

Project Administration Manual

Project Number: 47281
Loan Grant Number:
June 2014

Pakistan: National Highway Network Development in
Balochistan Project

Contents

ABBREVIATIONS	ii
I. PROJECT DESCRIPTION	1
II. IMPLEMENTATION PLANS	1
A. Project Readiness Activities	1
B. Overall Project Implementation Plan	2
III. PROJECT MANAGEMENT ARRANGEMENTS	2
A. Project Implementation Organizations – Roles and Responsibilities	2
B. Key Persons Involved in Implementation	3
C. Project Organization Structure	4
IV. COSTS AND FINANCING	5
A. Detailed Cost Estimates by Expenditure Category	6
B. Allocation and Withdrawal of Loan Proceeds	7
C. Detailed Cost Estimates by Financier	7
D. Detailed Cost Estimates by Outputs/Components	8
E. Detailed Cost Estimates by Year	9
F. Contracts and Disbursements S-curve	10
G. Fund Flow Diagram	11
V. FINANCIAL MANAGEMENT	13
A. Financial Management Assessment	13
B. Disbursement	14
C. Accounting	15
D. Auditing	15
E. Public Disclosure of Audited Financial Statements	16
VI. PROCUREMENT AND CONSULTING SERVICES	16
A. Advance Contracting and Retroactive Financing	16
B. Procurement of Works and Consulting Services	17
C. Procurement Plan	17
D. Consultant's Terms of Reference	18
VII. SAFEGUARDS	19
A. Environment	19
B. Involuntary Resettlement	19
C. Indigenous Peoples	21
VIII. GENDER AND SOCIAL DIMENSIONS	21
IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION	22
A. Project Design and Monitoring Framework	22
B. Monitoring	23
C. Evaluation	25
D. Reporting	25
E. Stakeholder Communication Strategy	25
X. ANTICORRUPTION POLICY	27
XI. ACCOUNTABILITY MECHANISM	27
XII. RECORD OF PAM CHANGES	27
Appendices	

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 National Highway Authority (NHA) is wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by NHA of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

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

After ADB Board approval of the project's report and recommendations 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
CQS	=	consultant qualification selection
DMF	=	design and monitoring framework
EMP	=	environmental management plan
ICB	=	international competitive bidding
IEE	=	initial environmental examination
LAR	=	land acquisition and resettlement
NCB	=	national competitive bidding
NGOs	=	nongovernment organizations
PAM	=	project administration manual
PIU	=	project implementation unit
QCBS	=	quality- and cost based selection
RRP	=	report and recommendation of the President to the Board
SOE	=	statement of expenditure
SPS	=	Safeguard Policy Statement
SPRSS	=	summary poverty reduction and social strategy
TOR	=	terms of reference

I. PROJECT DESCRIPTION

1. The proposed project will rehabilitate the existing two-lane national highway of Zhob–Mughal Kot (National Highway No. 50: 81 km) and Qila Saifullah–Waghum Rud (National Highway No. 70: 120 km) in Balochistan. Local community facilitation centers will also be developed along the project roads to better integrate local communities into the improved mobility through rehabilitated project roads.
2. Impact and Outcome. The impact of the project will be accessible, affordable, and safe national highway network in Balochistan. The outcome will be reduced transport cost from Balochistan to the political and industrial centers of the country.
3. Outputs. The output will be (i) rehabilitated two-lane national highway of Zhob–Mughal Kot (National Highway No. 50; 81 km) and Qila Saifullah–Waghum Rud (National Highway No. 70; 120 km); and (ii) 5 community facilitation centers along the project roads.

II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Project Readiness Activities								
Indicative Activities	2013		2014			2015		Responsible
	Qtr4	Qtr1	Qtr2	Qtr3	Qtr4	Qtr1	Qtr2	
Complete review of detailed design	Nov							NHA
Prepare bid documents of 4 contract packages			Jun					NHA/ADB
Complete bid evaluation and obtain ADB's clearance							May	NHA/ADB
Approve advance recruitment of supervision consultant	Dec							ADB
Prepare request for proposal for supervision consultancy			May					NHA/ADB
Complete technical and financial evaluation and obtain ADB's clearance							May	NHA/ADB
Allocate government counterpart funds (budgetary considerations)			Jun					MOF/ NHA
Approve and disclose safeguards documents	Dec							ADB/NHA
<ul style="list-style-type: none"> • Post resettlement plan • Post IEE 			May					ADB/NHA
ADB Board approval		Jan	Jun					ADB
Loan signing				Sep				EAD/ADB
Government legal opinion provided					Nov			EAD
Loan effectiveness					Dec			ADB

ADB = Asian Development Bank, IEE = initial environmental examination, LARP = land acquisition and resettlement plan, MOF = Ministry of Finance, NHA = National Highway Authority.

B. Overall Project Implementation Plan

	2014				2015				2016				2017				2018			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
A. DMF																				
Two-lane roads of Zhob-Mughal Kot and Qila Saifullah-Waghum																				
Resettlement activities																				
Execution of civil works																				
Community development centers																				
B. Management Activities																				
Procurement plan key activities to procure contract packages																				
Consultant selection procedures																				
Environment management plan key activities																				
Communication strategy key activities																				
Annual/Mid-term review																				
Project completion report																				

III. PROJECT MANAGEMENT ARRANGEMENTS

A. Project Implementation Organizations – Roles and Responsibilities

Project implementation organizations	Management Roles and Responsibilities
Project Steering Committee (established for implementation of MFF: National Trade Corridor Highway Improvement Program)	<ul style="list-style-type: none"> ➤ Provide guidance on and oversight to the overall implementation and performance of the project. ➤ Resolve issues and conflicts that would compromise quality of results, investment cost or project completion time. ➤ Approve the annual activity plan. ➤ Review implementation progress and resolve issues. ➤ Depute/appoint staff for project implementation unit. ➤ Review performance of consultants and contractors. ➤ Convening meeting on quarterly basis or as and when required.
National Highway Authority (Executing Agency)	<ul style="list-style-type: none"> ➤ Overall project management; finalizing surveys, designs, bidding documents, and contract awards. ➤ Overall construction supervision with the consultants, quantity and quality validation of civil works. ➤ Ensuring timely agreed counterpart funds and approval of higher authorities for project activities. ➤ Monitoring and evaluating project activities and outputs, including periodic review,

Project implementation organizations**Management Roles and Responsibilities**

	<p>preparation of review and progress reports reflecting issues and time-bound actions taken (or to be taken), and their timely submission to ADB.</p> <ul style="list-style-type: none">➤ Preparing regular periodic progress reports, monitoring and evaluation reports, and project completion report and their timely submission to ADB.➤ Endorsing to ADB through EAD the authorized staff in EA with approved signatures for processing payments and maintaining the imprest account(s).➤ Establishing a sound financial management system, submitting timely withdrawal applications to ADB, conducting timely financial audits as per agreed timeframe, submitting audited project account reports, and taking recommended actions.➤ Processing and submitting to ADB any request, when required, for reallocating the loan proceeds.➤ Involving community villages along the project roads and civil society representatives in designing community facilitation centers and implementing them.➤ Publicly disclosing project outputs and procurement results.➤ Quality assurance of works, and services of consultants and counterpart staff.➤ Ensuring compliance with all loan covenants and reporting to ADB.➤ Preparing, implementing, and monitoring safeguards in accordance with the Resettlement Plans and IEEs, ADB's SPS (2009), and Loan Agreement.➤ Establishing a grievance redress mechanism with a dedicated grievance staff to address all subproject-related grievances.➤ Ensuring projects' sustainability during post-implementation stage and reporting to ADB on the achieved development impacts.
ADB	<ul style="list-style-type: none">➤ Assisting NHA in providing timely guidance at each stage of the project implementation.➤ Reviewing all the documents that require ADB approval.➤ Conducting regular project review missions, a midterm review, and project completion mission.➤ Processing withdrawal applications and releasing eligible funds.➤ Updating regularly the project performance review reports with the assistance of NHA.➤ Updating and posting on ADB website the project information for public disclosure, and the safeguards documents in accordance with the ADB SPS (2009).
Ministry of Finance/Economic Affairs Division (EAD)	<ul style="list-style-type: none">➤ Monitoring the project implementation and providing respective coordination and facilitation.➤ Budgeting, allocating and releasing counterpart funds.➤ Endorsing to ADB the authorized staff with approved signatures for WAs processing.➤ Processing and submitting to ADB any request, when required, for reallocating the loan proceeds.

ADB = Asian Development Bank; EA = executing agency; IEE = initial environmental examination; MOF = Ministry of Finance; NHA = National Highway Authority; PIU = project implementation unit; SPS = Safeguards Policy Statement; WA= withdrawal application.

B. Key Persons Involved in Implementation

Executing Agency

National Highway Authority
(NHA)

Shahid Ashraf Tarar

Chairman

Telephone: +92 51 9260417

Email address: chairman@nha.gov.pk

Borrower and Oversight Agency

Economic Affairs Division

Ms. Sabina Qureshi

Deputy Secretary

Telephone: +92 51 9210085

ADB

Transport & Communications Division (CWTC) Central and West Asia Department	Xiaohong Yang Director Telephone No.: +63 2 632 6765 Email address: xyang@adb.org
--	---

Mission Leader	Dong-Soo Pyo Lead Transport Specialist Telephone No.: +63 2 632 6807 Email address: dspyo@adb.org
----------------	---

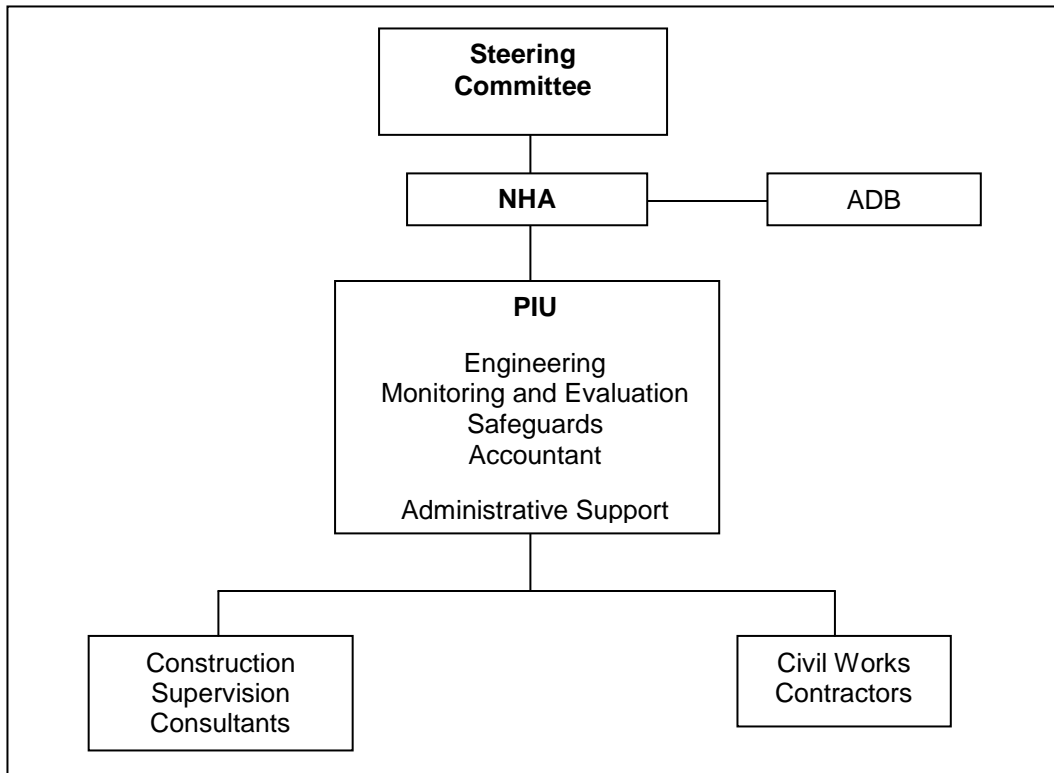
C. Project Organization Structure

4. Figure 3.1 depicts the proposed organizational structure for implementation of the project. The steering committee constituted for the supervision of the MFF: National Trade Corridor Highway Improvement Program will also act as a steering committee for the project playing the role spelled out in Section III-A.

5. NHA will be the executing agency (EA), which has the mandate for planning, designing and implementing transport projects for national highways as well as policy and regulatory authority over the sector. The Project Implementation Unit (PIU) will be responsible for overall implementation of construction including supervision of contractors and supervision consultants and day-to-day monitoring of project implementation in accordance with the provisions of the PAM and related legal agreements.

6. With the concurrence of the Ministry of Communications and ADB, NHA will be responsible for appointing a General Manager for the PIU with overall responsibility for the fulfillment of the PIU's mandate. In addition, the PIU will comprise two project directors, two engineers, a project monitoring and evaluation expert, a social safeguard specialists, an environmental specialists and two administrative staff with the experience and motivation necessary for successful implementation of each project.

Figure 3.1: Organization Chart



7. Implementation details of the community facilitation center component are in Appendix 1.

IV. COSTS AND FINANCING

8. The project is estimated to cost \$235 million (Table IV.1).

Table IV.1: Project Investment Plan
(\$ million)

Item	Amount ^a
A. Base Cost^b	
1. Resettlement Cost	1.0
2. Civil Works	188.2
3. Community Facilitation Centers	5.0
4. Supervision Consultant	9.0
Subtotal (A)	203.4
B. Contingencies^c	26.3
C. Financing Charges During Implementation^d	5.5
Total (A+B+C)	235.0

^a Includes taxes and duties of \$16 million to be financed from government resources.

^b In March 2014 prices.

^c Physical contingencies computed at 10% for civil works. Price contingencies computed at 1.8%–2.2% on foreign exchange costs and 7.5%–9.0% on local currency costs includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest and commitment charges. Interest during construction for ADB loan(s) has been computed at the 3-year forward London interbank offered rate plus a spread of 0.5%. Commitment charges for an ADB loan are 0.15% per year to be charged on the undisbursed loan amount.

Sources: NHA and ADB estimates.

9. The financing plan is in Table IV.2.

Table IV.2: Financing Plan

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Ordinary capital resources (loan)	195.0	83.0
Government	40.0	17.0
Total	235.0	100.0

Source: ADB estimates.

A. Detailed Cost Estimates by Expenditure Category

	\$ million			% of Total Base Cost
	Foreign Exchange	Local Currency	Total Cost	
A. Base Cost^a				
1. Resettlement Cost	0.0	1.0	1.0	0.5
2. Civil Works	34.4	137.8	172.2	84.7
a. Zhob-Mughal Kot	17.9	71.8	89.7	44.2
b. Qila Saifullah-Waghum Rud	16.5	66.0	82.5	40.5
3. Community Facilitation Centers	0.0	5.0	5.0	2.5
4. Supervision Consultant	4.1	4.9	9.0	4.4
5. Taxes and Duties	0.0	16.0	16.0	7.9
Total Base Cost (A)	38.5	164.7	203.2	100.0
B. Contingencies^b				
1. Physical	3.8	15.2	19.0	9.3
2. Price	0.4	6.9	7.3	3.6
Subtotal (B)	4.2	22.1	26.3	12.9
C. Financial Charges during Construction^c				
1. Interest during Implementation	0.8	3.9	4.7	2.3
2. Commitment Charge	0.1	0.7	0.8	0.4
Subtotal (C)	0.9	4.6	5.5	2.7
Total Project Cost (A+B+C)	43.6	191.4	235.0	115.6

^a In March 2014 prices.

^b Physical contingencies computed at 10% for civil works. Price contingencies computed at 1.8%–2.2% on foreign exchange costs and at 7.5-9.0% on local currency costs includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^c Includes interest and commitment charges. Interest during construction for ADB loan(s) has been computed at the 3-year forward London interbank offered rate plus a spread of 0.5%. Commitment charges for an ADB loan are 0.15% per year to be charged on the undisbursed loan amount.

B. Allocation and Withdrawal of Loan Proceeds

CATEGORY				PERCENTAGE OF ADB FINANCING	
	Item	Amount Allocated (\$)		Percentage	Basis for Withdrawal from the Loan Account
		Category	Subcategory		
1	Resettlement Cost	1,000,000		100	of total expenditure claimed*
2	Civil Works	172,200,000		91.5	of total expenditure claimed
3	Community Facilitation Centers	5,000,000		100	of total expenditure claimed*
4	Consulting Services	9,000,000		100	of total expenditure claimed*
5	Financial Charges during Implementation	5,500,000		100	of amount due
6	Unallocated	2,300,000		100	
	Total	195,000,000			

*Exclusive of local taxes and duties.

C. Detailed Cost Estimates by Financier

	ADB		Government		Total Cost
	Amount (\$ million)	% of Cost Category	Amount (\$ million)	% of Cost Category	
A. Base Cost^a					
1. Resettlement Cost ^b	1.0	100.0	0.0	0.0	1.0
2. Civil Works	172.2	91.5	16.0	8.5	188.2
a. Zhob-Mughal Kot	89.7	91.5	8.4	8.5	98.1
b. Qila Saifullah-Waghum Rud	82.5	91.5	7.6	8.5	90.1
3. Community Facilitation Centers ^b	5.0	100.0	0.0	0.0	5.0
4. Supervision Consultant ^b	9.0	100.0	0.0	0.0	9.0
Total Base Cost (A)	187.2	92.1	16.0	7.9	203.2
B. Contingencies^c					
1. Physical	0.0	0.0	19.0	100.0	19.0
2. Price	2.3	31.5	5.0	68.5	7.3
Subtotal (B)	2.3	8.7	24.0	91.3	26.3
C. Financial Charges during Construction^d					
1. Interest during Implementation	4.7	100.0	0.0	0.0	4.7
2. Commitment Charge	0.8	100.0	0.0	0.0	0.8
Subtotal (C)	5.5	100.0	0.0	0.0	5.5
Total Project Cost (A+B+C)	195.0	83.0	40.0	17.0	235.0

^a In March 2014 prices.

^b Net of taxes and duties.

^c Physical contingencies computed at 10% for civil works. Price contingencies computed at 1.8-2.2% on foreign exchange costs and at 7.5-9.0% on local currency costs includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest and commitment charges. Interest during construction for ADB loan(s) has been computed at the 3-year forward London interbank offered rate plus a spread of 0.5%. Commitment charges for an ADB loan are 0.15% per year to be charged on the undisbursed loan amount.

D. Detailed Cost Estimates by Outputs/Components

	Total Cost (\$ million)	Zhob-Mughal Kot		Qila Saifullah- Waghun Rud		Community Facilitation Centers	
		Amount (\$ million)	% of Cost Category	Amount (\$ million)	% of Cost Category	Amount (\$ million)	% of Cost Category
A. Base Cost^a							
1. Resettlement Cost ^b	1.0	0.2	20.0	0.8	80.0	0.0	0.0
2. Civil Works	188.2	98.1	52.1	90.1	47.9	0.0	0.0
3. Community Facilitation Centers ^b	5.0	0.0	0.0	0.0	0.0	5.0	100.0
4. Supervision Consultant ^b	9.0	4.7	51.9	4.2	46.6	0.1	1.1
Total Base Cost (A)	203.2	103.0	50.7	95.1	46.8	5.1	2.5
B. Contingencies^c							
1. Physical	19.0	9.9	52.1	9.1	47.9	0.0	0.0
2. Price	7.3	3.8	52.0	3.5	47.8	0.0	0.0
Subtotal (B)	26.3	13.7	52.0	12.6	47.9	0.0	0.0
C. Financial Charges during Construction^d							
1. Interest during Implementation	4.7	2.4	50.8	2.2	46.9	0.1	2.2
2. Commitment Charge	0.8	0.4	50.8	0.4	46.9	0.0	2.2
Subtotal (C)	5.5	2.8	51.4	2.6	47.4	0.1	2.2
Total Project Cost (A+B+C)	235.0	119.5	50.9	110.3	46.9	5.2	2.2

^a In March 2014 prices.

^b Net of taxes and duties.

^c Physical contingencies computed at 10% for civil works. Price contingencies computed at 1.8-2.2% on foreign exchange costs and at 7.5-9.0% on local currency costs includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest and commitment charges. Interest during construction for ADB loan(s) has been computed at the 3-year forward London interbank offered rate plus a spread of 0.5%. Commitment charges for an ADB loan are 0.15% per year to be charged on the undisbursed loan amount.

E. Detailed Cost Estimates by Year

	Total Cost (\$ million)	2015	2016	2017	2018
A. Base Cost^a					
1. Resettlement Cost ^b	1.0	1.0	0.0	0.0	0.0
2. Civil Works	188.2	28.2	56.5	75.3	28.2
3. Community Facilitation Centers ^b	5.0	0.0	3.0	2.0	0.0
4. Supervision Consultant ^b	9.0	1.4	2.6	3.6	1.4
Total Base Cost (A)	203.2	30.6	62.1	80.9	29.6
B. Contingencies^c					
1. Physical	19.0	2.9	5.7	7.5	2.9
2. Price	7.3	0.8	1.5	2.0	3.0
Subtotal (B)	26.3	3.7	7.2	9.5	5.9
C. Financial Charges during Construction^d					
1. Interest during Implementation	4.7	0.3	0.9	1.6	1.9
2. Commitment Charge	0.8	0.4	0.2	0.1	0.1
Subtotal (C)	5.5	0.7	1.1	1.7	2.0
Total Project Cost (A+B+C)	235.0	35.0	70.4	92.1	37.5
% of Total Project Cost	100.0	14.9	30.0	39.2	15.9

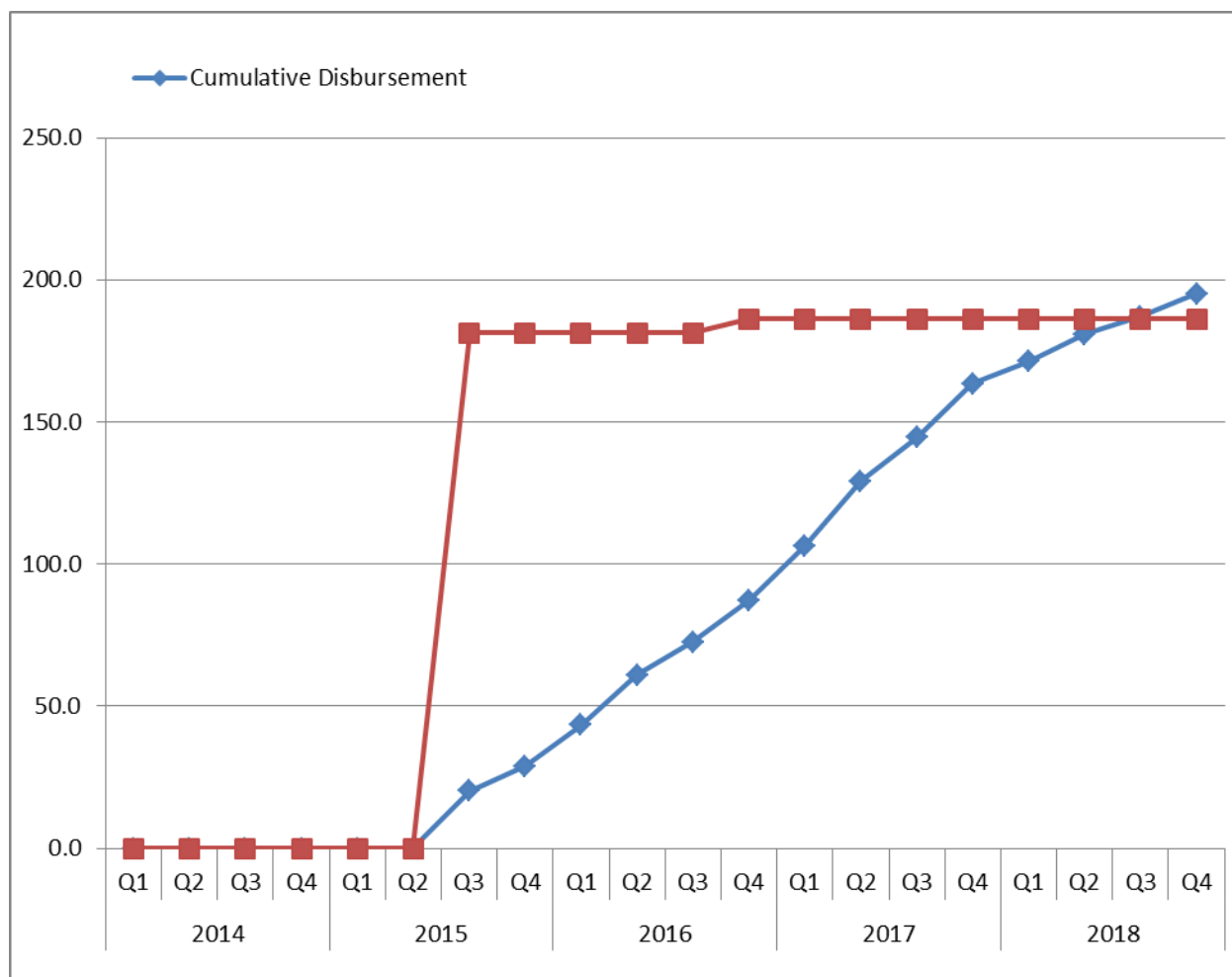
^a In March 2014 prices.

^b Net of taxes and duties

^c Physical contingencies computed at 10% for civil works. Price contingencies computed at 1.8-2.2% on foreign exchange costs and at 7.5-9.0% on local currency costs includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest and commitment charges. Interest during construction for ADB loan(s) has been computed at the 3-year forward London interbank offered rate plus a spread of 0.5%. Commitment charges for an ADB loan are 0.15% per year to be charged on the undisbursed loan amount.

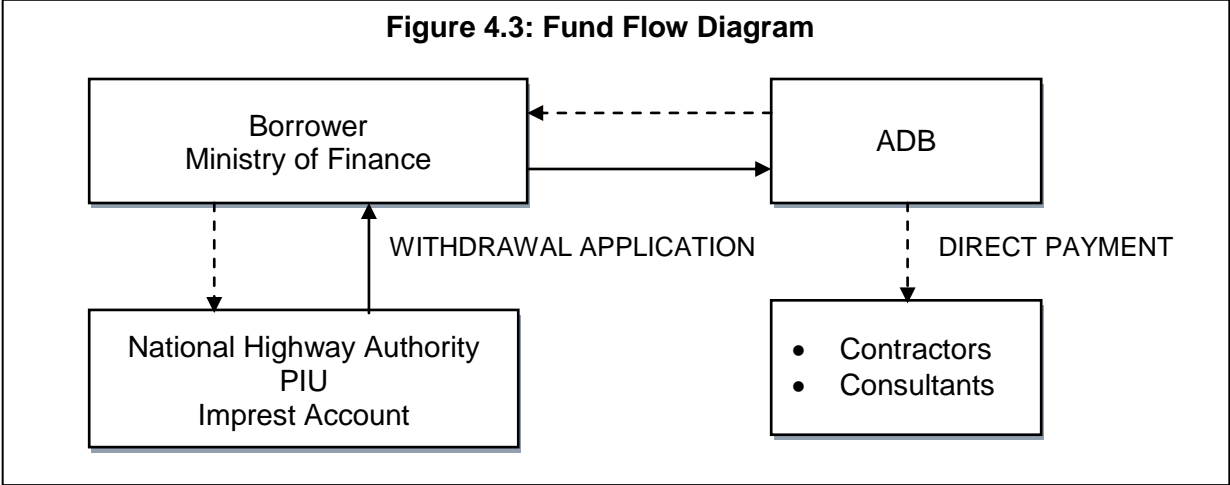
F. Contracts and Disbursements S-curve



	Contract Awards					Disbursements				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2015	0.0	0.0	181.2	0.0	181.2	0.0	0.0	20.2	8.7	28.9
2016	0.0	0.0	0.0	5.0	5.0	14.6	17.5	11.7	14.6	58.4
2017	0.0	0.0	0.0	0.0	0.0	19.1	22.9	15.2	19.0	76.2
2018	0.0	0.0	0.0	0.0	0.0	7.9	9.4	6.3	7.9	31.5
				Total	186.2				Total	195.0

Source: ADB estimates.

G. Fund Flow Diagram



Contractor Consultants

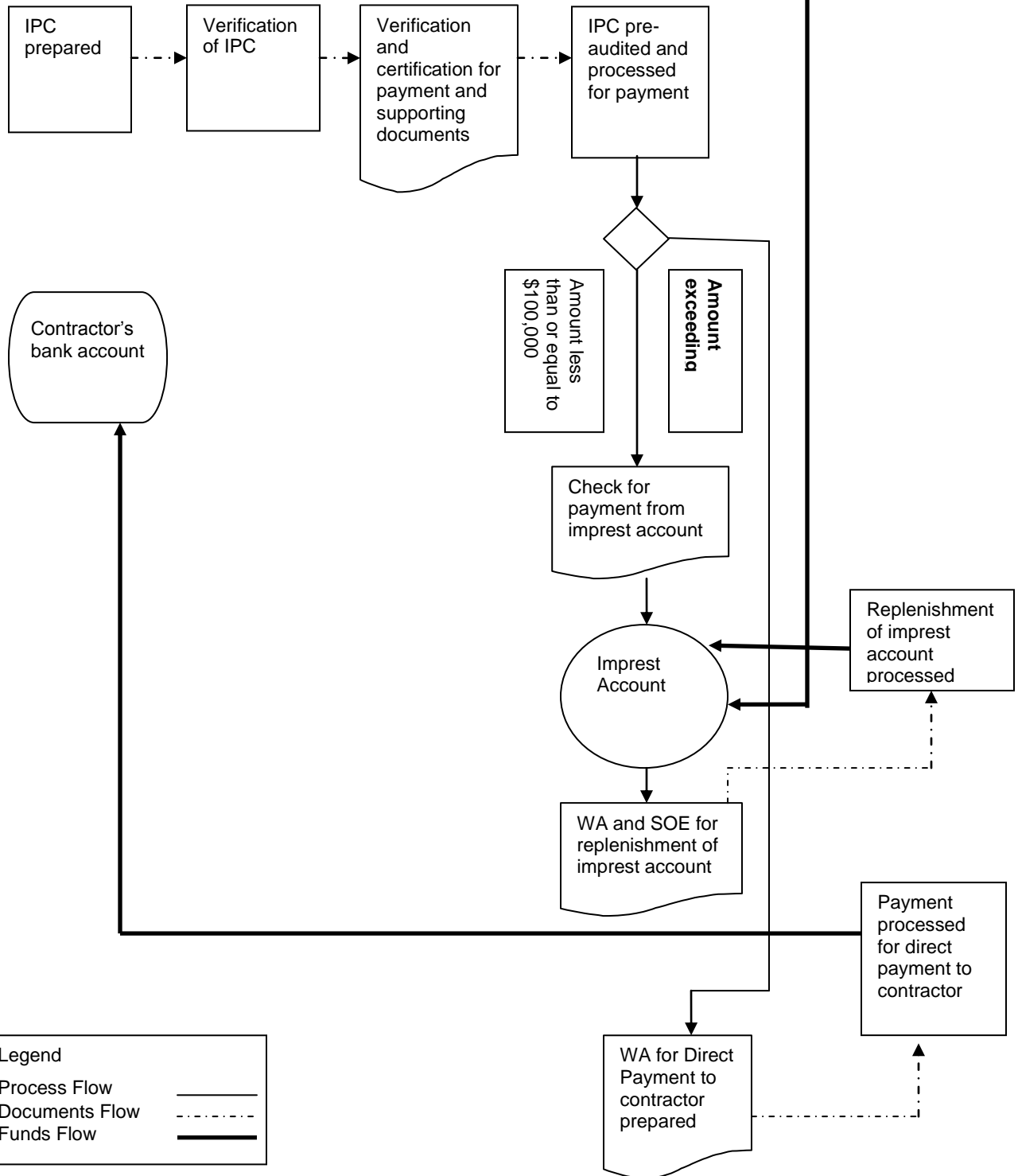
PIU

NHA

ADB

Initial Advance

Direct Payments &
Replenishments



V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

10. 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 Pakistan, ADB conducted a risk assessment of country level systems with focus on public sector management, procurement, and corruption mitigation measures. Activities under the project will seek to further minimize and mitigation these risks through training, restructuring, and institutional strengthening. On the whole, the financial management capacity of NHA is adequate and no major issues are noted.

11. Key financial management assessment findings and lessons learned from the ongoing National Trade Corridor Highway Investment Program are as follows:

Table 5.1: Summary of the Financial Management Assessment

Particulars	Conclusions
A. Funds Flow Arrangements	Funds flow arrangements are adequate but timely provision of counterpart funds to NHA is likely to pose a challenge. Nonetheless, NHA has enough capability to smoothly operate under the ongoing project.
B. Staffing	NHA is staffed with experienced financial specialists. Within NHA, a PIU has been established to implement the project. The PIU headed by the General Manger is staffed with financial specialists who are trained on ADB financial management procedures.
C. Accounting Policies and Procedures	NHA and PIU's accounting policy is based on the Pakistan National Accounting Standards which are in line with International Accounting Standards.
D. Internal and External Audits	NHA's internal audit department undertakes the required internal auditing of the PIU. Both NHA's financial statement accounts and project financial statements are audited by independent external auditors on an annual basis in accordance with the ISA, which complies with the requirements of ADB.
E. Reporting and Monitoring	NHA comply with the reporting requirements of the MOF, and other government bodies. Current PIU's quarterly progress reports are being regularly submitted to ADB.

ADB = Asian Development Bank; ISA = International Standards on Auditing; NHA = National Highway Authority; PFRs = periodic funding requests; PIU = project implementation unit.

12. **Risk Analysis:** During the implementation phase, the PIU might face some risks that can generally be divided in two main categories: (i) country level; and (ii) organization/project level. Unavailability or delay in the release of counterpart funds can be attributed as major country specific risk for the project. There are no major financial management risks once the PIU is adequately staffed and trained. Barring the security situation, key risk mitigation measures set out in Table 5.2 will be in place before loan effectiveness. All such measures will be reviewed and updated throughout the project implementation.

Table 5.2: Risk Assessment and Mitigation Measures

Risk	Risk Assessment*	Risk–Mitigation Measures
<i>Inherent Risk</i>		
1. Country-specific Risks	S	MOC and NHA will ensure the timely release of counterpart funds, as per loan covenants. EAD will mobilize IFI's grant funding for government's portion of the project financing.
2. Entity-specific Risks	M	Extensive training of PIU staff on ADB procedures will be carried out.
3. Project-specific Risks	M	Security in project areas. Security insurance measures and costs are embedded in civil works and consultants contracts.
Overall Inherent Risk	M	
<i>Control Risk</i>		
1. Implementing Entity	M	Organizational capacity augmentation with the induction of experienced PIU staff will support the existing organizational structure.
2. Funds Flow	S	Almost all disbursement will be made through direct payment to contractors and consultant except for \$1.0 million of resettlement cost.
3. Staffing	M	Dedicated and qualified accounting and financial management staff at PIU level will be recruited.
4. Accounting Policies and Procedures	M	Accounting Policy is in line with the national and international accounting standards and meets the requirements of ADB.
5. Internal Audit	M	NHA's internal auditor will audit PIU's project financial statements.
6. External Audit	M	Audit of the project financial statements will be done in accordance with the International Standards on Auditing, by an independent auditor acceptable to ADB.
7. Reporting and Monitoring	M	PIU will regularly report in accordance with ADB requirements on inherent adequate control mechanisms. Timeliness of such reports will be ensured through regular monitoring and follow-up actions by ADB.
Overall Control Risk	M	

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

ADB = Asian Development Bank; EAD = Economic Affairs Division; MOC = Ministry of Communication; NHA = National Highway Authority; PIU = project implementation unit

Source: ADB estimate.

B. Disbursement

13. The Loan proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2012, as amended from time to time), and detailed arrangements agreed between the government and ADB.¹

14. Pursuant to ADB's Safeguard Policy Statement (2009) (SPS),² 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. ADB will ensure that the project is in compliance with applicable national laws and regulations and will be bound by the prohibited investment activities list.

15. To facilitate project implementation through timely release of loan proceeds, the EA, through PIU, will establish an imprest account promptly after loan effectiveness at a commercial

¹ Available at: http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf.

² Available at: <http://www.adb.org/Documents/Policies/Safeguards/Safeguard-Policy-Statement-June2009.pdf>.

bank acceptable to ADB.³ The ceiling of the imprest account will not at any time exceed 10% of the loan amount. The imprest account is to be used exclusively for the ADB's share of eligible expenditures. The currency of the imprest account will be US Dollar. The EA, through PIU, who established the imprest account in its name is accountable and responsible for proper use of advances to the imprest account. The initial and additional advances to the imprest account may be requested based on 6 months estimated expenditures to be financed through the imprest account. 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.

16. The statement of expenditure (SOE) procedure will be used to reimburse eligible expenditure and to liquidate and replenish the imprest account for individual payments of \$100,000 equivalent and below. 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.

17. PIU (refer to Para. 8) will be responsible for (i) preparing disbursement projections, (ii) requesting budgetary allocations for counterpart funds, (iii) collecting supporting documents, and (iv) preparing and sending withdrawal applications to ADB. Before the submission of the first withdrawal application, the government shall submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is \$100,000 equivalent, under reimbursement and imprest fund procedures, unless otherwise approved by ADB. Individual payments below this amount should generally be paid from the imprest account, or by the EA and subsequently claimed to ADB through reimbursement. ADB reserves the right not to accept withdrawal applications below the minimum amount. Withdrawal applications and supporting documents will demonstrate, among other things that the goods, and/or services were produced in or from ADB members, and are eligible for ADB financing.

C. Accounting

18. PIU will maintain separate project financial statements and records by funding source for all expenditures incurred on each project under the project. Project financial statements prepared by PIU annually will follow International Financial Reporting Standards.

D. Auditing

19. PIU will cause the annual project financial statements for the project to be audited by an auditor acceptable to ADB in accordance with International Standards on Auditing. Such audited project financial statements, the audit report (which includes an opinion on whether the audited project financial statements presents fairly, in all material respects, the cash receipts and disbursements of the loan) and a management letter (which sets out the deficiencies in the internal control of the Project that were identified in the course of the audit, if any) will be submitted in the English language to ADB within 6 months of the end of the fiscal year by PIU. The annual audit report will also include an opinion on the use of the loan proceeds and compliance with the financial covenants of the Loan Agreements as well as on the use of the

³ The bank charges incurred in the operation of the imprest account may be financed from the loan proceeds.

procedures for the imprest account and statement of expenditures.

20. The Government and PIU have been made aware of ADB's policy on delayed submission, and the requirements for satisfactory and acceptable quality of the audited accounts. The ADB's Policy on delayed submission of audited project financial statements is summarized as follows:

- When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (i) the audit documents are overdue; and (ii) if they are not received within the next six 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.
- When audited project financial statements have not been 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 (i) inform the executing agency of ADB's actions; and (ii) advise that the loan may be suspended if the audit documents are not received within the next six months.

21. ADB reserves the right to verify the financial statements for each project under the project to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

E. Public Disclosure of Audited Financial Statements

22. ADB will disclose the audited project financial statement and the auditors' opinion on the project financial statements within 30 days of the receipt from NHA by posting them on the ADB website.

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

23. All advance contracting and retroactive financing will be undertaken in conformity with ADB's *Procurement Guidelines* (2013, as amended from time to time) (ADB's *Procurement Guidelines*)⁴ and ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time) (ADB's *Guidelines on the Use of Consultants*).⁵ The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower and NHA have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the Project.

24. **Advance contracting.** Advance contracting was allowed for procurement of civil work contractors and recruitment of supervision consultants. NHA will proceed with tendering, bid evaluation for civil work packages, and technical and financial evaluation of consultant proposals before loan effectiveness.

25. **Retroactive financing.** Retroactive financing will be considered for the resettlement cost of \$1.0 million, equivalent to 0.5% of the total ADB loan, incurred before loan effectiveness,

⁴ Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>.

⁵ Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>.

but not more than 12 months before the signing of the loan agreement.

B. Procurement of Works and Consulting Services

26. All procurement of works will be undertaken in accordance with ADB's *Procurement Guidelines*. International competitive bidding procedures will be used for civil works contracts estimated to cost \$5 million or more. An 18-month procurement plan indicating threshold and review procedures, works, and consulting service contract packages is in Section C.

27. All consultants will be recruited according to ADB's *Guidelines on the Use of Consultants*.⁶ The terms of reference for all consulting services are detailed in Section D. An estimated 2,382 person-months (73 international, 2,309 national) of consulting services are required for construction supervision. Consulting firms will be engaged using the quality- and cost-based selection (QCBS) method with a standard quality: cost ratio of 80:20.

C. Procurement Plan

Project Name: National Highway Network Development in Balochistan	
Project Number:	Approval Number:
Country: Pakistan	Executing Agency: National Highway Authority
Project Financing Amount: \$235 million ADB Financing: \$195 million Non-ADB Financing: \$40 million	Implementing Agency: National Highway Authority
Date of First Procurement Plan:	Date of this Procurement Plan:

a. Methods, Thresholds, Review and 18-Month Procurement Plan

1. Procurement and Consulting Methods and Thresholds

28. Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of works.

Procurement of Works	
Method	Threshold
International Competitive Bidding (ICB) for Works	Above \$5,000,000,
Consulting Services	
Method	Comments
Quality and Cost Based Selection (QCBS)	80:20

2. ADB Prior or Post Review

29. Except as ADB may otherwise agree, the following prior or post review requirements apply to the various procurement and consultant recruitment methods used for the project.

Procurement Method	Prior or Post	Comments
Procurement of Works		
ICB Works	Prior	
Recruitment of Consulting Firms		
Quality- and Cost-Based Selection (QCBS)	Prior	

⁶ 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/>.

3. Works Contracts Estimated to Cost More Than \$5 Million Works Contracts Estimated to Cost More Than \$5 Million

30. The following table lists works contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

General Description	Contract Value (\$ million)	Procurement Method	Prequalification of Bidders (y/n)	Advertisement Date (quarter/year)	Comments
Zhob–Mughal Kot Package 1 (49 km)	51.9	ICB	N	III/2014	
Zhob–Mughal Kot Package 2 (32 km)	46.2	ICB	N	III/2014	
Qila Saifullah–Waghum Rud Package 1 (70 km)	53.6	ICB	N	III/2014	
Qila Saifullah–Waghum Rud Package 2 (50 km)	36.5	ICB	N	III/2014	

4. Consulting Services Contracts Estimated to Cost More Than \$100,000

31. The following table lists consulting services contracts for which procurement activity is either ongoing or expected to commence within the next 18 months.

General Description	Contract Value (\$ million)	Recruitment Method	Advertisement Date (quarter/year)	International or National Assignment	Comments
Design review and construction supervision	9.0	QCBS (80:20)	II/2014	International	

b. Indicative List of Packages Required Under the Project

32. The following table provides an indicative list of all procurement (goods, works and consulting services) over the life of the project. Contracts financed by the Borrower and others should also be indicated, with an appropriate notation in the comments section.

General Description	Estimated Value (cumulative) (\$ million)	Estimated Number of Contracts	Procurement Method	Domestic Preference Applicable	Comments
Works	188.2	4	ICB	No	

General Description	Estimated Value (cumulative) (\$ million)	Estimated Number of Contracts	Recruitment Method	Type of Proposal	Comments
Consulting Services	9.0	1	QCBS/International	FTP	

D. Consultant's Terms of Reference

33. The supervision consultants will consist of 73 person-months of international consultants and 2,309 person-months of national consultants. Consultant's terms of reference are in Appendix 2.

VII. SAFEGUARDS

A. Environment

34. The National Highway Authority (NHA) shall ensure that the design, construction, operation and maintenance of roads to be financed under the project are carried out in accordance with Asian Development Bank's (ADB) Safeguard Policy Statement (SPS, 2009), the applicable laws and regulations in Pakistan, and the initial environment examination (IEE). The NHA shall ensure that potential adverse environmental impacts arising from the project are minimized by implementing all the mitigation and monitoring measures in the environment management plan (EMP). The NHA shall ensure that:

- (i) The EMP is to be updated based on surveys of the alignment once the detailed design is available and prior to the implementation of civil works;
- (ii) NHA has sufficient resources to implement and record the implementation of the EMP;
- (iii) NHA, with the help of a construction supervision consultant, will submit to ADB semi-annual environmental reports for the project within 3 month of the close of each half of the calendar year during project implementation, and the reports will include a review of the progress on environmental measures in the IEE and EMP, monitoring of such measures, problems encountered and remedial measures taken;
- (iv) The detailed engineering design and civil works and other contracts for the project incorporate applicable environmental measures identified in the IEE and the EMP; and
- (v) Civil works contractors need to prepare a site-specific EMP that reflect their understanding and commitment to address environmental issues, and are supervised by the construction supervision consultant to ensure their compliance with the requirements of the IEE and the EMP.

B. Involuntary Resettlement

35. **Land Acquisition and Resettlement:** The government through NHA shall ensure that new land acquisition is avoided as much as possible, resettlement impacts are minimized by restricting clearance of available ROW limits to the extent of clearly defined construction limits on each side of centerline of existing carriageway, resettlement and all other activities under the project are carried out in full compliance with all applicable laws and regulations of Pakistan, ADB's SPS (2009), and the resettlement plan (RP) prepared for sub-projects. NHA shall ensure that:

- (i) the RPs for both subprojects are finalized/updated based on design review and demarcation of construction limits on each side of center line of existing carriageway; (ii) finalized and updated, implementation ready RPs duly endorsed by NHA are disclosed to affected persons in their local language in accordance with the ADB's SPS (2009); (iii) the RPs updated and finalized following the final engineering design are submitted to ADB for review and clearance prior to award of any civil works contract; (iv) all land and rights of way required by the project shall be cleared and made available in a timely manner (in accordance with the schedule as agreed in the relevant civil works contract); (v) the activities of the civil works contractor for the project road are in compliance with the approved RPs. and (iv) no physical displacement or economic displacement shall occur and no road section or part of a road section is handed over to the civil works contractor until: (a) the draft RPs are updated, finalized, and endorsed by ADB; (b) compensation at full replacement cost has been paid to affected persons in accordance with

the updated and finalized RP for relevant project components or sections that are ready to be constructed; (c) other entitlements listed in the updated and finalized RPs have been provided to affected persons; and (d) RP implementation report is submitted to ADB and determined as satisfactory.

36. According to resettlement plans, there will be no land acquisition and key resettlement impacts include partially affected structures (permanent structures and temporary thatched sheds/kiosk) and trees encroached right-of-way. All identified assets (structures and trees) are owned by 351 affected households (encroachers) with 2,798 affected persons (86 affected households with 612 affected persons in Zhob Mughal Kot road and 265 affected households with 2,186 affected persons in Qila Saifullah–Loralai–Waighum Rud road. The impact analysis reflect that (i) no affected household will face 10% or more loss of his productive assets and (ii) no any affected household will be displaced physically due to execution of project civil works. All the affected households will restore/rehabilitate their structures by reconstruction of lost parts at the same place outside of the right-of-way and will not be displaced physically or economically. The project impacts will be temporary and transitory in nature, hence irrespective of number of APs the projects are placed under category B for IR safeguards.

37. Change to the scope, location or alignment of the project road shall be avoided and if during design review or implementation of the project, any such change to the scope, location or alignment of road is identified, shall not be made without prior approval of ADB. Any new LAR-related impacts as a result of final detail engineering design or changing in project scope, location or alignment will require a new LARP which should be submitted to ADB for its approval. The additional plan should be prepared following ADB's SPS and its required guidelines. No construction activities shall be commenced in the sections with new/additional LAR impacts before full implementation of ADB approved LARP is confirmed and cleared by ADB. Any new LAR impacts must be kept minimal so as not to cause changes in the project's involuntary resettlement categorization from B (limited impacts) to A (significant impact).

38. **Grievance Redress:** In addition, the NHA, shall ensure (i) efficient grievance redress mechanisms are in place and functional prior starting RP implementation and contractor's mobilization to assist affected persons resolve queries and complaints, if any, in a timely manner; (ii) all complaints are registered, investigated and resolved in a manner consistent with the provisions of Grievance Redress Mechanism as agreed in ADB approved RPs, (iii) the Complainants/aggrieved persons are kept informed about status of their grievances and remedies available to them and (iv) adequate staff and resources are available for supervising and monitoring the implementation progress of the RP.

39. **Information Disclosure:** Information sharing and disclosure are tools to engage local communities and the projected affected population during project planning, development and implementation aimed to promote understanding about project activities and discuss way forward for fruitful solutions of developmental problems such as local needs, problems and prospects of resettlement. NHA shall ensure the resettlement plan and monitoring reports are disclosed by: (i) uploading the draft and ADB approved final resettlement plans on NHA and ADB websites, (ii) placing hard copies of approved resettlement plan in the offices of PMU, EALS, and PIU/Project Director Offices at Zhob and Loralai, (iii) and translating the executive summary of ADB approved resettlement plans, bearing information on project impacts, asset valuation, entitlements, compensation budget and provisions with institutional arrangements in place and providing to the affected community.

40. Since consultations were carried out at preparatory stage of the project and resettlement

plans, however for continued information sharing, NHA shall ensure that: (i) the Land Acquisition and Resettlement Unit with support from Supervision Consultants conduct additional consultations during updating and implementation of the RPs, (ii) the affected persons are informed about, (a) resettlement impacts, asset valuation, entitlements and compensation payment modalities with time lines, (b) Rehabilitation and income restoration measures suggested for the project affected persons and, (c) grievance redress mechanism put in place with status of redress of grievances, (iii) Liaison is maintained with affected persons and community, and consultation meetings are held regularly with surrounding communities and project affected persons including women and vulnerable groups to share project related information during project implementation period.

41. **Monitoring and Evaluation:** RP implementation shall be monitored internally by NHA with support of a Resettlement Specialist mobilized through Construction Supervision Consultant following monitoring parameters specified in the RPs. Land Acquisition and Resettlement Units in PIU will conduct day to day internal supervision and monitoring of RP implementation progress to ensure compliance with the provisions of the RPs for each subproject. During RP implementation phase, the monitoring results shall be consolidated into quarterly monitoring reports and shared with ADB for review and clearance. Once RP implementation is completed, bi-annual monitoring reports will be prepared and submitted to ADB for review and clearance. Upon clearance of monitoring reports by ADB, these will be disclosed by uploading on NHA and ADB websites.

42. The overall responsibility to oversee RP implementation rest with NHA through its Environment, Afforestation, Land and Social (EALS) Wing headed by GM ELAS located in NHA headquarters. However, at project level, Project Implementation Unit (PIU) will have support of Land Acquisition and Resettlement Unit (LARU) headed by GM project for finalization/updating of resettlement plans, RP implementation and monitoring of resettlement activities. The LARU will be supported by a Resettlement Specialist mobilized through supervision consultants to carry-out its functions including RP finalization/updating, implementation and monitoring complained with ADB safeguard requirements.

43. Pursuant to ADB's Safeguard Policy Statement (2009), ADB funds may not be applied to the activities described on the ADB's Prohibited Investment Activities List set forth at Appendix 5 of the Safeguard Policy Statement.

C. Indigenous Peoples

44. The project is screened as category C project for Indigenous peoples planning requirement under SPS 2009 and the NHA shall ensure that sub-projects financed under the loan do not have any indigenous peoples' impacts within the meaning of the Safeguard Policy Statement (2009). And if during design review or implementation, any change to the scope, location or alignment of road with prior approval of ADB, causes to have any such impacts, NHA shall take all steps required to ensure that the Project complies with the applicable laws and regulations of Pakistan and the ADB's Safeguard Policy Statement 2009.

VIII. GENDER AND SOCIAL DIMENSIONS

45. The main works during civil works will be implemented with use of heavy machinery, with limited use of unskilled labour. However, execution of civil works may generate limited employment and business opportunities for local communities during execution of civil works. During implementation NHA will incorporate provisions in bidding documents and civil work

contracts that contractors shall (i) comply with Pakistan’s applicable labor laws and related international treaty obligations and not employ child labor, (ii) provide safe work conditions and separate sanitation facilities for male and female workers, (iii) provide equal wage to male and female workers for work of equal value, (iv) provide employment opportunities for women and, (v) carry out programs of preventing HIV/AIDS, illicit drugs and human trafficking at workers’ campsites. Furthermore, NHA with the support of the construction supervision consultants and contractors shall conduct awareness raising campaign for public and workers about health safety and social issues, preventive measures on HIV/AIDS and sexually transmitted diseases, illicit drugs and human trafficking etc.

46. Although the bidding document will include clauses ensuring gender equalities in wages, it is unlikely for women to participate in project civil works or road side business due to established socio-cultural practices in the province and along the project roads.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Project Design and Monitoring Framework

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
<p>Impact Accessible, affordable, and safe road network in Balochistan</p>	<p>Annual road traffic growth rate in Balochistan 50% higher than GDP growth rate in Pakistan from 2018 to 2020</p> <p>Daily vehicle-kilometers from Quetta to Peshawar through N50 and from Quetta to Multan through N70 increased by 50% in the 1st full year of operation of two project roads</p>	<p>National economic statistics</p> <p>NHA traffic statistics</p>	<p>Assumption</p> <ul style="list-style-type: none"> • Government’s development agenda for balanced provincial development intact and adequate development budget allocated for Balochistan. • Government’s investments for transport sector in Balochistan sustainably financed.
<p>Outcome Reduced transport cost from Balochistan to the political and industrial centers of the country</p>	<p>Travel time from Quetta to Islamabad, Peshawar, and Multan reduced to 28 hours, 25 hours, and 22 hours, respectively by 2018 from 33 hours, 30 hours, and 38 hours, respectively in 2013</p>	<p>Supervision consultant’s baseline survey</p> <p>NHA traffic statistics</p>	<p>Risk</p> <ul style="list-style-type: none"> • Poor security and political instability deteriorates and disrupts free flow of traffic.
<p>Outputs Two-lane roads of Zhob–Mughal Kot and Qila Saifullah–Waghum</p>	<p>Total of 201 km roads rehabilitated by 2017 with IRI no higher than 4 (Zhob–Mughal Kot = 81 km and Qila–Saifullah–Waghum = 120 km).</p>	<p>Supervision consultant’s project progress report and project completion report</p>	<p>Risks</p> <ul style="list-style-type: none"> • Few internationally qualified contractors and consultants are interested in the work. • The procurement

Design Summary	Performance Targets and Indicators with Baselines	Data Sources and Reporting Mechanisms	Assumptions and Risks
Community facilitation centers	5 community facilitation centers developed along the project roads by 2018		process unduly prolongs.
<p>Activities with Milestones</p> <p>Road Rehabilitation</p> <p>1. Bidding for Contractor and Consultant</p> <p>1.1 EA submits bid evaluation report for contractor and consultant by April 2015.</p> <p>1.2 ADB evaluates and approves NHA's bid evaluation report by May 2015.</p> <p>1.3 NHA awards the contract for civil work and design review and supervision consultancy by June 2015.</p> <p>2. Construction Work</p> <p>2.1 EA mobilizes consultant team and contractor team by July 2015.</p> <p>2.2 Consultant team reviews detailed design by September 2015.</p> <p>2.3 Contractor team starts construction work in July 2015 and completing it by June 2018.</p> <p>Community Facilitation Centers</p> <p>1. EA identifies potential rural centers for development of community facilitation centers by December 2015.</p> <p>2. EA conducts an in-depth study of livelihoods and needs of women residing around the project area and identifies potential elements benefitting them by June 2016.</p> <p>3. EA assesses community needs and designs the socio-economic facilities to be provided by September 2016.</p> <p>4. Consultant team develops engineering designs by December 2016 and contractor team builds them by June 2018.</p>		<p>Inputs</p> <p>ADB Loan: \$195 million (OCR)</p> <p>Government counterpart funding: \$40 million</p>	

IRI = international roughness index; NHA = National Highway Authority; OCR = ordinary capital resources.

B. Monitoring

47. **Project performance monitoring.** The Asian Development Bank (ADB) and the National Highway Authority (NHA) have agreed on a preliminary set of indicators to be monitored and for evaluating project performance. Representative indicators are included in the design and monitoring framework. The baseline data will be collected within 6 months of the date of loan effectiveness. At the beginning of project implementation, NHA will confirm baseline values for social, environmental, and poverty reduction impact indicators. Monitoring indicators will be measured, with appropriate frequency, during implementation. Comments and findings regarding these project indicators will be incorporated in progress report to ADB. In addition to indicators for implementation monitoring, indicators for project evaluation will be measured at project completion, and 3 years after completion. Where relevant, indicators will be disaggregated by gender, participatory surveys will take place, and results will be compared with the baseline. A final report will evaluate changes in the preceding 3 years. NHA has developed its monitoring capability for the ongoing projects, and has the capacity to monitor the

project. A consultant will assist in establishing the monitoring and evaluation system, and periodically updating project impacts on socioeconomic, gender, and environment.

48. **Compliance monitoring:** Compliance to the covenants will be jointly monitored by NHA and ADB through monthly and semi-annual updates provided by the engineering, construction supervision consultant. The consultant will submit to ADB a status report on the covenants with the explanation and time-bound actions on partly or non-complied covenants. Apart from ADB project review missions 2–3 times a year, ADB’s resident mission in Pakistan will also hold quarterly country portfolio review meetings with NHA to ensure the full compliance of the covenants.

49. **Safeguards monitoring:** The environmental management plan (EMP) will be monitored regularly with the assistance of supervision consultant team, the performance and results of which (through EMP reports) will be uploaded in ADB and NHA websites. Construction environmental monitoring is a day to day process, which ensures that departures from the EMP are avoided or quickly rectified, or that any unforeseen impacts are quickly discovered and remedied. Specific actions in the EMP that are to be monitored are included in the initial environmental examination. These include the preparation of plans for aspects of the work, such as construction camps, borrow pits and quarries, establishing crusher and asphalt facilities, and a site safety plan, which need to be completed and approved during the preconstruction phase. Also included are air, noise, and water quality monitoring parameters that follow related Pakistan national standards, and regular monitoring of the condition of the road surface, bridges, culverts, drainage structures and slope protection structures. In addition, information on the locations, type and consequences. If there are any unforeseen safeguards impacts or incidents these will be reported to ADB immediately for necessary action.

50. Monitoring of land acquisition and resettlement (LAR) tasks will be routinely conducted by Land Acquisition and Resettlement Unit, NHA with the assistance of Resettlement Specialist mobilized through Supervision Consultants. The monitoring results of LAR tasks and issues can be included in the monthly project progress report for ADB. However, monthly monitoring reports will be consolidated into quarterly monitoring reports (during RP implementation) and bi-annual (when RP implementation is completed) to be submitted to ADB for review and clearance before its disclosure on NHA and ADB websites. Specific monitoring benchmarks for LAR monitoring report include (i) information campaign and consultation with affected persons; (ii) status of grievance/complaints recorded and grievances redressed during monitoring period; (iii) compensation for affected structures and other assets; (iv) relocation of affected persons; (v) payments for loss of income; and (vi) living standard and income restoration activities.

51. **Gender and social dimensions monitoring:** A summary poverty reduction and social strategy has been prepared. NHA, with the assistance of construction supervision consultants, shall ensure the project follows (i) measures to raise public awareness of the risks of HIV/AIDS and other sexually transmitted infections, drug and human trafficking; (ii) requirements for the civil works contractor(s) to take measures to protect construction workers from the risks of HIV/AIDS and other sexually transmitted infections, and for the testing and treatment of construction workers; (iii) awareness raising among temporary workers of important social and health issues; and (iv) measures to protect public and workers with requirements for the civil works contractor(s) to maintain their labor environment in healthy condition will be incorporated into the contract documents and are provided in the mitigation provisions of the EMP to meet requirements of ADB’s Core Labor Standards (2006) and the country’s relevant laws and regulations.

C. Evaluation

52. ADB will field an inception mission within 3 months after signing of the loan agreement. Review missions will be carried out every 4–6 months jointly by representatives of ADB, the Borrower, and NHA. The review missions will assess the status of the project implementation and site visits are also required, whenever possible. ADB and the government will carry out a midterm review of project implementation in mid-2016. The review will focus on project impacts, particularly those relating to institutional, administrative, organizational, technical, environmental, and social aspects and poverty reduction. The project's economic viability, and other aspects that may have an impact on project performance, will be assessed. The review will examine the implementation progress of policy reforms and compliance with assurances specified in the loan agreement. This will allow for any necessary mid-course corrections to ensure successful implementation and the achievement of the project objectives.

D. Reporting

53. NHA will provide ADB with (i) monthly progress reports in a format consistent with ADB's project performance reporting system; (ii) consolidated semi-annual project progress reports including (a) progress achieved by output as measured through the indicator's performance targets; (b) key implementation issues and solutions; and (c) 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 financial statements together with the associated auditors' report, would be adequately reviewed by NHA and ADB.

E. Stakeholder Communication Strategy

Project Documents	Means of Communication	Responsible Party	Frequency	Audience(s)
Project data sheet (PDS)	ADB's website	ADB	Initial project data sheet posted on the website no later than 2 weeks after approval of the concept paper; updated at least twice a year	General Public
Design and monitoring framework	ADB's website	ADB	Key information from the draft reflected in project data sheet; final version posted on the website at the same time it is circulated to the Board for approval, subject to the concurrence of the government	General Public
Initial Environmental Examination Reports (IEE)	ADB's website	NHA, ADB	Draft posted on the website before appraisal; and the final version no later than 2 weeks of receipt by ADB	General Public, project-affected people
Resettlement Plans (RPs)	ADB's website	NHA, ADB	Draft posted on the website before appraisal; and the final/updated version no later than 2	General Public, project-affected people

Project Documents	Means of Communication	Responsible Party	Frequency	Audience(s)
Loan Agreement	ADB's website	ADB	weeks of receipt by ADB Posted on the website no later than 2 weeks from their signing, after removing any information falling within exceptions at the time of the negotiations	General Public
Report and Recommendation of the President (RRP)	ADB's website	ADB	Posted on the website at the same time it is circulated to the Board for approval, subject to the concurrence of the government	General Public
Summary of Poverty Reduction and Social Strategy	ADB's website Consultation	ADB NHA	Posted on the website at the same time it is circulated to the Board for approval, subject to the concurrence of the government	General Public
Procurement requirements	ADB website for procurement notice (ACN/SPN), invitation for bids (IFB), Local newspaper advertisement	ADB NHA	Available online (current and archive)	General public, potential civil works contracting firms
Consulting services requirement	ADB website for recruitment notice (CSRN) for expression of interest	NHA	When required	General public, consulting firms
	ADB website for list of shortlisted firms	ADB	Always available	General public, consulting firms
Project Administration Manual	ADB's website	ADB	Posted on the website at the same time it is circulated to the Board for approval, subject to the concurrence of the government	General Public
Environmental & Social Safeguard Monitoring Reports	ADB's website NHA's website	ADB NHA	Routinely disclosed, no specific requirements	General Public, project-affected people in particular
Audited project financial statements and the auditors' report	ADB's website	ADB	Within 30 days of receipt	General Public
Project Completion Report	ADB's website	ADB	Within 2 weeks of circulation to the Board for information	General Public
Evaluation Report	ADB's website	ADB	Within 2 weeks of circulation to	General Public

Project Documents	Means of Communication	Responsible Party	Frequency	Audience(s)
				Management and the Board

ADB=Asian Development Bank, ACN= advance contracting notice, CSRN = consulting services recruitment notice, IEE = initial environmental examination, IFB = invitation for bids, NHA = National Highway Authority, RRP = Report and Recommendation of the President, SPN = specific procurement notice.

X. ANTICORRUPTION POLICY

54. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the Project.⁷ 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.⁸

55. To support these efforts, relevant provisions are included in the loan agreement and the bidding documents for the Project. Further, NHA will establish eligibility criteria for persons serving on bid evaluation committees and require full disclosure of relevant interests and any potential conflict of interests. Additionally, NHA will engage private firms to conduct technical audits of randomly selected works contracts within 12 months of commencement of the contract and six months prior to NHA taking over the project site from the contractor.

XI. ACCOUNTABILITY MECHANISM

56. 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.⁹

XII. RECORD OF PAM CHANGES

PAM Version	Created Date	Revision Date	Reasons for Change	Main Contents of Change
V1.0	October 2013	NA	Initial	NA

57.

⁷ Available at: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>.

⁸ ADB's Integrity Office web site is available at: <http://www.adb.org/integrity/unit.asp>.

⁹ For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.

Community Facilitation Centers

A. General

1. In the districts along the project highways in Balochistan Province, around 80% of the population resides in the rural areas, most of whom are involved in agriculture and livestock farming with limited access to social infrastructure and opportunity to become a part of national socio-economic circle. Roads, market infrastructure facilities, information on market prices of input and local outputs, and lowering the costs of market access are important tools that are needed to promote integration of local rural economy into national economy and enhance ultimate wellbeing of en-route rural population.

2. The implementation of national highway improvement projects in the provinces will be a step forward for socio-economic development of the provinces through shortening the distances across the provinces with improved interprovincial link. However, trickling down of these benefits to local rural community requires a link between road commuters and the local community to overcome the issues like: (i) limited or unavailable transport (goods/freight transport) for carrying harvest of small farmers to nearby urban centers resulting into limited access to better social services; (ii) thin markets in nearby urban centers with non-existent local markets for agricultural products including, crops, fruit and livestock; (iii) limited information and resources to access competitive markets in other provinces to avail better livelihood opportunities and improved living standard; and (iv) limited resources and opportunities available for engaging in other alternate livelihood means like small scale business/trade nearby their villages along the road. Hence, providing a link between project roads and the local population through community facilitation centers in nearby rural settlements along the project roads will be as valuable as accessing national markets through national highways improvement.

3. Responding to these local community needs, the project will develop community facilitation centers along the project roads focusing on (i) creating opportunities for the local population to exploit the benefits offered by the project roads by linking project roads and the local community to meet passenger and freight transportation needs leading to improved access to social facilities; (ii) improving local market hubs in the rural centers along the project road with community involvement, (iii) improving access and linkage of rural market hubs with national markets through project roads; and (iv) helping socio-economic uplift of local community by organizing and promoting local products and alternate means of livelihood with improved living standard of the rural community. The output will be local community facilitation centers along the project roads better integrated into the improved mobility through rehabilitated project roads.

B. Site Selection Criteria

4. Selection of site for community facilitation centers will be primarily done by NHA through a consultative process with the local community and the district governments. Following criteria are proposed to apply in selecting sites for local community facilitation centers.

- (i) Distance from nearby urban center with potential for development as local market hub for surrounding rural centers.
- (ii) The number of surrounding rural settlements with the number of population utilizing the facilities.
- (iii) Need of local population assessed through consultation process
- (iv) Availability of land with minimal impacts.

C. Design

5. The Community facilitation Centre is supposed to interface between local community along the project road and road commuters. Hence the facility will be designed by NHA as per need assessed during consultation and should meet the requirement of the local community for accessing basic facilities including services and livelihood opportunities and may include:

- (i) facilities for selling their local products to the road commuters;
- (ii) parking facility with loading/unloading areas for their agricultural products, livestock and other local products;
- (iii) marketing facilities for the agricultural inputs and outputs; and
- (iv) adequate place for formal and informal meetings of community to share information about local needs to improve productivity, accessing social facilities and potential markets for local inputs and outputs.

D. Safeguards

- (i) Due diligence to be conducted to ensure that (a) all construction works are confined with ROW limits/government owned land along the project roads and acquisition of privately owned land is avoided, and (b) prior to the selection, it will be confirmed that no significant safeguard impact will be involved requiring change in category of the project.
- (ii) Prior to the construction work, the section-specific environment management plan (SSEMP) will be prepared and endorsed by NHA and ADB. All safeguard related measures/procedure to be taken will be documented, monitored with monitoring reports submitted to ADB.

E. Implementation

6. A Social development specialist with adequate knowledge of socio-economic fabric of the area and local needs and a gender specialist will be mobilized through supervision consultants. The social development specialist and gender specialist under the project director of NHA will carry out public consultations with all stakeholders including local administration, community support organizations (CSOs) working in the field, and the local community to:

- (i) identify potential rural centers for development of community facilitation centers;
- (ii) assess community needs and suggest the socio-economic facilities to be provided;
- (iii) conduct an in-depth study of livelihoods and needs of women residing around the project area and identify potential elements benefitting them in the component;
- (iv) engage with relevant local government departments and community support organizations to join as partners in managing and providing required facilities including information dissemination on: (a) improved agriculture and livestock raising with access to agricultural inputs; (b) potential markets for farming inputs and outputs; and (c) business and trading facilities/opportunities for local community through these community facilitation centers in a sustainable manner.
- (v) based on consultative exercise, NHA will design and implement the exercise under supervision of the construction supervision consultants.

F. Operation and Maintenance

7. After construction phase, the operation and maintenance of the community facilitation centers will be carried out on a no-profit-no-loss basis with support from the local community and line provincial/district government departments of Balochistan. To this end NHA will engage with local/district and provincial governments as well as community to make the outputs of exercise sustainable.

**Terms of Reference
Design Review, Contract Administration and
Construction Supervision**

**Qila Saifullah–Loralai–Waghum Rud Section of N-70
and
Zhob–Mughal Kot Section of N-50**

A. Background

1. The national highway network along the east west corridor via the national highways N-50 and N-70 connect Balochistan with Khyber Pakhtunkhwa and Punjab. These routes are primary sub regional corridors connecting Afghanistan and Iran with Pakistan and India. N 50 is of considerable strategic importance running parallel to the border with Afghanistan and provides the most direct route between Balochistan and Khyber Pakhtunkhwa. N-70 is the most direct route between southern Punjab and northern Balochistan and onward to southern Afghanistan and Iran.

2. The N-50 starts at Kuchlak 26 km north of Quetta runs east via the important local population centers of Muslim Bagh, Qilla Saif Ullah, Zhob and Mughal Kot ending at an intersection with the Indus highway at D.I. Khan in Khyber Pukhtunkhwa. NHA has substantially improved the highway with funding from the Government of Pakistan (GOP) and Asian Development Bank (ADB) as indicated below:

Sr. No.	Road Section	Length (km)	Funding	Status
a	Kuchlak–Muslim Bagh		PSDP	Completed
b	Muslim Bagh–Qilla Saifullah–Zhob	200	ADB	Completed
c	Zhob–Mughal Kot	81	ADB	The design has been completed. ADB has agreed to finance the project.
d	Mughal Kot–D.I. Khan		PSDP	Completed

3. The N-70 runs west from the N-5 at Multan to the N-50 at Qilla Saifullah in Balochistan, a distance of 441 Km. N-70 passes through several important cities of Multan, Muzaffargarh, DG Khan, Bewata, Loralai and Qilla Saifullah. It also provides a connection between N5 and N55 the two main north south highways. NHA has evolved a comprehensive program for the rehabilitation and improvement of N-70 with the funding from ADB, and Japan International Cooperation Agency (JICA) which is in advanced stage of implementation. The details are as below:

Sr. No.	Road Section	Length (km)	Funding	Status
a	Qilla Saifullah–Loralai–Waghum Rud	125	ADB	The design has been completed. ADB has agreed to finance the project.
b	Waghum Rud–Khajuri–Beawata	132	PSDP	Under implementation
c	Bewata–Rakhi Gajj	33	JICA	Bidding in process
d	DG Khan–Muzafargarh	97	PSDP/BOT	Detailed engineering design completed
e	Muzaffargar–Multan	36	ADB	Completed

4. ADB has agreed to finance the rehabilitation and improvement of Zhob–Mughal Kot Section of N-50 and Qilla Saifullah–Loralai–Waghun Rud section of N-70 in four contract packages as follows:

Sr. No.	Contract Package	Road Section	Length (km)
a	ICB 3 C	Zhob–Killi Khudai Nazar	49.000
b	ICB 3 D	Killi Khudai Nazar–Mughal Kot	32.210
c	ICB 7 A	Qilla Saifullah–Loralai	69.800
d	ICB 7 B	Loralai–Waghun Rud	49.807

5. National Highway Authority intends to procure the services of an international consulting firm (The Lead Firm) in association with local consulting firms to deliver the assignment as per these terms of reference.

B. Objective

6. The overall objectives of these Terms of Reference are to:

- (i) Ensure that the detailed engineering design is reviewed, and updated if required, in accordance with the specified parameters and best international practices prior to implementation of civil works contracts;
- (ii) Ensure that high quality construction is achieved in time within budget and that all work is carried out in full compliance with the approved engineering designs, technical specifications, agreed work schedule, and within the terms and conditions of all other contract documents and sound engineering practices;
- (iii) Demonstrate the efficacy of contract administration and supervision by independent external agencies;
- (iv) Monitor and evaluate the implementation of environmental management plan, land acquisition & resettlement plan and other social safeguard measures by the contractor and client; and
- (v) Promote technology transfer and the introduction of modern Contract Administration practices within NHA.

C. Scope of Services

1. General Duties and Responsibilities of the Consultant

- (i) The Consultants will carry out a critical review of the detailed engineering design prior to the commencement of works to identify anomalies or omissions that constitutes inconsistency in the design and completeness of works. This review will be carried out immediately after the services commence and will be completed within 3 months. On completion of the review, the Supervision Consultant will prepare a report, setting out all findings and recommendations for correcting any defects or omissions identified. Notwithstanding these, the Supervision Consultant will immediately inform the employer of any defect or omission that may have a substantial impact on the Project at the time the defect or omission is uncovered;

- (ii) Civil works will be carried out based on the *Federation Internationale des Ingenieurs Conseils* (FIDIC) contract. The consultant will administer the civil work's contracts, make engineering decisions, be responsible for quality assurance, provide general guidance and furnish timely responses to the contractors in all matters relating to the civil works, and ensure that all clauses of the contract agreement between the civil works contractors and NHA are respected;
- (iii) The Consultant will be designated as the "Engineer/Project Manager" for all civil and ancillary works financed under the project. The consultant will administer the civil work's contracts, make engineering decisions, be responsible for quality assurance, provide general guidance and furnish timely responses to the contractors in all matters relating to the civil works, and ensure that all clauses of the contract agreement between the civil works contractors and NHA are respected;
- (iv) The consultant will advise NHA on all matters relating to the efficient and successful execution of the civil works contracts, and will act at all times to protect the interests of the project and will take all reasonable steps to keep the construction costs to a minimum, consistent with sound economic and engineering practices; and will prepare a "Contract Administration and Construction Supervision Manual" outlining routines and standard operating procedures to be applied in contract administration and construction supervision, based on sound internationally recognized practice;
- (v) The consultant will keep all the record pertaining to the Project update and available to the Client at all times;
- (vi) The consultant will coordinate on a daily, weekly and monthly basis to keep control over the works in hand and future requirements for the Project's timely completion;
- (vii) The consultant will develop harmony among the relations between Client, Consultant and Contractor;
- (viii) The consultant will facilitate NHA to ensure compliance to safeguard requirements under SPS 2009 and (i) support NHA to update the draft resettlement plan as per design review, (ii) Ensure implementation of Environmental Impact Assessment (EIA) recommendations, and (iii) facilitate/support NHA to prepare social and environmental monitoring reports;
- (ix) The consultant will provide healthy environment for the team at Site and supervise implementation of preventive measures by Civil works contractor, such as regular awareness raising campaigns against potential social or health-related risks during construction such as HIV/AIDS, other sex transmitted diseases, human trafficking, illicit drug use and so on;
- (x) The consultant will facilitate and support NHA to identify potential sites, study in detail livelihoods and needs of local population (men and women), hold community consultations, facilitate discussions with local authorities, design and implement community facilitation centers component as per community requirements/needs along the project roads;
- (xi) The consultant will not indulge in any activity that might offend the local customs and traditions; and

- (xii) The consultant will deliver Lecture on Contract Management to NHA Officers at NHA HQ under technology transfer. Two lectures per year are required to be given by National or International Contract specialist.

2. Design Review

7. The Design Consultants has professional responsibility and obligations. The Supervisory Consultant will review the design reports and design drawings, without relieving the design consultants of their professional obligation. The Design Review Consultants will share the professional responsibility, which will be covered under the contract. The design review shall include but not limited to the following tasks:

- (i) Ensure that the design meets all the standards & parameters specified in the Terms of Reference for Design Consultants, NHA specifications, and best international practices;
- (ii) Ensure that geometric alignment particularly the horizontal curves and vertical profile meet minimum specified criterion and provide adjustments in horizontal and vertical design alignment to avoid Land Acquisition; and minimize resettlement impacts to maximum possible extent particularly at locations where gardens, graveyards and residential structures are identified along project roads with design solutions including adjustment of center-line or construction limits with site specific design solution. Accordingly, stake center line at all identified sections, mark construction limits, update impact inventory and resettlement plans.
- (iii) Ensure that a cost effective embankment height, has been adopted throughout the alignment, based on the required capacity of soil, depth of water table and drainage pattern of the surrounding area;
- (iv) Ensure that the pavement is most efficient and cost effective, design has been carried out on the basis of traffic studies conducted by the Design Consultant, strength/ CBR of the proposed pavement materials, the calculated EASLES, and prescribed design life;
- (v) Review the design parameters, calculation, location and layout of hydraulic & other traffic engineering structures to include bridges, flyovers and culverts, on the basis of hydrology report, geotechnical investigations, soil analysis, drainage pattern, and site conditions, ensuring that safe and cost effective designs are adopted;
- (vi) Review that the design of drainage of road side and cross drainage structure has been carried out as per the site requirement and flow patterns/ calculations;
- (vii) Review the design, lay out & requirement of retaining walls, breast walls, other retaining structures, and slop stability/ slide control measures as per the geotechnical requirement and site conditions;
- (viii) Review the requirement of U turns, underpasses, overhead bridges, Entry/Exits, Service lanes, and all other highway related works have been included in the design;
- (ix) Carryout a highway safety audit to ensure that all traffic signs, pavement marking, and pavement studs have been provided in the design as per the requirement. Also check those work zone safety requirements proposed are in accordance with best international practices;
- (x) Review and update the Bill of Quantities vis-à-vis the proposed design for pavement and structures ensuring accuracy up to 5%; and

- (xi) Issue final construction drawings after review; duly signed and stamped in the capacity of the Supervisor Consultant/ The Engineer of the Project.

3. Construction Supervision & Contract Administration

- 8. Shall include but not be limited to the following tasks:
 - (i) Undertake, jointly with the Contractor, the staking-out of the Centre-line and observing cross-sections at 25 m interval in hilly and plain terrain. Ensure that the Contractors have all necessary data for setting out and check the Contractors setting out including staking the right-of-way limits, centerline, and grade and confirm permanent monuments in the construction area. The exercise is required to be done on fast track basis, but no later than before the start of construction activities;
 - (ii) Confirm the location and number of all types of structures proposed in the design;
 - (iii) Develop the construction drawings and issue to the Contractor duly signed and stamped. The Consultant shall also validate the BOQ and inform the Client about any deficiency with respect to quantities and Items. Based on the exact quantities estimated, formulate the revised PC-I;
 - (iv) Give the Notice to commence works;
 - (v) Assure submission and advice on the adequacy of the Contractors' insurance policies, performance bonds, and advance payment guarantees;
 - (vi) Review and approve the Contractor's work programs and progress schedules ensuring that the Contractors have incorporated/followed the most effective and expeditious methodology of carrying out the works; and advise the Contractors in setting up a computerized project control system for reporting physical and financial progress as well as the forecasts, if included in the bids and/or if demanded later on by the NHA. Subsequently, closely monitor the construction progress on regular basis to determine whether it is proceeding in accordance with the approved work program;
 - (vii) Provide advance advice to NHA concerning the Schedule of handing over of sites, and possible delays due to lack of possession with a view to assure that the Contractors are given Possession of Site in accordance with the agreed work programs;
 - (viii) Assess minimum construction equipment, plant and machinery requirements, by type and specification, and monitor, keep and regularly update a list of the Contractors' equipment, plant and machinery in order to keep a check on the Contractors' mobilization. Inspect and evaluate the Contractor's establishments including in particular the laboratory facilities to ensure compliance with the terms and conditions of the Contract Agreement;
 - (ix) Assure the receipt of and maintain as permanent records of all warranties required under terms and conditions of the Contract Agreement for materials including their source and equipment accepted and incorporated in the project;
 - (x) Without relieving the Contractors of their obligations under the Contract, check and approve the contractors' Working Drawings, Method Statements and Temporary Works proposals; and review/approve any subsequent design changes, and expeditiously issue supplementary drawings, site instructions, variation orders and day work orders to avoid delay to the works and to ensure that the works are executed in accordance with Contract;

- (xi) Without relieving the Contractors of their obligations under the Contract, review and approve the traffic management and safety plan, and ensure compliance such that the Works are carried out at all times in a safe and secure manner and damage or injury to persons or property is avoided;
- (xii) Inspect quarries and borrow pits, and crushing plants, and order tests of materials and ensure adherence to specifications, and approve the sources of materials;
- (xiii) Without relieving the Contractors of their obligations under the Contract, monitor the Contractors' laboratory testing, evaluate the Portland cement concrete and bituminous mixture designs prepared by the Contractors, and recommend improvements (if any) to ensure the desired performance, and accord approval thereof;
- (xiv) Assure quality of the works during construction, continuously inspect the soils and materials; construction operations and the works with regard to workmanship and compliance with the specifications; and carry out independent testing in the field and/or in the "The Engineer/Supervision Consultants" laboratory, and approve or disapprove and certify the works that conform with the specifications and maintain permanent records of results of all the tests made;
- (xv) Give notice to the Contractors of any defects and deficiencies, and issue instructions for the removal and substitution of the improper works, where provided under the contract. If required, order suspension of the work(s) and/or recommend to NHA other recourse available under the Contract;
- (xvi) Attend and make measurement and computation of quantities of the completed works, or any work which is about to be covered or put out of view before permanent work is placed thereon, and maintain permanent records of all such measurements, and keep the measurement books and records in safe custody;
- (xvii) Monitor and appraise progress of the works, and maintain a day by day project diary which shall record all events pertaining to the administration of the contract, requests from and orders given to the Contractors, and any other information which may be at a later date be of assistance in resolving queries which may arise concerning execution of the works;
- (xviii) Issue monthly-consolidated progress reports on a format to be agreed with the NHA including payment estimates and comments on the Contractors' work programme, and advise NHA of any problems or potential problems which might arise and cause delay in implementation and recommend corrective action(s) to be taken;
- (xix) Check the Contractor's periodic statement of the estimated value of work completed and certify that these statements clearly and accurately describe the value of work executed either based on the value of completed activities in the "Activity Schedule" or on the value of the quantities of the items in the "Bill of Quantities";
- (xx) Issue the interim certificates to NHA for payment to the Contractors on the basis of the "Activity Schedule" or "Measured Work Items", as the case may be, having regard to any contractual provisions for advance payment, variation of price, and exchange rate fluctuation etc. Certify the completion of the Activities/Works or parts thereof and process final payments to the Contractors;
- (xxi) Assist with interpretation of the Contract Documents, explain and or reconcile any ambiguities and or discrepancies in the Contract Documents, and apply various provisions of the contract documents; and provide NHA all relevant documentation needed for settling disputes (if any) with the Contractors, and make recommendations to NHA for resolving the Contractors' escalation claims,

contract time extensions, variation orders, subletting, additional cost, rate and price fixing etc.;

- (xxii) Advise NHA on need for effective liaison with local authorities, police, landowners, utility owners, the public and other organizations affected by the Works in order to minimize or avoid unnecessary delays or disputes;
- (xxiii) Assure that (i) the Contractors comply with all necessary requirements contained in the Environmental & Social Management Framework; (ii) ensure that the day-to-day construction activities are carried out in an environmentally sound and sustainable manner; (iii) develop good practices construction guidelines to assist the Contractors and NHA staff in implementing the Framework; (iv) prepare and submit monthly 'Environmental Management Plan (EMP) and Resettlement Plan (RP) compliance reports; and (v) Consolidate monthly environmental monitoring reports into biannual environmental monitoring reports and Resettlement Monitoring Reports into quarterly or bi-annual (as specified in ADB approved resettlement plans) social monitoring reports for ADB's review, concurrence and disclosure to ensure compliance to safeguards requirements under SPS 2009.
- (xxiv) Jointly inspect with NHA the completed civil works, and assist in formal taking over and review and approve or prepare "as built" drawings and plans (as the case may be), and provide report(s) testifying to the satisfactory completion of the contracts;
- (xxv) Inspect the completed works periodically during the defect liability period within the term covering the Consultant's Agreement, prepare lists of deficiencies (if any), and carry out supervision of the remedial works, and issue the Defects Liability certificates after the rectification of notified defects by the Contractors;
- (xxvi) Assist NHA in settling any Audit Para's and Objections raised, and prepare replies related to the project, and provide the entire relevant documents/papers/letters etc. to support the replies – until one year after completion of works. It is estimated that 3-5 staff months could be required for this service;
- (xxvii) Establish a comprehensive system of maintaining site records including site correspondence, inspection records, test data, site diaries, records of meetings, financial records, progress records etc.; and
- (xxviii) Provide any other specialist services requested by NHA under conditions to be mutually agreed.

4. Development of Community Facilitation Center

9. The consultants shall mobilize two national specialists, i.e. (i) Social Development Specialist to facilitate/support NHA conduct stakeholders consultation for designing and implementation of Community Facilitation Centers Component and (ii) Gender Specialist to conduct an in-depth study of livelihoods and needs of women residing around the project area and identify potential elements benefitting them in the Component. Immediately after mobilization, the Social Development and Gender Specialists will coordinate with the Project Directors for consultation with stakeholder's including local community, line local government departments and community support organizations working in project area for:

- (i) Identifying potential rural centers to be developed as community facilitation centers;
- (ii) Assessing community needs and suggesting the socio-economic facilities to be provided and support NHA to design and implement accordingly;

- (iii) Conduct an in-depth study of livelihoods and needs of women residing around the project area and identify potential elements benefitting them in the Component;
- (iv) Engage with relevant local government departments and community support organizations for joining as partners with their role for continued information dissemination on: (i) improved agriculture and livestock raising with access to agricultural inputs; (ii) potential markets for farming inputs and outputs; (iii) business and trading facilities/opportunities for local community in a sustainable manner;
- (v) Based on the stakeholders consultation process, the consultant will submit detailed consultation report with findings and recommendations including, (i) identified potential sites to be developed as community facilitation centers, (ii) facilities to be provided with design and implementation arrangements for each center, (iii) land to be acquired (if required) with land acquisition arrangements, implementation arrangement of civil works as well as post construction operational arrangements for ADB's review and concurrence; and
- (vi) Following the agreed upon findings and recommendations, the consultants will support NHA in design and implementation of the Community Facilitation Centers component along the project roads accordingly. However to engage with stakeholders the consultation process will be kept continued throughout project implementation period to ensure community needs are met with.

10. The Gender Specialist will coordinate with the Social Development Specialist by providing her/him results of the study and consultations with local women, especially their livelihoods, networking activities, needs, and expectations toward the center, which will be considered at finalizing the Community Facilitation Centers' design.

5. Special Instructions:

11. The consultants will seek prior written approval of NHA to:

- (i) Issue variation orders carrying financial and/or technical implications, including addition or deletion of activities in the Activity Schedule, BOQ items, fixing rates and prices, variation in item rates, sums or costs;
- (ii) Approve the subletting of any part(s) of the works;
- (iii) Approve any extensions of the period for completion of the works; and
- (iv) Approve any additional cost and/or cost escalation claims by the contractor.

6. Client's Staff

12. Training of 15 Fresh Engineers (B.Sc. Civil) is part of this assignment. Client may designate names of Trainee Engineers to work with the Consultant. Consultant in addition to boarding and lodging facilities of these trainees will also be responsible to pay reasonable stipend on monthly basis.

7. Special Extension for Selected Staff

13. Following staff of the Consultants shall be allowed to continue performing services for a period of **Three (03)** months after completion of the project to finalize the accounts including final payment certificate and other outstanding issues of the project including preparation of as built drawings etc.

	Description	Person-months
a.	Resident Engineer	03
b.	Quantity Surveyor	03
c.	Computer Operator	03
d.	Office Boy/ Helper	03

8. Deliverables

14. All deliverables completed in all respect shall be submitted to the Employer with necessary verification or certifications within the construction period followed by three (03) months extended period for Select Staff, except for Monthly Progress Reports, which shall of course be submitted on monthly basis. Following deliverables are required to be provided by the Supervisory Consultants:

- (i) X-Section (every 25 meters) submitted by the Contractor, checked and approved by the Consultants/the Engineer;
- (ii) As-built Drawings submitted by the Contractor, after review and approval showing remedial works proposed;
- (iii) Prepare and submit list of all office equipment, laboratory equipment, survey equipment, furniture, vehicles, completed assets inventory and any other items provided by the Contractor under the Contract, which is property of the Employer;
- (iv) Prepare and submit Project Completion Report giving all details of the project in chronological order;
- (v) All other interim reports mentioned in preceding sections;
- (vi) Prepare and issue construction drawings after joint x-section;
- (vii) Prepare and submit construction manual at the start of the project and operation/ maintenance manual at the end of the project; and
- (viii) Highway Design Review Report 5 copies.

9. Team Composition & Qualification Requirements for the Key Experts

15. Team composition and qualification for the Key Experts is detailed in Appendix – A. An estimated input of 73 Person-months for International Key experts, 629 Person-months for National Key experts, 672 Person-months for National Non Key experts and 1008 Person-months for Support Staff will be required to complete the assignment. The team consists of following staff:

S. No.	Description	Number
International Key Experts		
(Supervision)		
1.	Senior Resident Engineer/ Team Leader	1
2.	Senior Highway Engineer	1
3.	Senior Structure Engineer	1
4.	Senior Material Engineer	1
5.	Senior Contract Specialist	1
Total=		5
International Key Experts		
(Design Review)		
6.	Highway Safety Engineer	1
National Key Experts		
(Supervision)		
7.	Resident Engineer	2

S. No.	Description	Number
8.	Contract Specialist	1
9.	Planning/Project Management Specialist	1
10.	Assistant Resident Engineer (Highways)	4
11.	Assistant Resident Engineer (Structures)	4
12.	Environmental Specialist	2
13.	Social Development Specialist	2
14.	Resettlement Specialist	2
15.	Gender Specialist	2
16.	Quantity Surveyor	4
17.	Materials Engineer	2
18.	Senior Surveyor	2
Total=		28
National Key Experts (Design Review)		
19.	Highway Engineer	1
20.	Structure Engineer	1
21.	Pavement Expert	1
22.	Quantity Surveyor	2
Total=		5
National Non Key Experts (Supervision)		
23.	Site Engineer – Material	4
24.	Site Engineer – Road works	8
25.	Site Engineer – Structures	4
26.	Laboratory Technicians	8
27.	Assistant Surveyors	4
Total=		28
Support Staff		
28.	Auto Cad Operator	2
29.	Laboratory Helpers	8
30.	Survey Helpers	8
31.	Computer Operator	4
32.	Trainee Engineers	15
33.	Office Boy	6
Total=		43

10. Documentary Movie

16. The Consultant shall make documentary movie of all major activities during construction as well as that of completed project sections. These should also include:

- (i) Pre-construction condition of roads and bridges;
- (ii) Laying and compaction of various pavement layers;
- (iii) Operation of Asphalt and concrete plants;
- (iv) Quarry sites and laboratory activities;
- (v) Road after completion showing road furniture;
- (vi) Various important stages in construction of bridge; and
- (vii) Any other major activity.

17. The documentary movie so prepared shall be submitted to the NHA at intervals as directed by the Engineer.

11. Revision of PC-1

18. It shall be responsibility of the construction supervision consultant to prepare the Revised PC-1 of the respective project, during the project execution and before completion of the project, by incorporating all changes in the scope of work and thereafter also prepare completion report (PC-IV) at completion of the project. To ensure compliance an amount of 02% of consultancy contract cost will be withheld from the final payment of the consultant until completion of this job.

12. Time of Completion

19. Design review will be completed within the first **Three (03) months**. Total time period of the contract shall be **27 months**. The design can often be reviewed if there is any serious site problem not investigated in the design review phase.

13. Clients Input and Counterpart Personnel

20. The Employer shall establish a project office headed by a General Manager and staffed appropriately. The project staff shall act as liaison between the Employer's higher management, the contractor and the consultant.

21. Laboratory equipment for material testing and survey equipment shall both be provided under the works contracts.

22. Consultant's project office, residence near project site and transport facilities within the project limits shall be provided under the works contracts; however, the consultants shall be responsible to provide SRE's office and residence at an appropriate location.

14. Provisional Sums

23. Following Provisional Sums shall be added to the Financial Proposal:

Sr. No.	Item	Provisional Sum Amount PRs (million)
1	Purchase of Satellite Imagery for Project Planning	2
2	Highway Safety Audit Report – during construction on six month interval	10*
3	Training/ lecture sessions	1

* Independent Highway Safety Expert will be hired by using this amount.

REQUIRED KEY EXPERTS & NON KEY EXPERTS**A1: Tentative List of International Key Experts (Field Staff)**

S. No.	Description	Number	Duration (Person-Months)
1	Senior Resident Engineer/Team Leader	1	24
2	Senior Highway Engineer	1	12*
3	Senior Structure Engineer	1	12*
4	Senior Material Engineer	1	12*
5	Senior Contract Specialist	1	12*

* Will be mobilized on as and when required basis, not exceeding than 12 months.

A2: Tentative List of National Key Experts for both (ICB-3C, ICB-3D) & (ICB-7A, ICB-7B)

S. No.	Description	Number	Duration (Person-Months)
1	Contract Specialist	1	24
2	Planning/Project Management Specialist	1	24

A3: Tentative List of National Key Experts (Field Staff) for (ICB-3C, ICB-3D)

S. No.	Description	Number	Duration (Person-Months)
1	Resident Engineer	1	24
2	Assistant Resident Engineer (Highways)	2	2x24
3	Assistant Resident Engineer (Structures)	2	2x24
4	Environmental Specialist	1	22*
5	Social Development Specialist	1	15*
6	Resettlement Specialist	1	22
7	Gender Specialist	1	03*
8	Quantity Surveyor	2	2x24
9	Materials Engineer	1	24
10	Senior Surveyor	1	24

* Will be mobilized on as and when required basis, not exceeding than duration specified.

Tentative List of National Non Key Experts for (ICB-3C, ICB-3D)

S. No.	Description	Number	Duration (Person-Months)
11	Site Engineer – Material	2	02x24
12	Site Engineer – Road works	4	4x24
13	Site Engineer – Structures	2	2x24
14	Laboratory Technicians	4	4x24
15	Assistant Surveyors	2	2x24

Tentative List of Support Staff for (ICB-3C, ICB-3D)

S. No.	Description	Number	Duration (Person-Months)
16	Laboratory Helpers	4	4x24
17	Survey Helpers	4	4x24
18	Computer Operator	2	2x24
19	Trainee Engineers	8	8x24
20	Office Boy	3	3x24

1. The key and supporting staff is for both packages. The personnel for any ICB contract will be mobilized as per site requirement.

A4: Tentative List of National Key Experts (Field Staff) for (ICB-7A, ICB-7B)

S. No.	Description	Number	Duration (Person-Months)
1	Resident Engineer	1	24
2	Assistant Resident Engineer (Highways)	2	2x24
3	Assistant Resident Engineer (Structures)	2	2x24
4	Environmental Specialist	1	22*
5	Social Development Specialist	1	15*
6	Resettlement Specialist	1	22
7	Gender Specialist	1	03*
8	Quantity Surveyor	2	2x24
9	Materials Engineer	1	24
10	Senior Surveyor	1	24

* Will be mobilized on as and when required basis, not exceeding than duration specified.

Tentative List of National Non Key Experts for (ICB-7A, ICB-7B)

S. No.	Description	Number	Duration (Person-Months)
1	Site Engineer – Material	2	02x24
2	Site Engineer – Road works	4	4x24
3	Site Engineer – Structures	2	2x24
4	Laboratory Technicians	4	4x24
5	Assistant Surveyors	2	2x24

Tentative List of Support Staff for (ICB-7A, ICB-7B)

S. No.	Description	Number	Duration (Person-Months)
6	Laboratory Helpers	4	4x24
7	Survey Helpers	4	4x24
8	Computer Operator	2	2x24
9	Trainee Engineers	7	7x24
10	Office Boy	3	3x24

2. The key and supporting staff is for both packages. The personnel for any ICB contract will be mobilized as per site requirement.

A5: Tentative List of Supervisory Staff (After expiration of the Construction Period of the Project)

S. No.	Description	Number	Duration (Person-Months)	Nationality
1	Resident Engineer	2	3	National
2	Quantity Surveyor	2	3	National
3	Computer Operator	2	3	National
4	Office Boy	4	3	National

A6: Tentative List of Design Review Staff and for Preparation of Construction drawings

S. No.	Description	Number	Duration (Person-Months)	Nationality
1	Highway Engineer	1	3	National
2	Structure Engineer	1	3	National
3	Highway Safety Engineer	1	1	International
4	Pavement Expert	1	1	National
5	Quantity Surveyor	2	3	National

Tentative List of Support Staff for Design Review

S. No.	Description	Number	Duration (Person-months)	Nationality
1	Auto Cad Operator	2	3	National

DETAIL OF KEY EXPERTS

S. No.	Title	Experience, Qualification & Responsibilities	
International Key Expert (Supervision)			
1.	Senior Resident Engineer/Team Leader	<p>Experience:</p> <p>Indicate the person months which Senior Resident Engineer/ Team Leader rendered in previous assignment, NHA will prefer 15 years international experience as Senior Resident Engineer and 10 years as Team Leader on major road projects.</p> <p>Qualification:</p> <p>Bachelor's degree in Civil Engineering –preferably Masters in Civil Engineering / Highway Engineering / Transportation Engineering / Construction Management / Project Management or equivalent.</p> <p>Responsibility:</p> <p>He/she will have overall responsibility for the organization, conduct and delivery of consultancy services and reporting to NHA. The Team Leader / Senior Resident Engineer will head the Consultants' team and will work directly to manage the project and will maintain liaison with NHA.</p>	
2.	Senior Highway Engineer/ Deputy Team Leader	<p>Experience:</p> <p>Indicate the person months which Senior Highway Engineer rendered in previous assignments internationally, NHA will prefer 12 years international experience as Senior Highway Engineer on major road projects.</p> <p>Qualification:</p> <p>Bachelor's degree in Civil Engineering – preferably Masters in Civil Engineering / Highway Engineering / Transportation Engineering / Construction Management / Project Management or equivalent.</p> <p>Responsibility:</p> <p>He/she will be responsible for construction supervision and ensuring that the project is implemented in accordance with the required specifications and approved drawings. He/she will also be responsible to assist Team Leader for issues relating to Highway Geometry etc. when required.</p>	
3.	Senior Structures Engineer	<p>Experience:</p> <p>Indicate the person months which the Senior Structure Engineer rendered in previous assignments internationally, NHA will prefer 12 years international experience as Senior Structure Engineer on major road / bridge projects.</p> <p>Qualification:</p> <p>Bachelor's degree in Civil Engineering –preferably Masters in Civil Engineering / Highway Engineering / Structure Engineering / Transportation Engineering / Construction Management / Project Management or equivalent</p> <p>He/she will be responsible for construction</p>	

S. No.	Title	Experience, Qualification & Responsibilities	
		Responsibility	supervision and ensuring that the project is implemented in accordance with the required specifications and approved drawings. He/she will also assist Team Leader for issues relating to Structures when required.
4.	Senior Material Engineer	Experience: Qualification: Responsibility:	Indicate the person months which the Senior Material Engineer rendered in previous assignments internationally, NHA will prefer 12 years international experience as Senior Material Engineer on major road projects. Preferably two years experience of asphalt concrete mix design in countries having similar climate condition and/or truck over loading problems like Pakistan. Bachelor's degree preferably Masters in Civil Engineering / Engineering Geology or equivalent. He /She will be responsible to stipulate material testing procedures and specifications, make suitable recommendations regarding the borrows and query areas for construction materials, prepare JMF and responsible for preparation and testing of concrete mixes of different design mix grades using suitable materials (binders, aggregates, sand filler etc.) as identified during material investigation to confirm specifications applicable in Pakistan.
5.	Senior Contracts Specialist	Experience: Qualification: Responsibility:	Indicate the person months which the Senior Contract Specialist rendered in previous assignments internationally, NHA will prefer 12 years international experience as a Contract Specialist on a senior position on major road projects based on FIDIC form of contract. Proven credentials in contract administration, evaluating contractor's claims and dispute resolution. Preferable experience/track record of an arbitrator, mediator, adjudicator and/or dispute resolution adviser. Bachelor's degree with a major in Civil Engineering, law, contracts, purchasing, or management – preferably Masters degree in Civil Engineering, law, contracts/ procurement, or equivalent. He/she will be responsible for assistance in contract administration of works contracts, taking timely contractual actions related to cost, time and quality controls and closure of the contracts, and in case of dispute its referral to the adjudication and arbitration in case of dispute.
6.	Contract Specialist [National]	Experience:	Indicate the person months which Contract Specialist rendered in previous assignment, NHA will prefer 10 years experience as a Contracts Specialist on major road projects based on FIDIC

S. No.	Title	Experience, Qualification & Responsibilities	
		Experience:	form of contract. Proven credentials in contract administration.
		Qualification:	Bachelor's degree with a major in Civil Engineering, law, contracts, purchasing, or management – preferably Masters in Civil Engineering, law, contracts / procurement, or equivalent.
		Responsibility:	He/she will be responsible for ensuring contract administration of the works contracts, taking timely contractual actions related to cost, time and quality controls in accordance with the provisions of the works contract agreement, closure of the contracts, evaluating claims, and in case of disputes, its referral to dispute resolution including Dispute Review Boards and/or arbitration.
7.	Planning / Project Management Specialist [National]	Experience:	Indicate the person months which Planning / Project Management Specialist rendered in previous assignment, NHA will prefer 10 years experience as a Planning Engineer/Specialist or Project Management Engineer/Specialist on major road projects based on FIDIC form of contract. Proven track record in using software related to planning/management of construction contracts.
		Qualification:	Bachelor's degree with a major in Civil Engineering, – preferably Masters in Civil Engineering, Construction Management, Project Management or equivalent.
		Responsibility:	He/she will be responsible for reviewing the work program submitted by the contractor to ensure removal of any inconsistencies before the commencement of the construction activities. During the construction activities monitor the progress of works and daily/weekly/monthly execution of works in accordance with the work program submitted by the contractor. Provide assistance to the supervision team in identifying possible delays and needed revisions in work program due to delays, assist supervision team in maintaining contemporary records and evaluating time and cost claims. Assist Supervision team in preparing progress reports for submission to NHA
National Key Expert (Supervision)			
1.	Resident Engineer	Experience:	Indicate the person months which Resident Engineer rendered in previous assignments, NHA will prefer 12 years experience as Resident Engineer on major road projects.
		Qualification:	Bachelor's degree in Civil Engineering -preferably Masters in Civil Engineering / Highway Engineering / Structure Engineering / Transportation Engineering / Construction

S. No.	Title	Experience, Qualification & Responsibilities	
		Responsibility	<p>Management / Project Management or equivalent.</p> <p>He/she will be responsible for construction supervision and ensuring that the project is implemented in accordance with the applicable specifications, approved drawings, and timeframe. He/she will have overall responsibility of the project.</p>
2.	Assistant Resident Engineer (Highways)	<p>Experience:</p> <p>Qualification:</p> <p>Responsibility</p>	<p>Indicate the person months which Assistant Resident Engineer (Highways) rendered in previous assignments, NHA will prefer 10 years experience as Assistant Resident Engineer (Highways) on major road projects.</p> <p>Bachelor's degree in Civil Engineering preferably Masters in Civil Engineering / Highway Engineering / Structure Engineering / Transportation Engineering / Construction Management / Project Management or equivalent</p> <p>He/she will be responsible for construction supervision of the road and ensuring that the subject project is implemented in accordance with the required specification and approved drawings.</p>
3.	Assistant Resident Engineer (Structures)	<p>Experience:</p> <p>Qualification:</p> <p>Responsibility</p>	<p>Indicate the person months which Assistant Resident Engineer (Structures) rendered in previous assignments, NHA will prefer 10 years experience as Assistant Resident Engineer (Structures/Bridges) preferably on major road / bridge projects.</p> <p>Bachelor's degree in Civil Engineering preferably Masters in Civil Engineering / Highway Engineering / Structure Engineering / Transportation Engineering or equivalent</p> <p>He/she will be responsible for construction supervision and of structural components of the road and ensuring that the subject project is implemented in accordance with the required specification and approved drawings.</p>
4.	Environmental Specialist	<p>Experience:</p> <p>Qualification:</p>	<p>Indicate the person months which the Environmental Specialist rendered in previous assignments. NHA will prefer 10 years experience as Environment Specialist supervising and monitoring environmental management plans on donor financed road projects and familiarity with the ADB's safeguard policies.</p> <p>Bachelor's degree in Environmental Engineering - preferably Masters in Environmental Sciences or equivalent</p> <p>He/she will be responsible for preparing</p>

S. No.	Title	Experience, Qualification & Responsibilities
		<p>Responsibility: Environmental screening check list and classifying sub projects that have not been yet classified, preparing and obtaining IEEs and Environmental management plans (EMP), ensuring prior clearance, monitoring, course correction, consultations, due diligence and disclosures.</p>
5.	Social Development Specialist	<p>Experience: Indicate Person Months which Social Development Specialist rendered in previous assignments, NHA will prefer 7 years experience as Social Development Specialist with hands on experience in community mobilization, need assessment, identification and implementation of alternate livelihood sources in rural communities, planning preparation and implementation of community development plans for IFI funded public sector projects, and familiarity with ADB's social protection strategies, gender development and social safeguard policies..</p> <p>Masters in Social Sciences and related field.</p> <p>Qualification: He/she will be responsible to support NHA in identification of potential sites for development as community facilitation centers along project roads, study in detail livelihoods and needs of local population (men and women), hold community consultations, facilitate discussions with local authorities, design and implement community facilitation centers component as per community requirements/needs along the project roads. The consultant will prepare and submit his/her report with findings and recommendations about i) potential sites for community facilitation centers, (ii) livelihoods and needs of local population, (iii) facilities to be provided with design and implementation arrangements and, (iii) post construction operational arrangements for each community facilitation center for ADB's review and concurrence.</p> <p>Responsibility:</p>
6.	Resettlement Specialist	<p>Experience: Indicate Person Months which Resettlement Specialist rendered in previous assignments. NHA will prefer 7 years experience in planning preparation, implementation and monitoring of Social Safeguards (Involuntary Resettlement and Indigenous people) as resettlement specialist on IFI financed development projects and familiarity with ADB's Social Safeguard Policies.</p> <p>Masters in Social sciences or relevant field</p> <p>Qualification: He/she will be responsible to support NHA to ensure compliance to social safeguards (Involuntary Resettlement Indigenous people) while planning, preparation, implementation and monitoring of resettlement plans for the sub-</p> <p>Responsibility:</p>

S. No.	Title	Experience, Qualification & Responsibilities
		<p>projects as required under Safeguard Policy Statement (2009). During event he/she will facilitate NHA to identify, assess and update impact inventory based on design review, conduct consultations with project affected persons and update the resettlement plans as per marked construction limits. Monitor day to day RP implementation and consolidate RP implementation progress in monthly progress reports, facilitate NHA in recording and redress of grievances of project affected people and prepare Quarterly/ Bi-annual social Monitoring (internal monitoring) reports for ADB's review.</p>
7.	Quantity Surveyor	<p>Experience: Indicate the person months which the Quantity Surveyor rendered in previous assignments, NHA will prefer 10 years relevant experience on preferably three major road projects.</p> <p>Qualification: DAE in Civil Engineering – preferably B.Sc. Civil Engineering.</p> <p>Responsibility: He/she will be responsible for measurement of all type of quantities and preparation of measurement sheet in accordance with approved drawings for the purpose of preparing interim and final payment certificates.</p>
8.	Material Engineer	<p>Experience: Indicate the person months which the Material Engineer rendered in previous assignments, NHA will prefer 10 years as Material Engineer on five major road projects preferably with experience of Asphalt concrete mix design in countries having similar climate and/or truck over loading problems like Pakistan.</p> <p>Qualification: Bachelor's degree in Civil Engineering or Masters in Engineering Geology or equivalent.</p> <p>Responsibility: He/she will assist the RE and will be responsible for quality of materials used in construction by performing field and laboratory tests and certifying their acceptance based on recommended specifications for the material, will also identify the sources of material and query sites.</p>
9.	Senior Surveyor	<p>Experience: Indicate the person months which the Senior Surveyor rendered in previous assignments, NHA will prefer 10 years relevant experience on major road projects as a Senior Surveyor.</p> <p>Qualification: DAE in Civil Engineering.</p> <p>Responsibility: He/she will supervise a team of surveyors who shall carryout joint survey's with contractor's staff before commencement of work, assist the resident engineer in checking the layout, correctness of layout drawn at site by the contractor during</p>

S. No.	Title	Experience, Qualification & Responsibilities	
			execution for road construction, and maintain all documentations on survey works, record of control point and bench marks and ensure that works commences accordingly to the working drawings approved by the resident engineer.
National Key Expert (Design Review)			
1.	Highway Engineer	Experience: Qualification: Responsibility	Indicate the person months which Highway Engineer (Design Review) rendered in previous assignments, NHA will prefer 10 years as Highway Engineer (Design Review) for major road projects with proven credentials in Geometric Design of Highways. M.Sc. in Civil Engineering, preferably PhD in Civil Engineering / Highway Engineering / Transportation Engineering or equivalent. He/she will be responsible for Design and Design Review of Highway Design and Specifications on cost effective multi hazard resistant design.
2.	Structural Engineer	Experience: Qualification: Responsibility	Indicate the person months which the Structural Engineer (Design Review) rendered in previous assignments, NHA will prefer 10 years experience as Designer and/or Design reviewer of Structures with proven credentials in Bridge Designing. Masters in Civil Engineering / Structural Engineering/ Highway Engineering or equivalent, preferably PhD in Structural Engineering or equivalent. He/she will be responsible for Design and Design Review of structural elements of road components and bridges Design and Specifications on cost effective multi hazard resistant design.
3.	Pavement Expert	Experience: Qualification: Responsibility	Indicate the person months which the Pavement Expert rendered in previous assignments, NHA will prefer 10 years experience as Pavement Expert for design and design review assignments of major road projects with proven credentials. Bachelor's degree preferably Masters in Civil Engineering / Highway Engineering / Transport Engineering / Pavement Engineering or equivalent. He/she will be responsible to review and validate all Pavement design.
International Key Expert (Design Review)			
1.	Highway Safety Engineer	Experience:	Indicate the person months which the Highway Safety Engineer rendered in previous

S. No.	Title	Experience, Qualification & Responsibilities
		<p>assignments, NHA prefers 10 years relevant experience with proven credential as safety auditor on major road projects.</p> <p>Qualification: Bachelor degree preferably Masters in Civil Engineering / Transportation Engineering / Highway Engineering / Traffic Engineering and a certified safety auditor or equivalent.</p> <p>Responsibility He/she will be responsible to prepare the Highway Safety Report of the design</p>