrence.
- (iv) Foreign suppliers and contractors from ADB member countries shall be allowed to bid, without registration, licensing, and other government authorizations. However, in case these foreign suppliers and contractors are declared winning bidders, the requirements may be completed after award and before signing of contract, without unreasonable costs or additional requirements.

3. Prequalification

Post qualification shall be used unless prequalification is explicitly provided for in the loan agreement/procurement plan. Irrespective of the procedure applied (whether prequalification or post qualification), no domestic or foreign contractor shall be precluded from participation.

If prequalification is undertaken, the prequalification criteria should include "Eligibility Requirements", "Financial Situation", "Pending Litigation", and "Experience". Technical Capacity (personnel and equipment) should not be part of the prequalification criteria.

Interested bidders shall be given a minimum period of 28 days for the preparation and submission of prequalification applications.

4. Advertising

Bidding of NCB contracts estimated at \$500,000 or more for goods and related services and NCB contracts estimated at \$1,000,000 or more for works shall be advertised on ADB's website via the posting of the Procurement Plan.

5. Bidding Documents

Procuring entities shall use standard bidding documents acceptable to ADB, based ideally on the standard bidding documents issued by ADB.

6. Bidding Period

Procuring entities shall allow for a minimum of four weeks for submission of bids.

7. Bid Security

Where required, bid security shall be in the form of a bank guarantee or check from a reputable bank and should not be more than two percent of the estimated value of contract to be procured.

8. Preferences

No preference of any kind shall be given shall be given to domestic bidders or for domestically manufactured goods.

9. Evaluation

No bid shall be rejected on the grounds of price, or for any other reason(s) not related to the evaluation and qualification criteria, without ADB's prior concurrence.

Prompt payment discounts offered by bidders shall not be considered in bid evaluation.

10. Price Negotiations

Price negotiation shall be allowed only after receiving ADB's prior concurrence.

11. Advance Payments

No advance payment shall be made without an advance payment security in the form of a bank guarantee or check from a reputable bank.

12. Government-Owned Enterprises

Government-owned enterprises in Afghanistan shall be eligible to participate only if they can establish that they are legally and financially autonomous, operate under commercial law, and are not a dependent agency of the procuring entity, or the Project Executing Agency, or the Implementing Agency.

13. Right to Inspect/Audit

A provision shall be included in all NCB works and goods contracts financed by the Bank (ADB) requiring suppliers and contractors to permit ADB to inspect their accounts and records and other documents relating to the bid submission and the performance of the contract, and to have them audited by auditors appointed by ADB.

14. Anti-Corruption Policy

- (i) The Recipient shall reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the contract in question.

- (ii) ADB will declare a firm or individual ineligible, either indefinitely or for a stated period, to be awarded a contract financed by ADB, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing, ADB-financed contract, as indicated in paragraph 1.14 (a) of ADB's Procurement Guidelines.

15. Disclosure of Decision on Contract Awards

At the same time that notification of award of Contract is given to the successful bidder, the results of bid evaluation shall be published in a local newspaper, or well-known freely accessible website identifying the bid and lot numbers and providing information on (i) name of each bidder who submitted a Bid, (ii) bid prices as read out at bid opening, (iii) name of bidders whose bids were rejected and the reasons for their rejection, and (iv) name of the winning bidder, and the price it offered, as well as duration and summary scope of the contract awarded. The executing agency/implementing agency/contracting authority shall respond in writing to unsuccessful bidders who seek explanations on the grounds on which their bids are not selected.

16. Eligibility

The eligibility of bidders shall be as defined under section I of the Guidelines; accordingly, no bidder or potential bidder should be declared ineligible for reasons other than those provided in section I of the Guidelines, as amended from time to time.

D. Consultant's Terms of Reference: Feasibility study and detailed engineering firm

Project Background

60. The Government of the Islamic Republic of Afghanistan has requested the Asian Development Bank (ADB) to provide support for the Preparation of Central Asia Regional Economic Cooperation Corridors 5 and 6 (Salang Corridor) Project. This support will be financed through grants provided by ADB and the Afghanistan Infrastructure Trust Fund (AIF). The Executing Agency for the proposed project will be the Ministry of Finance, and the Implementing Agency will be the Ministry of Public Works (MPW).

61. Within Afghanistan, one of the few viable land routes linking the south, including the capital of Kabul, with the north is through the Salang Tunnel and associated connecting roads, collectively known as the Salang Corridor (see map at Annex 1). The Salang Corridor forms a key section of CAREC Corridors 5 and 6 that traverse Afghanistan. At present, the Salang Corridor is the only route that allows the year round north-south passage of goods and people across the Hindu Kush mountain range. Given the lack of alternative routes, the vast majority of goods shipped to Kabul from the north traverse the Salang Corridor. Current estimates indicate that over 5,500 vehicles per day transit the corridor.

62. Construction of the 2.7 km Salang Tunnel that is the core of the corridor was completed in 1964. At the time it was the highest tunnel in the world, at 3,400 m above sea level. After more than 50 years of service, including 30 years of conflict when maintenance and rehabilitation were limited, vehicle accidents, fires, conflict-related acts, extreme weather, avalanches, and constant usage have contributed to the tunnel falling into a state of severe disrepair. Present conditions within the tunnel are dangerous to users because of inadequate ventilation, poor lighting, lack of proper modern safety features, and a failing road surface, all of which constrain traffic flow and impose a severe economic cost. Should the tunnel completely fail, the costs to the Afghan economy would be substantial and would possibly endanger governance and stability of the state.

63. In 2012, USAID completed a study that analyzed several potential options to solve the capacity problem and failure risk associated with the Salang Corridor, and specifically the Salang Tunnel.¹⁹ In 2015, the World Bank approved the Trans Hindukush Road Connectivity Project which essentially commits to upgrade of the existing Salang corridor following upgrade of a (considerably longer) bypass route from Dusti to Bamyan to allow closure of the tunnel while it is undergoing extensive rehabilitation.²⁰

Objectives

64. These Terms of Reference are for a consultant (hereinafter the consultant or the feasibility and detailed design consultant) to carry out a feasibility study based broadly on three of the USAID-identified options – Options 2, 3, and 4 as presented in the USAID report, with Option 3 to be considered as two sub-options 3A and 3B. The former will be for a two lane alignment as described in the USAID report, while the latter will assume a four lane alignment generally on the USAID alignment, bypassing the existing Salang Tunnel and its approaches. Extracts for the three alignment options are presented in Annex 3. The complete USAID report, with its extensive annexes, will be made available as downloadable files for shortlisted consultants.

¹⁹ USAID. 2012. *Salang Tunnel Feasibility Study*. Kabul 2012

²⁰ World Bank. September 2015. *Trans Hindukush Road Connectivity Project*. Project Appraisal Document.

65. Based on the feasibility study results, the consultant will recommend an alignment for further development. Once MPW and ADB have accepted this recommendation, the consultant will prepare detailed designs, safeguards studies, and procurement documentation, and will provide MPW with support for procuring civil works contracts.

66. It is anticipated that the project will commence in March 2017, when post-winter access to the project area for site investigations will become possible, and be completed by mid-2019. However, the consultant should mobilize a small team at least a month prior to the main team's mobilization, to prepare in particular the security-related aspects of the project. This small team should include the international and national security specialists. An outline overall project schedule is at Annex 2; this is intended to provide the consultants with a broad understanding of how the overall project will be developed, and the linkages between the several activities that are required to achieve this. When preparing their work programs, consultants are to take into account the severe weather conditions that prevail in the project area during the winter months.

Scope of Services

67. The project will be implemented in two phases, described below.

Phase 1: Feasibility Study and Alignment Recommendation (Months 1 to 8)

68. Under Phase 1, the consultant will carry out (i) feasibility studies for each of the alignment options, and recommend an alignment to be carried forward to detailed design, procurement, and construction; and (ii) other studies as detailed below. The tasks to achieve this objective will include the following:

- i. Assistance as required to MPW's Project Management Office with managing the project, responding to ADB requests, and working with ADB missions;
- ii. A review of all available reports, maps, studies and other information for the study area, including acquiring relevant satellite and other imaging;
- iii. An assessment of the extent to which the study area is contaminated with unexploded ordnance (UXO), to provide the consultant with the information required to safely undertake field visits, surveys, etc. for the project, and also for ensuring there is an appropriate provision for UXO detection and clearing prior to the commencement of construction of the selected alignment option;
- iv. Traffic studies to determine present and projected future traffic over a 30 year time frame for the corridor within which the alignment options to be studied are located;
- v. Site visits to assess the alignment terrain, geology, in particular in the vicinity of tunnels, augmented if appropriate and possible by drone-obtained aerial imaging;
- vi. Topographic surveys, axle load surveys, geotechnical investigations, hydrology and hydraulic studies, and others as needed, in sufficient detail to allow the development of preliminary technical designs and costs estimates for all project elements for cost comparisons and economic analyses;
- vii. In the context of geotechnical investigations, consultants will include in their technical proposals a preliminary program of the geotechnical investigations they intend to undertake during Phase 1 and Phase 2;
- viii. Road alignment design, using an appropriate computer-based design application;
- ix. The technical designs will take into account all relevant factors, including:

- a. Phasing of investment to ensure that the traffic capacity derived from the traffic studies is available when required, in terms of numbers of lanes, climbing lanes for slow-moving traffic, and other facilities;
- b. Weather conditions in the project area;
- c. The tunnels to comply to the extent possible with the requirements of the EU Directive 2004/54/EC on minimum safety requirements for road tunnels, taking into account institutional and other conditions prevailing in Afghanistan, and also the PIARC Road Tunnel Manual.
- d. A balance between tunnel length and long term operation and maintenance costs for the road, reflecting the likelihood that a longer, hence lower, tunnel might be less subject to the adverse weather conditions that prevail at higher altitudes;
- e. Locations for tolling facilities;
- f. Road safety facilities in accordance with relevant international standards;
- g. Data on seismic activities and avalanches (both historical and future projections) that is available for the existing Salang Tunnel alignment, and the potential for above-road avalanche management facilities;
- h. For tunnels, power supply, lighting, ventilation, drainage, security, and emergency systems, including if necessary for the power supply a connection, with appropriate transformers and other installations necessary for connecting to the national power transmission grid;
- i. Traffic rest areas in the vicinity of tunnel portals and elsewhere along the alignment;
- j. For roads, a pavement solution based on a life cycle comparison between rigid concrete and flexible asphaltic concrete pavements, to take into account cold weather factors, such as damage caused by studded tires, snow clearing operations, freeze-thaw cycles, etc.;
- x. Drawings setting out, for each alignment studied, horizontal and vertical alignments, typical cross sections, pavement structures, general arrangements for all structural elements – tunnels, bridges and other cross-drainage structures, avalanche galleries, retaining walls, and others as required;
- xi. Outline implementation schedules for each of the studied alignments, to take into account access, weather, and other conditions specific to each alignment;
- xii. Safeguards studies (involuntary resettlement, environment and, if relevant, indigenous peoples) for each of the alignment options in accordance with ADB's Safeguards Policy Statement (SPS), in sufficient detail to enable ADB to confirm appropriate categorizations for each of the safeguards areas. The outcome of the studies will be presented for each of the alignment options, as a critical input into the process for selecting a final alignment option.
- xiii. Specific to social safeguards, the study would provide an assessment of social impacts through involuntary resettlement and, if relevant, on indigenous peoples. If ADB social safeguards policies are triggered, the study would (a) carry out social/risk analysis, asset inventory, consultation and participation with potentially affected persons and stakeholders; (b) define institutional arrangements and capacity building interventions; and (c) prepare initial costing for plans that might

be necessary to mitigate impacts arising from the project for each of these three areas. It is expected the consultant will utilize updated satellite imagery to confirm the location of fields, irrigation systems and buildings amongst other affected assets to produce a firm baseline for the inventory of loss. Photographs of each affected household on each alignment are to be collected in view of the weak land registration system and geolocated on the project map.

- xiv. Climate risk and vulnerability assessment for each alignment option, based on historical data and projected changes in climate parameters. Estimate the costs and benefits of possible climate proofing measures, as an input to the economic analysis.
- xv. An economic analysis for each of alignment options, including appropriate sensitivity and risk analyses, in accordance with the *Guidelines for the Economic Analysis of Projects (1997)*²¹, and the *Cost-Benefit Analysis for Development: A Practical Guide (2013)*.²² It will cover all aspects of analysis as specified in ADB's Operations Manual Section G1/OP and summarized in the *Key Areas of Economic Analysis of Investment Projects – An Overview (2013)*.²³ The without project scenario will be the existing Salang Pass, after improvement under the World Bank-financed Trans Hindukush Road Connectivity Project described above.
- xvi. An initial study on financial structuring of the construction and operations/maintenance of the ensuing project, including through public-private partnership (PPP) modality, taking into account the ongoing World Bank-supported program that is working with the Government to development a PPP framework and evaluation approach for the country. The study will extensively assess how for example future toll revenue may be capitalized to partially or wholly finance the ensuing project;
- xvii. In conjunction with the above, an initial analysis of how the completed corridor could be managed, informed by a comprehensive assessment of the management and operations of the existing Salang Pass Corridor, and a presentation of options for managing the completed corridor and associated facilities. These options are to consider tolling at an appropriate level, and are to include (a) a private sector approach, possibly through a concession, (b) a special purpose Government-owned entity, (c) as part of the road network managed by the proposed Road Authority, and (d) others that may be appropriate;
- xviii. An initial assessment of procurement options for the project's works, to provide advice on contract packaging, contract type, contract duration, and relevant country and site specific provisions that should be included in the procurement documentation;
- xix. An initial assessment of the financial management capacity of the PMO, together with recommendations for further improvement. Support on a continuous basis the efforts of the PMO in the improved maintenance of accounts;

²¹ ADB. 1997. *Guidelines for the Economic Analysis of Projects*. Manila.

²² ADB. 2013. *Cost-Benefit Analysis for Development: A Practical Guide*. Manila.

²³ ADB. 2013. *Key Areas of Economic Analysis of Investment Projects – An Overview*. Manila

- xx. A draft Phase 1 report incorporating all of the Phase 1 findings, to include a comprehensive matrix setting out the relative merits of each of the alignment options and a ranking of them, to be submitted to MPW and ADB for review;
- xxi. Workshop(s) to be attended by MPW, relevant government agencies, ADB, and others as appropriate, at which the consultant will present the Phase 1 findings. The government, assisted by ADB will decide on the optimal corridor alignment;
- xxii. A final Phase 1 report, to reflect MPW's and ADB's comments, and the outcome of the workshop mentioned above.

Phase 2: Detailed Design, Safeguards and Procurement (Months 9 to 24)

69. Under Phase 2, the selected Phase 1 alignment option will be finalized for inclusion in bidding documents, bidding documents will be prepared, and MPW will be provided with assistance to procure contractors to implement the project's works. Safeguards plans, for environment and resettlement will also be finalized. Separately, ADB will assist MPW with selecting and appointing consultants to manage and supervise the project's contracts.

70. In parallel with Phase 2, it is intended that the Government will work with ADB and other development partners to prepare the financing required to construct the project. The consultant will extensively support this effort, through further detailed study on financial structuring of the ensuing project, including through PPP modality. In this context, and subject to this financing being available when required, the ensuing project's works and consulting services contracts will be procured through advance action, to be ready to sign when the financing for the ensuing project has been approved, signed, and become effective. The consultant's work plan is to reflect this intention.

71. The Phase 2 activities will include the following:

- i. Assistance as required to MPW's Project Management Office with managing the project, responding to ADB requests, and working with ADB missions;
- ii. Based on the Phase 1 design for the selected alignment, carry out additional geotechnical investigations, topographic surveys, etc., prepare detailed designs for all project elements to the level required for procuring and constructing the project's works;
- iii. Carry out a road safety audit on the completed road design to ensure the road as constructed will comply with appropriate international standards;
- iv. Based on the detailed design, finalize the draft safeguards planning documents in accordance with ADB's SPS;
- v. Specifically for environmental impacts prepare an Environmental Impact Assessment (EIA) or an Initial Environmental Examination (IEE) as appropriate. Prepare an Environmental Management Plan in accordance with the ADB's Safeguard Policy Statement (2009). The EIA will contain mostly primary data about sensitive environmental aspects of the project. The EIA will include a description of the project, baseline environment, impact assessment and mitigation, alternatives, public consultations and grievance redress mechanisms, and environmental management and monitoring plans for pre-construction, construction and operation stages. Additional information relevant to the EIA process is provided in Annex 4;
- vi. For the selected alignment, undertake a full climate risk and vulnerability assessment, and produce a risk mitigation plan;

- vii. If necessary, prepare a gender and/or social action plan including budget;
- viii. Prepare a detailed project schedule, reflecting weather and other factors that will impact on project implementation and completion;
- ix. Taking into account the procurement-related work done under Phase 1, prepare prequalification and bidding documents, based on ADB's standard bidding document for works following prequalification.²⁴ The documents are to include detailed specifications reflecting appropriate and relevant international practice for works of this nature, and environmental management plans developed as part of the environmental assessment activity;
- x. Prepare detailed cost estimates, identifying to the extent possible taxes and duties that would apply. The cost estimates should be prepared against several future macroeconomic scenarios. Sensitivity analyses should be performed on the cost estimates in relation to key assumptions, and appropriately documented;
- xi. Prepare a preliminary procurement plan, in ADB's standard format, setting out proposed contract packages and mode of procurement, and other procurement requirements;
- xii. Update the project's economic analysis, if required, based on the detailed project cost estimates. The economic analysis will be conducted according to the *Guidelines for the Economic Analysis of Projects (1997)*²⁵, and the *Cost-Benefit Analysis for Development: A Practical Guide (2013)*.²⁶ It will cover all aspects of analysis as specified in ADB's Operations Manual Section G1/OP and summarized in the *Key Areas of Economic Analysis of Investment Projects – An Overview (2013)*.²⁷;
- xiii. Building on the work under Phase 1, prepare detailed financial structuring for the ensuing project, including through the use of PPP modality. Conduct road shows with prospective financiers, both public and private.
- xiv. Develop a monitoring and evaluation program for all aspects of the project, undertake appropriate baseline surveys for the program, regularly assess the project's performance against the program, both during and after completion;
- xv. Undertake a full financial management sustainability assessment of the ensuing project, and develop an action plan for the improvement of financial management capacity required to execute the ensuing project. Support on a continuous basis the efforts of the MPW and PMO in the improved maintenance of accounts;
- xvi. In accordance with ADB's Procurement Guidelines and procedures, assist MPW with prequalifying contractors for the works;
- xvii. Subject to a separate notice to proceed²⁸, assist MPW with inviting bids from prequalified contractors, evaluating bids received, preparing bid evaluation reports for Government and ADB approval, negotiating final contract details with the selected contractors, and preparing final contract documents ready for signing;

²⁴ <http://www.adb.org/sites/default/files/institutional-document/32831/sbd-works-users-guide.pdf>

²⁵ ADB. 1997. *Guidelines for the Economic Analysis of Projects*. Manila.

²⁶ ADB. 2013. *Cost-Benefit Analysis for Development: A Practical Guide*. Manila.

²⁷ ADB. 2013. *Key Areas of Economic Analysis of Investment Projects – An Overview*. Manila

²⁸ Civil works procurement will commence when financing for the project has been confirmed.

- xviii. Based on the operational study carried out under Phase 1, prepare specific recommendations for managing and operating the completed corridor (the new road and the existing tunnel if the selected alignment alternative includes this), including suggested toll rates if a tolled approach has been agreed, and recommendations if required for specific equipment that would of use for operating and maintaining the project road when it comes into service;
- xix. Prepare a draft final report for Phase 2, including the procurement activities, for submission to MPW and ADB, and finalize the report after receiving comments from MPW and ADB; and
- xx. Provide support to MPW and the ADB team processing the financing for the project, likely to commence early in the Phase 2 implementation period.

Implementation Arrangements

72. The project will be implemented by the Ministry of Public Works of Afghanistan, through its Program Management Office.

73. The project will primarily be supported by a firm of international consultants working with one or more national consultant firms, and/or individual national consultants. The consultant will be selected by ADB following its Guidelines on the Use of Consultants for ADB-financed projects. Full technical proposals will be required. The quality- and cost-based selection procedure will be used, with the quality:cost ratio set at 90:10. MPW will negotiate and finalize a contract with the selected consultant, and will be the client for the contract. The consulting services will be provided in Afghanistan and in the consultant's home office, as appropriate.

74. Separately, ADB will also assist MPW will selecting and engaging an independent proof check (IPC) consultant, who will mobilize at the commencement of Phase 2. Outline terms of reference for the IPC consultant are at Annex 6. Briefly, the IPC consultant will perform, for the project's tunnels and galleries, a fully independent design review to check compliance of the design with the design criteria. In preparing computer models for the analysis, the IPC will independently derive the geometry, material and section properties from the information given on the detailed design drawings and will determine the appropriate loading cases and combinations from the design criteria. To assist with this process, prior to commencing the design, the detailed design consultant will prepare a design manual, defining the standards, materials, load cases and combinations, and other relevant design requirements for review by the IPC consultant.

Expertise Required

75. The tables below set out the indicative team composition and person-month inputs for the feasibility and detailed design consultant. Brief TOR for each position are provided in Annex 5. Consultants proposing for the assignment will be free to suggest alternative staffing inputs, within the overall umbrella of required skills and total person-month inputs. However, as a minimum, the consultant must make available the number of person months for those positions listed as "key" in the table beneath. In addition to the personnel inputs listed below, the consultant will engage, through subcontract arrangements, appropriate firms for topographical, geotechnical, social, and other surveys, and for security-related services. The request for proposals includes provisional sums for these activities where appropriate.

76. Consultants are to provide in their proposals CVs for all international personnel, and for all the national personnel except for 12: Engineers – Office and Field and 13: Office/Finance Manager.

Table 1: Indicative International Consultant Inputs (person months)

		<i>Key</i>	<i>Phase 1</i>	<i>Phase 2</i>	<i>Total</i>
1	Team Leader	Yes	9	13	22
2	Geotechnical Engineer	Yes	4	7	11
3	Geologist		4	4	8
4	Tunnel - Civil Specialist	Yes	6	16	22
5	Tunnel - E&M Specialist	Yes	4	7	11
6	Structural Engineer	Yes	4	13	17
7	Highway Engineer	Yes	4	8	12
8	Hydraulic Engineer		1	2	3
9	Pavement Engineer		1	2	3
10	Road Safety Specialist		1	2	3
11	CAD Manager		3	8	11
12	Environmental Specialist	Yes	3	6	9
13	Climate Change Specialist		3	3	6
14	Social/Resettlement Specialist	Yes	3	6	9
15	QS Engineer		4	3	7
16	Procurement Specialist	Yes	1	14	15
17	Transport Economist		4	1	5
18	Financial Management Specialist	Yes	8	16	24
19	M&E Specialist		0	2	2
20	Institutional Specialist (operations)	Yes	3	4	7
21	Project finance and PPP Specialist	Yes	6	9	18
22	Security Specialist		5	3	8
23	Unallocated		15	16	31
	TOTAL		96	165	261

Table 2: Indicative National Consultant Inputs (person-months)

			<i>Phase 1</i>	<i>Phase 2</i>	<i>Total</i>
1	Deputy Team Leader	Yes	9	16	25
2	Highway Engineers		10	8	18
3	Structural Engineers		11	16	27
4	Geotechnical Engineers		6	6	12
5	Geologist		4	4	8
6	Hydraulic Engineer		6	3	9
7	CAD Specialists		12	18	30
8	Environmental Specialist		6	8	14
9	Social/Resettlement Specialist		6	8	14

		<i>Phase 1</i>	<i>Phase 2</i>	<i>Total</i>
10	Procurement Specialist	2	16	18
11	Institutional Specialist	3	4	7
12	Engineers - office and field	14	25	39
13	Security Specialist	9	16	18
14	Office/Finance Manager	9	16	25
	TOTAL	107	164	271

Outputs

77. Reporting and document submission requirements are set out below. All reports to ADB shall be produced in English. Stand-alone executive summaries will be included with all reports, except for monthly progress reports. Electronic copies as email attachments or through large file transmission applications will be provided for all reports and documents in the original format used to prepare the report, and in pdf format. Payments to the consultant under the contract will be linked to the submission of these reports and documents.

- (i) **Inception Report.** To be submitted within 1 month of commencement of services, the report will be based on work and staffing schedules agreed upon during contract negotiations. The report will highlight problems encountered or anticipated, and will recommend solutions (MPW, 5 copies; ADB, 2 copies).
- (ii) **Project finance and PPP Study Report.** To be submitted to MPW and ADB around month 4 (MPW 5 copies, ADB 3 copies).
- (iii) **Phase 1 Report – draft.** To be submitted to MPW and ADB at the end of month 7, the report will include a comprehensive matrix setting out the relative merits of each of the alignment options and a ranking of the options, (MPW 5 copies; ADB, 2 copies).
- (iv) **Phase 1 Report – final.** To be submitted within 2 weeks after receiving MPW and ADB comments on the draft Phase 1 report.
- (v) **Draft Procurement Documentation.** To include prequalification documentation, submitted around the end of Month 2 of Phase 2, commercial bidding documentation (instructions to bidders, conditions of contract, schedules, bills of quantity formats, etc.) by the end of Month 4 of Phase 2, and final bidding documents with all project-specific information by the end of Month 8 of Phase 2 (MPW 1 and ADB 1 set of each submission).
- (vi) **Phase 2 Report – draft.** To be submitted at the end of month 20. The report will provide a summary and assessment of the phase 2 (MPW, 5 copies; ADB, 2 copies).
- (vii) **Phase 2 Report – final.** To be submitted within 2 weeks after receiving MPW and ADB comments on the draft Phase 1 report.
- (viii) **Draft Final Report for the overall project.** To be delivered by the end of month 24. The report will present the results for all aspects of the study included in the terms of reference, including the procurement assistance task. The Draft Final Report will include the draft Resettlement Plan (MPW, 5 copies; ADB, 3 copies).
- (ix) **Final Report.** This report will be submitted within 3 weeks of receipt of comments from MPW and ADB. (MPW, 5 copies; ADB, 3 copies)

78. In addition to formal reporting, the consultant will organize consultation meetings with the government and ADB during inception and review missions regarding project administration, outputs, deliverables, and achievements; and with stakeholders on all activities under the

project as documented in the reports. The consultant will also arrange meetings with other development partners relevant to the project. The consultant will prepare and circulate minutes of these meetings, and incorporate comments in the reports and activities, as appropriate.

79. Translation and interpretation support between English, Dari and Pashto is expected to be required for many local meetings. The consulting firm will be expected to procure such translation services.

Additional requirements

80. **Security.** The security situation in Afghanistan requires consultants working in the country to pay particular attention to the safety of their personnel in Kabul and elsewhere in the country. For this project, the consultant will be required to align closely within the objectives of the United Nations Minimum Operating Security Standards (MOSS), and will also be required to engage a reputable Kabul-based subcontractor acceptable to MPW and ADB to provide required security-related services. The cost of these services for the duration of the assignment will be financed through the consultant's contract. The contract will also contain provision for security-communications and personal protection equipment, and for providing appropriate security-essential improvements to the consultant's office and residential accommodation premises.

81. **Vehicles.** For the land travel required for the project, the consultant is expected to procure or secure the lease of up to four armored vehicles to a minimum B6 standard, the cost of which will be included in the consultant's contract, unless specified otherwise. The contracts for armored vehicles shall include provision for their operation and maintenance. The procurement will be undertaken generally in accordance with ADB's Guidelines for Procurement. At the conclusion of the assignment, the consultant will transfer the vehicles to MPW, for subsequent use during the construction of the project. Prior to the delivery of these vehicles, the consultant will arrange to hire similar vehicles from local suppliers.

82. **Survey and other equipment.** Consultants shall state in their proposals the required equipment to carry out surveys necessary for the feasibility studies and detailed engineering design. This may include for example drones which may be used to collect aerial photography in otherwise difficult-to-access locations. Such equipment, if procured by the consultants for purpose of the project, shall be covered through a provisional sum and transferred to the government upon the completion of the project.

83. **Location of assignment.** Core members of the consultant team are expected to operate out of Kabul. The consultant is expected to describe in detail the proposed location of each team member and in relation to each phase of the project, to deliver the outputs most effectively.

84. **Facilities.** MPW will provide the consultant with a fully furnished office, suitable for up to three people, in the ministry office. This office is intended for coordination with and support to MPW during the project period. The consultant's team will be accommodated elsewhere in Kabul, in accommodation that the consultant will arrange. The consultant shall include in their cost estimate the cost of office and residential accommodation, vehicles and communications, office furniture, equipment and consumables for the entire professional and support staff and any other items required to carry out the scope of services.

85. **Information to be provided by the client.** MPW will provide all available reports, documents, photographs, geological maps and other information relevant for the project to the consultant at no cost.

Annexes

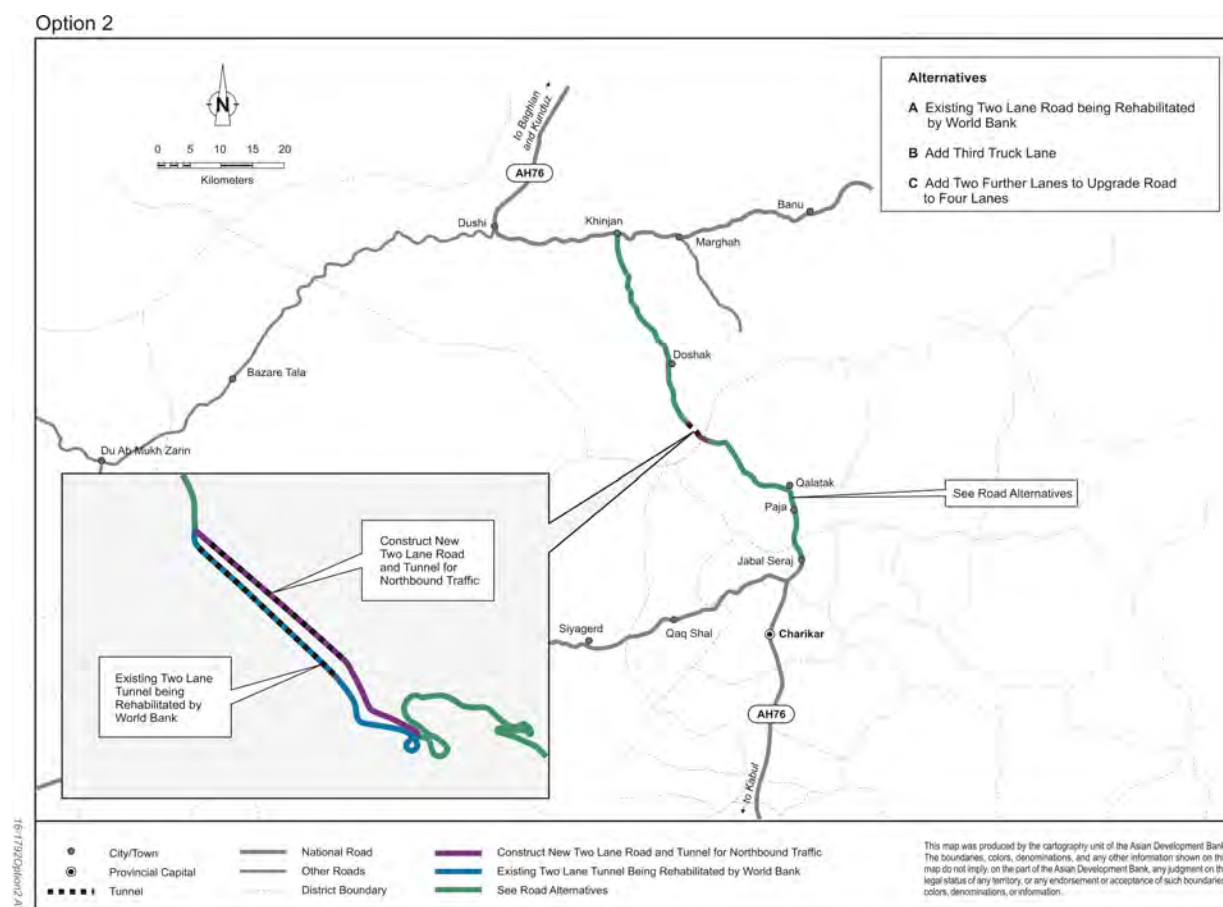
1. Map of the project area (omitted from this section as this is duplicated elsewhere in the PAM)
2. Outline project schedule (omitted from this section as this is duplicated elsewhere in the PAM)
3. Extracts from the USAID Feasibility Report
4. Environmental Assessment
5. Qualifications and Terms of Reference for consultant's personnel
6. Summary Terms of Reference for the Independent Proof Check Consultant (omitted from this section as this is duplicated elsewhere in the PAM)

Extract from the USAID Feasibility Study 2012

A. Option 2

1. Option 2 follows the current Salang Corridor roadway alignment until latitude 35.297646, longitude 69.062249 at an elevation of 3,188 m. This is approximately 90 m before entry into gallery #14. The new roadway will be two lanes for northbound traffic only. The new 2,602 m tunnel will be two lanes starting at latitude 35.307932, longitude 69.049496 at an elevation of 3,295 m. The tunnel will climb at a four percent grade and exit approximately 150 m from the existing tunnel at an elevation of 3,398 m at latitude 35.323182 and longitude 69.027822.

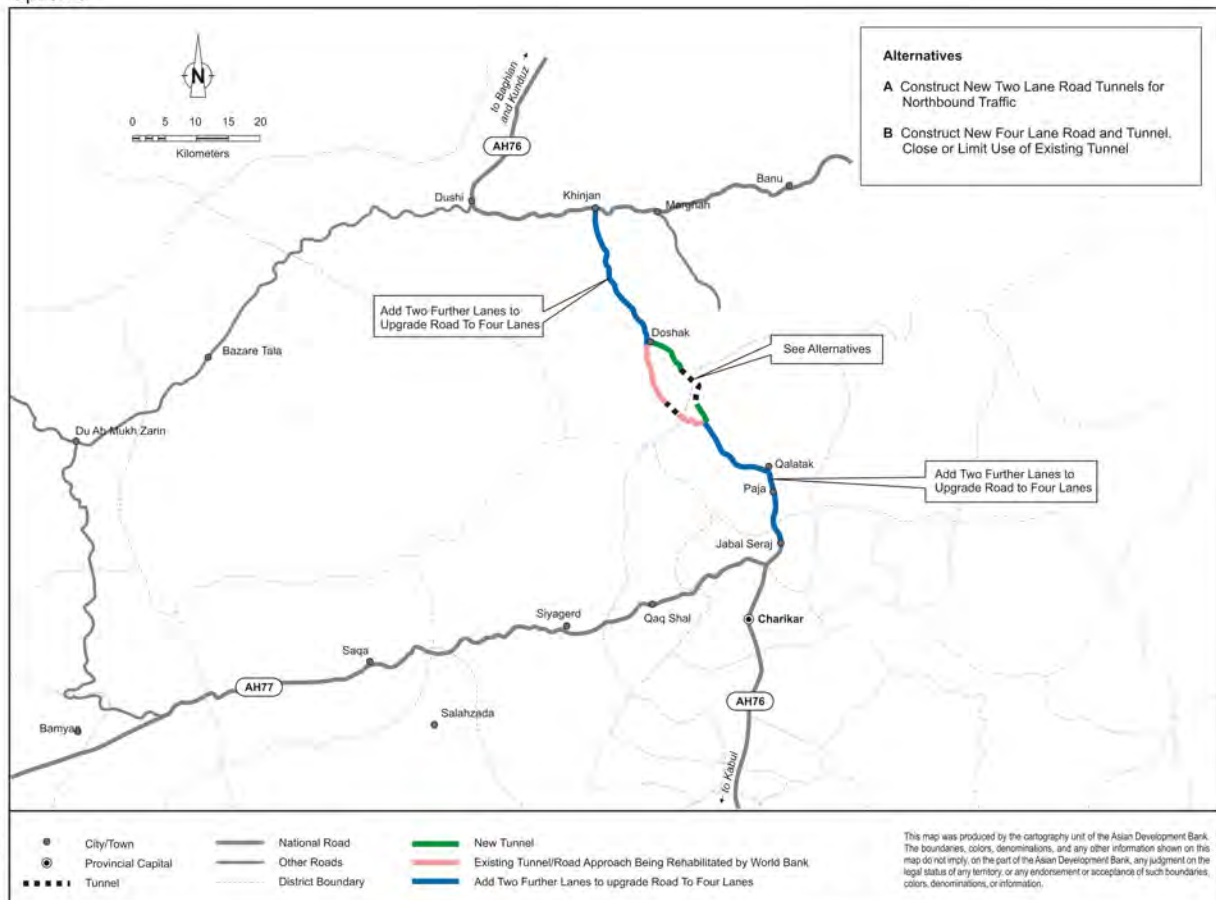
2. The existing box culvert passing under the current roadway will be extended to cross the snow melt stream and tie into the current alignment prior to entrance into gallery #16. In addition to constructing the new tunnel and gallery, Option 2 includes repairing the existing tunnel for use for southbound traffic. Option 2 also repairs the existing roadway from Jabul Seraj to Khinjan and adds a third truck climbing lane.

**B. Option 3**

3. Option 3 involves construction of new tunnel and roadways northeast of the existing tunnel, and includes:

- (i) Construction of a new two-lane northbound road from Olang to Doshak along a new alignment approximately four km to the northeast of the existing tunnel.
- (ii) Construction of two new two-lane tunnels in a series for northbound traffic located on the new alignment.
- (iii) Construction of a new two-lane avalanche gallery in the high valley between the new tunnels.
- (iv) Rehabilitation of the existing tunnel for two-lane southbound traffic.
- (v) Repair and rehabilitation of the existing two lane roadway surface from Jabal Seraj to Khinjan.
- (vi) Construction of two additional lanes to the existing roadway from Jabal Seraj to Olang and Doshak to Khinjan.

Option 3



4. Option 3 follows the existing roadway alignment until just past gallery #7 at Olang at latitude 35.293186, longitude 69.094206 at an elevation of 2,811 m. The new road for the northbound traffic climbs from 2,811 m to 3,200 m over a length of 5,311 m at an average grade of 7.3%. The first tunnel has an entrance at 3,200 m elevation at latitude 35.321294, longitude 69.077189 and is 2,519 m long through sedimentary and metamorphic rock units. The first tunnel exits at 3,200 m elevation at latitude 35.343953, longitude 69.077806 in a high mountain valley. In the high mountain valley the connecting road climbs from 3,200 m to 3,297 m over a length of 1,290 m at an average grade of 7.5%. This leads to the entrance of tunnel #2 at an elevation of 3,297 m at latitude 35.351657, longitude 69.074945. Tunnel #2 is 3,137 m long and exits at latitude 35.370286, longitude 69.049003 at an elevation of 3,300 m in the

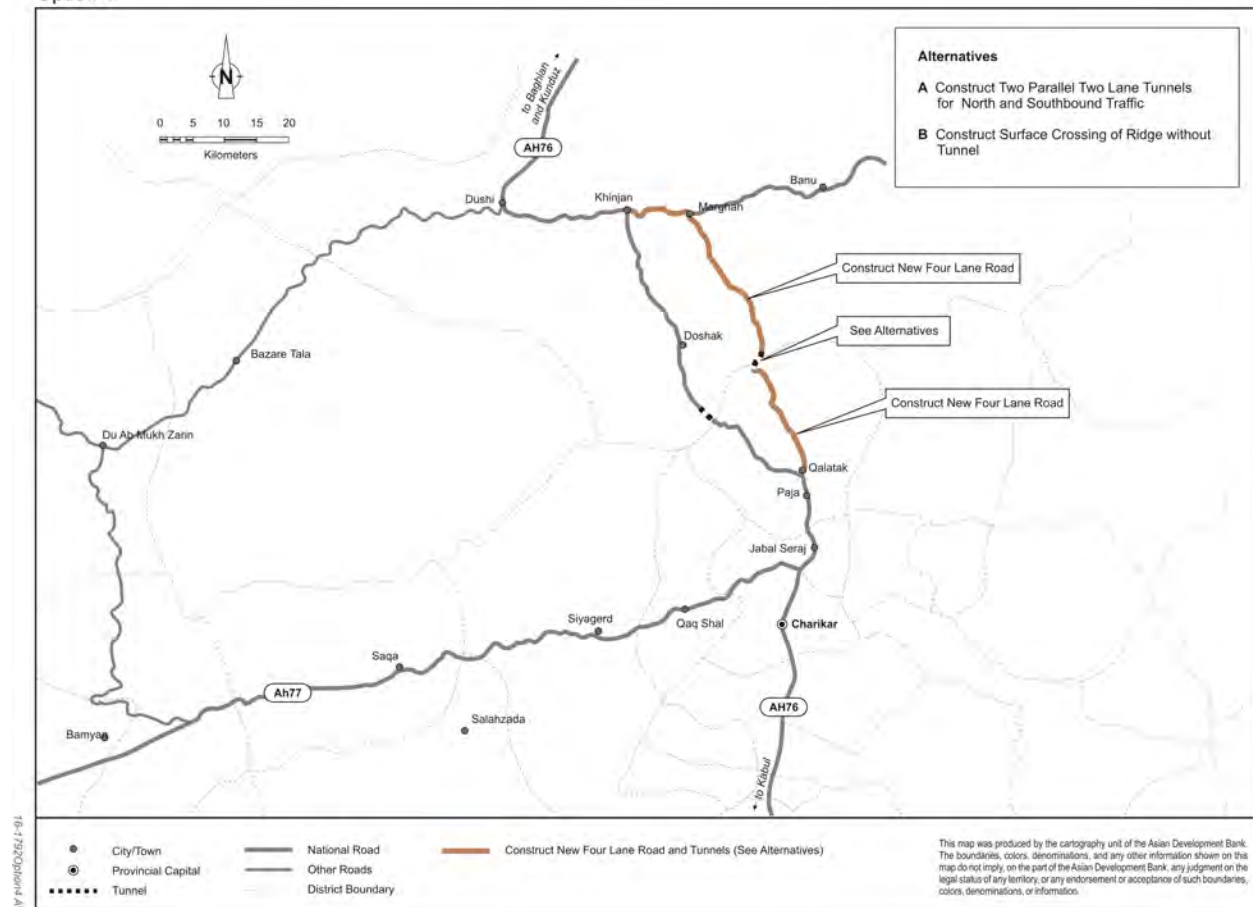
Upper Doshak Valley. The new road then descends through a series of switchbacks from 3,300 m to 2,580 m over a length of 11,748 m at an average rate of 6.1%. The new road ties into the existing alignment at latitude 35.416661, longitude 68.997312 at an elevation of 2,580 m. The existing roadway from Jabal Seraj to Olang will be widened to four lanes. The roadway from Olang to Doshak will be repaired and used for southbound traffic. The existing tunnel will be repaired and used for southbound traffic. The roadway from Doshak to Khinjan will be widened to four lanes.

C. Option 4

5. Option 4 involves construction of a new road and/or tunnel via Goljabat Mountain, and includes:

- (i) Construction of a new four-lane road from Qalatak to Khinjan (through Marghah) along an alignment approximately 10 km to the northeast of the existing tunnel.
- (ii) Construction of two parallel two-lane tunnels at Goljabat Mountain to accommodate both north and southbound traffic.

Option 4



6. Note that the rehabilitation of the existing tunnel is not planned or budgeted for in Option 4. The final status and disposition of the existing tunnel should reside with the government. There are two alternatives included in Option 4 to provide a roadway with a tunnel or a roadway without a tunnel. Option 4 follows the current alignment until Qalatak where the new four-lane

road will follow an existing gravel road approximately 20km through a narrow valley which contains a small river, agricultural fields and many villages.

7. After climbing from 2,013 m to 3,200 m, two two-lane tunnels will cross the mountains and then tie into the existing Khinjan road at Marghah after travelling 25 km through a narrow valley with a small river, agriculture and many villages. The starting point for Option 4 is at latitude 35.231047, longitude 69.209585 at an elevation of 2,013 m. The roadway will follow the existing gravel road alignment and have four 3.6-m lanes with 2.5-m shoulders. The road will climb up to 3,200 m elevation at an average rate of 5.9% over a length of 20,200 m. The tunnel for Option 4 starts at an elevation of 3,200 m at latitude 35.371804, longitude 69.124766. The tunnel will have two 12 m diameter tubes approximately 50 m apart set in metamorphic and sedimentary rock units with a length of 2,756 m. The exit for the tunnel will be at 3,330 meter elevation at latitude 35.397247, longitude 69.130315. Instead of a tunnel, Option 4B uses a series of switchbacks to cross the ridgeline at an elevation of 3,690 m with an average grade of 7.7% over a length of 13,700 m. The new four-lane roadway then follows the existing gravel road alignment descending to 1,305 m elevation at Marghah at an average rate of 8% over a length of 25,140 m. The road will then follow the existing two-lane gravel road for 13,200 m to tie in at Khinjan.

ENVIRONMENTAL ASSESSMENT

An Environmental Impact Assessment (EIA) or Initial Environmental Examination (IEE) will be prepared in accordance with the ADB's Safeguard Policy Statement and national environmental legislation. In the likely case of the need for a full EIA, the tasks include the following:

- (i) Conduct an environmental assessment for the project to identify potential direct, indirect, cumulative, and induced impacts and risks to physical, biological, socioeconomic, and physical cultural resources in the context of the project's area, and primary geotechnical, environmental and social data. Assess potential global impacts, including climate change;
- (ii) Examine alternatives to the project's proposed location, based on the alignment selected under Phase 1, design, technology, and components and their potential environmental and social impacts and document the rationale for selecting the particular alternative proposed. Assess the no project alternative;
- (iii) Consider mitigation hierarchy: avoidance or prevention of adverse impacts, and if this is not feasible, minimization, mitigation, and/or compensation and enhancing positive impacts of the project by means of environmental planning and management;
- (iv) In close coordination with the MPW, carry out meaningful consultations with potentially affected people and facilitate their informed participation. Involve stakeholders, including affected people and concerned nongovernment organizations, early in the project preparation process and ensure that their views and concerns are made known to and understood by decision makers and taken into account;
- (v) Prepare a grievance redress mechanism to receive and facilitate resolution of the affected people's concerns and grievances regarding the project's environmental performance;
- (vi) Based on environmental assessment and consultations prepare an Environmental Impact Assessment (EIA) report for the project. The EIA report should contain, but not be limited to, the following sections:
 - a. Executive Summary – briefly describing the critical facts, significant findings, and recommended actions;
 - b. Policy, Legal and Administrative Framework – covering the national and local legal and institutional environmental assessment framework;
 - c. Description of the project;
 - d. Description of the Environmental Baseline - describing relevant physical, biological, and socioeconomic conditions within the project area;
 - e. Expected Environmental Impacts and Mitigation Measures - assessing the project's impacts to physical, biological, socioeconomic environment in the project's area including global and cumulative impacts, in quantitative terms to the extent possible; identifying mitigation measures, estimating the extent and quality of available data and key data gaps;

- f. Analysis of Alternatives - examining alternatives to the proposed project site, technology, design, and operation, and including the no project alternative;
 - g. Information Disclosure, Consultation, and Participation – providing disclosure and consultation with affected people and other stakeholders, summarizing comments received from the affected persons, and how they were addressed;
 - h. Grievance Redress Mechanism – describing mechanisms for resolving complaints about the project’s environmental performance;
 - i. An Environmental Management Plan (see (vii) below);
 - j. Conclusions and Recommendations - providing the conclusions deduced from the assessment and providing recommendations.
- (vii) The environmental management plan is to include the proposed mitigation measures, environmental monitoring and reporting requirements, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators.

Qualifications and Terms of Reference for Consultant's Personnel

International Consultants

1. **Team Leader:** Professionally qualified civil engineer or equivalent, preferably with 20 years' experience in projects similar to the project, including major tunnel works, and 10 years' experience as a project manager. The team leader will be responsible to MPW for the successful implementation of the project, and for managing the consultant's team. The team leader will also provide assistance as required to MPW's Project Management Office for matters related to the project, including providing responses to ADB's requests, and preparing for ADB missions.
2. **Geotechnical Engineer:** Professionally qualified civil engineer or equivalent, preferably with 15 years' experience in projects similar to the project, including major tunnel works, and 5 years' experience on projects located in environments similar to the project area. The geotechnical engineer will be responsible for all activities related to identifying, testing, and classifying of rock and similar naturally occurring materials existing in the project area and/or required for the project.
3. **Geologist:** Professionally qualified geologist, preferably with 15 years' experience in projects similar to the project, including major tunnel works, and 5 years' experience on projects located in environments similar to the project area. The geologist will be responsible for all activities related to identifying, testing, and classifying of rock and similar naturally occurring materials existing in the project area and/or required for the project.
4. **Tunnel – Civil Specialist:** Professionally qualified civil engineer or equivalent, preferably with 10 years' experience in projects similar to the project, and 5 years' experience on projects located in environments similar to the project area. The civil specialist will be responsible for all activities related to the design of the project's tunnel civil works.
5. **Tunnel – E&M Specialist:** Professionally qualified electrical or mechanical engineer or equivalent, preferably with 10 years' experience in projects similar to the project, and 5 years' experience on projects located in environments similar to the project area. The E&M specialist will be responsible for all activities related to the design of the project's tunnel electrical, mechanical, communications, and related works, including power supply alternatives.
6. **Structural Engineer:** Professionally qualified civil engineer, preferably with 10 years' experience in projects similar to the project, and with a minimum of 5 years' experience on projects located in environments similar to the project area. The structural engineer will be responsible for all activities related to the design of the project's non-tunnel civil works, including bridges, avalanche galleries, other drainage structures, retaining walls, etc.
7. **Highway Engineer:** Professionally qualified civil engineer, preferably with 10 years' experience in projects similar to the project, and 5 years' experience on projects located in environments similar to the project area, with specific emphasis on roads subject to frequent heavy snowfalls. The highway engineer will be responsible for all activities related to the geometric design of the project's road works, including alignments, cross-sections, intersections, rest areas, toll plazas, etc.
8. **Hydraulic Engineer:** Professionally qualified civil engineer or equivalent, preferably with 10 years' experience in projects similar to the project, and 5 years' experience on projects located in environments similar to the project area. The hydraulic engineer will be responsible

for all activities related to the hydraulic aspects of the project works, including design flows for bridges and other drainage structures.

9. **Pavement Engineer:** Professionally qualified civil engineer or equivalent, preferably with 10 years' experience in projects similar to the project, and 5 years' experience on projects located in environments similar to the project area, with a significant portion of this experience being for roads subject to cold weather conditions and frequent snow falls, operating under very heavy traffic volumes. The pavement engineer will be responsible for developing alternative pavement designs for the project road, based on life cycle costs that take into account not only the initial capital cost of the pavements but also the cost of subsequent rehabilitation, periodic, and routine maintenance operations. The basic pavement types to be considered are cement concrete and asphaltic concrete, but the pavement engineer may also introduce alternatives that are better suited to the conditions prevailing in the project area.

10. **Road Safety Specialist:** Professionally qualified civil engineer or equivalent, preferably with 10 years' experience in projects similar to the project, and 5 years' experience on projects located in environments similar to the project area, with a significant portion of this experience being for roads subject to cold weather conditions and frequent snow falls, operating under very heavy traffic volumes. The road safety specialist will be responsible for defining road safety standards for the project road's design, to be incorporated in the design and contract documentation as they are being prepared, and subsequently for carrying out a comprehensive road safety audit of the completed design, generally in accordance with ADB's requirements.

11. **CAD Manager:** Appropriately qualified specialist, preferably with 5 years' experience producing design drawings for complex infrastructure projects, and with some experience working with, training, and overseeing national engineers producing such design drawings.

12. **Environmental Specialist:** Professionally qualified engineering or environmental science graduate or equivalent, preferably with 10 years' experience in environmental management. The specialist should have prepared or assisted in the preparation of at least 5 environmental impact assessments, including environmental management plans, for infrastructure projects, at least some of which were prepared in accordance with ADB guidelines on environmental impact assessments and monitoring.

13. **Climate Change Specialist:** Professionally qualified environmental science graduate or equivalent, preferably with 10 years' experience in climate change and vulnerability assessments. The specialist should have prepared or assisted in the preparation of at least 5 climate risk and vulnerability assessments for infrastructure projects in developing countries.

14. **Social/Resettlement Specialist:** Professionally qualified social science or equivalent, preferably with 10 years' experience in resettlement management, implementation of social safeguards, and complaints resolution. The specialist should have prepared or assisted in the preparation of at least 5 resettlement plans for infrastructure projects, and have been engaged in at least 3 similar projects for resettlement monitoring and implementation of social safeguards.

15. **QS Engineer:** Professionally qualified civil engineer or equivalent, preferably with 10 years' experience in projects similar to the project, and 5 years' experience on projects located in environments similar to the project. At least part of this experience will be on ADB or similar international development agency-financed projects that have used the agency's standard FIDIC-based procurement documents. The QS engineer will be responsible for preparing cost estimates for the civil works, through developing unit rates for each of the work elements, preparing bills of quantities, and contributing as required to the preparation of the project's civil works procurement documentation.

16. **Procurement Specialist:** Professionally qualified civil engineer or equivalent, preferably with 10 years' relevant experience in procurement under multilateral development bank procedures, with at least some of this experience in institutional and physical environments similar to those prevailing in Afghanistan. The procurement specialist will be responsible for preparing prequalification and bidding documents for the project's civil works, based on ADB's standard bidding documents for large civil works, amending the documents to reflect MPW and ADB comments, and assisting MPW with the procurement process, from prequalification to completion of contracts ready to be signed when the project's investment financing has become available. The civil works bidding part of the procurement assistance task will be subject to a separate Notice to Proceed, since MPW and ADB will not wish to invite bids for the works until the required financing has been confirmed. The procurement specialist will also undertake a procurement capacity assessment of MPW, in accordance with ADB's procedures for such assessments.
17. **Transport Economist:** Professionally qualified economist preferably with 15 years' experience in preparing economic assessments of transport sector projects, with a substantial part of this experience on ADB or similar development bank-financed projects. The transport economist will be responsible for all activities required for the economic evaluation of the alternative alignments studied under Phase 1 and, if required, for the re-evaluation of the selected alignment following its detailed design.
18. **Financial Management Specialist:** Professionally qualified financial management graduate or equivalent with Chartered Accountant, Certified Public Accountant or equivalent qualification, preferably with 10 years' experience in financial management of public institutions. The specialist should have prepared or assisted in the preparation of at least 5 financial management assessments for public institutions in developing countries.
19. **M&E Specialist:** Preferably with 10 years' experience in the monitoring and evaluation of large infrastructure projects for ADB or other development agencies. The M&E specialist will prepare and implement a monitoring and evaluation program that will enable the effectiveness of the project to be assessed, during implementation and in service.
20. **Institutional Specialist:** Having a relevant professional qualification, and preferably with 10 years' experience (i) evaluating government institutions in situations similar to those prevailing in Afghanistan; (ii) developing programs to restructure or otherwise change these institutions so that they are more capable of achieving their assigned mandates; and (iii) with private sector involvement, through concession or similar arrangements, in such programs. The institutional specialist will assess MPW's existing institutions and procedures for managing and operating the Salang Corridor, including the legal and administrative framework within which MPW is required to operate. Based on this information, and with inputs from the consultant's technical specialists, the specialist will develop approaches for managing and operating the corridor when the project comes into service. These approaches will include both public and private sector alternatives.
21. **Project Finance and PPP Specialist:** Appropriately qualified specialist preferably with 10 years' experience in advising on, designing, and implementing project finance for megaprojects, particularly in the transport sector. The specialist will specifically suggest how PPP may be pursued for financing the ensuing project. The specialist will thoroughly review Afghanistan's existing legal and institutional environments for project finance. The specialist will suggest changes in existing environments for viable financing operations (including PPP) to become feasible, assess the feasibility of implementing the project through appropriate financing arrangements including PPP modality and, prepare a program for securing the

requisite funds, with the program to include packaging the project, roadshows, transaction advice, and others as appropriate.

22. **Security Specialist:** Appropriately qualified specialist preferably with 10 years' experience of providing comprehensive security management, advice and training to teams of international and national consultants, contractors, or organizations working in locations with similar security environments to those existing in Afghanistan. The specialist will be required to establish effective information sharing linkages with the Government's security agencies, the United Nations agencies present in the country, and other multilateral and bilateral agencies engaged in similar activities elsewhere in the country.

National Consultants

23. **Deputy Team Leader:** Professionally qualified civil engineer preferably with 15 years' experience in designing and constructing large infrastructure projects. The deputy team leader will work with the team leader to ensure that the project's objectives are achieved, and will be responsible specifically for the management and performance of the consultant's national team members, and for managing locally-procured subcontractors for surveys, investigations, etc.

24. **Highway Engineers:** Professionally qualified civil engineers preferably with 5 years of relevant experience in road design. The highway engineers will work with the international highway engineer to produce the project's road designs, and prepare the alignment drawings to be included in the project's contract documentation.

25. **Structural Engineers:** Professionally qualified civil engineers preferably with 5 years of relevant experience in bridge and other structural design. The structural engineers will work with the international structural engineer and the international tunnel – civil – specialist to produce the project's structural and tunnel designs, and prepare the related drawings to be included in the project's contract documentation.

26. **Geotechnical Engineers:** Professionally qualified civil engineers or equivalent preferably with 5 years of relevant experience in geotechnical investigations for infrastructure projects. The geotechnical engineers will work with the international geotechnical engineer.

27. **Geologist:** Professionally qualified geologist preferably with 5 years of relevant experience. The geologist will work with the international geologist during field investigations, and preparation of geological reports.

28. **Hydraulic Engineer:** Professionally qualified civil engineer preferably with 5 years of relevant experience. The hydraulic engineer will work with the international hydraulic engineer to produce the information required for the design of the project's bridges and other drainage structures.

29. **CAD Specialists:** Appropriately qualified specialists preferably with 5 years' experience preparing technical designs using relevant software applications, in particular for roadworks. The CAD specialists will work under the direction of the international CAD manager for the contract drawings that are to be produced in Afghanistan.

30. **Environmental Specialist:** Professionally qualified environmental science graduate or equivalent, preferably with 5 years of experience working with teams preparing and monitoring the environmental aspects of infrastructure projects. The environmental specialist will work with the international environmental specialist to prepare the initial environmental examinations for the Phase 1 alignment options, and for the Phase 2 selected alignment, to include the environmental management plans that will be included in the project's civil works contract documentation.

31. **Social/Resettlement Specialist:** Appropriately qualified specialist preferably with 5 years of relevant experience, with a substantial part of this experience obtained while working on projects financed by ADB or similar development agencies. The specialist will work with the international Social/Resettlement Specialist to prepare the project's resettlement plans, gender action plans if required, and will arrange the surveys and consultations necessary for these activities.
32. **Procurement Specialist:** Professionally qualified civil engineer, preferably with 3 years' experience in procurement for infrastructure projects. The procurement specialist will work with the international procurement specialist for all aspects of the project's procurement activities.
33. **Institutional Specialist:** Appropriately qualified specialist preferably with 3 years' relevant experience. The institutional specialist will work with the international institutional specialist for the institutional aspects of the project.
34. **Security Specialist:** Appropriately qualified specialist preferably with 10 years' experience either alone or as part of a team providing comprehensive security management, advice and training to teams of international and national consultants, contractors, or organizations working in locations with similar security environments to those existing in Afghanistan. The specialist will support the international security specialist with will be required to establishing effective information sharing linkages with the Government's security agencies, the United Nations agencies present in the country, and other multilateral and bilateral agencies engaged in similar activities elsewhere in the country, and also with providing the Team Leader and the international security specialist with relevant and current intelligence on the general security situation in the country, and in Kabul and the project area in particular.
35. **Office/Finance Manager:** A qualified accountant or similar professional preferably with 10 years of relevant experience, that should include (i) managing an office supporting large teams of international and national specialists working to tight project schedules; (ii) arranging rental of and managing office and residential accommodation; (iii) engaging and managing the contracts of specialist subcontractors, for technical, security and other needs of the project; (iv) managing the project accounts, including preparing and submitting milestone payment invoices to MPW for its review and submission to ADB for payment; (v) overseeing the maintenance, operation, and scheduling of project vehicles and other resources; and (vi) ensuring that the project complies with the necessary security requirements.

E. Consultant's Terms of Reference: Independent Proof Check

Introduction

86. The Government of the Islamic Republic of Afghanistan has requested the Asian Development Bank (ADB) to provide support for the Preparation of the Central Asia Regional Economic Cooperation Corridors 5 and 6 (Salang Corridor Project). This support will be financed through grants provided by ADB and the Afghanistan Infrastructure Trust Fund (AIF). The Executing Agency for the proposed project will be the Ministry of Finance, and the Implementing Agency will be the Ministry of Public Works (MPW).

87. Within Afghanistan, one of the few viable land routes linking the south, including the capital of Kabul, with the north is through the Salang Tunnel and associated connecting roads, collectively known as the Salang Corridor. The Salang Corridor forms a key section of CAREC Corridors 5 and 6 that traverse Afghanistan. At present, the Salang Corridor is the only route that allows the year round north-south passage of goods and people across the Hindu Kush mountain range. Given the lack of alternative routes, the vast majority of goods shipped to Kabul from the north traverse the Salang Corridor. Current estimates indicate that over 5,500 vehicles per day transit the corridor.

88. Construction of the 2.7 km Salang Tunnel that is the core of the corridor was completed in 1964. At the time it was the highest tunnel in the world, at 3,400 m above sea level. After more than 50 years of service, including 30 years of conflict when maintenance and rehabilitation were limited, vehicle accidents, fires, conflict-related acts, extreme weather, avalanches, and constant usage have contributed to the tunnel falling into a state of severe disrepair. Present conditions within the tunnel are dangerous to users because of inadequate ventilation, poor lighting, lack of proper modern safety features, and a failing road surface, all of which constrain traffic flow and impose a severe economic cost. Should the tunnel completely fail, the costs to the Afghan economy would be substantial and would possibly endanger governance and stability of the state.

89. In 2012, USAID completed a study that analyzed several potential options to solve the capacity problem and failure risk associated with the Salang Corridor, and specifically the Salang Tunnel.²⁹ In 2015, the World Bank approved the Trans Hindukush Road Connectivity Project which essentially commits to upgrade the existing Salang tunnel following the upgrade of a (considerably longer) bypass route from Dusti to Bamyan to allow closure of the tunnel while it is undergoing extensive rehabilitation³⁰.

90. MPW will separately engage a detailed design consultant to carry out a feasibility study to implement the project, based broadly on three of the USAID-identified options – Options 2, 3, and 4 as presented in the USAID report, with Option 3 to be considered as two sub-options 3A and 3B. The former will be for a two lane alignment as described in the USAID report, while the latter will assume a four lane alignment generally on the USAID alignment, bypassing the existing Salang Tunnel and its approaches. The terms of reference for the detailed design consultant are presented in Annex 1. This includes a map of the project area, an outline project schedule, and relevant extracts from the USAID study.

91. Based on the feasibility study results, the detailed design consultant will recommend an alignment for further development. Once MPW and ADB have accepted this recommendation, the detailed design consultant will prepare detailed designs, safeguards studies, and

²⁹ USAID. 2012. *Salang Tunnel Feasibility Study*. Kabul 2012

³⁰ World Bank. September 2015. *Trans Hindukush Road Connectivity Project*. Project Appraisal Document.

procurement documentation, and will provide MPW with support for procuring civil works contracts.

92. It is anticipated that the project will commence in March 2017, when post-winter access to the project area for site investigations will become possible, and be completed by mid-2019.

93. This document sets out the Terms of Reference for an Independent Proof Check Consultant (IPC) that will be selected by ADB and engaged by MPW (the Client for the IPC contract) to provide ongoing specialist advice and support throughout Phase 2, for the detailed design of the tunnels and galleries that are critical components of the project.

94. The detailed design consultant will be required to facilitate the proof checking process by providing access to premises, documents, design information and other necessary material and services.

95. The IPC may be required to participate in ADB's periodic reviews of Phase 2 of the project, which will take place typically quarterly during the Phase 2 period.

Objectives

96. The objectives of the IPC services are to ensure the design of the project satisfies the requirements set down in the Terms of Reference for the detailed design of the tunnels and galleries, with the requirements of MPW and ADB being fully met.

Reference Documents

97. The proof check will be of the detailed designs prepared for the tunnels and galleries by the detailed design consultant, including all surveys and investigations on which the designs are based, with reference as necessary to the preliminary designs and studies prepared during the project's feasibility study.

Resolution of Disputes

98. The responsibility for the project design will at all times remain with the detailed design consultant. It is expected that any differences of opinion between the detailed design consultant and the IPC as to interpretation of technical data, engineering calculations, design assumptions or any other matter related to the design and documentation, will be resolved by mutual discussion between the two parties.

99. In the event that there is a disagreement that cannot be resolved by such mutual discussion, MPW may refer the matter to other independent experts acceptable to all parties to resolve the matter.

Scope of the Services

100. For the project's tunnels and galleries, the IPC will perform a fully independent design review to check compliance of the design with the design criteria. In preparing computer models for the analysis, the IPC will independently derive the geometry, material and section properties from the information given on the detailed design drawings and will determine the appropriate loading cases and combinations from the design criteria. To assist with this process, prior to commencing the design, the detailed design consultant will prepare a design manual, defining the standards, materials, load cases and combinations, and other relevant design requirements for review by the IPC.

101. The IPC's analytical work will be independent of that of the detailed design consultant, and will be carried out without exchange of calculation sheets or similar information with the detailed design consultant.

102. Specifically, the IPC will review and comment on the following:

- i. Design Manual, including design assumptions and loads
 - ii. Design drawings
 - iii. Design statements or reports
 - iv. Site survey and geological, geotechnical, hydrological, morphological, and other investigation reports
 - v. Construction method assumptions
 - vi. Design criteria for major elements of temporary works, if any, including design loads for critical load cases
 - vii. Electrical and mechanical designs and drawings
 - viii. Other reports relating to the design and construction
 - ix. Design program and design management information
 - x. Contract documentation, which will follow the requirements set out in ADB's Standard Bidding Documents, to include Conditions of Contract, Specifications, Drawings, Bills of Quantities, and others as appropriate
 - xi. Constructability, safety and maintainability
103. The scope of the IPC's work will not include the following:
- i. Dimensional and level checks of the drawings and setting-out information
 - ii. Highway alignment design of the tunnels and galleries

Confidentiality

104. All reports, documents, correspondence, drawings, notes, specifications, statistics, work product in any form and, technical data compiled or prepared by the IPC and communicated to MPW in performing the services (in electronic form or otherwise and including computer-disks comprising data) will be the sole and exclusive property of MPW, and may be made available to the general public only at its sole discretion. The IPC team members will be required to sign a Confidentiality Agreement to this effect.

Time Schedule

105. The detailed designs and contract documentation for the project will be delivered in stages over a period of approximately 10 months, with the major portion of the design work prepared between August 2017 and May 2018.

106. The detailed design consultant and the IPC will work in parallel to the extent practicable, making use of videoconferencing and electronic document transfer arrangements as appropriate, to ensure that design checking is carried out without causing delays to design and bidding process.

107. It is to be assumed that the majority of the IPC's work will be carried out in its home office. However, visits to Afghanistan for meetings and site visits will be required, including for the above-mentioned ADB missions. For movement within Kabul and for site visits, the detailed design consultant will provide the IPC with the required security assistance, including armoured vehicles.

Deliverables

108. The IPC will provide a brief progress report to MPW each month for the duration of the services, copied to ADB, summarising progress made and any outstanding issues to be resolved. For the detailed design drawing and reports, and bidding documents, the IPC will

provide its initial review within 14 days of receiving them from the detailed design consultant, highlighting matters that may require more detailed review. The intention is that for aspects of the design and documentation that are not at issue between the IPC and the detailed design consultant, the detailed design consultant may continue work without delay. Following resolution of any outstanding issues, the detailed design consultant will prepare draft detailed design drawings and bidding documents for final review and acceptance by the IPC.

109. On acceptance of the drawings and documents, the IPC will provide a Proof Check Certificate in a format acceptable to MPW, based on the outline presented in Annex 2.

110. Responsibility for the tunnel design will at all times remain with the detailed design consultant. It is expected that any differences between the work of the detailed design consultant and the IPC will wherever possible be resolved by discussion between them, in consultation with the MPW and ADB.

111. In the event that a specific matter cannot be resolved in this manner, MPW may seek advice from a recognised international specialist with expertise relevant to the subject who is acceptable to all parties.

IPC Team Composition and Personnel

112. The IPC services will be provided by a firm, or association of firms, with extensive expertise in hard rock tunnel design and construction in environments similar to the project area. The international consultant inputs will be about 16 person months. For the purpose of comparing proposals the outline staffing breakdown set out in Table 1 will be used. However, consultants proposing for the assignment may adjust their proposed inputs, in terms of staff expertise and inputs, within the total person months, provided that the objective of the services will be achieved. An outline of expertise required for the each of the positions in Table 3 is presented in Annex 3.

Table 2: Staffing Inputs (person-months)

Position	Total
Team Leader/Senior Tunnel Engineer	3
Senior Geotechnical Engineer	2
Senior Geologist	2
Senior Contract Documents Specialist	3
Engineers – Civil and E&M (2 positions)	6

113. The consultant will be selected by ADB following its Guidelines on the Use of Consultants for ADB-financed projects. Simplified technical proposals will be required. The quality- and cost-based selection procedure will be used, with the quality:cost ratio set at 90:10. MPW will negotiate and finalize a contract with the selected consultant, and will be the client for the contract. The consulting services will be provided in Afghanistan and in the consultant's home office, as appropriate.

114. The cost for international staff inputs, to which will be added a fixed amount of \$60,000 to cover all national and support personnel, computer and other analysis, reporting, and other costs necessary for the successful implementation of the assignment, but not including travel and costs related to visiting Afghanistan, together make up the fixed portion of the Contract Price. The variable portion of the Contract Price, for travel and related expenditures, will be

reimbursed at cost.

115. Payments against the fixed portion of the Contract Price will be made on the basis of deliverables. Details, including the requirements for supporting documentation, will be finalised at contract negotiations.

Table 3: Payment Schedule

Payment Event	% of Fixed Portion of Contract Price
Advance Payment	20%
Completion of Proof Check for Detailed Design	30%
Completion of Proof Check for Bid Documents	30%
Completion of Assignment	20%
	100%

116. Annex 4 sets out MPW's obligations with regard to providing staff, facilities, attendances and obligations with regard to assistance with working in Afghanistan.

Annexes

1. Detailed Design Consultant's Terms of Reference (omitted from this section as this is available elsewhere in the PAM)
2. Certificate Outline
3. Curriculum Vitae Format
4. MPW's Obligations

Annex 2 – Certificate Outline

Certificate Number [insert certificate number]

A. We certify that reasonable professional skill and care has been used in the preparation of the independent check of the [insert name of element or complete part of the works] with a view to securing that:

It has been designed in accordance with [insert references to design criteria including revision number] dated [insert date]

It has been accurately translated into construction drawings and design data the unique titles and reference numbers of which are listed below:
[insert list of drawings, bending schedules and other design data]

Signed.....

Name: [insert name]

Team Leader, [insert name of check organization]

Engineering Qualifications [insert academic and professional qualifications]

Signed

Name: [insert name]

Position [insert position of Director/Partner] [insert name of check organization]

Date.....

B. The certificate is accepted by MPW.

Signed.....

Name: [insert name]

Ministry of Public Works

Position [insert position of director]

Date.....

Annex 3 – Qualification and Experience Requirements for Selected Personnel

117. The requirements described below broadly define the preferred qualifications and experience to be possessed by the personnel proposed for the IPC services. This appendix is to supplement the information already provided elsewhere in the RFP that directly or indirectly defines the level and range of expertise, qualifications and experience to be possessed by individual experts of the IPC, and is not an exhaustive list of requirements.

118. Criteria and point system for the evaluation of individual experts are spelled out separately in the Evaluation Sheets listed in Appendix to RFP Section 2 - Instructions to Consultants – Data Sheet. For all positions, it is expected that the nominated expert has a minimum of bachelor's degree in a relevant or related discipline, and sufficient work experience, including for projects of nature similar to that of the Project.

119. Team Leader/Senior Tunnel Engineer

- (i) Experienced, senior engineer with sufficient experience as a team leader and proof checking engineer of a large, multidisciplinary consultant team engaged in the independent proof check or detailed design of a tunnel of similar magnitude and/or nature to this project;
- (ii) Familiar with FIDIC Conditions of Contract and possessing experience in the delivery or independent checking of projects using similar contract documentation;
- (iii) Minimum of Bachelor's degree in civil/structural engineering with 20 years of work experience in a similar environment to this project.

120. Senior Geotechnical Engineer

- (i) Experienced senior engineer with sufficient experience in the independent proof check or detailed geotechnical and related design of a tunnel of similar magnitude and/or nature to this project;
- (ii) Minimum of a Bachelor's degree in geotechnical-related decision with 20 years of work experience in a similar environment to this project;

121. Senior Contracts Specialists

- (i) Senior contract specialist with sufficient experience of proof checking bidding documents for projects of a similar nature, based on the FIDIC Conditions of Contract);
- (ii) Experience at a senior level in the contractual aspects of major civil works contracts, including supervision of construction using the FIDIC conditions;
- (iii) Preferably experience with projects of similar scale and complexity in developing countries;
- (iv) Minimum of Bachelor's degree in civil engineering or related field, with at least 20 years of experience in similar work as required for this project.

122. Engineers – Civil and E&M (2 positions)

- (i) Engineers with at least 5 years of relevant experience design similar works;
- (ii) Preferably experience with projects of similar scale and complexity in developing countries;

Annex 4 – Obligations of MPW and the Government of Afghanistan

123. **Exemption from Taxes, Duties, etc.** Except as otherwise stated in the Grant Agreement, the Government of Afghanistan will undertake to exempt the IPC from or bear the costs of any taxes, duties, fees, levies or other impositions imposed under its laws and regulations, nationally or locally, on the IPC and its personnel who are not citizens of Afghanistan, for payment such personnel may have to make in connection with the execution of their services including:

- Income earned in Afghanistan for work on the Project;
- Equipment, materials, books and supplies brought into Afghanistan for the purposes of execution of work on the project and which, at the termination of the services on the project, shall be taken out of the country;
- Personal property brought into Afghanistan and which will be repatriated upon departure of such personnel.

124. **Customs and Visas.** The Government of Afghanistan will undertake to:

- Facilitate prompt clearance through customs of personal property and equipment, materials and supplies required by the IPC's personnel;
- Provide the IPC's personnel with multi-entry and exit visas and the required resident permits and travel documents as needed for their stay in Afghanistan.

125. **Availability of Data.** In connection with the IPC's work, which requires the cooperation of Government agencies, the Government, through MPW, will provide liaison and will ensure that the IPC has access to appropriate information required during the project. This will include all engineering data on hydrology, morphology, meteorology, soils, topography, aerial photographs and maps available with Government agencies or requiring Government authorization for release.

F. Consultant's Terms of Reference: Individual Consultants and Resource Persons

126. **Sector Specialists.** The project will mobilize a number of sector specialists (international, 20 person-months, combined; and national, 20 person-months, combined), who will provide required support to the PMO. These sector specialists will be recruited on an individual basis on merit of their highly specialized skills. Their roles include provision of additional capacity to the PMO in areas such as financial management, procurement, resolution of matters of highly technical nature, and provision of specialist services, which may be unavailable through firms.

127. **Resource Persons.** The project will also receive inputs by resource persons (international, 4 person-months, combined; and national, 4 person-months, combined). They will take part in training, seminars, and conferences as speakers to share specific knowledge.

VII. SAFEGUARDS

128. The project will support the development of an environmentally and socially viable ensuing project. It is not expected to have any adverse social and environmental consequences. The project is categorized C for environment, involuntary resettlement, and indigenous peoples. The follow-on project will be designed in accordance with ADB's Safeguard Policy Statement (2009) (SPS)³¹ and government guidelines, regulations, and policies. During the feasibility study, the consultants will prepare environmental impact assessments or initial environmental examinations, as applicable, along with climate risk and vulnerability assessments, including environmental management plans. Similarly, resettlement planning, indigenous peoples planning, and gender analyses will be conducted as appropriate. Capacity building on safeguards implementation and coordination will be carried out in parallel. During the detailed engineering design, the ensuing project will be further prepared in full compliance to the safeguard requirements as noted above.

129. ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS. All financial institutions will ensure that their investments are in compliance with applicable national laws and regulations and will apply the prohibited investment activities list (Appendix 5) to subprojects financed by ADB.

³¹ Available at: <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf>

VIII. GENDER AND SOCIAL DIMENSIONS

130. Afghanistan has a Gender Development Index value of 0.712, ranking it 147 out of 148 countries in 2012. This means it is the second worst place in the world to be a woman. While the situation of women has improved a great deal in Kabul, evident by many more women on the streets and involved in civil and economic spheres, in the provinces and remote villages, traditional gender roles remain very rigid, with women's work being largely in the reproductive sphere (time-consuming unpaid work within the house compound), and men's in the productive and community management spheres. Although some Afghan women undertake productive work outside the household compound, it is not overly common (the female labor force participation rate is just 16%). Women working outside tend to do so in a group such as for planting and harvesting crops or collecting fuel and water. Men and boys generally undertake outside household activities, such as shopping for food, selling of agricultural products etc. If a woman needs to travel far from the house, it is still necessary for her to take a male relative as chaperone (maharram). Presently inter-city transport such as travel on the targeted road link, is heavily male dominated, as is the employment in the transport sector. There is little scope to impact this with the subject project, which is a feasibility study and detailed road/tunnel design, or the following construction project. Any gender and social design elements for the ensuing construction project will be considered in the context of resettlement planning for affected communities on the selected alignment.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Project Design and Monitoring Framework

Impacts the Project is aligned with: Accelerated implementation of the ensuing project contributing to improved efficiency and safer movement of goods and people in Afghanistan and across Central and West Asia. (Defined by project)			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
Outcome Ensuing project to upgrade the Salang Corridor is designed and procured, ready for implementation	a. Government endorsed the design for the ensuing project by 2Q 2019. (baseline: not applicable)	a. MPW project progress reports, project consultants' final report	Procurement issues delay project preparation and the implementation of the ensuing project Required financial resources for the ensuing project do not materialize on time
Outputs 1. Feasibility studies on 3 alignment options completed 2. Detailed engineering design, procurement documentation, project and safeguard documents on selected option completed	By end of 2017 1a. Feasibility studies based broadly on three 2012 USAID options updated, covering engineering, geotechnical, financial, economic, environmental and social aspects (baseline: none in 2016) 1b. Preferred option selected by the government (baseline: none in 2016) By June 2020 2a. Detailed engineering design of the selected option completed and endorsed by government (baseline: none in 2016) 2b. Bidding documents prepared and endorsed by government (baseline: none in 2016) 2c. Prequalification of bidders completed (baseline: none in 2016) 2d. Environmental and social safeguard documents prepared in full compliance with ADB's SPS and endorsed by	1a.-2d. MPW project progress reports	Political instability, security-related incidents and adverse weather delay project implementation Turnover of counterpart staff in MPW/PMO delays project implementation

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
	government (baseline: none in 2016) 2e. Full economic and financial assessment completed and endorsed by government (baseline: none in 2016)		

Key Activities with Milestones

1. Feasibility studies on 3 alignment options completed.

- 1.1 Selection of feasibility study and detailed engineering design consultant initiated by June 2016.
- 1.2 Contract feasibility study and detailed engineering design consultant by December 2016.
- 1.3 Complete feasibility studies of the three alignment options by Q3 2017.
- 1.4 Hold a workshop to review the consultants' recommendations and make a decision on the preferred option by Q4 of 2017.

2. Detailed engineering design, procurement documentation, and project and safeguard documents on selected option completed.

- 2.1 Complete detailed engineering design of the selected option by Q4 of 2018.
- 2.2 Prepare bidding documents by Q4 of 2018.
- 2.3 Conduct roadshows to mobilize donor support for the financing of the ensuing project, by Q2 of 2020.

Inputs

ADB: \$15.45 million (ADF grant), \$15.92 million (AITF grant)

Assumptions for Partner Financing

None.

ADF = Asian Development Fund, AITF = Afghanistan Infrastructure Trust Fund, MPW = Ministry of Public Works, TA = technical assistance, USAID = United States Agency for International Development.

Source: Asian Development Bank.

B. Monitoring

131. **Project performance monitoring:** Project performance will be monitored based on quarterly and consolidated reports provided by the MPW. These reports will include: (a) progress achieved by activity as measured against the Implementation Schedule (Section II.A), (b) key implementation issues and solutions; (c) updated procurement plan and (d) updated implementation plan for next 12 months. To ensure the project continues to be both viable and sustainable, the project's financial statements, together with the associated auditor's report, should be adequately reviewed.

132. **Compliance monitoring:** Grant covenants on policy, legal, financial, economic, environmental, labor standards and others will be monitored regularly through various reports (monthly progress reports, quarterly progress reports, and annual reports), and discussion during review missions.

133. **Safeguards monitoring:** There will be no safeguard monitoring required during the feasibility study and detailed engineering stage under the project. During the implementation of the ensuing project, MPW will prepare quarterly or semi-annual monitoring reports that describe the progress of the implementation of environment and resettlement activities depending of the final categorization of the ensuing project, as determined during the course of the project.

134. **Gender and social dimensions monitoring:** There will be no gender and social dimensions monitoring during feasibility study and detailed engineering stage under the project. During the implementation of the ensuing project, MPW will prepare quarterly or semi-annual monitoring reports that describe the progress of the implementation of any gender and social dimensions depending of the final categorization of the ensuing project, as determined during the course of the project.

C. Evaluation

135. Within 6 months of physical completion of the project, MPW will submit a project completion report to ADB.³²

D. Reporting

136. The MPW 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 projects continue to be both viable and sustainable, project accounts and the executing agency AFSs, together with the associated auditor's report, should be adequately reviewed.

E. Stakeholder Communication Strategy

137. MPW and ADB will maintain and regularly update its website with information on the project, and regularly consult with the public, civil society organizations and development partners in respect of each of the foregoing matters.

Project Document	Means of Communication	Responsible Party	Frequency	Audience(s)
Project Information Document (PID)	ADB's website	ADB	Initial PID no later than 30 calendar days of approval of the concept paper; quarterly afterwards	General Public
Report and Recommendation of the President (RRP)	ADB's website	ADB	No later than 14 days of Board approval of the project	General Public
Project Administration Manual (PAM)	ADB's and MPW's website	ADB	No later than 14 days of Board approval of the project, always available online after update	General Public, project contractors and consultants
<i>Below Documents to be prepared during project implementation³³</i>				
Environmental impact assessments	ADB's and MPW's website, public consultations and brochures/leaflets	ADB, MPW	Draft initial environmental examination (IEE) or environmental impact assessment (EIA) report to	General public and project affected people

³² Project completion report format is available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

³³ Disclosure of environmental and social safeguard documents for the ensuing project shall follow ADB's Public Communications Policy <http://www.adb.org/sites/default/files/institutional-document/32904/files/pcp-2011.pdf> and the Safeguard Policy Statement. <http://www.adb.org/documents/safeguard-policy-statement>

Project Document	Means of Communication	Responsible Party	Frequency	Audience(s)
	for affected people		be posted on the websites of ADB and MPW, the former before ADB's management review meeting, and the latter 120 calendar days before ADB Board consideration; Documents always to be available online at ADB and MPW websites; EMP updated regularly	
LARP (for ensuing project)	ADB's and MPW's website, public consultations and brochures/leaflets for affected people	ADB, MPW	LARP to be posted on the websites before project loan approval; documents always available online at ADB and MPW websites; and every time LARP is revised.	General public and project affected people

X. ANTICORRUPTION POLICY

138. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.³⁴ 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.³⁵

139. To support these efforts, relevant provisions are to be included in the grant agreements and consultant recruitment/bidding documents for the project.

³⁴ Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

³⁵ ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>

XI. ACCOUNTABILITY MECHANISM

140. 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.³⁶

³⁶ For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.

XII. RECORD OF PAM CHANGES

141. 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.