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IDA/R2018-0164/1

May 25, 2018

**Closing Date: Thursday, June 14, 2018 at 6:00 p.m.**

FROM: Vice President and Corporate Secretary

**Pakistan - Khyber Pass Economic Corridor Project**

**Project Appraisal Document**

Attached is the Project Appraisal Document regarding a proposed credit to Pakistan for a Khyber Pass Economic Corridor Project (IDA/R2018-0164), which is being processed on an absence-of-objection basis.

Distribution:
Executive Directors and Alternates
President
Bank Group Senior Management
Vice Presidents, Bank, IFC and MIGA
Directors and Department Heads, Bank, IFC and MIGA

Document of

**The World Bank**

**FOR OFFICIAL USE ONLY**

Report No: PAD1936

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF SDR 320.3 MILLION
(US$ 460.6 MILLION EQUIVALENT)

TO THE

ISLAMIC REPUBLIC OF PAKISTAN

FOR A

KHYBER PASS ECONOMIC CORRIDOR PROJECT
May 25, 2018

Transport & Digital Development Global Practice
Finance, Competitiveness and Innovation Global Practice
South Asia Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective April 30, 2018)

| | | |
|---|---|---|
| Currency Unit | = | Pakistan Rupee (PKR) |
| PKR 115.77 | = | US$1 |
| US$ 1.43806 | = | SDR 1 |

FISCAL YEAR

July 1 – June 30

| | |
|---|---|
| Acting Regional Vice President: | Ethel Sennhauser |
| Country Director: | Patchamuthu Illangovan |
| Senior Global Practice Director: | Jose Luis Irigoyen, Ceyla Pazarbasioglu-Dutz |
| Practice Manager: | Olivier P. Le Ber, Nabila Assaf |
| Task Team Leader(s): | Zafar Iqbal Raja, Moustafa Baher El-Hefnawy, Andrew Beath |

## ABBREVIATIONS AND ACRONYMS

| | |
|---|---|
| ADB | Asian Development Bank |
| APTTA | Afghanistan Pakistan Transit Trade Agreement |
| ASEAN | Association of South East Asian Nations |
| ATTA | Afghanistan Transit Trade Agreement |
| CARs | Central Asian Republics |
| CAREC | Central Asia Regional Economic Cooperation |
| CASA | Central Asia-South Asia Electricity Transmission and Trade Project |
| CIPK | Competitive Industries Project for Khyber Pakhtunkhwa |
| CoC | Codes of Conduct |
| CPEC | China-Pakistan Economic Corridor |
| CPF | Country Partnership Framework |
| CPS | Country Partnership Strategy |
| D&B | Design and Build |
| DA | Designated Account |
| DFID | U.K. Department for International Development |
| DPD | Deputy Project Director |
| EDI | Electronic Data Interchanges |
| EIA | Environmental Impact Assessment |
| EIRR | Economic internal rate of return |
| EMP | Environmental Management Plan |
| EPA | Environmental Protection Agency |
| ERKF | Economic Revitalization of Khyber Pakhtunkhwa and Federally Administered Tribal Areas |
| ESIA | Environmental and Social Impact Assessment |
| ESMF | Environmental and Social Management Framework |
| ESMP | Environmental and Social Management Plan |
| EU | European Union |
| FATA | Federally Administered Tribal Areas |
| FBR | Federal Bureau of Revenue (Pakistan Customs) |
| FC | Frontier Constabulary |
| FCS | Fragile and Conflict-Affected Situations |
| FDA | FATA Development Authority |
| FIDIC | International Federation of Consulting Engineers |
| FM | Financial management |
| FUCP | FATA Urban Centers Project |
| FWO | Frontier Works Organization |
| GBV | Gender-based violence |
| GDP | Gross domestic product |
| GeoLoMaP | Geo-Referenced Local Master Plan |
| GM | General Manager |
| GoA | Government of Afghanistan |
| GoP | Government of Pakistan |
| GRM | Grievance Redress Mechanism |
| GRC | Grievance Redress Committee |
| GRS | Grievance Redressal System |
| HDM-4 | Highway Development and Management - 4 |
| HO | Head office |
| IA | Internal audit |
| IP | Indigenous People |
| IPF | Investment Project Financing |

| | |
|---|---|
| IRI | International Roughness Index |
| IT | Information Technology |
| JBC | Joint Business Council |
| JEC | Joint Economic Commission |
| KfW | *Kreditanstalt für Wiederaufbau (*German government-owned development bank*)* |
| KP | Khyber Pakhtunkhwa |
| KPEC | Khyber Pass Economic Corridor |
| LAC | Land Acquisition Collector |
| MDTF | Multi Donor Trust Fund |
| MoC | Ministry of Communications |
| MoF | Ministry of Finance, Revenue and Economic Affairs |
| M&E | Monitoring and Evaluation |
| NGO | Non-governmental Organization |
| NHA | National Highways Authority |
| NPV | Net Present Value |
| NWFC | North West Frontier Constabulary |
| P&CA | Procurement and Contracts Administration |
| P&D | Planning and Development |
| PAP | Project Affected Person |
| PCR | Physical Cultural Resources |
| PD | Project Director |
| PDO | Project Development Objective |
| PIU | Project Implementation Unit |
| PKR | Pakistan Rupee |
| PPP | Public-private partnerships |
| PPRA | Pakistan Procurement Regulation Authority |
| PTEX | Peshawar Torkham Expressway |
| RAP | Resettlement Action Plan |
| RPF | Resettlement Policy Framework |
| SAFRON | Ministry of States and Frontier Regions |
| SCD | Systematic Country Diagnostic |
| SDR | Special Drawing Rights |
| SEA | Sexual exploitation and abuse |
| SMEs | Small- and medium-sized enterprises |
| SMF | Social Management Framework |
| SMP | Spatial master plan |
| STEP | Systematic Tracking and Exchange in Procurement |
| TIR | International Road Transportation (transit) Convention |
| TRS | Time Release Study |
| USAID | United States Agency for International Development |
| WB | World Bank |
| WGP | Western Greater Peshawar |

## BASIC INFORMATION

| Country(ies) | Project Name | |
|---|---|---|
| Afghanistan, Pakistan | Khyber Pass Economic Corridor Project | |
| **Project ID** | **Financing Instrument** | **Environmental Assessment Category** |
| P159577 | Investment Project Financing | A-Full Assessment |

### Financing & Implementation Modalities

| | |
|---|---|
| [ ] Multiphase Programmatic Approach (MPA) | [ ] Contingent Emergency Response Component (CERC) |
| [ ] Series of Projects (SOP) | [ ] Fragile State(s) |
| [ ] Disbursement-linked Indicators (DLIs) | [ ] Small State(s) |
| [ ] Financial Intermediaries (FI) | [ ] Fragile within a non-fragile Country |
| [ ] Project-Based Guarantee | [ ] Conflict |
| [ ] Deferred Drawdown | [ ] Responding to Natural or Man-made Disaster |
| [ ] Alternate Procurement Arrangements (APA) | |

| Expected Approval Date | Expected Closing Date |
|---|---|
| 14-Jun-2018 | 28-Jun-2024 |

Bank/IFC Collaboration

No

### Proposed Development Objective(s)

The PDO is to expand economic activity between Pakistan and Afghanistan by improving regional connectivity and promoting private sector development along the Khyber Pass corridor.

### Components

| Component Name | Cost (US$, millions) |
|---|---|
| I. Expressway Development | 402.75 |
| II. Development of the Khyber Pass Economic Corridor | 75.00 |

| | |
|---|---|
| III. Project Management | 5.00 |

### Organizations

| | |
|---|---|
| Borrower: | Islamic Republic of Pakistan (acting through Economic Affairs Division [EAD]) |
| Implementing Agency: | National Highways Authority (NHA) |

## PROJECT FINANCING DATA (US$, Millions)

### SUMMARY

| | |
|---|---|
| **Total Project Cost** | 482.75 |
| **Total Financing** | 482.75 |
| **of which IBRD/IDA** | 460.60 |
| **Financing Gap** | 0.00 |

### DETAILS

**World Bank Group Financing**

| | |
|---|---|
| International Development Association (IDA) | 460.60 |
| IDA Credit | 460.60 |

**Non-World Bank Group Financing**

| | |
|---|---|
| Counterpart Funding | 22.15 |
| Borrower | 22.15 |

### IDA Resources (in US$, Millions)

| | Credit Amount | Grant Amount | Total Amount |
|---|---|---|---|
| Pakistan | | | |
| National PBA | 153.53 | 0.00 | 153.53 |
| Regional | 307.07 | 0.00 | 307.07 |
| **Total** | **460.60** | **0.00** | **460.60** |

### Expected Disbursements (in US$, Millions)

| WB Fiscal Year | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|---|---|---|---|---|---|---|---|---|
| Annual | 0.00 | 27.00 | 45.45 | 77.92 | 111.49 | 135.05 | 47.91 | 15.78 |
| Cumulative | 0.00 | 27.00 | 72.45 | 150.37 | 261.86 | 396.91 | 444.82 | 460.60 |

## INSTITUTIONAL DATA

**Practice Area (Lead)**

Transport & Digital Development

**Contributing Practice Areas**

Finance, Competitiveness and Innovation

**Climate Change and Disaster Screening**

This operation has been screened for short and long-term climate change and disaster risks

**Gender Tag**

| Does the project plan to undertake any of the following? | |
|---|---|
| a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF | Yes |
| b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment | Yes |
| c. Include Indicators in results framework to monitor outcomes from actions identified in (b) | Yes |

## SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

| Risk Category | Rating |
|---|---|
| 1. Political and Governance | Substantial |
| 2. Macroeconomic | Substantial |
| 3. Sector Strategies and Policies | Moderate |
| 4. Technical Design of Project or Program | Substantial |
| 5. Institutional Capacity for Implementation and Sustainability | Substantial |
| 6. Fiduciary | Moderate |
| 7. Environment and Social | Substantial |

| | |
|---|---|
| 8. Stakeholders | Moderate |
| 9. Other | Low |
| 10. Overall | Substantial |

## COMPLIANCE

### Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

| Safeguard Policies Triggered by the Project | Yes | No |
|---|---|---|
| Environmental Assessment OP/BP 4.01 | ✓ | |
| Performance Standards for Private Sector Activities OP/BP 4.03 | | ✓ |
| Natural Habitats OP/BP 4.04 | | ✓ |
| Forests OP/BP 4.36 | | ✓ |
| Pest Management OP 4.09 | | ✓ |
| Physical Cultural Resources OP/BP 4.11 | ✓ | |
| Indigenous Peoples OP/BP 4.10 | | ✓ |
| Involuntary Resettlement OP/BP 4.12 | ✓ | |
| Safety of Dams OP/BP 4.37 | | ✓ |
| Projects on International Waterways OP/BP 7.50 | | ✓ |
| Projects in Disputed Areas OP/BP 7.60 | | ✓ |

### Legal Covenants

Sections and Description

FA, Schedule 2, Section I.B. 2, 4 and 5 and PA, Schedule, Section I.B.2, 4 and 5:

The Recipient shall, and shall cause the Project Implementing Entity to, ensure that:

(i) the Project shall be implemented in accordance with the guidelines, procedures, timetables and other specifications set forth in the Safeguard Documents;

(ii) prior to commencing any works under the Project: (A) all necessary governmental permits and clearances for

such civil works shall have been obtained from the competent governmental authority/ies; (B) all pre-construction conditions imposed by the governmental authority/ies under such permit(s) or clearance(s) shall have been complied with/fulfilled; and (C) all resettlement measures for the respective civil works set forth in the applicable Resettlement Action Plan, shall have been fully executed, including the full payment of compensation prior to displacement and/or the provision of relocation assistance to all Displaced Persons, as per the entitlements provided in the Resettlement Policy Framework and/or the applicable Resettlement Action Plan;

(iii) any contracts for civil works under the Project include codes of conduct in form and substance acceptable to the Association, detailing measures on environment, health and safety and preventing and responding to HIV/AIDS, gender-based violence, and violence against children;

(iv) safeguard reporting requirements shall be complied with; and

(v) a grievance redress mechanism for the handling of any stakeholder complaints arising out of the implementation of the Project activities shall be maintained throughout Project implementation.

Sections and Description

PA, Schedule. Section I.C:

The Project Implementing Entity undertakes that any decision to toll the Expressway shall apply in the same manner (and at same rate) to the alternative national highway.

Sections and Description

PA, Schedule, Section I.A.1:

No later than one (1) month after the Effective Date, the Project Implementing Entity shall establish, and thereafter maintain a steering committee, with terms of reference, composition and resources satisfactory to the Association, to provide overall direction and strategic guidance to the Project.

Sections and Description

PA, Schedule, Section I.A.2(a):

No later than one (1) month after the Effective Date, the Project Implementing Entity shall establish, and thereafter maintain, a project implementation unit with terms of reference, composition and resources satisfactory to the Association.

Sections and Description

FA, Schedule 2, Section I.C and Section III.A:

The Recipient shall provide an amount of not less than the equivalent of twenty-two million one hundred and fifty thousand Dollars ($22,150,000) as counterpart funds for the Project, to be allocated to Land Expenditures and expenditures related to security during construction.

**Conditions**

| Type | Description |
|---|---|
| Disbursement | FA, Schedule 2, Section III.B.1(b) (and dated covenant to be complied with no later than 1 |

| | |
|---|---|
| | month after effectiveness, under PA Schedule, Section I.D.1):<br>the Project Operation Manual has been prepared and adopted by the Project Implementing Entity in form and substance acceptable to the Association. |
| Type<br>Effectiveness | Description<br>FA, Section 4.01:<br>Signature of the Subsidiary Agreement between the Recipient and the Project Implementing Entity |

PAKISTAN
PAKISTAN: KHYBER PASS ECONOMIC CORRIDOR PROJECT

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# I. STRATEGIC CONTEXT

## A. Country Context

1. **Pakistan has recently achieved high levels of economic growth and poverty reduction; and the focus now needs to be on the continuing development challenges**. With over 207 million people, Pakistan is the world's sixth most populous country. Provisional government estimates suggest that GDP grew by 5.8 percent for FY18, up from 5.4 percent in FY17. Economic growth has reduced poverty, with the poverty headcount halving from 64.3 percent in FY02 to 29.5 percent in FY14. However, inequality persists and Pakistan continues to underachieve in human development, ranking 147th out of 188 countries in the United Nation's 2016 Human Development Index. Pakistan also exhibits a large gender gap, with only 25 percent of women participating in the labor force compared to 83 percent of men.[1] The Government of Pakistan (GoP) has committed to achieve gender equality as a part of the United Nations Sustainable Development Goals (SDGs).[2]

2. ***The global integration of South and Central Asia is intertwined with the Khyber Pass.*** The roadway between Peshawar and Kabul through the Khyber Pass represents a section of Corridors 5 and 6 of the Central Asia Regional Economic Cooperation (CAREC)[3] and has served as the key node in trade between South and Central Asia for hundreds of years. Corridor 5 has the potential to provide the shortest link between the landlocked countries of Afghanistan, Tajikistan and Uzbekistan, and the Arabian sea; while Corridor 6 provides access to Europe, the Middle East and Russia. Improvements in transport connectivity are a key driver of regional economic cooperation among CAREC countries.

3. ***Over recent decades, constraints on trade through the Khyber Pass have hindered the development of Afghanistan, Pakistan, and Central Asia and undermined the stability of northwestern Pakistan***. Over the past century, border disputes, diplomatic tensions, successive waves of conflict, and dilapidated infrastructure have stifled the development of cross-border value chains spanning the historical trade route through the Khyber Pass. Despite strong demand for Pakistani products such as surgical instruments, textiles, fruits, rice, sugar, and cement and a market of nearly 70 million people, trade between Pakistan and the Central Asian Republics (CARs) is minimal, with Pakistan's exports in 2016 making up less than one percent of total imports by the CARs. While trade between Afghanistan and Pakistan nearly doubled in the decade up to 2015,[4] flows dropped by about 30 percent over the past 2 years.

4. ***Economic development is especially constrained in the Federally-Administered Tribal Areas (FATA).*** According to Pakistan's 2016 Multidimensional Poverty Index, 73 percent of the people in FATA live in multidimensional poverty compared to 43 percent in Khyber Pakhtunkhwa (KP) and 39 percent nationally.[5] Revitalizing the historical trade route through the Khyber Pass is therefore important not

[1] Labor force participation rates for ages 15+. World Bank Gender Statistics 2017.
[2] See Annex 3 for further details on gender issues.
[3] CAREC is a partnership of 11 countries (Afghanistan, Azerbaijan, China, Georgia, Kazakhstan, Kyrgyz Republic, Mongolia, Pakistan, Tajikistan, Turkmenistan, and Uzbekistan) and is supported by six multilateral institutions.
[4] Afghanistan is Pakistan's fourth-largest export market, accounting for 7.9 percent of exports in 2015.
[5] The incidence of MPI is used because the Cost of Basic Needs National Poverty line for Pakistan, is not available as yet for FATA. However, as per the national poverty line, the overall poverty rate in KP in 2013-14 was at about 28 percent, compared

just for the economic development of countries across Central and South Asia, but also for the stability of an area vital to global security.

5. ***Appropriate reforms and public investments can enable northwestern Pakistan to not just serve as a conduit for international trade, but also to anchor regional and global value chains***. Northwestern Pakistan has historically served as a node of trade between South and Central Asia and the area possesses the natural and human resources to support broad-based, export-oriented manufacturing. A 'youth bulge' in the population creates the potential for a demographic dividend, while the high urbanization levels offers the benefits of agglomeration economies.[6] Finally, northwestern Pakistan's large stocks of overseas migrant workers represent an under-exploited source of development finance, technology transfer, and export linkages.

6. ***Improvements in security, infrastructure investments, and renewed regional economic cooperation provide hope for the revival of cross-border trade and bolstering of economic growth***. The security situation in northwestern Pakistan has improved over the past few years. In 2015, the reported number of insurgent attacks fell by almost one half, and a further drop of 28 percent in terrorist attacks was reported in 2016. And while the number of attacks increased in the first half of 2017, it dropped in the second half. The energy shortfall is gradually being addressed by the establishment of micro-hydro power plants, while investments in transportation infrastructure are addressing bottlenecks to connectivity between Peshawar and the rest of Pakistan. The planned merger of FATA with KP over the next five years will help remove regulatory differences between the two areas that have discouraged investment, reduced productivity, and limited access to essential inputs.[7] Transformational projects, such as the Central Asia-South Asia Electricity Transmission and Trade Project (CASA-1000) and the Turkmenistan-Afghanistan-Pakistan-India Pipeline, are ushering in a new era of cooperation between governments in South and Central Asia.

## B. Sectoral and Institutional Context

7. ***Infrastructure deficiencies restrict cross-border trade between Pakistan and Afghanistan***. Large stretches of the road between Peshawar and the border at Torkham consist of a two-lane, 6.0-meter-wide carriageway with earthen shoulders, steep gradients and sharp curves considerably slowing travel by multi-axle commercial trucks. Previous efforts to improve the existing highway have been constrained not just by the terrain but by adjacent settlements and a historical railway line that parallels the road. At the border crossing, inadequate infrastructure and the need to exchange lanes creates bottlenecks that further slow cross-border traffic. Expensive informal levies assessed on the existing road by local and national agents further increase the costs of transiting the Khyber Pass.

to 29.5% for the country as a whole, with rural KP at 30 percent and urban KP at about 16 percent. While the MPI provides much higher estimates of both rural and urban deprivation in KP, and across the country, it shows the same declining trend in MPI over time.

[6] According to *International Growth Centre (2015)*, two-thirds of KP's population lives within an hour from Peshawar.

[7] Since independence, FATA has existed as a special region of the federation of Pakistan and has been managed under the Frontier Crimes Regulation (FCR), which represents a special set of laws enacted by the British in 1901. In the current transitional period, FATA is expected to receive about 3% in the National Finance Commission (NFC) award so that the region can be developed to bring it at par with the adjoining districts in KP.

8. ***Administrative and regulatory barriers, institutional weaknesses, and infrastructure gaps also constrain the development of cross-border value chains anchored in northwestern Pakistan***. Afghan cargo transiting through Pakistan is subject to high levels of container insurance and security and detention charges, as well as multiple handling and inspection regimes. Closures of the border further increase costs and uncertainty. A 2016 Time Release Study (TRS) of the Torkham border observed average dwell times associated with processing formalities of shipments from Pakistan to Afghanistan of 12 hours and 23 minutes.[8] Regulatory barriers, bureaucratic fragmentation, and the administrative disjuncture between KP and FATA weaken the ability of firms to increase productivity and discourage private investment. Essential infrastructure is often unreliable and expensive to access and firms and entrepreneurs have difficulty obtaining finance.[9]

9. ***Realizing the economic potential of northwestern Pakistan requires the coordination of investments and complementary reforms***. Recent research indicates that complementary investments in trade and transport facilitation infrastructure and services as well as policy and institutional reforms to alleviate business constraints are necessary to realize the economic benefits of major investments in major transport infrastructure.[10] Towards this end, GoP is addressing critical transport connectivity deficiencies, as well as reforming policies and regulations to alleviate barriers to trade movements and institutional impediments to the economic development of FATA.

10. ***GoP is upgrading roads linking Peshawar to the Indian Ocean and to other cities in Pakistan***.[11] A key activity of Pillar-VII of the GoP's Vision 2025 is the development of road infrastructure for regional connectivity. Pakistan's National Highways Authority (NHA) is constructing a high speed, access-controlled transport corridor linking Peshawar, Islamabad, and Karachi. The on-going development of the China-Pakistan Economic Corridor (CPEC) – a US$ 54 billion package of investments in road, rail, fiber-optic cables, and oil and gas pipelines – is designed to upgrade the infrastructure linking major cities in Pakistan to western China and the Indian Ocean.[12] NHA is also developing a connectivity program that will link Afghanistan to CPEC via border crossings at Chaman in Baluchistan and Torkham in FATA.

11. ***Various actors are upgrading infrastructure between Kabul and Torkham, which in conjunction with KPEC, will enhance connectivity between South and Central Asia***. The Government of Afghanistan (GoA) has committed to enhancing connectivity between Kabul and Torkham. GoA is upgrading a 155-kilometer road between Kabul and Jalalabad (financed by the Asian Development Bank [ADB]) and a 76-kilometer additional carriageway between Jalalabad and Torkham (financed by GoP). GoA has also requested that the World Bank support a detailed feasibility study and preliminary design for a

[8] IFC, World Customs Organization, and Federal Bureau of Revenue (2016). Time Release Study, Torkham Border, Pakistan – 2016. The dwell time for shipments from Afghanistan to Pakistan was an average of 34 hours and 8 minutes. Strikes by import agents during the study period contributed to the longer release times.

[9] Only about 1% of banking system credit (PKR 52 billion; US$ 508 million) is deployed in KP and FATA as of December 2016, despite these regions containing over 10 percent of the country's population as well as GDP (State Bank of Pakistan Data [December 2016]). There are very few banks and microfinance providers in FATA.

[10] Asian Development Bank, Department for International Development, Japan International Cooperation Agency, and the World Bank. 2018. The WEB of Transport Corridors in South Asia. Washington, DC: World Bank.

[11] Roads carry 96% of Pakistan's inland freight. traffic movements are primarily concentrated along the 1,189 Km National Highway N-5 corridor, which connects Torkham, Peshawar, Islamabad, Lahore, and Karachi. Ports, roads and railways along the N-5 Corridor handle 96% of external trade and 65% of inland freight.

[12] Of the overall US$ 54 billion CPEC investment, US$ 35 billion is earmarked for electricity generation projects and US$ 11 billion for transport infrastructure.

modern 4-lane controlled access expressway from Kabul to Torkham, which would connect to the proposed Peshawar-Torkham Expressway (PTEX).

12. ***Beyond transport, key investments are being made to reduce the costs of trade between Pakistan and Afghanistan***. GoP is investing in electronic data interchanges (EDI) at the Afghanistan border through its accession to the International Road Transportation (TIR) convention and ADB is financing the upgrading of cross-border infrastructure at Torkham,[13] including installing modern equipment, cargo inspection sheds, weigh bridges, and warehousing, truck parking, and immigration, communication, and power facilities. The Federal Board of Revenue (FBR) is also developing a National Single Window (NSW) through technical assistance provided by USAID. Afghanistan is also upgrading its border/custom processes with the support of the World Bank (WB). Pakistan and Afghanistan have recommenced dialogue to reverse declining trade between the two countries. Improving border infrastructure and systems at Torkham will address some of the trade bottlenecks. This project, along with the ADB's project, support the development of an efficient border crossing.

13. ***The legal framework for reviving trade among Afghanistan, Pakistan, and Central Asia is in place and is developing***. Pakistan's provision of transit trade facilities to Afghanistan was first formalized under the Afghanistan Transit Trade Agreement (ATTA) signed in 1965. The agreement was enhanced in 2010, with the Afghanistan Pakistan Transit Trade Agreement (APTTA) providing reciprocal transit trade privileges to Pakistan to enter the Central Asia markets and Iran via Afghanistan. Recently, Tajikistan has requested to be part of a trilateral transit trade agreement; a draft agreement has been prepared, to which Pakistan has consented. The Kyrgyz Republic and Turkmenistan have also indicated their interest in being part of the agreement.

14. ***GoP and its development partners are promoting private sector development in FATA***. The FATA Secretariat receives funds from bilateral and multilateral development partners, including USAID, the European Union (EU), Italy, Germany (GIZ-KfW), Switzerland, Kingdom of Saudi Arabia, United Arab Emirates, ADB, United Nations, and the Multi Donor Trust Fund (MDTF) for KP/FATA and Balochistan. Among the key initiatives, USAID funded the completion of Gomal Zam dam in FATA, and secondary road infrastructure around Peshawar; ADB funded the FATA Rural Development Project to support local farmers; the United Nations Development Program launched a US$ 15 million FATA Economic Revitalization Program and the EU and KfW financed the Sarhad Rural Support Program to develop competitive value chains in KP and FATA. GoP is also upgrading several industrial zones in KP.

15. ***The FATA Development Authority (FDA) and FATA Secretariat are promoting skills development***. FDA has provided vocational training to about 55,000 women and men in equal numbers. The FDA also supports on-the-job training and has established a job placement center.[14] The FATA Secretariat is also implementing several skills development and technical training activities, with various line departments running short-term programs. The Prime Ministers Youth Skill Development Program is also implemented across FATA.

16. ***The World Bank is supporting inclusive economic development in FATA and KP.*** Since 2011, the WB-administered MDTF has financed several projects in FATA, including the Economic Revitalization of KP and FATA Project (ERKF), the FATA Emergency Rural Roads Project, the Rural Livelihood and

[13] ADB Project No. 46378-002 – US$ 250.0 million: Central Asia Regional Economic Cooperation Improving Border Services.
[14] FATA Development Authority website--http://fatada.gov.pk/skills-development/

Community Infrastructure Development (RLCIP) Project, the FATA Urban Centers Project (FUCP), and the Governance Support and Policy (GSP) project. ERKF has provided matching grants to over 400 businesses across FATA; FUCP developed urban areas in FATA by installing streetlights, constructing pavements and drainage systems, and improving the solid waste management systems; and RLCIP supported the skills development of FATA residents. The WB is also supporting a KP Tourism Development Project and plans to support a KP Agriculture Development Project.

### C. Higher Level Objectives to which the Project Contributes

17. ***The Proposed Project is consistent with the WBG Country Partnership Strategy/Framework for Pakistan***[15] ***and Afghanistan. The proposed Project*** supports two of the four Results Areas in the Pakistan CPS: (ii) Private Sector Development, and (iii) inclusion by improving regional connectivity and promoting private sector development in the Khyber Pass hinterland. The Khyber Pass Economic Corridor (KPEC) Project specifically supports the following CPS Outcomes: Outcome 2.1: Improved Business Environment for Private Sector by addressing key obstacles to private sector operations in the Khyber Agency; Outcome 2.4: Improved Trade tariff and Ports/Border Logistics by reducing physical and non-physical barriers to trade through Torkham; and Outcome 3.3: Increased Resilience to Disasters in Targeted regions by incorporating the climate resilience into the design of PTEX and the connecting infrastructure under Component II. Under Pillar 2 of Afghanistan's CPF, Objective 2.2 is to improve transport and ICT connectivity to improve Afghanistan's growth prospects and enhance regional integration. PTEX will reduce the cost of Afghanistan's connectivity to the Indian Ocean and has the potential to enhance economic cooperation between Pakistan and Afghanistan. In addition, KPEC is aligned with various IDA18 themes by: supporting cooperation in a region where intraregional trade accounts for just 5 percent of total trade; creating job opportunities for women; and reducing fragility through economic development in FATA. Furthermore, KPEC contributes to the World Bank Group's priority of maximizing finance for development by undertaking activities that will improve firm productivity and mobilize private investment.

18. ***Financing for the Project by the World Bank is expected to mobilize additional private investment, while enhancing the quality of design and implementation*****.** While PTEX is economically viable, construction costs cannot be recovered through tariffs / tolls and, as such, public sector financing is the appropriate vehicle for the Project. Nonetheless and in conjunction with the Project, NHA is developing a national tolling strategy to enable the financing of operations and maintenance costs. Component II envisages the use of public private partnership (PPP) modalities and private financing to develop clusters of economic activity, potentially through the creation and/or revitalization of economic zones. The WBG adds value to the Project through its global experience in enhanced design, construction quality control, sustainable road maintenance and asset management, sound environmental and social management, and in the development of economic corridors and the creation of jobs.

[15] The CPS was discussed by the Board on May 1, 2014 (Report no. 84645). It was extended to FY20 in the Performance and Learning Review, discussed by the Board on June 15, 2017 (Report No. 113574).

## II. PROJECT DEVELOPMENT OBJECTIVES

### A. PDO

The PDO is to expand economic activity between Pakistan and Afghanistan by improving regional connectivity and promoting private sector development along the Khyber Pass corridor.

### B. Project Beneficiaries

19. ***Consumers, producers, and traders along the Khyber pass will benefit from reductions in transit costs and times for goods and from investments in private sector development***. Project beneficiaries will comprise: road users; employees and owners of small and medium enterprises (SMEs); consumers of tradeable goods and services; owners and employees of firms producing tradeable goods and services along the Khyber Pass corridor and/or served through the secondary roads and other private sector investments.

20. ***Project beneficiaries will extend beyond Pakistan to road users, traders, and consumers from Afghanistan and the CARs; and also include the disadvantaged segments of society***. Afghan medical patients, and students enrolled in Pakistani schools crossing to Pakistan will benefit from better infrastructure and a more efficient border crossing. Project beneficiaries will also include internally-displaced persons, women, and youth, all of whom are expected to have increased access to socio-economic and job opportunities. Increases in economic activity generated by the Project is expected to improve the security situation in FATA and eastern Afghanistan.

### C. PDO-Level Results Indicators

21. Expanded economic activity will be measured by the reduction in truck travel time along the corridor and in border clearance time as well as by the increase in the annual volume of cross-border trade. Improved private sector development will be measured by the increase in number of firms (including those managed and/or owned by women) benefiting from the project's investments.

## III. PROJECT DESCRIPTION

### A. Project Components

22. ***Component I: Expressway Development*** (US$ 402.75 million of which expected IDA financing is US$ 383.60 million). The Project will finance the detailed design, construction and supervision of the proposed four-lane PTEX and associated road-user and administrative infrastructure facilities, the laying of fiber optic cables in trenches along PTEX, land acquisition and resettlement, afforestation along PTEX, and technical and independent reviews and studies for the preparation of new projects. GoP will finance land acquisition and resettlement and the cost of securing safe access for designers and contractors. PTEX will reduce transit time and costs for regional and international trade transiting the Khyber Pass and will extend the Karachi – Lahore – Islamabad – Peshawar Trans-Pakistan Expressway System and form an integral part of the planned Peshawar – Kabul – Dushanbe Motorway.

23. ***PTEX will be a dual highway with a much-improved geometry compared to the existing road.*** PTEX will feature a 7.3-meter-wide carriageway on each side and 3.0-meter-wide treated shoulders. Since the Project location is prone to climactic and geophysical hazards such as seismic activity, landslides and flash floods, the design and implementation will incorporate technical parameters to increase PTEX' adaptation to the climatic risks in the region (see Annex 1 for details). The design will be subject to road safety audits to identify opportunities for improving road safety.

24. ***Component II: Development of the Khyber Pass Economic Corridor*** (US$75 million, of which IDA is US$72 million). Component II will, in conjunction with other initiatives, maximize the benefits of PTEX for Western Greater Peshawar (WGP) by alleviating key constraints to the integration of private sector actors in the Khyber Agency into global value chains. Component II will have two main sub-components:[16]

    a. **Technical assistance (US$7 million)** consisting of four distinct activities:

    The sub-component will develop a **Spatial Master Plan for Western Greater Peshawar (SMP-WGP)**. The SMP-WGP will extend the interim Geo-Referenced Local Master Plan (GeoLoMaP), which mapped existing and planned infrastructure and identified constraints impeding firm productivity and private sector investment.[17] The SMP-WGP will institute structures and processes for: (i) coordinating development activities between federal, provincial, bilateral, multilateral and private-sector stakeholders; (ii) prioritizing investments in public infrastructure; (iii) identifying key policy, regulatory, administrative and institutional barriers to private sector development in WGP and to trade through the Khyber Pass, including undertaking a risk and resilience assessment and an assessment of the PPP framework in FATA.

    The sub-component will finance **feasibility studies and engineering designs** for priorities identified by the GeoLoMaP.[18] These priorities include: (i) an integrated logistics hub and industrial / commercial infrastructure to support SME development in viable locations in WGP; (ii) branch roads connecting PTEX to local and national road networks; (iii) parking terminals upstream from Torkham to complement ADB investments and support to the implementation of the TIR to reduce waiting time at the border; (iv) the development of the urban centers of Jamrud and Landi Kotal;[19] and (v) an international bus terminal to service buses traveling between Afghanistan and Pakistan.

    The sub-component will finance activities to: **document, preserve, and promote the cultural heritage of the Khyber Pass** and to develop mechanisms to leverage this cultural heritage for economic development; identify sites of cultural and historical significance; and develop and promote sites and products of special cultural and/or historical interest.

[16] Khyber Agency is one of the eight agencies (tribal areas) that comprise FATA. The majority of PTEX runs through FATA with a few kilometers running through the Peshawar District in KP. At the request of both the governments of KP and FATA, Component II focuses on FATA specifically, where the needs are the greatest and where initiatives are relatively limited.

[17] The GeoLoMap also mapped existing and planned hard infrastructure in WGP; identified other initiatives to address the identified constraints; and facilitated the prioritization of future investments by the FATA Secretariat; FATA Development Authority, Government of KP, and other key stakeholders.

[18] These are to be undertaken concurrently with the preparation of the SMP-WGP.

[19] This will build on preparation work completed by the WB's FATA Urban Centers project.

The sub-component will finance an **impact evaluation** to assess the effects of Component II of KPEC on the welfare of the local population.

b. **Infrastructure investments and institutional improvements (US$68 million) to promote the integration of local producers into global value chains.** Subject to the results of the SMP-WGP and feasibility studies, the second sub-component will finance infrastructure and other investments across WGP including: (i) local road infrastructure and urban development, including the provision of rest areas with special facilities for women along PTEX and connecting roads; (ii) sites of special cultural, historical, and tourist value; (iii) traffic management mechanisms for the N-5 (existing Peshawar Torkham road); (iv) the development of an integrated logistics hub and industrial/ commercial infrastructure in viable locations in WGP (in partnership with private sector actors, when appropriate); (v) the construction and/or upgrading of roads to ensure connectivity between PTEX, urban centers in WGP, and Aza Khail Dry Port etc.; and (vi) an international bus terminal to connect bus services to/from Afghanistan, the Peshawar Bus Rapid Transit system, and domestic bus services.

25. ***Activities expected to be financed by Component II will provide regional benefits, address drivers of fragility, and benefit women.*** Such activities will ease infrastructural and regulatory constraints to the development of cross-border value chains and by linking PTEX – and, by extension, Afghanistan – to both local communities and the broader Pakistan transport network, including the Indus Highway. These activities are further expected to mobilize financing for development improving the business environment and infrastructure and by leveraging private sector financing for the development of economic zones following a transparent, inclusive and competitive PPP process. Component II is expected to address drivers of fragility by stimulating employment and livelihood opportunities through the promotion of private sector development in FATA.[20] Financing of economic clusters by Component II aims to address various obstacles to women's employment in these clusters, including gender-sensitive transportation, workplace infrastructure such as separate prayer rooms, toilet facilities and child care centers, and a harassment-free workplace (see paragraph 68).

26. ***Component III: Project Management*** (US$ 5.0 million)**.** This component will finance costs associated with project management, including incremental operating costs and the competitive hiring of a firm/individual consultants for support in project implementation.

## B. Project Cost and Financing

27. ***Loan Instrument.*** The lending instrument is an Investment Project Financing (IPF). The GoP is the borrower and will pass on the proceeds of the IDA Credit to NHA in accordance with the Subsidiary Agreement. The Project cost and sources of financing (in millions of US dollars) are presented below.

[20] As identified by the Pakistan Post-Crisis Needs Assessment (PCNA) 2010, such drivers include high unemployment rates among young men, inadequate livelihoods, and absence of sufficient employment opportunities.

Table 1: Project Cost and Financing

| Project Components | Project Cost | IDA Financing | Of which regional IDA | Counterpart Funding |
|---|---|---|---|---|
| **I. Expressway Development** – comprising: | **402.75** | **383.60** | 255.73 | **19.15** |
| (a) Civil Works including associated road-user and administrative infrastructure | 297.40 | 297.40 | 198.27 | 0.00 |
| (b) Land acquisition and resettlement | 13.15 | 0.00 | 0.00 | 13.15 |
| (c) Afforestation | 0.86 | 0.86 | 0.58 | 0.00 |
| (d) Consultant Services for construction supervision, independent EMP and RAP implementation and monitoring, and third-party validation; studies | 22.31 | 22.31 | 14.87 | 0.00 |
| (e) Fiber-Optic Installation | 0.52 | 0.52 | 0.35 | 0.00 |
| (f) Contingencies (price and physical) | 62.51 | 62.51 | 41.67 | 0.00 |
| (g) Security during construction | 6.00 | 0.00 | 0.00 | 6.00 |
| **II. Economic Development** – comprising: | **75.00** | **72.00** | 48.00 | **3.00** |
| (a) Technical Assistance for Master Plan and Feasibility Studies | 7.00 | 7.00 | 4.67 | 0.00 |
| (b) Infrastructure and Regulatory Improvements | 65.00 | 65.00 | 43.33 | 0.00 |
| (c) Land Acquisition and Resettlement | 3.00 | 0.00 | 0.00 | 3.00 |
| **III. Project Management** – comprising: | **5.00** | **5.00** | **3.33** | **0.00** |
| (a) Incremental Operating Costs | 2.00 | 2.00 | 1.33 | 0.00 |
| (b) Component II Implementation Support | 3.00 | 3.00 | 2.00 | 0.00 |
| **Total Project Costs** | **482.75** | **460.60** | **307.07** | **22.15** |
| **Total Financing Required** | **482.75** | **460.60** | **307.07** | **22.15** |

28. ***The proposed Project meets all four regional IDA funding eligibility criteria:***

a. ***The Project is part of a coordinated regional effort to enhance cross-border connectivity and is linked to roads connecting with Central Asia and China.*** The Project involves two countries, including one affected by Fragility, Conflict and Violence (FCV). PTEX will facilitate cross-border movements and trade at the main crossing point between Pakistan and Afghanistan. While PTEX provides significant time and cost savings that will benefit both countries, the full benefits of the corridor will be realized with the completion of the sections in both countries. See paragraphs 11 and 12 for complementary investments to improve connectivity between Kabul and Torkham.

b. ***The Project is expected to both generate positive externalities and mitigate negative ones.*** PTEX is expected to reduce the time and cost of regional and international trade and benefit transporters, traders and consumers in both countries. PTEX and complementary investments under Component II will increase the attractiveness for Afghanistan of the trade route through Torkham, enhance prosperity on both sides of border and reduce threats to security

c. ***There is strong regional support for the Project***. PTEX has been endorsed by Joint Economic Commissions (JEC) between Afghanistan and Pakistan and Pakistan and Tajikistan; and it is a priority link for two CAREC corridors. Three coordination mechanisms exist: (i) JEC; (ii) Pakistan-Afghanistan Joint Business Council (JBC);[21] and (iii) bilateral arrangements between NHA and the Ministry of Public Works of Afghanistan. Following the recent meeting between the Prime Minister of Pakistan and President of Afghanistan, regional connectivity through development of economic corridors between the two countries has assumed high significance. The proposed Project and its possible future expansion provide the basis for regional corridor development.

d. ***The Project provides a platform for policy harmonization***. The Project leverages the existing bilateral institutional mechanisms between Pakistan and Afghanistan, as well as regional fora such as CAREC, to promote the harmonization of trade facilitation and transit measures.

## C. Lessons Learned and Reflected in the Project Design

29. ***The project design takes stock of country-specific lessons and of international best practices and recommendations of the Independent Evaluation Group:*** [22]

a. ***The Project design follows the 'economic corridor' approach.*** In recognition that the full potential of transport corridors cannot be achieved without complementary interventions, the Project incorporates investments in infrastructure and policy interventions while ensuring coordination and complementarity with existing and planned initiatives. Given the large number of initiatives in FATA in both infrastructure and governance, the Project is coordinating with development partners when projects interface as well as with GoP, the FATA Secretariat, the KP Government, and other stakeholders (see paragraphs 11, 12 and 14 for key ongoing initiatives).

b. ***Project preparation has secured the commitment of both countries to regional connectivity by demonstrating the mutual benefits of the Project.*** The project team engaged with both countries to outline the benefits to each from the development of the KPEC and the broader Kabul – Peshawar – Karachi corridor.

c. ***Implementation arrangements have been designed to leverage the relative strengths of NHA and FATA***. The implementing arrangements have been designed to use NHA's experience in project implementation and its familiarity with IFI guidelines, while enabling the FATA Secretariat (as the owner of Component II) to incorporate its technical expertise in the Project Implementation Unit (PIU).

d. ***Engineer (supervision consultant) will ensure that all contractual clauses are followed.*** Recent experiences have indicated that some contractual clauses may not be strictly followed. The PIU will ensure that the Engineer will enforce that all contractual arrangements are strictly followed, and particularly if water pipes are damaged during construction, potable water will be provided to the affected community, as stipulated in contract, until the situation is remedied.

[21] The Council provides opportunity to businesses of both countries to devise strategies for enhancing bilateral trade and to discuss issues which are hindering trade.

[22] The World Bank Group (2007). The Development Potential of Regional Programs. An Evaluation of World Bank Support of Multi-Country Operations. A report by the Independent Evaluation Group.

e. ***NHA will follow the Design and Build (D&B) approach for implementation of PTEX.***[23] Given the delays in procurement associated with the detailed design and construction processes, the positive experience that NHA has had with the D&B approach, and the increasing popularity of this approach in South Asia, PTEX will be implemented using D&B. NHA will use the World Bank's Procurement Regulations and Bank support in procuring the D&B Contract after Initial Selection (IS) which is one of the new features under the Procurement Framework.

f. ***The Project design incorporates the recommendations of the Global Gender-Based Violence (GBV) Task Force to assess risks for Sexual Exploitation and Abuse (SEA) and to define mitigation measures***.[24] In particular, the Project has been designed to ensure: (a) the identification of SEA risks and define commensurate mitigation measures; (b) the identification of partners which can provide timely services to survivors of SEA; (c) the strengthening of contractor obligations to address SEA; (d) the strengthening of project-level grievance redress mechanisms (GRM) to integrate protocols related to SEA; and (e) the assurance of sufficient contract supervision capacity for monitoring SEA performance (see Annex 3). In addition, the PIU will include a gender specialist to ensure that women could participate in and benefit from the Project.

g. ***The Bank team has assessed the risk of using security personnel for providing safe access to the site during design and construction and has introduced risk mitigation measures commensurate to the level of perceived risk.*** Guided by the Bank's recent experience with the use of security forces in IPF and considering the good reputation of the security forces that will be used in the Project, the Project incorporated appropriate mitigation measures (see paragraphs 40 and 65); and the Bank team will assess security risks during supervision and ensure reporting of any incidents or complaints (see Annex 3, paragraphs 13c and 13e).

## IV. IMPLEMENTATION

### A. Institutional and Implementation Arrangements

30. ***Implementation Period of the Project is 6 Years*** (June 14, 2018 to June 28, 2024).

31. ***Project oversight will be the responsibility of a Project Steering Committee, chaired by NHA and comprising representatives*** of the different concerned government agencies. The Steering Committee will be established within one month of Credit Effectiveness (see Annex2 for details).

32. ***NHA is the Project Implementation Entity. NHA will establish a PIU in its North Zone Office in Peshawar to implement both Components I and II with representatives from NHA, the FATA Secretariat*** and supported by technical specialists as necessary (see Annex 2 for details). The PIU will be established within one month of Credit Effectiveness.

[23] D&B is a form of contracting arrangements where the contracted party is responsible for completing the design and construction activities within a certain time and budget.
[24] Report of the Global Gender-Based Violence Task Force (2017): Working together to prevent sexual exploitation and abuse: recommendations for World Bank investment projects (*http://documents.worldbank.org/curated/en/482251502095751999/Working-together-to-prevent-sexual-exploitation-and-abuse-recommendations-for-World-Bank-investment-projects*)

33. ***NHA has demonstrated capacity in implementing large highway projects, having contracted a total of over USD 8 billion in 77 contracts.*** See Subsection D (Procurement) in Section VI (Appraisal Summary) and Annex 2 for more information on NHA's capacity and project readiness.

34. ***Preparation of the procurement documents for the Engineer, the D&B contract and the spatial master plan for WGP is underway.*** The request for Expressions of Interest (EOI) for the Engineer will be issued in May 2018 and the Engineer will be expected to mobilize by December 31, 2018. The prequalification documents for the D&B contract are expected to be submitted to the Bank for its no objection by July 31, 2018; and the contract signed in July 2019. The FATA Secretariat is expected to share the Terms of Reference for the SMP-WGP with the Bank by June 30, 2018.

## B. Results Monitoring and Evaluation

35. ***The indicators and baseline data to monitor the outputs and outcomes of the proposed Project are presented in the Results Framework*** *(see Section VII).* Data needed for monitoring and evaluation (M&E) of Component I consists of: (a) vehicle operating cost; (b) commercial traffic travel times; (c) border crossing times, (d) road fatalities data; and (e) user satisfaction survey data. NHA will collect these data (except for border crossing times, which will be provided by FBR and through surveys if necessary) as part of its annual network-level surveys. NHA will report the outcome indicators in its annual report and the output indicators in the semi-annual interim unaudited financial reports (IUFRs). Data needed for M&E of Component II consists of: (a) extent to which firms benefit from economic infrastructure financed by the Project; and (b) female-managed and/or owned firms among firms benefiting from economic infrastructure financed by the Project. This data will be collected by the FATA Secretariat and through surveys.

36. **Reporting on the requirements set forth in the EMP and RAP, SMF and RPF will be prepared by the PIU and submitted quarterly to the Bank for review**. Brief monthly progress reports will also be submitted to the Bank for review. An Engineer will be procured by NHA to, *inter alia*, monitor and report progress on design and construction. The firm will include experts in geometric design, tunnels, bridges, safety, environmental and contract management among others. In addition, semi-annual implementation progress reviews shall be carried out each year jointly by the Borrower and the Bank. These reviews will cover, inter alia: (a) progress in meeting the Project's objectives; and (b) overall Project performance against Project monitoring indicators. A Mid-Term Review will be undertaken not later than 36 months after Effectiveness to more comprehensively assess implementation progress and set out any measures to ensure continued efficient implementation and the achievement of the PDO by the Project's closing date.

## C. Sustainability

37. ***Investments made by the Project are expected to be highly sustainable***. The primary measure of sustainability is whether PTEX will provide efficient operations and satisfactory ride quality over the design life. NHA has an appropriate road asset management system which will facilitate maintenance along the corridor after the completion of construction. NHA relies mostly on its own resources, raised from toll revenues, for the maintenance of the National road network. Sustainability of infrastructure investments under Component II will be ensured by the maintenance carried out by the respective

local governments and stakeholders. Wherever feasible, investments made under Component II will be undertaken through Public Private Partnerships (PPP) to ensure the financial sustainability of infrastructure. The Project will pursue the necessary arrangements for the sustainability of the interventions under Component II.

### D. Role of Partners

38. See paragraphs 11,12 and 14.

## V. KEY RISKS

### A. Overall Risk Rating and Explanation of Key Risks

39. ***The overall risk of the Project is rated as Substantial.***

Table 2. Key Risk Rating

| Risk Category | Rating |
|---|---|
| Political and Governance | Substantial |
| Macroeconomic | Substantial |
| Sector Strategies and Policies | Moderate |
| Technical Design of Project | Substantial |
| Institutional Capacity for Implementation and Sustainability | Substantial |
| Fiduciary | Moderate |
| Environment and Social | Substantial |
| Stakeholders | Moderate |
| **Overall Risk** | **Substantial** |

40. ***Political and governance risks are Substantial.*** Despite border skirmishes in 2017, relations between Pakistan and Afghanistan have recently improved and the Prime Minister of Pakistan and the President of Afghanistan have jointly committed to improving bilateral relations.[25] The Bank team has engaged governments in both countries and has sought the support of other partners to mitigate the risk of disruption to project implementation and operation. While security in the region has shown improvement in the past few years (see paragraph 6), security remains a risk that could impact implementation. The Project will involve the political administration in FATA as well as the Jirgas (traditional village councils of elders in FATA) to mitigate the risk. The involvement of local tribes in transport and trade will also help mitigate security risks. Moreover, the Project will engage personnel from Frontier Constabulary (FC) [26] a well-trained and disciplined federal paramilitary police force, whose leadership comes from the Civil Armed Forces, to provide a safe working environment during the design and construction of PTEX. The FC is a reputable institution with no known negative legacy issues.[27] The FC personnel will be from the area and will receive mandatory training/sensitization on

[25] Discussions took place during the visit of the Prime Minister of Pakistan to Afghanistan on April 6, 2018.
[26] The FC was established as an independent force in 1915 to provide security to internal borders of the settled areas of KP but its mandate has expanded and now includes security duties in other parts of the country as required by the federal government..
[27] Two highly-regarded provincial civil service organizations working on GBV confirmed to the Bank team that there were no reported cases to their knowledge of misconduct or abuse on GBV grounds against the FC. This was further confirmed by a media scan. Further assurance comes from the fact that, the Implementation Entity, NHA, used FC in the implementation of the

gender issues (including gender based violence and SEA) in the context of relevant national and provincial laws, including the Pakistan Penal Code and its sections covering protection of women and minors (see paragraph 65).

41. ***Macroeconomic risks are Substantial***. The past year has seen a deterioration of the macroeconomic environment caused by worsening current account and fiscal deficits, declining external balances and an overvalued rupee despite recent devaluation. The Bank and development partners are separately engaging with the authorities to address the macro risks. Some of these risks could affect project implementation, like restrictions on imports needed for the project, deferred release of budgetary allocations and rising trade imbalance with Afghanistan. The upcoming national elections would add some uncertainties but expected to be resolved soon after a new elected government takes office.

42. ***Technical design risk is Substantial***. Given that not all investments under Component II have been defined, there is a certain degree of risk to achieving the PDO resulting from the potential for delays. The risk is mitigated by the fact that many of the proposed interventions are addressing constraints that have been identified and are not dependent on the completion of the masterplan. The risk of delays is being mitigated by the on-going preparation of TORs for several activities.

43. ***The institutional capacity for implementation and sustainability risk is Substantial.*** Having NHA implement both components addresses capacity issues which might otherwise affect the delivery of Component II activities, but it creates a need for coordination between NHA and the FATA Secretariat. The large scope of Component II requires a large set of skills which may not always be available in the PIU, which will be met by technical experts to support implementation.

44. ***Environmental and social risks are Substantial.*** Environmental risks are high because of changes in land use and landscape transformation caused by the clearing of vegetation in an arid environment through blasting and excavation (see paragraph 70). There are physical cultural resources (PCRs)[28] in the Project area which could be adversely impacted. The Project will significantly impact about 4,300 people, which will require intensive monitoring and 500-700 skilled and semi-skilled laborers will be employed during construction, with potential host communities lacking capacity to manage any influxes. Per the risk classification defined by the Bank's Labor Influx Guidance Note,[29] the anticipated influx creates SEA-related risks are substantial (see Annex 3). The risks of damage to utilities such as water supply will be mitigated by ensuring that the Engineer would provide the appropriate remedy as stipulated in the contract—by providing potable water in the case of damage to water pipes. Also, large economic corridor projects could lead to an increase in sex trafficking of women, girls, and boys, especially around labor camps and transport terminals leading to an increase in HIV transmission. Measures to mitigate these risks are described in paragraphs 65 and 66.

Lowari Tunnel project in Chitral which is close to completion with no negative incidents related to FC reported or known. The Bank also has a prior satisfactory experience dealing with the Frontier Works Organization (FWO), a military engineering organization of the Pakistan Army, implemented the Bank-financed 2005 Earthquake Damaged Roads without any known negative incidents relating to the FWO.

[28] Physical cultural resources are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance.

[29] *http://wbdocs.worldbank.org/wbdocs/viewer/docViewer/indexEx.jsp?objectId=090224b084778e75&respositoryId=WBDocs&standalone=false*

## VI. APPRAISAL SUMMARY

### A. Economic and Financial (if applicable) Analysis

45. ***Component I***: PTEX is estimated to have an Economic Internal Rate of Return (EIRR) of 12.6 percent and an Economic Net Present Value (NPV) of PKR 21 billion (US$ 182 million) at an 8 percent discount rate. About half of the Afghanistan traffic that currently uses the alternative ports on the Arabian Sea is expected to shift to Karachi port through PTEX once the Project is completed as it is a significantly shorter route. The reduction in distance travelled will result in an overall slight decrease in GHG emissions. The EIRR for the Project is therefore slightly lower if GHG emissions are not considered (12.5 percent). See Annex 5 for the details.

46. ***The major benefit expected to be generated by Component I of the Project is the time savings associated with traffic flows.*** Time savings associated with diverted traffic are estimated to amount to PKR 35.5 billion in present value terms. This is a result of relatively large traffic volumes (which average 7,000 vehicles per day) and the slow speeds attained on the existing road due to steep gradients and passage through urban areas (semi-trailer trucks currently travel the 40 km stretch in over two hours). While the new alignment is 8 km longer, it is expected to result in substantial savings in vehicle operating costs of PKR 18.0 million in present value terms due to the lower gradients and wider curves of PTEX. Semi-trailers will be able to make the trip in about an hour. The benefits to generated traffic have been conservatively estimated at 10 percent of the benefits to existing traffic. In addition, a sensitivity analysis carried out to determine the impacts of an increase in costs and decrease in benefits on the economic viability of the Project (Table 3) shows the robustness of the results. Road safety benefits have not been included in the analysis. While the economic benefits of laying fiber optic cables to establish broadband connectivity have not been estimated, studies have shown significant benefits to such investment. Annex 5 details the economic analysis.

Table 3. Summary of EIRRs with Sensitivity Analysis

| Road Section | Proposed Strategy | Increase in Cost by 20% | Decrease in benefits by 20% | Increase in cost by 20% and reduction in benefits by 20% |
|---|---|---|---|---|
| Peshawar - Torkham | 12.6% | 11.0% | 11.0% | 9.5% |

47. ***Component II***: Based on the experience of similar interventions, the EIRR of Component II, is expected to be least 15 percent (see Annex 5).

### B. Technical

48. ***PTEX will offer a much-improved geometric design that is climate resilient.*** The current road is 40 km long, while PTEX will be 48 km with the new alignment. The minimum radius on the current road is 15 meters, which – when combined with gradients of slightly over 10 percent – reduces the speed of heavily loaded trucks to a few km per hour. Curves on PTEX will have radii of 125 meters or more and slopes with gradients more than 6 percent. Road safety audits will be carried on the design in line with NHA policies and codes to identify opportunities for making PTEX safer. As the project location

is prone to potential climatic and geophysical hazards, NHA will take adaptation measures to mitigate the impact of these risks (see mitigation measures in paragraph 73). Table 4 shows the number of structures based on the preliminary design.

Table 4: Number of Length of Structures Project to be Constructed for PTEX

| Type of structure | Number of structures | Length (linear meters) |
|---|---|---|
| Pre-stressed bridges | 25 | 1,858 |
| Interchanges | 2 | 150 |
| Flyovers | 2 | 110 |
| Subways/underpasses | 8 | 44 |
| Box Culverts | 123 | 495 |
| Cattle Creeps | 2 | 5 |
| ***Total*** | ***162*** | ***2,662*** |

49. ***The detailed design and civil works of PTEX will be financed by the Project following a D&B approach.*** This approach will include value for money analyses to ensure the selection of optimum design choices. NHA has positive experience following this approach. The bid package including preliminary designs, technical specifications and procurement documents will be prepared under the guidance of experienced international consultants working in close coordination with NHA. The package is expected to interest reputable national and international designers/contractors.

## C. Financial Management

50. ***NHA, being an autonomous body, has engaged professionals for the creation of an effective financial management system***. NHA has previously successfully implemented World Bank funded projects and has a designated accounting section within the Finance Wing for foreign-funded projects. An assessment of current FM arrangements was carried out for NHA. The review shows significant improvement in the financial management and reporting system of NHA, with its regional offices linked to head office through a Virtual Private Network. While the financial management system is adequate for reporting purposes, it would benefit from an improved computerized accounting system. The FM Assessment is detailed in the project files.[30]

## D. Procurement

51. ***NHA is the implementing agency for the Project***. NHA currently maintains a portfolio of about US$ 15.3 billion and is implementing construction works are valued at around US$ 3.0 billion per year. This has been achieved through NHA's Procurement and Contracts Administration (P&CA) Cell with assistance from consulting firms on a project-specific needs basis. NHA has a procurement management system developed per the guidelines of the Public Procurement Regulatory Authority (PPRA). The P&CA Cell is also conversant with development partners' procurement regulations and guidelines. NHA will assign a dedicated staff member of its P&CA Cell for the Project. The contract

[30] http://wbdocs.worldbank.org/wbdocs/drl/objectId/090224b085acdd9b

approving mechanism is well-established and documented. Contract approving authority for all procurements rests with the Chairman of the NHA and/or NHA Executive Board.

52. ***An assessment of NHA indicates that the authority is implementing large value works contracts following both the conventional item-rate basis and the D&B mode.*** NHA has completed several procurements where contracts were awarded to international and national contractors. Contracts worth US$ 5.7 billion were procured based on the D&B concept for the construction of over 700 km long expressways/motorways. In addition, traditional item-rate based contracts were procured for 185 km long expressway and 290 km of highways worth US$ 615 million and US $1 billion respectively in the recent past. Implementation of the three D&B-type contracts remains on target for two contracts and faster than planned for the third. Progress under item-rate based contracts has not been as good with achieved progress about 68 percent of planned progress for 12 recent contracts.

53. **Notwithstanding NHA's experience in the implementation of large value contracts, *the overall Procurement Risk to achieving the PDO is currently assessed as "Substantial"*** due primarily to the use of single large contract under the D&B mode for which NHA has relatively less experience***.*** The details of the procurement assessment and findings are summarized in the project files.[31]

54. **The project procurement profile indicates that Component I will finance a large works procurement estimated at US$ 362 million and supervision consultancy contracts estimated at US$ 22 million**. In addition, there will be a small contract for environmental monitoring which could be taken up by any commercial consulting firm, NGO or academic entity.

55. **Component II is estimated to cost US$ 75 million, of which US$ 65 million are for infrastructure and regulatory Improvements**. Component II will require contracting for the provision of consulting services to prepare the SMP-WGP and feasibility studies. The procurement of specialized firms / contractors would be required for design and construction of works / infrastructure related contracts. The majority of contracts would be procured by the PIU. Representatives of the FATA Secretariat will be involved in the procurement of activities related to Component II.

56. ***NHA will establish the PIU and identify its core staff including the procurement professionals within one month of Credit Effectiveness.*** The procurement function will be provided by a qualified procurement professional from the NHA Head Office (HO) who will be managing all the project procurement activities to be financed under the Project***.*** If deemed necessary, the NHA procurement specialist will be supported by a specialist based in the field.

57. ***All procurement activities under the Project will be made using the World Bank's Procurement Regulations for IPF Borrowers*** (July 2016; revised November 2017)***.*** The Borrower has developed a PPSD (project procurement strategy for development) in line with the Bank's guidelines. The Bank's web-based online procurement management system STEP (systematic tracking of exchanges in procurement) will be used for managing procurement under the Project. All procurement activities will be agreed with the Bank prior to initiating the procurement process. All approvals / agreements on procurement activities under the Project will be agreed through STEP only.

[31] http://wbdocs.worldbank.org/wbdocs/drl/objectId/090224b085acdd9b

58. ***NHA will further develop its procurement management system under this Project***. The existing procurement management system will be upgraded to provide real-time features for monitoring project procurement activities using online platforms. NHA will also establish Open Data Portal and Regime aligned with NHA's information disclosure platform, in a manner and substance satisfactory to the Association, including: (i) Open Data Standards; (ii) Platform for Open Data Analysis; and (iii) Training on Open Data and Analysis. The use of procurement management information systems including an open data portal increases transparency and mitigates the risk of fraud and corruption.

59. ***The bidding documents will include specific requirements that minimize the use of expatriate workers and encourage hiring of local workers.*** Bidders will be required to submit Codes of Conduct (CoC) with their bids meeting minimum standards as outlined in the Standard Procurement Documents (SPDs). The CoC will set clear boundaries for acceptable and unacceptable behaviors and will be signed by contractors, their sub-contractors and any consultants that have physical presence at the project site. Annex 3 provides further details.

60. ***The Bank will provide periodic procurement training for all PIU staff***. Since NHA will be implementing the Project under the World Bank's new procurement regulations, the NHA and PIU staff will receive periodic training on the new regulations. In addition, NHA will need capacity building in (i) FIDIC accredited training in D&B Contracts; and (ii) estimation techniques for lumpsum contracts. The training will also include red flag detection in civil works and consultancy contracts to help curb fraud and corruption.

## E. Social (including Safeguards)

61. ***OP 4.12 on Involuntary Resettlement applies given the physical and economic displacement expected to be caused by construction of PTEX and by sub-projects under Component II.*** Major potential adverse impacts of the Project are expected from land acquisition, loss of trees and crops, and loss of livelihoods. A Resettlement Action Plan (RAP) for Component I has been prepared. For other social impacts, a social impact assessment has been prepared as a part of the consolidated Environmental and Social Impact Assessment (ESIA) for Component I.

62. ***Under Component I, the Project will acquire approximately 1,193 acres of land***. Of this, 137 acres are individually owned (including agriculture, barren, hilly, commercial and other types of land), 1,055 acres are owned collectively by different clans (*khels*), and one acre is public land. There are population centers of varying density along the alignment and within the right of way (RoW). Livelihood impacts will also be experienced as some agricultural land falls within the alignment and will need to be acquired. PTEX will have significant social impacts on approximately 500 households (comprising 4,300 persons) who will permanently lose land, houses, trees, crops and/or other non-movable assets, out of which 1,400 persons will self-relocate to individual sites and structures of their own choice. In addition, public infrastructure including two mosques, one school, a hospital, two water supply plants, four water tanks, four pylons, about 163 electric poles and three dug wells will need to be rebuilt or relocated. Of a total of 189 business operators, 46 owner operators and 143 tenant operators will be affected. 72 employees will lose their income and will be compensated.

63. ***As the specific investments to be financed by Component II are not yet known and the scope and scale of impacts cannot yet be determined, a framework approach has been adopted.*** The FATA

Secretariat has prepared a Resettlement Policy Framework (RPF) and Social Management Framework (SMF). The RPF will guide the preparation of RAPs / Abbreviated Resettlement Action Plans (ARAPs) where required. The SMF will guide consultations / citizen engagement processes, inclusion of marginalized groups, management of labor and gender issues and other social aspects. The SMF will formulate appropriate social safeguard principles and provide technical guidelines to identify impacts, prepare safeguard plans, and devise mitigation measures to address adverse social impacts of the Project focusing on stakeholder engagement, gender, labor and other social issues.

64. ***Safeguard documents have been disclosed by NHA and the FATA Secretariat***. In addition to the Bank's internal procedures of safeguard documents disclosure, the RAP has been disclosed by NHA on its website and by the Bank on January 30, 2018; and the draft RPF and SMF have been disclosed by the FATA Secretariat on its website and by the Bank on February 13, 2018. A revised version was disclosed on the FATA Secretariat's website and by the Bank on May 8, 2018 and May 9, 2018, respectively. NHA has translated the Executive Summary and Entitlement Matrix of the RAP into Urdu language and disclosed the same.

65. ***The Project is undertaking comprehensive measures to mitigate project-related SEA risks from the anticipated labor influx***. The Project will undertake various actions to mitigate these risks. A mapping exercise is identifying partners who can inform on SEA risks, undertake worker training and community outreach activities on SEA, and provide referral services to SEA survivors. The Project will coordinate with agencies active in addressing GBV, such as the KP Social Welfare Department, KP Health Department, FATA Secretariat (especially its Social Welfare Directorate and Health Directorate), and the Provincial Commission on the Status of Women, to design effective awareness campaigns for at-risk groups. Ministries and agencies engaged in anti-trafficking initiatives, as well as border control, transport and other relevant government officials, will be approached to ensure such initiatives are active and relevant to PTEX. The Project will also coordinate with UN and civil society organizations for peer education about HIV/AIDS awareness and prevention and various NGOs working on GBV prevention in both FATA and KP to develop linkages.[32] The Project will incorporate actions consistent with the IFC's Good Practice Handbook on "*Use of Security Forces: Assessing and Managing Risks and Impacts*" and will use personnel from Frontier Constabulary, a well-trained and disciplined federal paramilitary force, recruited from FATA and governed by the North West Frontier Constabulary (NWFC) Act 1915[33] and NWFC Rules 1958.[34] Criminal offences committed by FC personnel are prosecuted under the Pakistan Penal Code 1860 (Amended 2006) which has elaborated provisions on the protection of women and children.[35] All security personnel will receive training/sensitization on gender awareness, GBV and SEA in accordance with Pakistan Penal Code and other relevant laws. Upon completion of the training, participants will sign certificates showing the list of topics covered and indicating their understanding of the issues and implications. Interaction

[32] KP-based NGOs engaged in GBV service provision assist survivors of GBV hailing from FATA. Peshawar-based shelters house women from FATA and government hospitals provide medico-legal services. However, the system of service provision is ad-hoc and could be strengthened so that such facilities are made available in Khyber Agency closer to potential victims.

[33] Clause 8 of the FC Act 1915 has specific punishments for heinous and non-heinous offences, including 8 (j) which provides punishment if any FC personnel "*uses criminal force, or commits an assault on, any person bringing provision or other necessaries to camp or quarters, or forces a safeguard or, without authority, breaks into any house, or any other place for plunder, or plunders, destroys, or damages any property of any kind*".

[34] Available at: *http://www.fc.gov.pk/fcact/Default.html* and *http://www.fc.gov.pk/fcrules/Default.html*.

[35] Chapter XVI-A of the penal code provides detailed explanation with illustrations on wrongful restraint and wrongful confinement, criminal force and assault, abduction and forced labor, and rape.

between FC and the community is expected to be limited as the alignment of PTEX is mostly in an uninhabited area. Moreover, interaction with women is expected to be extremely limited due to the conservative culture in the region. In addition, the Project will work to strengthen contractor obligations to address SEA; ensure contract supervision capacity to monitor SEA performance, and strengthen contractor obligations for HIV/AIDS training. All the contractors staff will sign the CoC (see paragraph 59). Contextual GBV/SEA risk factors are detailed in Annex 3.

66. ***A multi-tier GRM will respond to complaints received from project-affected people and other stakeholders and provide a prompt, transparent and fair resolution***. A three-tier GRM will be set up at the *jirga* / village level; *tehsil* / district sub division level; and at the PIU or Project Steering Committee. Details for GRM functioning are outlined in the relevant safeguard documents. The GRM will be gender responsive, culturally appropriate, and readily accessible to the Project-affected persons (PAPs) at no cost and without retribution. The GRMs will provide specific culturally-sensitive reporting mechanisms regarding issues relating to security after consultation with the local organizations experienced in SEA issues (see mitigation measures in Annex 3). The GRMs will also have survivor-centered protocols for recording and addressing SEA-related complaints and will include appropriate mechanisms for referral to service providers. The Project will also consider developing an Interactive Voice Response System to receive complaints and suggestions from citizens. The results framework contains an indicator to measure grievances responded to and/or resolved within the stipulated service standards.

67. ***Across Pakistan, KP and FATA have the lowest levels of female economic participation***. Female labor force participation in KP and FATA stand at 14 percent (59.4 percent for males)[36] and 8.6 percent (56.4 percent for males),[37] respectively, compared to a national average of 25 percent (83 percent for males). A general lack of gender-sensitive amenities (e.g. safe transport options, separate washrooms for women, day care centers, harassment-free public spaces and workplaces) impede women's access to economic opportunities, resulting in a low number of women which operate businesses in KP and FATA. The ERKF project, which awarded 36 (or 2.35 percent) of 1,526 project grants to women-owned businesses in KP and FATA, identified numerous constraints to female economic empowerment, including restricted mobility, social norms, weak application of property rights, and low literacy. About half of women-owned businesses operated in areas such as boutiques, beauty parlors, and stitching / tailoring, whilst the rest were in manufacturing industries including pharmaceuticals or in education, merchandise and food processing sectors.

68. ***In response to the large gender gaps, the Project will seek to ensure that at least 10 percent of firms which benefit from investments in economic infrastructure financed by the Project are owned and/or managed by women*** (PDO indicator). The target, while modest at first glance, represents a challenge given a context where between 0 to 4.9 percent of businesses are managed and/or owned by women. To achieve this goal, the Project will, in the context of examining key policy, regulatory, administrative and institutional barriers to private sector development in WGP, shed further light on context-specific barriers to female economic participation in WGP and seek to ensure that these barriers are addressed through investments in economic infrastructure (such as by providing gender-sensitive transportation, appropriate amenities, and harassment-free workplaces) under the second sub-component of Component II. Potential complementarities with the World Bank's Women

[36] *Pakistan Bureau of Statistics:* Pakistan Labor Force Survey 2014-15.
[37] *FATA Development Indicators* Bureau of Statistics, FATA Secretariat. 2015.

Entrepreneurs Finance Initiative (WeFi) will be explored to maximize efforts to promote female entrepreneurship in WGP. Activities financed under Component II to leverage the cultural heritage of the Khyber Pass for economic development will, wherever feasible, be targeted to maximize the participation of women and of women-owned and -managed businesses. The Project will facilitate the appointment of qualified women from FATA women in agencies associated with the Project such as NHA, FATA Secretariat, Project Contractor, selected Security Agency, and National Motorways Police (if jurisdiction is provided).[38]

69. ***The Project has several avenues to enable citizen engagement.*** The ESIA and RAP for Component I and EMF, RPF and SMF for Component II were prepared following a consultative process which included focus group discussions and village level public meetings with stakeholders, including women. Future Environment and Social Management Plans (ESMPs) and RAPs to be prepared during implementation will follow a similar consultative process. The establishment of multi-tier GRMs (see paragraph 66) will improve engagement with project-affected persons and communities.

## F. Environment (including Safeguards)

70. ***The Project is expected to have substantial environmental impacts***. The Project triggers OP 4.01 and OP 4.11 and is Category A. To address potentially negative environmental and/or social impacts, NHA has conducted a project-specific ESIA and has prepared an Environmental Impact Assessment (EIA) for Component I. The potentially negative impacts of the construction of PTEX include: soil erosion; improper disposal of spoil; land and landscape transformation resulting from loss of vegetation; destabilization of mountain slopes; reduced water availability and change/blockage in drainage patterns; air pollution from asphalt plant, vehicles and construction machinery; noise and vibration from blasting, construction works and machinery movements; waste from construction activities as well as from the labor camp; restrictions and disturbance to the public movement and transportation; displacement of population, disturbance to people, disruption of traffic and some possible impacts on the health and safety of general public and workers. Mitigation plans that have been put in place to address these issues include avoidance of unnecessary clearance of vegetation, maintaining existing natural drainage and construction of surface waterbody crossing structures, water wastage reduction guidelines, imposing speed limits and sprinkling of water, implementing proper blasting procedures, crossing points for local public and cattle passages, and a labor influx management plan. Once operational, an increase in noise pollution is expected due to the increased volume of traffic. Damages to utilities during construction will be promptly addressed as stipulated in the contract (see paragraph 44.)

71. ***The main environmental impacts of Component II will be caused by increased traffic and industrial activities***. Such impacts include the deterioration of air quality from increased economic activity and particulate matter, stress on water resources, noise and vibration, loss of vegetation, waste and effluent disposal, community safety and occupational health-related aspects. PCRs may be impacted as well. As the exact nature of the interventions is not yet known, a framework approach has been adopted. An Environmental Management Framework (EMF) has been developed, reviewed by the Bank, and disclosed in Pakistan and by the Bank on February 2, 2018. The EMF identifies the screening

[38] The appointments will be merit based. The project will play an active role to disseminate the information among communities (especially women) when a position is advertised in agencies associated with the Project.

criteria for evaluation of subprojects under Component II and recommends appropriate safeguard instruments for mitigating and monitoring of environmental and social risks associated with each subproject. Initial screening will be done through site visits and completion of checklists. The checklist has been developed in accordance with the World Bank Policies as well as the regulatory requirement of the Pakistan Environmental Protection Agency (EPA) as per Schedule I and II of the Initial Environmental Examination (IEE) / EIA regulations. Its purpose is to determine the level of impact and document safeguards required for each subproject. If screening identifies significant irreversible impact, a full environmental impact assessment (EIA) will be carried out. If, the screening concludes that the subproject is likely to have low to moderate levels of negative impacts, an EMP will be prepared prior to initiating the subproject. For all other subprojects potentially causing low levels of environmental and or social impacts, the only assessment required will be the screening carried out with the help of checklists.

72. ***The total gross Carbon Dioxide (CO2) emissions over the 25-year evaluation period under the without-project scenario are estimated at 5.0 million tons and under the with-project scenario at 4.75 million tons, a net decrease of CO2 emissions of about 250,000 tons, or 10,000 tons per year with the project*** (see Annex 5***).***

73. ***Climate Co-Benefits***: The Project provides substantial climate adaptation co-benefits as well as some mitigation co-benefits. Pakistan is one of the most vulnerable countries to climate change. A district-level climate risk and hazard assessment by ADB has recently classified the Peshawar District in KP and the Khyber Agency in FATA (the two main districts that PTEX traverses) at high risk of floods, landslides and earthquakes.[39] The design and implementation of PTEX, and secondary roads under Component II will incorporate resilience considerations to better cope with increased precipitation and potential landslides. Climate smart engineering will be applied to the road surface, sub surface, and side drainage. While these interventions are focused on adaptation, Component I also supports mitigation with an improved geometrical design for PTEX, the diversion of truck traffic to Karachi port from significantly longer routes to alternative ports on the Arabian Sea (see Annex 5) and afforestation along PTEX. Also, the envisioned master plan under Component II will be climate-informed.

## G. Other Safeguard Policies (if applicable)

Not Applicable.

## H. World Bank Grievance Redress

Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit

[39] "Climate Change Profile of Pakistan". ADB (2017).

*http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service*. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

## VII. RESULTS FRAMEWORK AND MONITORING

### Results Framework

#### Project Development Objective(s)

The PDO is to expand economic activity between Pakistan and Afghanistan by improving regional connectivity and promoting private sector development along the Khyber Pass corridor.

| PDO Indicators by Objectives / Outcomes | DLI | CRI | Unit of Measure | Baseline | End Target |
|---|---|---|---|---|---|
| **Expand economic activity between Pakistan and Afghanistan** | | | | | |
| Reduction in travel time for heavy trucks (semi trailers) between Peshawar and Torkham | | | Minutes | 120.00 | 72.00 |
| Reduction in time spent by commercial trucks (all types) crossing into Pakistan at Torkham | | | Hours | 13.00 | 6.00 |
| Number of firms benefiting from investments in economic infrastructure financed by the project | | | Number | 0.00 | 500.00 |
| Of which, 10 percent are women owned and/or managed firms | | | Number | 0.00 | 50.00 |
| Annual volume of cross border trade at Torkham border in both directions | | | Percentage | 100.00 | 120.00 |

| Intermediate Results Indicators by Components | DLI | CRI | Unit of Measure | Baseline | End Target |
|---|---|---|---|---|---|
| **Component II: Development of the Khyber Pass Economic Corridor** | | | | | |
| Kilometers of developed or upgraded secondary roads connecting to the Peshawar Torkham Expressway | | | Kilometers | 0.00 | 40.00 |
| Master plan completed for the Western Greater Peshawar region | | | Number | 0.00 | 1.00 |
| Transportation terminals constructed | | | Number | 0.00 | 2.00 |
| **Expressway Development** | | | | | |
| Reduction in fatal road accidents | | | Percentage | 0.00 | 10.00 |
| **Compoents I and II** | | | | | |
| Grievances responded and/or resolved within the stipulated service standards of response times | | | Percentage | 0.00 | 100.00 |

| Monitoring & Evaluation Plan: PDO Indicators | |
|---|---|
| **Indicator Name** | Reduction in travel time for heavy trucks (semi trailers) between Peshawar and Torkham |
| **Definition/Description** | Reduction in travel time for heavy trucks (semi trailers) between Peshawar and Torkham |
| **Frequency** | Annual |
| **Data Source** | Traffic Surveys |
| **Methodology for Data Collection** | The National Highways Authority will use standard methodology for measuring travel time between two points. |
| **Responsibility for Data Collection** | National Highways Authority through the PIU |
| **Indicator Name** | Reduction in time spent by commercial trucks (all types) crossing into Pakistan at Torkham |
| **Definition/Description** | Reduction in time spent by commercial trucks (all types) crossing from Pakistan into Afghanistan at Torkham. |
| **Frequency** | Once at the end of the Project. |
| **Data Source** | Federal Board of Revenue |
| **Methodology for Data Collection** | Surveys |
| **Responsibility for Data Collection** | Federal Board of Revenue will collect and provide the data to the PIU. |

| | |
|---|---|
| **Indicator Name** | Number of firms benefiting from investments in economic infrastructure financed by the project |
| **Definition/Description** | Number of firms benefiting from investments in economic infrastructure financed by the project. |
| **Frequency** | Once at the end of the Project |
| **Data Source** | Survey |
| **Methodology for Data Collection** | Survey will be designed to capture all the improvements of the Project |
| **Responsibility for Data Collection** | The FATA Secretariat |
| **Indicator Name** | Of which, 10 percent are women owned and/or managed firms |
| **Definition/Description** | Firms benefitting from the Project that are owned and/or managed by women |
| **Frequency** | once at the end of the Project |
| **Data Source** | Survey |
| **Methodology for Data Collection** | Survey |
| **Responsibility for Data Collection** | The FATA Secretariat |

| | |
|---|---|
| **Indicator Name** | Annual volume of cross border trade at Torkham border in both directions |
| **Definition/Description** | Annual volume of cross border trade at Torkham border in both directions |
| **Frequency** | Once at the end of the Project |
| **Data Source** | Federal Board of Revenue |
| **Methodology for Data Collection** | Custom's systems of the Federal Board of Revenue |
| **Responsibility for Data Collection** | Federal Board of Revenue to collect and provide the data to the PIU |

| **Monitoring & Evaluation Plan: Intermediate Results Indicators** | |
|---|---|
| **Indicator Name** | Kilometers of developed or upgraded secondary roads connecting to the Peshawar Torkham Expressway |
| **Definition/Description** | number of km of secondary roads providing connectivity to PTEX |
| **Frequency** | Once at the end of the year |
| **Data Source** | The Supervision Consultant |
| **Methodology for Data Collection** | Civil works completed and certified by the Supervision Consultant |
| **Responsibility for Data Collection** | The PIU |

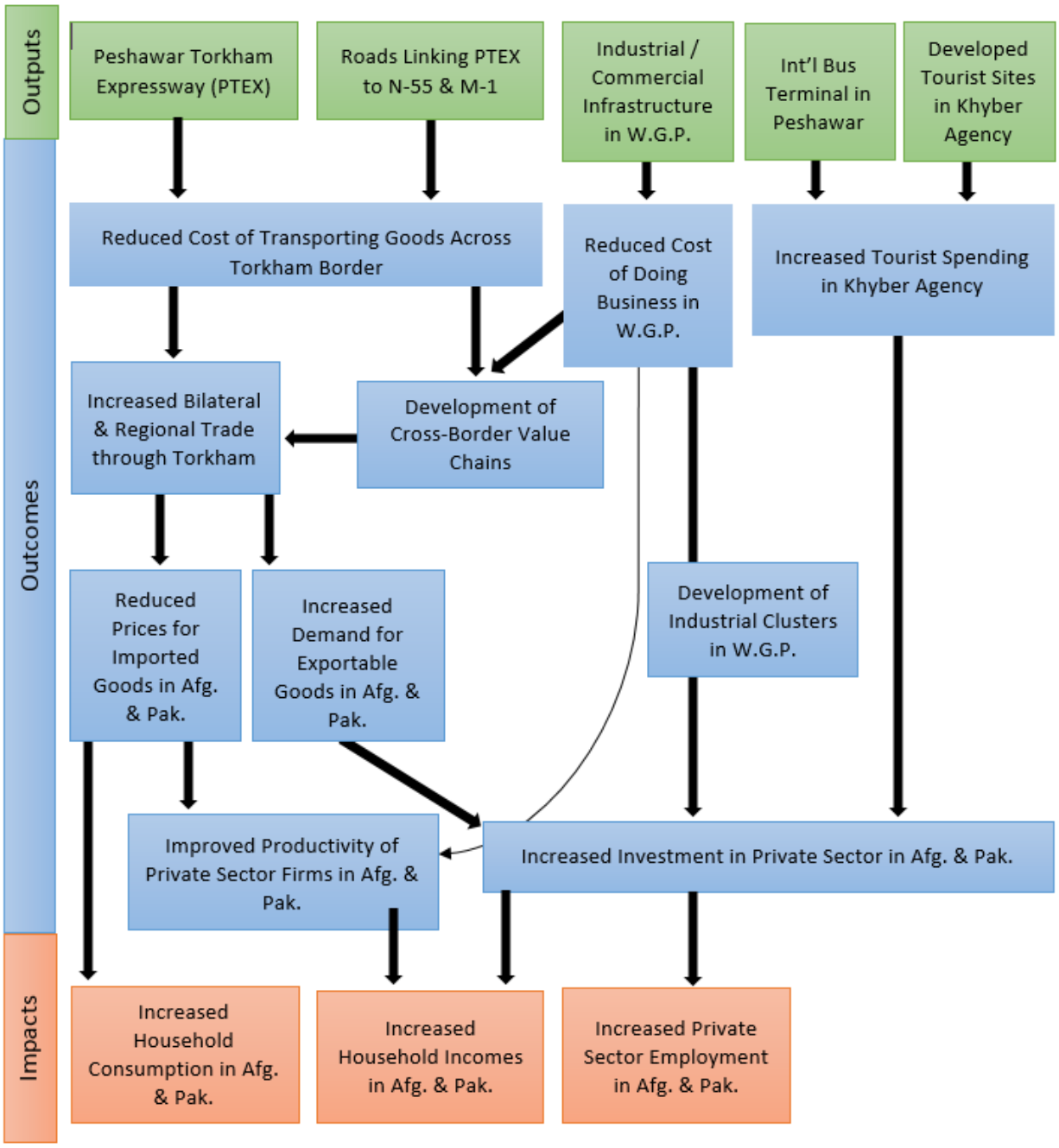
| | |
|---|---|
| **Indicator Name** | Master plan completed for the Western Greater Peshawar region |
| **Definition/Description** | Master Plan for the WGP prepared |
| **Frequency** | once |
| **Data Source** | The Supervision Consultant |
| **Methodology for Data Collection** | Certification of preparation by the Supervision Consultant |
| **Responsibility for Data Collection** | The PIU |

| | |
|---|---|
| **Indicator Name** | Transportation terminals constructed |
| **Definition/Description** | bus and/or freight terminal as confirmed by the feasibility studies |
| **Frequency** | once at the end of the proejct |
| **Data Source** | The Supervision Consultant |
| **Methodology for Data Collection** | Certification of Completion by the Supervision Consultant |
| **Responsibility for Data Collection** | The PIU |

| | |
|---|---|
| **Indicator Name** | Reduction in fatal road accidents |
| **Definition/Description** | reduction in fatal accidents for travel between Peshawar and Torkham or any origins/destinations along that route (adjusted for traffic growth) |
| **Frequency** | Once at the end of the Project |
| **Data Source** | Local traffic police |
| **Methodology for Data Collection** | Police reports |
| **Responsibility for Data Collection** | the PIU |

| | |
|---|---|
| **Indicator Name** | Grievances responded and/or resolved within the stipulated service standards of response times |
| **Definition/Description** | Grievances responded and/or resolved within the stipulated service standards of response times |
| **Frequency** | Annual |
| **Data Source** | The GRM |
| **Methodology for Data Collection** | based on the GRM |
| **Responsibility for Data Collection** | The PIU |

Figure 1: Theory of Change for KPEC



## ANNEX 1: DETAILED PROJECT DESCRIPTION

**COUNTRY : Pakistan**
**PAKISTAN: Khyber Pass Economic Corridor Project**

1. This annex complements the information in Section III of the main document: "Project Description".

2. ***PTEX will be designed to be resistant to environmental shocks***. The project location is prone to potential climatic and geophysical hazards such as seismic activity, landslides and flash floods. River flood hazard in the region is classified as high with potentially damaging and life-threatening river floods expected to occur at least once in the next 10 years.[40] The National Climate Change Policy (NCCP) of 2012, the guiding policy document for Pakistan on climate change, identifies erratic monsoon rains as a major threat that may cause frequent and intense floods and droughts. In Pakistan, past experiences of climate events have shown vulnerability of infrastructure located in risk areas due to extreme weather. Between 1950 and 2010, 21 floods occurred in the Indus Basin, killing 8,887 people, leading to damages or destruction of 109,822 villages, and causing cumulative direct economic losses of about $19 billion.[41] The 2010 flood was Pakistan's most damaging on record, killing 1,600 people and causing damage over $10 billion. The July and August 2010 rainfall was almost double the historical levels for the same months.[42] The climate change projections of the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5) for the Asia region show that the warming is likely to be above the global mean and climate change will impact the glaciers' melting rate and precipitation patterns, affecting the timing and strength of monsoon rainfall.

3. ***Besides floods, landslides are a frequent hazard phenomenon for the area and pose a significant threat to the country's transportation infrastructure.*** Climate change is likely to alter slope and bedrock stability through changes in precipitation and/or temperature. Raises in rainfall in turn raise the risk of landslides in the region.

4. ***Taking into account these climate change risks, NHA will mitigate these impacts*** by (i) designing cross-drainage structures using hydrological calculations based on the highest flood levels in the last 100 years, (ii) designing concrete structures with specified seismic zoning of the project area, (iii) benching of slopes, provision of retaining walls, plantation and other slope stabilization measures to mitigate against land/rock slides, and (iv) afforestation within the project area. In addition, in the event of any climactic events that may negatively impact PTEX travel between Peshawar and Torkham, could still be possible along the existing N-5 highway. The introduction of PTEX, therefore also provides resilience/redundancy to the highway network in this region.

5. ***The Project will also include the laying/installation of fiber optic alongside PTEX.*** NHA has made the provision of fiber optic connectivity mandatory in all its projects. On the recently completed Khunjarab-Raikot section of the Karakoram Highway (KKH), the infrastructure was provided by NHA, while the cable itself was installed by the Strategic Communications Organization (SCO). On the Faisalabad-Khanewal section of the M-4 Motorway, the cable was installed by Pakistan Tele

[40] Think Hazard: Pakistan (thinkhazard.org)
[41] A. Ali. 2013. *Indus Basin Floods: Mechanism, Impacts and Management.* Manila: ADB.
[42] Ibid.

Communications Ltd. As service providers, these organizations pay NHA a rental for using the infrastructure i.e. duct, manhole etc. For the Peshawar-Torkham, NHA intends not only to provide the infrastructure, but also install the cable. This will allow more service providers to utilize NHA's fiber optic cables, resulting in increased competition, and generate additional revenue for NHA.

6. ***Activities to be financed under Component II will, in coordination with other initiatives, maximize the benefits of PTEX for WGP by alleviating key constraints to the integration of local producers into global value chains***.[43] During project preparation, an interim 'Geo-Referenced Local Master Plan (GeoLoMaP)' was completed, which identified constraints impeding firm-level productivity and private sector investment in WGP; mapped existing and planned hard infrastructure in WGP; ascertained information of other initiatives to address these constraints; and facilitated the prioritization of future investments by the FATA Secretariat and other key stakeholders. Constraints identified include (in decreasing order of importance): insecurity; access to markets; and access to land, utilities, skills, and finance.

7. ***Activities under Components I and II will help address deficiencies in road infrastructure which impede movement and trade within the Khyber Agency***. Landi Kotal, the main trading hub of the Pass, is currently connected by unpaved roads to villages and marble deposits in the hinterland villages. Other towns in the Khyber Pass, such as Ali Masjid and Chagai, are similarly connected to nearby settlements by unpaved roads. Organized transport terminals for cargo and passengers do not currently exist in Landi Kotal and other towns in Khyber Agency, with informal bus/van stands within the market bazaars. Heavy duty trucks (including semi-trailers and articulated vehicles) currently park on shoulders of the existing road and heavy traffic within Landi Kotal and other towns creates heavy congestion, traffic jams, and blockage of roads. The construction of PTEX, secondary roads in the Khyber Agency, and self-contained freight and passenger terminals will thereby alleviate existing constraints to transport within the Khyber Agency.

8. ***Component II activities will seek to increase the productivity of existing enterprises and attract new investments, with a particular focus on marble production, agriculture, light manufacturing, and tourism***. Two economic sectors which provide opportunities for FATA to become integrated into global value chains are marble production, for which FATA has 446 processing units accounting for 20 percent of Pakistan's production,[44] and horticulture. Although marble exports are currently limited, the mineral can fetch prices around five to ten times higher in international markets than in local markets.[45] Fruits and vegetables, which may be further processed, already comprise a substantial share of export volume through Torkham. Both sectors have substantial participation by SMEs, and given their relatively high labor intensity, show great potential for employment of internally displaced people (IDPs), women, and youth. In the longer term, investments may catalyze investment in light manufacturing, a sector in which Chinese investors have already expressed interest to FDA, and the potential for which will grow with increased regional connectivity through CPEC. While security conditions in FATA are currently not conducive to substantial growth in tourism, the Khyber Pass – with its unparalleled historical import and its cultural diversity – was previously a key destination for

[43] At the request of both the governments of KP and FATA, Component II focuses on FATA specifically, where the needs are the greatest and where initiatives are relatively limited.
[44] FATA Development Authority, 2010, Survey of Industries, Service Sector, Labor Force and Constraints; FATA Development Statistics, 2013
[45] Emergency Project Paper, Competitive Industries Project for KP (CIPK), The World Bank

both foreign and local tourists. The preservation of sites of cultural and historical value and the development of museums and cultural products (such as the antiquated railway line between Peshawar and Landi Khana) can safeguard the tourist potential of the area for development when security conditions permit. Annex 4 provides further information on the structure of the private sector in the Khyber Agency.

9. ***Component II will be climate-informed.*** Taking into account the above-mentioned climate change risks, Component II will address the climate change impacts in two main ways. First, the master plan will incorporate climate factors in the selection and prioritization of interventions. Second, the designs of connecting roads, transport terminals and other infrastructure under this component will be informed by climate data in addition to the economic and social considerations.

10. ***Component-III shall finance costs associated with incremental operating costs under the Project incurred by the Recipient and the Project Implementing Entities.*** Such expenses may be incurred for purposes of the implementation, management, and monitoring and evaluation of the Project, on account of office supplies and consumables, utilities, bank charges, communications, mass media and printing services, vehicle rental, operation, maintenance, and insurance, office space rental, building and equipment maintenance, domestic travel, lodging, and subsistence allowances, and salaries of contractual and temporary staff, but excluding salaries, fees, honoraria, and bonuses of members of the Recipient's civil service.

## ANNEX 2: IMPLEMENTATION ARRANGEMENTS AND IMPLEMENTATION SUPPORT PLAN

**COUNTRY : Pakistan**
**PAKISTAN: Khyber Pass Economic Corridor Project**

1. ***Implementation Period***: 6.0 Years (June 24, 2018 to June 28, 2024).

2. ***Project oversight will be the responsibility of a Project Steering Committee*.** The Committee will be chaired by NHA and will comprise representatives of of the Economic Affairs Division (EAD) of the Ministry of Finance, Revenue and Economic Affairs, MoC, Ministry of States and Frontier Regions (SAFRON), NHA, FATA Secretariat and possibly the Government of KP. Process coordination will be ensured through regular interactions between the NHA Member for Planning (Committee Secretary), KPEC Project Manager and the Chief Engineer of the FATA Secretariat as well as through joint supervision of both components by the World Bank project team.

3. ***NHA will establish a PIU in its North Zone Office in Peshawar to implement both Components I and II*.** NHA will depute competent staff from within the Authority to serve in the PIU, including a Project General Manager (GM), and a Project Director (PD). The PIU will also include representatives from the FATA Secretariat including a DPD and technical experts on industrial zones and archaeology / heritage. The PIU will be supported by consultants in the implementation of Component II activities that are beyond the remit of NHA and for which the FATA Secretariat requires support. The legal, procurement and financial management functions will be provided by NHA staff in HO and will be supported by staff in the North Zone Office if deemed necessary. The PIU staff will include an Environmental Specialist; a Social Development/Resettlement Specialist; and a Gender Specialist to identify opportunities for employment generation for women, and for the implementation of GBV protocols. The PIU will be established within one month of Credit Effectiveness.

4. ***NHA was created, in 1991, through an Act of the Parliament, for planning, development, operation, repair and maintenance of National Highways and Strategic Roads.*** NHA's (HO) of NHA is situated in Islamabad with ten regional offices under four zonal offices.[46]

5. ***NHA has demonstrated capacity in implementing large highway projects using both item-based contract and the D&B-type contracts.*** Since 2012, NHA has contracted out a total of over USD 8 billion in 77 contracts. The value of highest contract awarded by NHA was as much as USD 3 billion to a Chinese agency for the Multan - Sukkur motorway in 2014. NHA has started recently showing a preference for implementation using D&B-type contracts (see table below). NHA's experience suggests that item-rate contracts typically involve time-overruns and cost-overruns whereas D&B contracts pass the risk of quantity variations and price fluctuation to the designer/contractor. Therefore, projects typically stay within schedule or go ahead of schedule, unlike progress under item-rate contracts. While the cost of D&B type-contracts in Pakistan has been about 46 percent higher than cost estimates, these contracts are fixed cost without price escalation. Consequently, a proper comparison should be between D&B rates and the final cost of item-rate contracts including all escalations/variations over the construction period. Moreover, D&B contracts typically include a longer defect liability period that is often three or more times the standard one-year under item-

[46] See NHA's website for details on its mandate and organizational structure: http://nha.gov.pk/en/

based contracts.

Table 5: Design-and-Build type contracts

| Contract name | Cost in billion: PKR ($US) | Planned progress | Achieved progress |
|---|---|---|---|
| Construction of PKM (Peshawar - Karachi Motorway) Section-3 (Multan (Abdul Hakeem) - Lahore) 230 Km (M-3) | 131 (1.2) | 78 | 79 |
| China - Pakistan Economic Corridor, (CPEC) KKH - Phase-II (Havelian - Thakot) Section (120 KM) | 120 (1.1) | 46 | 45 |
| Construction of PKM (Peshawar-Karachi Motorway) Section-2 (Sukkur - Multan 375 km) | 260 (2.4) | 36 | 48 |

6. ***An Engineer will be procured by NHA to, inter alia, support NHA in the evaluation of the technical bids for the D&B contract for PTEC, review the designs and supervise construction.*** The Engineer will also monitor the implementation of contractual clauses/conditions.

7. ***The Project Director (PD) will be responsible for the implementation of the RAP and cross-agency coordination, including grievance redress***. The PD shall be assisted by a Social Development/Resettlement Specialist. A Land Acquisition Collector (LAC) and additional representatives, if deemed necessary, will acquire land. A RAP Coordination Committee (RAP CC), comprising the DPD and LAC, shall ensure that all agencies involved in RAP implementation are fully informed of RAP and WB Policy requirements, while assisting in RAP implementation. In addition, the Social Development/Resettlement Specialist will: (i) review and verify internal monitoring reports; (ii) identify and select impact indicators; (iii) conduct an impact assessment through formal and informal surveys with PAPs; (iv) consult with PAPs and NHA in preparing review reports; and (v) assess the resettlement efficiency, effectiveness, impact and sustainability. Monitoring will focus on the status of Project-affected vulnerable groups, such as female-headed households and economically backwards families. Indicators are expected to include: (i) socioeconomic conditions of PAPs; (ii) reactions from PAPs on entitlements and compensation; (iii) changes in housing / business restoration; (iv) grievance procedures, including recording, processing time, and redress; (v) progress of community development schemes; (vi) disbursement of compensation; and (vii) satisfaction of PAPs in the post-resettlement period. An independent agency (NGO, academic institute or a consultant) will conduct periodic M&E and third-party validation of RAP activities.

8. ***Multi-tiered Grievance Redressal Committees (GRCs) will be created and established at village/ jirga, tehsil, and PIU levels to consider complaints***. The GRCs will be composed of representatives of: (a) Board of Revenue/LAC; (b) NHA or FATA Secretariat; and (c) PAPs. The GRCs will respond to complaints received from affected people and provide timely, transparent and fair resolutions. Details of the GRM will be widely disseminated, the GRM registers will be accessible to communities and other stakeholders, and complete information on the corrective actions taken in response to the grievances will be shared with stakeholders. In addition to on-site GRMs, the Project will consider developing an Interactive Voice Response System to receive complaints and suggestions from citizens. The GRM will be gender responsive, culturally appropriate, and readily accessible to the PAPs at no cost and without retribution. The system will be accessible to women and girls; female PAP representatives can be included in the GRC (if needed) to help redress grievances specific to women.

The GRM will have specific survivor-centered protocols for recording and addressing SEA complaints. This will include appropriate mechanisms for referral to service providers for survivors of SEA.

9. ***An EMP will be made an integral part of the civil works bidding and contract documents, with the contractor responsible for implementation***. The Engineer will: (i) assure that contractors comply with EMP requirements; (ii) review site-specific EMPs prepared by the contractor; (iii) ensure that construction activities are environmentally sound and sustainable; (iv) develop good practices to assist contractors in implementing EMPs; and (v) prepare and submit regular environmental progress reports including contract-wise breakdown of non-compliance and rectification by contractors and monitoring results. In addition, Independent Environmental Monitoring Consultants will monitor environmental quality parameters ([i] ambient air quality; [ii] ground and surface water quality; and [iii] noise levels) at locations identified in the EMP. An Environmental Specialist in the PIU will provide oversight. For Component II activities, the contractor will be responsible for implementation and compliance of the EMP of each sub-project. For this purpose, the contractor will hire an Environmental Specialist and the EMP will be an integral part of each contract document. The bid will include a detailed environmental mitigation budget as part of the costs. The supervision consultant for these activities will ensure implementation and monitoring of EMPs and will submit periodic reports on implementation status. The supervision consultant's Environmental Specialist will be responsible for EMP implementation and reporting any non-compliance to the relevant authority. All reports will be provided to the Bank for review, after which certain remedies may be undertaken by the Steering Committee or the PIU as necessary.

10. ***To ensure implementation of ESMP, training and capacity building will be provided by the Engineer for PTEC and the Supervision Consultant for Component II.*** Environmental and social training will build knowledge of the PIU and the contractor's staff on key environmental and social issues associated with the proposed interventions.

11. ***The disclosure of information by the Project, as well as the governance and accountability of Project activities, will be guided by NHA's policies and procedures.*** NHA operates within three sets of guidelines: those of the PPRA, its own Code, and Freedom of Information Ordinance 2002 (FOI). All provide mechanisms to enhance the transparency of decision processes during preparation and implementation, including those for procurement, financial management and safeguards, and grievance and comment handling.

## Implementation Support Plan and Resource Requirements

12. ***The Project's Implementation Support Plan has been developed in view of possible limitations on access to the Project area***. The possibility of the access of the Bank's task team to the Project area requires alternative ways for field supervision and monitoring of ongoing operations. Following the United Nations decision to raise its security risk levels to Phase III for KP, the Bank teams have adopted several innovative measures to continue supervision and monitoring of projects in these areas.

13. ***Proposed supervision mechanisms include***:

a. ***Field Supervision Missions***. Six-monthly regular supervision missions shall be fielded in the NHA Headquarters at Islamabad and project areas in KP and FATA. Participants shall include the Bank's task

team, NHA officials, project managers of the civil works contractors, Resident Engineer of the Construction Supervision Consultant and representatives of PAPs.

b. ***Third Party Monitoring***. For quality assurance and cross verification, a third-party monitoring team will be hired after six months of implementation for an independent progress assessment. The monitoring will cover all technical, environmental and social aspects including GBV- and SEA-related issues. The monitor will report to the Bank team.

c. ***Reporting***: Reporting by the local organization on SEA- and GBV-related issues and by the third-party monitors, will be directly to the Bank. All other reports by the Engineer/Supervision Consultant on technical, environmental, or social matters will be sent to the Bank through the PIU for review.

d. ***Reassessing security conditions***: The Bank team will reassess security conditions on the ground periodically and revisit the arrangements in place and needs based on such assessments.

e. ***Incident checking***: During site visits, the Bank team, will check incident reporting and complaint management to ensure that review processes are in place to document and report incidents.

f. ***Innovative Measures***:[47] The Project will consider using geo-referencing through Global Positioning System (GPS) enabled cameras for physical asset verification and mobile phone based voice messaging for beneficiary participation, tracking, and verification.

g. ***Project M&E System***. Progress in achieving the project's objectives against the performance indicators will be measured through a comprehensive M&E system.

h. ***Financing for the Supervision***. Sufficient resources for supervision will be committed for the full six years.

[47] Similar measures are being tried out by DFID for its ongoing projects in KP and FATA.

Table 6: Proposed Supervision Resources

| Time | Focus | Skills Needed | Resource Estimate | Expense Estimate |
|---|---|---|---|---|
| FY 16, 17 & 18 | Preparation | Project Design | US$ 507,500 | US$ 600,000 |
| Six Years | Supervision | Implementation | US$ 1,500,000 | US$ 1,500,000 |
| Other | - | | | |

Table 7: Supervision Skills Required

Skills Mix Required

| Skills Needed | Number of Staff Weeks | Number of Trips | Comments |
|---|---|---|---|
| Highway Engineer | 30 | 12 | |
| Transport Specialist | 20 | 12 | |
| Transport Economist | 8 | 6 | |
| Economist | 12 | 6 | |
| Private Sector Specialist | 20 | 20 | |
| Regional Integration | 4 | 4 | |
| Procurement Specialist | 30 | 24 | |
| Financial Management | 15 | 12 | |
| Environmental | 30 | 12 | |
| Social Development | 30 | 12 | |
| Program Assistant, ACS | 40 | | 2 staff assistants |

## ANNEX 3: GENDER ANALYSIS AND PROPOSED ACTIONS

**COUNTRY : Pakistan**
**PAKISTAN: Khyber Pass Economic Corridor Project**

### Overview

1. ***In Pakistan, there are large gender inequalities in health, education and economic opportunities.*** Women's access to economic opportunities varies across Pakistan with KP and FATA having the lowest percentage of female labor force participation at 14% (59.4% for males)[48]and 8.6% (56.4% for males)[49] respectively, compared to the national average of 25% (83% for males). Women's jobs are mainly concentrated in agriculture and education. There are stark differences in women's rural and urban employment: 16.2% of all employees are women in rural KP compared to 1.65% in urban areas.[50] This difference reflects the fact that in rural areas, women's jobs are concentrated in agriculture whilst women in urban areas find it particularly hard to find wage employment. There are marked gender gaps in female literacy rates in both regions. At just 12.7%, female literacy rates in FATA lag those of males at 49.7%, while in KP 35% of females are literate compared to 71% for males. Public and private sector entities do not generally offer many women friendly amenities (separate washrooms, safe transport options for women, etc.) to encourage women to join the labor force.

2. ***There is evidence that significantly fewer women than men operate businesses in KP and FATA***. According to the World Bank Enterprise Surveys 2013-15, only 4.9% of the manufacturing firms surveyed in KP, had women in ownership, and none had a woman manager; and only 1.8% of the employees in the surveyed firms operating in manufacturing and services were female. These figures are likely to be even lower in FATA although data is scarce. ERKF, a Bank-supported project, which awarded 36 (or 2.35%) of 1,526 project grants to women-owned businesses in KP and FATA, identified numerous constraints to women entrepreneurship. Key among them are restricted mobility and social norms; low literacy rates, and limited access to finance due to weak application of property rights, which limits women's ability to own property and pledge it as collateral.

3. ***In response to the large gender gaps identified in the labor market, the Project will endeavor to ensure that least 10% of firms benefiting from investments in economic infrastructure financed by the Project are owned and/or managed by women.*** While this target may seem modest, it represents a bold effort in this challenging context where the share of women managed and owned businesses ranges from zero to 4.9% depending on the source used. The Project will also identify and address obstacles to women's employment such as gender-sensitive transportation, workplace infrastructure, harassment-free workplace to support women gain and retain employment.

### Sexual Exploitation and Abuse

4. **Project-related risks for SEA from the anticipated labor influx are considered substantial** based on

[48]*Pakistan Bureau of Statistics:* Pakistan Labor Force Survey 2014-15
[49] *FATA Development Indicators* Bureau of Statistics, FATA Secretariat. 2015
[50] Pakistan Labor force statistics: http://www.pbs.gov.pk/content/labour-force-statistics

the risk classification defined by the Bank's Labor Influx Guidance Note.[51] According to this Note, the adverse impacts of labor influx can be amplified by the relatively high volume of expected labor and the low local capacity to manage and absorb it. It is estimated that about 500-700 skilled and semi-skilled labor will be employed during construction of the Project where the host community is small and rural.

5. **Transport corridor projects could lead to a sharp increase in sex trafficking and unsafe migration practices.** Pakistan is a source, transit, and destination country for women, men and children subjected to forced labor and sex trafficking.[52] HIV transmission can also increase, through male and female sex workers[53] as well as from men in the trucking industry transmitting to wives and other sexual partners. Male child prostitution and sexual exploitation around transport hubs such as bus/truck terminals is a prevalent and documented phenomenon in Pakistan as reported by National Commission for Child Welfare and Development and UNICEF. Pakistan has signed Child Rights Convention, KP has a Child Protection and Welfare Commission with offices in several districts of KP, and FATA has a Child Protection Policy.

6. **Although the envisaged camp accommodation for labor is likely to reduce chances of unlawful conduct, the volume of the anticipated labor influx, small rural community context, acceptance and under-reporting of GBV in these communities[54] and the potential for increase in sex-trafficking have triggered substantial SEA risks. T**he Project will take the following measures to mitigate these risks:

### Mitigation Measures

| **Safeguards documents, community engagement and identification of service providers** | |
|---|---|
| *Strengthening safeguards documents* | • The project design has incorporated SEA mitigation measures and reflected them in safeguards instruments as the SMF, and will incorporate them including the CoC in ESMPs & Labor Influx Management Plan. |
| *Identifying a local organization with in-depth expertise in GBV prevention/case management* | • The PIU will map project-affected communities to assess local risk factors for SEA and to identify and hire a local organization with in-depth expertise in GBV prevention/case management and strong local presence in and community trust – using credit proceeds. The organization will report to the Bank team.<br>• The local organization, which will report to the Bank team, will undertake a range of SEA related activities: developing specific survivor-centered protocols for recording and addressing SEA complaints, conducting ex-ante SEA prevention activities and providing referral services to link service providers with survivors.<br>• The local organization will i) educate communities and raise their awareness about SEA risks and their legal rights and services |

[51] *http://wbdocs.worldbank.org/wbdocs/viewer/docViewer/indexEx.jsp?objectId=090224b084778e75&respositoryId=WBDocs&standalone=false*

[52] *https://www.state.gov/documents/organization/258876.pdf*

[53] See Abbas 2002 for a study on risk of HIV transmission risks through sex workers in Pakistan

[54] Pakistan Demographic and Health Survey (PDHS) 2012-13

| | |
|---|---|
| | available to them, ii) monitor that services for survivors are in place during the life of the project, iii) monitor the contractor's obligations with respect to signing the CoC and the implementation of mandatory and repeated training/sensitization of workers on CoC and sexual harassment policies, and iv) undertake mandatory SEA awareness and prevention training/sensitization of workers. |
| *Identifying service provider/s for survivors of SEA, and for HIV/AIDS support* | • Service providers will be identified to offer services for survivors of violence (e.g. health, psycho-social, legal) as well as HIV/AIDS support. Concrete modalities of working with the service providers vis-à-vis the functioning of GRM and referrals will be defined in consultations with them and the local partner organization.<br>• Ways of strengthening existing GBV/SEA services in both KP and Khyber Agency that available to survivors from Khyber Agency will be explored. |
| **Grievance Redress Mechanism** | |
| *Strengthening GRM to address SEA* | • The GRM will have multiple channels to initiate a complaint. It will ensure confidential reporting with safe and ethical documenting of SEA cases and will include appropriate mechanisms for referral to service providers. The PIU will disseminate GRM procedures in the communities. |
| **Contractors and consultants** | |
| *Codes of Conduct (CoC) with specific prohibitions against SEA* | • The bidders will be briefed on the Environmental, Social, Health and Safety Standards and the Occupational Health and Safety Standards and their responsibilities related to preventing and mitigating SEA.<br>• The bidders will be required to declare whether any contracts have been suspended or cancelled or bid bonds called for incidents related to SEA. Any such incident will trigger more intensive due diligence.<br>• The bidders will be required to submit with their bids CoC meeting minimum standards as outlined in the Standard Procurement Documents. The CoC will set clear boundaries for acceptable and unacceptable behaviors and will be signed by contractors, their sub-contractors and any consultants that have physical presence at the project site.<br>• The bidding documents will include specific requirements that minimize the use of expatriate workers and encourage hiring of local workers, thereby minimizing labor influx.<br>• CoC will include i) specific prohibitions against, and commensurate sanctions, for SEA, especially of children (anyone younger than 18). Contractors will be required to: i) establish anti-sexual harassment policies that govern conduct in the workplace; (ii) develop a SEA action plan to operationalize the CoC; iii) discuss the CoC with employees and disseminate them in the surrounding communities to make the project affected community aware of them and iv) report SEA incidents. |

| | |
|---|---|
| | • Provisions will be set in contracts for dedicated payments to contractors for SEA prevention activities (e.g. training) against evidence of completion. The portion of the contract price will be guaranteed by a performance security linked to environmental and social contractor performance.<br>• The PIU will ensure that the contractor provides separate, safe and easily accessible facilities for women and men working on the site. Locker rooms and/or latrines will be in separate areas, well-lit and include the ability to be locked from the inside.<br>• The PIU will ensure that the contractor maintains all areas and public spaces around the project grounds well-lit. |
| **Security Personnel** | |
| *Training and enforcement* | • The PIU will provide mandatory training/sensitization on GBV and SEA to all personnel deployed to provide security services related to the Project.<br>• The Project will promptly report any unlawful behavior of the security personnel to the government, and request their sanctioning and removal according to national laws. |
| **Human trafficking and HIV/AIDS** | |
| *Addressing human trafficking and HIV/AIDS transmission* | • The Project Implementation Entity will (i) coordinate with ministries and agencies engaged in anti-trafficking initiatives to mitigate the risk of trafficking focusing on PTEX (ii) for HIV/AIDS, see below. |
| **Enhancing PIU's and the local governments' capacity to address SEA and HIV/AIDS** | |
| *Targeting the PIU, local governments and other sub-national administrations to enhance their capacity to address SEA* | • The PIU and local government training to enhance their capacity in preventing and responding to SEA and HIV/AIDS.<br>• Where feasible, the training and awareness raising sessions will include government partners responsible for addressing SEA and HIV/AIDs.<br>• Where feasible, the PIU will establish linkages between project-level responses and government strategies to build broader frameworks and action plans to address SEA and HIV. |
| **Monitoring SEA** | |
| *Requests for proposals to set explicit expectations for the consultant's role in monitoring contractor's performance of its SEA obligations.* | • The Supervision Consultants/Engineer's requests for proposals will specify the need for appropriately-qualified and capable social safeguards specialists to monitor the contractors'/consultants' performance of its SEA obligations. Staff will be employed upon the Bank team's no-objection. The reports by the Engineer will be sent to the Bank. |

## ANNEX 4: OVERVIEW OF PRIVATE SECTOR IN KHYBER AGENCY AND ADJACENT AREAS

**COUNTRY : Pakistan**
**PAKISTAN: Khyber Pass Economic Corridor Project**

### Khyber Agency

1. **The Khyber Agency is more economically developed than other agencies in FATA, but still exhibits low levels of urbanization and literacy**. Khyber Agency is divided into three sub-divisions – Jamrud; Landi Kotal; and Bara – and has a total population of just under a million people.[55] The Agency is overwhelmingly rural, with just 10 percent of the population living in the urban areas of Jamrud, Landi Kotal and Bara and/or along the existing Peshawar-Torkham road or the Bara road. Per the FATA Development Indicators Household Survey (FDIHS) 2013-14, the Agency has the highest literacy rate of any agency in FATA, with a male and female literacy rate of 76.3 and 16.6 percent, respectively. Adult unemployment is estimated at 5 percent and 4 percent of households have at least one member working abroad. Across FATA generally and as of 2013-14, services were the largest employer in FATA (79 percent), following by agriculture (15 percent) and manufacturing (3 percent). Khyber Agency is likely to exhibit a higher concentration in manufacturing.

2. **The construction industry in the Khyber Agency has experienced rapid growth in recent years**. As of 2013-14 and across FATA, the construction industry (46 percent) was the largest employer of all service sub-sectors, followed by transportation and logistics (22 percent) and wholesale and retail trade and public services (16 percent). As of 2010, approximately 2,000 units were engaged in the services sector in the Khyber Agency. The Pakistan Engineering Council has registered 100 construction companies in FATA, a substantial proportion of which are in the Khyber Agency. The construction industry has boomed in FATA over the last decade due to increased funding for infrastructure both by donor-funded projects and by FATA's annual development budget and by post-conflict reconstruction enabled by improved security in the area.[56]

3. **With the Khyber Agency situated between Peshawar and the border crossing at Torkham, trade and commerce are important components of the local economy**. The *Shinwari* and *Afridi* clans, which straddle the border separating the Khyber Agency from Afghanistan, dominate cross-border trade and transport. Two major markets exist at Bara and Landi Kotal and had historically attracted shoppers from across Pakistan. More recently, however, a market of smuggled goods has developed at the starting point of the Peshawar – Torkham road at Jamrud Tehsil and now is the predominant destination for non-local shoppers. To cater to local traffic, a strip of markets has also developed along the existing Peshawar – Torkham and Bara roads.

4. **Marble processing is a major industrial activity in the Khyber Agency, despite a low level of marble deposits**. As of 2010, approximately 300 units operated in the marble sector in Khyber Agency as of 2010. Although only 5 percent of the total marble extraction in FATA happens in the Agency, it has almost 60 percent of the total marble processing units in FATA, with a total of 266 units in 2010

[55] 2017 Pakistan census
[56] FATA's annual development fund over the past decade increased from a little less than PKR 13 billion in 2009-10 to PKR 25 billion in 2017-18.

(mostly clustered in Mulagori). The Khyber Agency may lose its regional dominance in marble processing, however, with the opening of Mohmand Marble City in neighboring Mohmand Agency.

5. **The Khyber Agency, which is the most industrialized agency in FATA, hosts an industrial cluster at Bara**. According to an industrial enumeration survey conducted in 2010 by the FATA Development Authority, Khyber Agency hosts 537 industrial units. However, these industrial units are mostly small or medium-sized, with only two large manufacturing units present in the Agency. The industrial cluster at Bara features a variety of industries including, power looms, steel billets, matchsticks, plastics (including pipes and bags), and other construction material, with plastics (38 units) and cloth (53 units) representing the two main sectors. However, the industrial cluster at Bara has been badly damaged during military operations over recent years.

6. **Although much of the Agency's land is unsuitable for agriculture, many households earn income from animal husbandry.** As in most of FATA, farms in the Khyber Agency generally do not produce crops for trade or export due to the arid nature of the terrain. A significant proportion of households in the Khyber Agency, however, earn income from raising poultry and livestock.

7. **While FATA has currently few tourists, the unique heritage of the Khyber Pass and the improving security situation provide potential for the development of a tourism industry**. In addition to shopping at Bara and Landi Kotal, a key draw for tourists in the past was the now-defunct 'Khyber Steam Safari', which traversed the Khyber Pass Railway constructed by the British Raj between 1905 and 1926 to thwart a potential invasion of the sub-continent by Russia.[57] Other sites of historical or cultural interest in the Khyber Pass include a 2nd century Buddhist stupa;[58] a prison reportedly built by the famous conqueror Tamerlane at the base of the Torkham valley; three forts from different eras (Ali Masjid Fort, Jamrud Fort, Shagai Fort); the Michni post which provides a view of the Torkham valley into Afghanistan; and the Bab-e-Khyber. Given its decisive role in world history, the Khyber Pass is itself a site of tourist interest.

Adjacent Agencies and Frontier Regions

8. **The Mohmand and Orakzai agencies are smaller and less developed than Khyber Agency**. The two agencies of Mohmand and Orakzai run to the north and south of the expressway respectively. Mohmand has a population of 470,000 and Orakzai 250,000, with entirely rural populations in both agencies. The male literacy rate is 40 percent in Mohmand and Orakzai agencies and the female rate is 12 percent in Orakzai and 7 percent in Mohmand. Adult unemployment rate is 6 percent in Mohmand and 4 percent in Orakzai Agency. The major economic sectors in the two agencies are agriculture and mining. As elsewhere in FATA, agriculture in both agencies is primarily at subsistence level, with about 29 percent and 18 percent of rain-fed cropland in Mohmand and Orakzai agencies respectively. However, unlike in Mohmand where most of the terrain is bare, 40 percent of Orakzai is covered with forests and the dense forests that Khyber's Tirah Valley share with Orakzai may represent a future tourist destination.

[57] Due to damage to sections of the track and bridges by monsoon floods in 2008, trains have not run along the line in ten years. (https://en.wikipedia.org/wiki/Khyber_Pass_Railway)
[58] https://en.wikipedia.org/wiki/Sphola_Stupa

9. **Mining of natural resources dominate the economies of Mohmand and Orakzai, with services playing a much smaller role than in Khyber**. According to the FATA Secretariat, Mohmand produces 478 thousand tons of marble per year, which represents 95 percent of FATA's output. However, only 32 percent of marble processing plants (144 units as of 2013) are in Mohmand. According to the FATA Industries Enumeration Survey 2010, there were a total of 227 industrial units in Mohmand. In 2010, about 170 industrial units were reported in Orakzai Agency, of which almost all were in the coal sector. Recently, production of natural gas has started in Orakzai, although is still at an infant stage. Industrial units tend to be bigger in Orakzai and Mohmand as compared Khyber, with 4 and 9 large units respectively. The service sector tends to be much smaller in both Mohmand and Orakzai agencies, with 300 and 348 units respectively. This is primarily because both agencies are not part of any major transport corridor and, with smaller and predominantly rural populations, retail stores are less viable than in other areas.

10. **Industrial clusters currently exist at Dara Adam Khel in FR Kohat and at Hayatabad in western Peshawar**. FR Kohat, which is south of Bara sub-division along the Indus Highway, is the most industrialized area in FATA. In 2010, 599 industrial units operated in FR Kohat, of which more than 550 were in arms manufacturing and located in Dara Adam Khel. To help regulate the industry and encourage industries with transferable skills, proposals have been advanced to establish industrial zones in FR Kohat. An industrial zone currently exists in Peshawar's Hayatabad area, which is adjacent to Shah Kas in Khyber, and which hosts firms producing pharmaceuticals, marble processing, iron, plastic pipes, match sticks, bottling, furniture, and food processing. The zone is adjacent to one of Peshawar's main townships, prompting to the Government of KP and the FATA Secretariat to encourage industry to relocate to Shah Kas in the Khyber Agency.

11. **The health cluster at Hayatabad is the primary provider of health services to Afghans seeking treatment in Pakistan**. A health cluster has been developed in Phase 5 of Hayatabad township in western Peshawar (at the edge of Khyber Agency) to serve both locals and patients from Afghanistan.[59] The cluster has grown rapidly and now features some of the leading private and public hospitals in KP. Supporting infrastructure – including hotels, restaurants, and transportation services – have developed along with the cluster.

[59] Afghans have been attracted to hospitals in the cluster due to the poor state of health services in Afghanistan and because the cluster at Hayatabad eliminates the need to travel through the city of Peshawar, where visa documentation is often requested from visitors.

## ANNEX 5: ECONOMIC ANALYSIS

**COUNTRY : Pakistan**
**PAKISTAN: Khyber Pass Economic Corridor Project**

### A. Economic Evaluation Assumptions

1. ***To ensure that the Project generates sufficient economic benefits that warrant the investment, a Cost Benefit Analysis was conducted for PTEX using the Highway Development and Management (HDM-4)[60] that computes annual road agency and users' costs for each project alternative over the evaluation period.*** The quantities of resources consumed and vehicle speeds are calculated first and then multiplied by unit costs to obtain total vehicle operating costs and travel time costs and $CO_2$ emissions. The resources consumed and vehicle speeds are related to traffic volume and composition, and road surface type, geometric characteristics, and roughness.

2. ***The quantified benefits computed by HDM-4 comprise savings in vehicle operating costs, travel time costs, road maintenance costs due to the road improvements, and a reduction in costs of $CO_2$ emissions with the Project.*** For the HDM-4 calculations, the following assumptions were applied:

    - A discount rate of 8 percent and an evaluation period of 25 years.
    - A conversion factor of 0.85 to convert financial costs into economic costs to remove taxes from financial costs.
    - The road works will commence in 2019 and construction will be carried out in 4 years.
    - The average daily traffic annual increase rate is 4.5 percent per year for passenger vehicles and 5.0 percent per year for trucks over the evaluation period.
    - Generated traffic is 19 percent of normal traffic, based on the expected reduction of travel time and cost with the project for cars (31 percent).
    - About 50 percent of Afghanistan's transit trucks travelling to alternative ports on the Arabian Sea (estimated at about 130-135 in 2017) will switch to Karachi port through Torkham after the completion of the Project.
    - Social cost of carbon of US$57.5 per metric ton in 2018 increasing to US$98.0 per metric ton in 2042, based on medium scenario for the social cost of carbon derived from the 2017 World Bank guidance note on shadow price of carbon in economic analysis.[61]

[60] HDM-4 is a tool (software package) for the analysis, planning, management and appraisal of road maintenance, improvements and investment decisions.
[61] The guidance note presents low and high scenarios of the social cost of carbon over time, from which a medium scenario (average values) was obtained.

3. ***The table below presents the vehicle fleet economic unit, basic characteristics, and the traffic composition on the project road.***

Table 8: Vehicle Fleet Economic Unit Costs, and Characteristics.

| | Car | Wgn/Mbus | Truck 2xl | Truck mxl |
|---|---|---|---|---|
| New Vehicle Cost (US$) | 9,320 | 52,160 | 81,124 | 89,052 |
| New Tire Cost (US$) | 60.03 | 104.04 | 416.22 | 441.83 |
| Fuel Cost (US$/liter) | 0.47 | 0.47 | 0.47 | 0.47 |
| Lubricant Cost (US$/liter) | 3.32 | 3.32 | 3.32 | 3.32 |
| Maintenance Cost (US$/hour) | 1.04 | 1.04 | 1.04 | 1.04 |
| Crew Cost (US$/hour) | 0.00 | 1.04 | 1.36 | 1.36 |
| Overhead Cost (US$/year) | 0.38 | 0.38 | 0.38 | 0.38 |
| Interest Rate (%) | 6 | 6 | 6 | 6 |
| Work Time (US$/hour) | 4.41 | 2.20 | 1.47 | 1.47 |
| Non-Work Time (US$/hour) | 1.47 | 0.73 | 0.49 | 0.49 |
| Cargo Time (US$/hour) | 0.00 | 0.00 | 0.25 | 0.50 |
| Annual Utilization (km) | 23,000 | 30,000 | 70,000 | 86,000 |
| Annual Utilization (hours) | 550 | 750 | 1,800 | 2,050 |
| Service Life (years) | 10 | 8 | 12 | 14 |
| Number Passengers (#) | 3 | 10 | 1 | 1 |
| Operating Weight (tons) | 1.2 | 1.5 | 25.0 | 45.0 |
| Standard Axle Loading (#) | 0.0 | 0.0 | 5.0 | 4.0 |
| Traffic Composition (%) | 52.0% | 33.0% | 5.0% | 10.0% |

4. ***The Peshawar-Torkham Expressway to be constructed under the project totals 48.0 km.*** The existing road from which the traffic will be diverted to the new expressway is 40.0 km. The current average annual daily traffic on the existing road is 9,114 vehicles per day of which 6,651 vehicles per day are expected to divert to the new expressway. The existing road is a two-lane road in fair condition on which cars travel at an average speed of 43 km per hour and trucks at 19 km per hour due to congestion and high grades and curvature. The new expressway is expected to have better geometry and a speed limit of 80 – 100 km per hour.

5. The total financial capital cost for the construction of the expressway (including design and supervision) is estimated at US$322 million, corresponding to US$6.7 million per km in financial terms and US$5.7 million per km in economic terms.

**B. Economic Evaluation Results**

6. ***The EIRR of the construction of the Peshawar-Torkham Expressway is 12.5 percent and the NPV is US$178 million corresponding to a B/C ratio of 2.2.*** Normal traffic benefits account for 90 percent of the project benefits and generated traffic benefits for 10 percent. When the projected reduction in $CO_2$ emissions associated with the Project is taken into account (see Section C below), the EIRR increases slightly to 12.6 percent.

7. ***Sensitivity analysis shows that PTEX is economically justified even if construction cost is 20 percent higher or if the annual traffic growth rates are 20 percent lower or both.*** If construction costs were 20 percent higher and the annual traffic growth rates were 20 percent lower, the EIRR would drop to 9.0 percent.

| Road Section | Proposed Strategy | Increase in Cost by 20% | Decrease in benefits by 20% | Increase in cost by 20% and reduction in benefits by 20% |
|---|---|---|---|---|
| Peshawar - Torkham | 12.6% | 11.0% | 11.0% | 9.5% |

8. ***Switching values analysis shows that construction costs would have to increase by 65 percent for the EIRR to reach 8 percent.*** An increase of 35 percent would result in an estimated EIRR of 10 percent.

9. ***Road safety benefits have not been included in the analysis.*** As NHA is establishing a baseline for road accidents and fatalities in order to estimate the expected improvements resulting from PTEX, these benefits have not been yet estimated and hence were not included in the economic rate of return.

10. ***The benefits to generated traffic have been conservatively estimated at 10 percent of the benefits to existing traffic.*** At present, no passenger cars or buses are allowed across the border. Pedestrians including patients have to walk, often with luggage, about one km to cross the border. Once passenger cars can be processed and go through the border (after the completion of the ADB border improvement project), the generated traffic is expected to further increase. Daily pedestrian crossings at Torkham are estimated at about 10,000.

11. ***Component II*****:** Based on the experience of similar interventions, the EIRR of Component II, is expected to be least 15 percent. Interventions will be identified to maximize the economic and social returns. Road infrastructure The EIRR of this component will be reassessed after specific investments have been identified.

12. ***Broadband connectivity further increases the economic benefits of the Project.*** While the economic benefits of laying fiber optic cables for broadband connectivity have not been estimated, studies have shown significant benefits to such investment. For example, a World Bank study found that in low- and middle-income countries every 10-percentage point increase in broadband penetration accelerates economic growth by 1.38 percentage points—more than in high-income countries and more than for other telecommunications services.[62] On the recently completed Khunjarab-Raikot section of the Karakoram Highway (KKH), the infrastructure was provided by NHA, while the cable itself was installed by the Strategic Communications Organization (SCO). On the Faisalabad-Khanewal section of the M-4 Motorway, the cable was installed by Pakistan Tele Communications Ltd. As service providers, these organizations pay NHA a rental for using the infrastructure i.e. duct, manhole etc. For PTEX, NHA intends not only to provide the infrastructure, but also install the cable. This will allow more service providers to utilize NHA's fiberoptic cables bringing in additional revenue for NHA and introducing more competition in the market.

[62] World Bank (2009) Information and Communication for Development: Extending Reach and Increasing Impact.

13. ***While the rates of return are investment-specific, certain types of investment when appropriately selected, typically generate high rates of return.*** For example, the estimated economic rates of return for all weather rural roads in FATA under the 2013 MDTF FATA Emergency Rural Roads Project were about 19 percent, and later revised in the Implementation Completion and Results Report to 26 percent. Similarly, the economic rates of return for emergency roads (including provincial highways) in KP under the 2014 KP Emergency Roads Recovery Project were estimated at about 30 percent. In general, the rehabilitation of well-travelled roads has high rates of returns. Well-located freight consolidation centers could generate high rates of economic and financial returns and reduce the carbon footprint of freight. Given that there are no freight terminals in FATA, there is a strong rationale for assessing the optimal design and location, and feasibility of such a terminal. Similarly, the large number of pedestrians crossing Torkham everyday (averaging 10,000 and estimated to reach 40,000 on busy days--according to the 2016 TRS) suggest the economic viability of an investment in an international bus terminal to support services provided by the private sector.

**C. GHG Accounting**

14. ***The total gross Carbon Dioxide ($CO_2$) emissions over the 25-year evaluation period under the without-project scenario are estimated at 5.0 million tons and under the with-project scenario at 4.75 million tons resulting in a net decrease of $CO_2$ emissions of about 250,000 tons, or 10,000 tons per year.*** The reduction in GHG emissions can be attributed to two reasons: (1) PTEX provides a much-improved geometrical design with significant reductions in vehicle operating cost and GHG emissions per vehicle km ranging from 15-35 percent depending on the vehicle type. (2) The difficult terrain of the current road, together with uncertainties caused by recent border closures and other regulatory and pricing inefficiencies related to container and truck movements, have diverted the Afghanistan transit trade to alternative ports on the Arabian Sea, routes which are about 300 km longer than those via Torkham. Once PTEX is developed and operating and regulatory efficiencies addressed, truck traffic would be expected to switch to Karachi port resulting in reductions in GHG emissions. One would have expected a larger decrease in emissions. However, the fact that PTEX is 20 percent longer than the existing road, that PTEX would generate new traffic, and that the number of Afghanistan trucks using alternative ports on the Arabian Sea is still fairly small (estimated at about 130 – 135 trucks in 2017) have contributed to the low value of reduction in GHGs.

**D. Public Sector Financing and World Bank Value Added**

15. Public sector financing is the appropriate vehicle for financing the construction of proposed road because the construction costs cannot be recovered through tariffs. Public investment in road infrastructure is desirable because it is a way the Government plays a key role in the country's development by handling a range of issues that can only be accomplished or implemented through government actions, such as axle weight controls and road safety regulations. The World Bank's role is justified because of the project's economic and social benefits and because of the value added it brings beyond financing in areas such as construction quality control, sustainability of road maintenance, transport planning, environmental risk management, safeguards, procurement, and FM.

## MAP


PAKISTAN
KHYBER PASS ECONOMIC CORRIDOR PROJECT
ROAD CORRIDORS:
PESHAWAR – TORKHAM EXPRESSWAY (WB FINANCED)
TORKHAM – JALALABAD ROAD (GoP FINANCED)
JALALABAD – KABUL ROAD (ADB FINANCED)
CAREC CORRIDOR 5 (KABUL – SHIR KHAN BANDAR – DUSHANBE)
CAREC CORRIDOR 6 (KABUL – HAIRATAN – TASHKENT)
CAREC CORRIDOR 6 (KABUL –AQINA ASHGABAT)
ROUTES TO GWADAR AND KARACHI PORTS:
WESTERN CORRIDOR
CENTRAL CORRIDOR
EASTERN CORRIDOR
MAIN ROADS
OTHER MAIN ROADS
SELECTED CITIES AND TOWNS
PROVINCE CAPITALS
NATIONAL CAPITAL
INTERNATIONAL BOUNDARIES
UZBEKISTAN
TURKMENISTAN
TAJIKISTAN
KYRGYZ REP.
CHINA
AFGHANISTAN
PAKISTAN
I.R. OF IRAN
INDIA
ASHGABAT
TASHKENT
DUSHANBE
KABUL
ISLAMABAD
Arabian Sea
IBRD 42976 | MAY 2018
0 50 100 150 200 Kilometers
0 50 100 150 Miles