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Report No: PAD1270

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT IN THE AMOUNT OF SDR145 MILLION (US$200 MILLION EQUIVALENT)

TO THE

REPUBLIC OF UZBEKISTAN

FOR A

REGIONAL ROADS DEVELOPMENT PROJECT

May 28, 2015

Transport and ICT Global Practice
Europe and Central Asia Region

CURRENCY EQUIVALENTS
(Exchange Rate Effective March 31, 2015)

Currency Unit	=	Uzbekistan Sum
US$ 1.00	=	UZS 2,488.99
UZS 1.00	=	US$ 0.00040
US$ 1.00	=	XDR 1.38
XDR 1.00	=	US$ 0.72

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AADT	Average Annual Daily Traffic
AC	Asphaltic Concrete
ADB	Asian Development Bank
AF	Additional Financing
BER	Bid Evaluation Reports
BFM	Beneficiary Feedback Mechanism
BoQ	Bill of Quantities
CAREC	Central Asia Regional Economic Cooperation
CIFA	Country Integrated Fiduciary Assessment
CO	Country Office
CPAR	Country Procurement Assessment Report
CPS	Country Partnership Strategy
CQS	Consultant Qualifications
CSPA	Competition and State Procurement Agency
CTC	Core Team Consultant
DA	Designated Account
DC	Direct Contracting
DSCs	Design and Supervision Consultants
EA	Environmental Assessment
EBRD	European Bank for Reconstruction and Development
ECA	Europe and Central Asia
ECAPDEV	ECA Region Capacity Development Trust Fund
EIB	European Investment Bank
EIRR	Economic Internal Rate of Return
EMP	Environmental Management Plan
ESMF	Environmental and Social Management Framework
FA	Fixed Assets
FBS	Fixed-Budget Selection
FM	Financial Management
FMM	Financial Management Manual
GAI	Traffic Police Administration
GDP	Gross Domestic Product
GIS	Geographic Information System
GPN	General Procurement Notice
GRM	Grievance redress and beneficiary feedback mechanisms
HDM-4	Highway Development and Management Model
HMU	Highway Maintenance Unit
HQ	Headquarters
IBRD	International Bank for Reconstruction and Development
IC	Individual Consultants
ICB	International Competitive Bidding
IDA	International Development Association
IEG	Independent Evaluation Group
IFAC	International Federation of Accountants
IFC	International Finance Corporation
IFI	International Financial Institutions
IFR	Interim Unaudited Financial Report
IPSAS	International Public Sector Accounting Standards
IRI	International Roughness Index
ISA	International Standards on Auditing
IsDB	Islamic Development Bank
JICA	Japan International Cooperation Agency
LCS	Least-Cost Selection
M&E	Monitoring and Evaluation
MDG	Millennium Development Goals
MFERIT	Ministry of Foreign Economic Relations Investment and Trade
MOF	Ministry of Finance
MoU	Memorandum of Understanding
NBG	National Bank of Uzbekistan
NCB	National Competitive Bidding
NGO	Non-Government Organization
NPV	Net Present Value
PDO	Project Development Objectives
PEFA	Public Expenditure and Financial Accountability
PIU	Project Implementation Unit
PMM	Project Management Manual
PP	Procurement Plan
PPP	Public-Private Partnership
PRAMS	Procurement Risk Assessment and Management System
PSIA	Poverty and Social Impact Analysis
QBS	Quality Based Selection
QCBS	Quality and Cost-Based Selections
QER	Quality Enhancement Review
RAP	Resettlement Action Plan
RPF	Resettlement Policy Framework
RRF	Republican Road Fund
RMS	Road Management System
RPF	Resettlement Policy Framework
SBD	Standard Bidding Documents

SDR	Special Drawing Rights
SMEs	Small and Medium Enterprises
SOE	Statement of Expense / State-Owned Enterprise
SORT	Systematic Operations Risk-Rating Tool
SSS	Single-Source Selection
SUM	Uzbekistan Sum
TMU	Regional Territorial Divisions
TOR	Terms of Reference
TTL	Task Team Leader
UNDB	United Nations Development Business
USD	United States Dollars
WB	World Bank

Regional Vice President:	Laura Tuck
Country Director:	Saroj Kumar Jha
Country Manager:	Junghun Cho
Senior Global Practice Director:	Pierre Guislain
Practice Manager:	Juan Gaviria
Task Team Leader:	Mustapha Benmaamar

UZBEKISTAN
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Regional Roads Development Project (P146334)

PROJECT APPRAISAL DOCUMENT

EUROPE AND CENTRAL ASIA

0000009080

Report No.: PAD1270

Basic Information			
Project ID P146334	EA Category B - Partial Assessment		Team Leader(s) Mustapha Benmaamar
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ ] Financial Intermediaries [ ] Series of Projects [ ]		
Project Implementation Start Date 24-Jun-2015	Project Implementation End Date 30-Sep-2021		
Expected Effectiveness Date 31-Dec-2015	Expected Closing Date 30-Sep-2021		
Joint IFC No			
Practice Manager/Manager Juan Gaviria	Senior Global Practice Director Pierre Guislain	Country Director Saroj Kumar Jha	Regional Vice President Laura Tuck

Borrower: Republic of Uzbekistan			
Responsible Agency: Republican Road Fund			
Contact:	Mekhriddin Abdullaev	Title:	Director of Republican Road Fund
Telephone No.:	998712394626	Email:	rrproject14@gmail.com

Project Financing Data(in USD Million)					
[ ] Loan	[ ] IDA Grant	[ ] Guarantee			
[X] Credit	[ ] Grant	[ ] Other			
Total Project Cost:	240.00		Total Bank Financing:	200.00	
Financing Gap:	0.00				

Financing Source	Amount
BORROWER/RECIPIENT	40.00
International Bank for Reconstruction and Development	0.00
International Development Association (IDA)	200.00
Total	240.00

Expected Disbursements (in USD Million)

Fiscal Year	2015	2016	2017	2018	2019	2020	2021	2022	0000	0000
Annual	0.00	40.00	30.00	30.00	30.00	40.00	20.00	10.00	0.00	0.00
Cumulative	0.00	40.00	70.00	100.00	130.00	170.00	190.00	200.00	0.00	0.00

Institutional Data

Practice Area (Lead)

Transport & ICT

Contributing Practice Areas

Cross Cutting Topics

[ ] Climate Change

[ ] Fragile, Conflict & Violence

[X] Gender

[ ] Jobs

[ ] Public Private Partnership

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Transportation	Rural and Inter-Urban Roads and Highways	70		
Transportation	General transportation sector	10		
Industry and trade	Other domestic and international trade	20		
Total		100		

☑ I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)		
Major theme	Theme	%
Financial and private sector development	Infrastructure services for private sector development	40
Trade and integration	Trade facilitation and market access	60
Total		100

Gender Flag
Does the activity include gender in any of the three dimensions listed below?

☑ Gender analysis and/or consultation on gender related issues.

☑ Specific actions to address the distinct needs of women and girls, or men and boys, or positive impacts on gender gaps.

☑ Mechanisms to facilitate monitoring and/or evaluation of gender impacts.

Proposed Development Objective(s)

The proposed Project Development Objectives (PDOs) are to reduce road user costs on the project roads and develop a sustainable investment program for regional road asset management.

Components

Component Name	**Cost (USD Millions)**
Rehabilitation of Regional Roads	221.04
Road Sector Institutional Strengthening	5.00
Project Management	9.30

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	Moderate
5. Institutional Capacity for Implementation and Sustainability	High
6. Fiduciary	Substantial
7. Environment and Social	Moderate
8. Stakeholders	Moderate
9. Other	
OVERALL	Substantial

Compliance

Policy

Does the project depart from the CAS in content or in other significant respects?	Yes [ ] No [X]
Does the project require any waivers of Bank policies?	Yes [ ] No [X]
Have these been approved by Bank management?	Yes [ ] No [X]
Is approval for any policy waiver sought from the Board?	Yes [ ] No [X]
Does the project meet the Regional criteria for readiness for implementation?	Yes [X] No [ ]

Safeguard Policies Triggered by the Project	**Yes**	**No**
Environmental Assessment OP/BP 4.01	**X**	
Natural Habitats OP/BP 4.04	**X**	
Forests OP/BP 4.36		**X**
Pest Management OP 4.09		**X**
Physical Cultural Resources OP/BP 4.11		**X**
Indigenous Peoples OP/BP 4.10		**X**
Involuntary Resettlement OP/BP 4.12	**X**	
Safety of Dams OP/BP 4.37		**X**
Projects on International Waterways OP/BP 7.50		**X**
Projects in Disputed Areas OP/BP 7.60		**X**

Legal Covenants

Name	**Recurrent**	**Due Date**	**Frequency**
Schedule 2, Section I. A. 2	**X**		CONTINUOUS

Description of Covenant

Prior to the commencement of any rehabilitation and improvement works under Part I of the Project, the Recipient, through RRF, shall carry out the feasibility study (including the analysis of updated traffic data) relating to roads located in the Project Oblasts, according to the criteria and procedures established in the Project Management Manual, all in a manner acceptable by the Association.

Name	**Recurrent**	**Due Date**	**Frequency**
Schedule 2, Section I. A. 3	**X**		CONTINUOUS

Description of Covenant

For the purposes of implementing Part II (ii) of the Project, the Recipient shall ensure that Uzavtoyul provides adequate technical support to the RRF in a manner acceptable by the Association.

Name	**Recurrent**	**Due Date**	**Frequency**
Schedule 2, Section I. C. 1	**X**		CONTINUOUS

Description of Covenant

The Recipient shall carry out the Project in accordance with the requirements, criteria, organizational arrangements and operational procedures set forth in the RPF, RAPs, ESMF, and ESMPs, respectively.

Name	Recurrent	Due Date	Frequency
Schedule 2, Section II. B. 3	X		

Description of Covenant

The Recipient shall have its Financial Statements audited in accordance with the provisions of Section 4.09(b) of the General Conditions. Each audit of the Financial Statements shall cover the period of one fiscal year of the Recipient. The audited Financial Statements for each such period shall be furnished to the Association not later than six (6) months after the end of such period.

Conditions

Source Of Fund	Name	Type
IDA	Article 5.01 (a)	Effectiveness

Description of Condition

The Project Management Manual has been prepared and adopted by the Recipient in a manner satisfactory to the Association.

Source Of Fund	Name	Type
IDA	Article 5.01 (b)	Effectiveness

Description of Condition

The PIU has: (i) been established as provided under Section I.A.1 of Schedule 2 to this Agreement, in a manner satisfactory to the Association, and (ii) adopted an accounting software, under terms and conditions and in a manner satisfactory to the Association.

Source Of Fund	Name	Type
IDA	Schedule 2, Section IV. B. 1.b	Disbursement

Description of Condition

Notwithstanding the provisions of Part A of Section IV of Schedule 2 to the Financing Agreement, no withdrawal shall be made, under Category (1) in respect of any given road section under Part 1 of the Project, unless the Association has received satisfactory evidence of the carrying out of the pertinent feasibility study (which shall include, inter alia, the relevant analysis of updated traffic data) of said road section under terms of reference and in a manner acceptable to the Association.

Team Composition

Bank Staff

Name	Role	Title	Specialization	Unit
Mustapha Benmaamar	Team Leader (ADM Responsible)	Sr Transport. Spec.		GTIDR
Fasliddin Rakhimov	Procurement Specialist	Procurement Specialist		GGODR
Djamshid Iriskulov	Financial Management Specialist	Consultant		GGODR
Aimonchok Tashieva	Team Member	Consultant		LEGLE

Antonio Cristian D'Amelj	Counsel	Senior Counsel		LEGLE
Emre Eser	Team Member	Infrastructure Specialist		GTIDR
Esra Arikan	Safeguards Specialist	Senior Environmental Specialist		GENDR
Evgenia Epaneshnikova	Team Member	Transport Specialist		GTIDR
Funda Canli	Team Member	Program Assistant		GTIDR
Jasna Mestnik	Team Member	Finance Officer		WFALA
Mansur Bustoni	Team Member	E T Consultant		GTIDR
Mark C. Woodward	Safeguards Specialist	Lead Social Development Specialist		GSURR
Nisso Makhmudovna Babakulova	Team Member	E T Temporary		ECCUZ
Rebecca Emilie Anne Lacroix	Safeguards Specialist	Social Development Specialist		GSURR
Robert Charles Seekings	Team Member	E T Consultant		GTIDR
Rodrigo Archondo-Callao	Team Member	Sr Highway Engineer		GTIDR
Steven Farji Weiss	Team Member	E T Consultant		GTIDR

Extended Team

Name	Title	Office Phone	Location
Asif Faiz	Operations Advisor / Consultant		Washington

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
Uzbekistan	Toshkent	Toshkent Viloyati	**X**		
Uzbekistan	Namangan	Namangan Province	**X**		
Uzbekistan	Fergana	Fergana	**X**		
Uzbekistan	Andijon	Andijan	**X**		

I. STRATEGIC CONTEXT

A. Country Context

1. **Uzbekistan is a lower-middle income, resource rich country, strategically located in the heart of Central Asia**. Uzbekistan is the most populated country in Central Asia with a population of about 30 million (2013), which accounts for about 60 percent of Central Asia's total. As the only country that borders five other Central Asian states including Afghanistan, Uzbekistan's economic and social development is important not only for its own rapidly growing population, but also for expanding regional trade as well as for political stability and security.

2. **Uzbekistan's economy continued to grow steadily, at an annual rate of 8 percent in 2013**. All sectors of the economy contributed to economic growth with services growing by more than 9 percent a year (now close to half of Gross Domestic Product (GDP)). The government's industrial modernization and localization program supported industrial sector growth of 6.2 percent in 2013.

3. **Uzbekistan has seen notable increases in public investment and to a lesser extent, private consumption.** The Government has continued implementation of a US$47 billion public investment program for the period 2011-2015, of which over 70 percent is focused on oil, gas and electricity. Total investment increased by 2.8 percentage points in 2013 to reach 25.6 percent of GDP. Public investment accounted for 4.4 percent of GDP and private investment, including investment from state owned enterprises (SOEs), made up the remaining 21.2 percent. At the same time, rising real wages and steady remittance inflows, which reached 6.5 percent of GDP in 2013, helped drive private consumption. Domestic consumption has helped offset weaker external demand for Uzbek goods and services.

4. **Uzbekistan is making steady progress towards the first Millennium Development Goal (MDG) of halving poverty by 2015**. Nationally defined poverty rates[1] declined from 27.5 percent in 2001 to an estimated 14.5 percent in 2013. Steady economic growth, sustained annual increases in salaries and remittances, and government social protection programs all contributed to this decline. While the country remains on course to achieve the goal of halving poverty, related challenges such as inequality, rural-urban and regional disparities, mainly in Karakalpakstan region[2] and the Ferghana Valley, continue to be an issue.

5. **Poverty is still significant and spatially concentrated**. Over five million people do not have enough resources to meet basic consumption and energy needs. Two thirds of the poor are in rural areas, and poverty levels differ sharply between regions. This suggests that sector policies that can lead to higher incomes in rural areas will have a larger impact on poverty reduction and shared prosperity. By improving connectivity and accessibility, an improved road network can viably improve regional convergence and enable rural populations to fully benefit from Uzbekistan's economic growth.

[1] The national poverty line is measured based on the minimum food consumption equivalent to 2,100 kilo-calories per person per day.

[2] Karakalpakstan region is disadvantaged because of loss of employment opportunities and has one of the highest poverty, malnutrition, and illness rates in Uzbekistan due to water shortages and the shrinking of the Aral Sea.

6. **The project will contribute to improving connectivity in Tashkent region and in the Ferghana Valley.** The region of Tashkent is a major economic center[3] and improving the feeder roads condition and their connection to national roads will provide better access to economic opportunities. Despite a vast industrial and agricultural potential[4], the development of the Ferghana region is impeded by poor intra-regional and local connectivity[5]. This project will address this lack of intra- regional connectivity and will also complement the new Pap-Angren railway connection (P146328)[6] which is expected to substantially reduce the physical and economic isolation from Tashkent region and the rest of Uzbekistan.

B. Sector and Institutional Context

7. **The total length of the roads network of Uzbekistan reaches 185,000 km, out of which 42,530 km are considered the core roads network**. The roads within the core network are classified as international (3,626 km), national (16,909 km) and regional (24,606 km) and are constructed and rehabilitated by the Republican Road Fund (RRF) and maintained by Uzavtoyul Enterprises. About 98 percent of the core roads network is paved. The density of paved roads in Uzbekistan is comparable with other countries in Central Asia. The density is higher in the eastern regions (4,000-6,000 km per 10,000 km^2 for Tashkent, Namangan, Andijan and Ferghana regions). Towards the south, the density decreases to moderate values of 1,000-3,000 km per 10,000 km^2 and hits the lowest level in the western regions (Karakalpakstan and Novoi) with less than 1,000 km per 10,000 km^2.

8. **Uzbekistan has a road sector policy framework which aims at improving governance and accountability, sustainability, seamless transport logistics, and greater private sector participation**. Since 2003, the Government has pursued several policy and sector reforms, including: (i) separating road transport operations from road construction, (ii) creating RRF as a quasi-independent body, (iii) promoting competitive bidding for all road construction works, and (iv) establishing an external quality control mechanism. The Government has also restructured Uzavtoyul[7] (the sole nationwide road agency), which is now a state joint stock company with defined performance and accountability targets. Uzavtoyul is currently carrying a dual function as road service provider and executing civil works (Contractor). The next phase envisaged is to separate several road construction units from Uzavtoyul. RRF and Uzavtoyul organization structures are presented in Annex 7. There is also an emerging private road contractors industry which competes with Uzavtoyul for road projects[8]. Under the Asian Development Bank (ADB) loan for the Central Asia Regional

[3] Tashkent region in the northeast of the country. It is one of the most economically developed regions in Uzbekistan. The GDP of the Tashkent region in 2012 exceeded UZS 9259 billion sums and accounts for 170 percent of the country average. The population is estimated to be 2.5 million.

4 The largest industrial plants of Uzbekistan, such as "GM Uzbekistan" JV, Ferghana and Altiarik refineries, "QUARTZ" JSC, are located the Ferghana Valley. Fertile soil and mild climate allow for growing cotton, thereby enabling intensive development of textile industry by such enterprises as "Daewoo-Ferghana-textile, "Tagus textile" JV, "Poytugteks", "Samosherteks", etc.

5 The Ferghana Valley constitutes the eastern most region of Uzbekistan, where almost one third of the country's population lives.

6 The 124 km rail link between Pap and Angren including a 19.2 km rail tunnel through the Kamchik Pass is expected to be operational in 2016. It is a $1.8 billion undertaking co-financed by the World Bank.

7 Uzavtoyul was restructured into a state stock company in 2003. Maintenance of highways was separated from the rest of the network, and 7 specialized highway maintenance enterprises were established under Uzavtoyul.

8 A law on roads for vehicular traffic enacted in 2007 allows the private sector to finance highway construction.

Economic Cooperation (CAREC) Road Project, a state-owned road equipment pool company has been established, which leases equipment to all contractors.

9. **Despite recent achievements, the road sector still faces a number of challenges**. The main challenges include: (i) high level of attention to main roads while at the same time the regional road network as a feeder and distributor has received little attention and as a result inadequate maintenance and a growing road rehabilitation backlog; (ii) the need to improve regional roads to optimize large investments on national and international road network; (iii) the RRF needs to scale up its technical and management capabilities to sustain a substantial and growing road investment program; (iv) modernization of traffic surveys and road asset inventory condition surveys is needed to pass from a system based on visual inspections to a consolidated network survey and integrated road database regional road maintenance program system based on sound technical and economic methods; and, (v) road safety remains a concern and requires key actions including targeted road safety interventions (black spot improvements) on priority regional road sections.

10. **Funding for the road sector has increased by half during 2007-2012 in constant terms, reaching US$567 million in 2012.** However, the share of RRF expenditures in terms of GDP has remained steady at about 1.0 percent on average during 2007-2012 which is low by international standards. Despite the fact that investments in the roads network have increased significantly, most of the funds (63 percent) were used for the reconstruction, rehabilitation or upgrading of the international and national core roads network.

11. **The most neglected part of the road network are regional roads, which comprises 58 percent of the total network, but only receives 6 percent of maintenance expenditure.** Total revenue of the RRF appear to be sufficient to maintain all roads that are in sustainable condition (good or fair condition), but the focus in capital expenditures has adversely affected funding for periodic and routine maintenance. During 2007-2012, average maintenance spending per kilometer per year for international, national and regional roads was approximately US$2,823 per km per year, of which 60 percent (US$1,703 per km per year) was for periodic maintenance. The periodic maintenance expenditures cover road works on only 2 percent of the network each year, while an adequate periodic maintenance program should cover between 7 and 10 percent of the network each year.

12. **The responsibility for road safety, including the collection and analysis of road accident statistics is the responsibility of the traffic police (GAI)**. This involves approval of designs for new roads, traffic management and signaling schemes, including bus lanes design and development, and public transport routes through a roads supervision department. At the national level GAI reported 10,500 accidents in 2010, resulting in 11,000 injuries and 2,100 deaths, a rate of 75 per million inhabitants[9]. This recorded rate, while considerably higher than rates experienced in Western European countries, is uncharacteristically low in relative terms compared with those reported for other countries in the region. RRF is currently preparing a road safety strategy and an action plan under the ADB financed road project. The findings of this road strategy will help develop an updated data on road safety.

[9] Report No. 66658-UZ, May 2013- Transport Sector Policy Note for Uzbekistan, World Bank.

C. Higher Level Objectives to which the Project Contributes.

13. **The proposed project supports two main pillars of the Uzbekistan's CPS FY 12-2015[10]**. One of the pillars is improving efficiency of infrastructure and specifically for transport infrastructure. The Government sees the continuation of priority road infrastructure projects as critical for internal connectivity and development of regions. The other pillar is promoting regional development through improved infrastructure by increasing economic productivity and competitiveness, including in the agricultural sector. The project is well aligned with the Bank's overall strategy. Annex 6 elaborates more on the project's link to the World Bank strategic goals of reducing poverty and increasing the welfare of the bottom 40 percent of the population.

14. **The Government requests the Bank to play a leading role in catalyzing donors financing and supporting the improvement of the regional road network.** The proposed project will: (i) assist the Government in developing a robust priority regional road program, (ii) identify a road map to strengthen the institutional capacity, and (iii) serve as a platform for future development support to regional roads by International Financial Institutions (IFIs). The project will complement the Government's recent efforts in expanding the capacity of the main national and international corridors and will improve the conditions of the regional road network (feeder roads), which connects the regions to the main road network. Around 1,000 km of priority road sections located in 12 regions, have been selected and will form the core of the priority regional road program. This project will finance a part of the program, namely rehabilitation and improvement of around 300 km in Tashkent and in the three regions of the Ferghana Valley[11]. These roads are paved (5 m 6 or 7 m pavement width) carry an annual average daily traffic (AADT) of 3,400 vehicle/day and are in an urgent need for repair. A programmatic approach will be used to contribute to reducing the road rehabilitation backlog and most importantly develop a sustainable regional road asset management system.

II. PROJECT DEVELOPMENT OBJECTIVE(S)

A. PDO

15. **The proposed Project Development Objectives (PDOs)** are to reduce road user costs on the project roads and develop a sustainable investment program for regional road asset management.

B. Project Beneficiaries

16. **The proposed project will improve around 300 km of key regional road sections, which will provide better intra-regional access in four provinces (Tashkent, Ferghana, Andijan and Namangan).** The project will provide direct access to 5 districts in Tashkent region and 145 villages in the Ferghana Valley. An in depth Poverty and Social Impact Analysis (PSIA) has been expanded to assess the potential benefits from the regional roads as

[10] Report number 65028 –UZ discussed at the meeting of the Executive Directors held on Tuesday, December 6, 2011.
[11] The remaining priority road sections are expected to be financed through follow up projects.

described in greater detail in Annex 6.[12] It will have impact on around 420,000 households totaling 2.3 million beneficiaries. All of these villages are located in regions which rank low in terms of accessibility and with national poverty rate at 13.5 percent according to 2014 data. Hence, it is expected that the project will also address the transport needs of low-income road users and promote local development in the areas of project influence through greater access to jobs and social services.

17. **The primary beneficiaries are local residents, businesses and road users who will benefit from improved local connectivity, reduced travel time and vehicle operating cost.** The project will also contribute to improved road safety for all road users, including drivers of motorized and non-motorized vehicles, passengers and pedestrians of all ages and both genders. The secondary beneficiaries include local governments and central government. The local governments will benefit from direct and indirect local job creation and the secondary effects of improving the competitiveness of local businesses. In addition, the project will support the capacity building of RRF, Uzavtoyul and relevant institutions of the road construction industry (i.e. scientific and project design institutes).

18. **The project has synergies with the Bank-financed Pap-Angren railway project (P146328)**, which aims to provide intra-regional connectivity between the Namangan, Andijan and Ferghana provinces, and the rest of the country. Both projects together will improve the mobility and accessibility for 11.2 million of population residing in Uzbekistan. The projects will also benefit small and medium enterprises (SMEs) and large companies in agricultural and industrial sectors due to the expended markets and customer base.

C. PDO Level Results Indicators

19. The project will be measured through the following PDO indicators: (i) vehicle operating costs for cars per km; (ii) vehicle operating cost for trucks per km; (iii) travel time measured by a proxy variable - average vehicle speed, km/hour; and (iv) adoption of a regional road rehabilitation and maintenance program.

III. PROJECT DESCRIPTION

A. Project Components

20. The proposed project consists of three main components totaling US$240 million.[13]

21. **Component 1. Rehabilitation of Regional Roads (estimated total cost US$221.04 million, including IDA financing of US$181.04 million).** This component will improve about 300 km of priority regional roads in Tashkent, Ferghana, Andijan and Namangan. Specifically, the component will finance the rehabilitation works of existing regional roads, including structure renewal as well as the rehabilitation of ancillary road connections (i.e. crossroads, access roads, drainage systems). This component will also support integration of road safety considerations into the design of the project's road sections. US$28.5 million contingency is

[12] A first survey was conducted in the Ferghana Valley to assess the distributional impact of the Pap-Angren Railway Project and in a second phase additional work analyzed how road improvements envisioned under this project would improve welfare. Data collection and analysis covers Tashkent Province, which was not included in the original exercise.
[13] The project cost includes around US$4.66 million of unallocated expenditures.

added to this component and embedded in the financing of the project to cover for contingencies and volume of works.

22. **Component 2. Road Sector Institutional Strengthening (estimated total cost US$5.0 million, including IDA financing of US$5.0 million).** This component will finance priority road sector institutional strengthening activities, including:

a) **Road asset management capacity review**: includes support for: (i) the review of existing arrangements for regional road asset management, (ii) assessment of the technical capacity of the key agencies responsible for strategic planning and implementation of road rehabilitation/maintenance programs (i.e. Uzavtoyul), (iii) identification of areas for improvement and preparation of priority activities.

b) **Support to develop regional roads rehabilitation programs**: includes support for the development of a regional road database (e.g. data collection, relevant software and IT equipment, equipment for traffic and road inventory surveys, training) and preparation of a regional road rehabilitation and maintenance program(s).

c) **Support to road construction industry** (i.e., road construction contractors, scientific and project design institutes): includes support for: (i) an assessment of the market structure of the local road construction industry and its capacity and identify measures to promote the development of small and medium size local contractors; (ii) review of the regulatory framework and design standards for the road construction industry; (iii) development of technical/implementing regulations to apply new design standards and their harmonization with international standards; and (iv) technical capacity building of the scientific research institute on automobile roads (i.e. training, laboratory equipment).

d) **Capacity strengthening of Republican Road Fund (RRF)**: includes support for training needs assessment, preparation of manpower development plans for RRF and provision of equipment and devices to conduct road work inspections.

e) **Road sector governance and capacity review:** includes support for the overall road sector policy and institutional framework review. This includes road sector public expenditure review and identification of measures to increase accountability and value for money (i.e. validation of road rehabilitation/maintenance programs, supervision of technical audits).

23. **Component 3. Project Management (estimated total cost US$9.3 million, including IDA financing of US$9.3 million).** This component will finance relevant activities to support project management and implementation, including: (i) core team consultants (CTC) to provide support to PIU in project contract management, procurement, M&E and environmental and social safeguards; (ii) supervision consultants (SC) to support the supervision of all civil works of the entire roads financed under this project; and (iii) operating and incremental costs of PIU, including financial audits.

24. The detailed descriptions of activities supported by the sub-components are provided in Annex 2.

B. Project Financing

Lending Instrument

25. The Bank will finance the proposed project through an IDA Credit in the amount of SDR 145 million (US$200.0 million equivalent). The project will be implemented over a seven year period from June, 2015 to September, 2021.

26. An IDA Credit will be provided on the standard IDA terms for blend countries, with a total maturity of 25 years including a 5-year grace period. Service charge on the withdrawn Credit balance shall be equal to 0.75 percent per annum. Interest rate on the withdrawn Credit balance shall be equal to 1.25 percent per annum.

27. The Recipient would be the Republic of Uzbekistan represented by the Ministry of Finance (MoF).

Project Cost and Financing

28. **The project's total cost is estimated at US$240.00 million.** The Recipient's project financing is US$40.0 million, or 20 percent of the IDA credit. The project cost breakdown is presented in the table below.

29. **Retroactive financing** of eligible expenditures up to 20 percent of the credit size could support advanced procurement of eligible expenditure under the project.

Project Cost and Financing

Project Components	IDA Financing, US$ million
Component 1: Rehabilitation of Regional Roads	181.04
Component 2: Road Sector Institutional Strengthening	5.00
Component 3: Project Management	9.30
Unallocated	4.66
Sub-Total IDA Financing	**200.00**
Government's contribution	40.00
Project Total Costs	**240.00**

C. Lessons Learned and Reflected in the Project Design

30. **The project is the first Bank-financed road sector project in Uzbekistan and will further develop sector policy dialogue which has started during preparation**. The institutional strengthening activities are designed to substantially strengthen the management of the regional roads, including enhancing the institutional set up and its technical and

management capabilities. The project will also lay the ground and develop a regional road asset program which will be the basis for a long term engagement by the Bank and other IFIs. This project will emphasize sector policy dialogue by evaluating and implementing more efficient country systems as recommended in the Independent Evaluation Group's (IEG) recent review of transport investments since 2002, encouraging the adoption of a more programmatic approach to network management[14]. This policy dialogue will build on the broad recommendations identified by the Bank 2012 Transport Sector Policy Note for Uzbekistan[15].

31. **There is a need to strengthen the technical capacity of the RRF.** RRF main mandate is to mobilize and manage revenues of the road sector and at present faces limited technical and management capabilities. Project and contract management capacity within the RRF is inadequate relative to the size of the investment program. The RRF/PIU will be gradually staffed with technical staff and will be supported during project preparation by ECAPDEV-financed Project Preparation Consultants and project implementation by the CTC and SC (supported under component 3). An emphasis on building the capacity through "on the job" trainings will be part of the CTC's and SC's Terms of Reference. The project will also provide an opportunity to the RRF to work closely with Uzavtoyul and other road sector's stakeholders.

32. **The Bank needs to be pragmatic in estimating the gestation period and effort required to familiarize new Recipients with the Bank's procurement rules.** Bank Project Implementation and Completion Reports carried out in Uzbekistan suggest that introducing a Recipient to a completely different procurement practice should in itself be considered as a project objective and allocate comparable amount of resources as other objectives. To speed up project implementation, the Bank team has agreed during project negotiations on the main procurement documents and on using retroactive financing.

33. **Projects in Uzbekistan have often faced protracted delays in the recruitment of international consultants and procurement of goods and works from international suppliers,** as a result of contract registration that is required by the Uzbekistan regulations. Discussions with the Government on this matter have recently led to a resolution of these issues. However, bidding documents for 10 road sections in the Tashkent region will be ready by project effectiveness as well as feasibility studies for the remaining road sections in Ferghana Valley.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

34. **RRF will have responsibility for implementation of the project components**. The RRF was established under the Ministry of Finance and is led by a Director with a rank of Deputy Minister who reports to the Deputy Prime Minister. In Uzbekistan, donors financed projects in the road sector are managed by RRF as an Executing Agency. The RRF comprises a team of 76 professional and support staff who work mainly on road projects financed by the national budget. RRF has gained experience working with the Asian Development Bank

[14] Independent Evaluation Group, *Improving Institutional Capability and Financial Viability To Sustain Transport: An Evaluation of World Bank Group Support Since 2002,* March 2013.
[15] Report No. 66658-UZ, May 2013.

(ADB) and the Islamic Development Bank (IDB) on road development projects. Each of these projects is managed by dedicated project implementation units which report to the Director of the RRF. Therefore RRF will host the Project Implementation Unit (PIU) for the project. The PIU at RRF will be directly responsible for day-to-day management of the project and its operating and incremental costs will be covered by the project credit proceeds. The FM capacity built under previously implemented projects financed by ADB and IBD (e.g., FM manual and respective procedures) will be utilized for the proposed project but tailored to meet World Bank financed project requirements.

35. **In general, project and contract management capacity exists within the RRF but needs to be further developed.** There is a shortage of road sector technical staff and a high staff turnover with local technical assistance due to a combination of a small pool of available personnel in the local market and a difficulty to incorporate them in a defined organization structure of the RRF. To fill this gap, a dedicated PIU will be established and staffed by technical, fiduciary, environment/social and administrative staff which will be led by a PIU Head. The PIU will be supported by the CTC and SC. Uzavtoyul will take the lead in the preparation of the road rehabilitation and maintenance programs. The procurement of this sub-component will be the responsibility of the PIU/RRF.

36. **The CTC will assist the RRF/PIU with all aspects of project management,** including procurement, contract management safeguards, monitoring and evaluation and reporting, and ensure that these functions are undertaken in a timely fashion. The CTC will assist RRF/PIU with the overall project management and preparation of the relevant project consultancy works and studies. The CTC will liaise closely with SC and other consultants employed under the project. The terms of reference for CTC and SC as well as Project Management Manual (PMM) will be prepared by the Project Preparation Consultants and be available in the project files prior to project effectiveness.

37. **The design consultants will be mobilized by the RRF/PIU with financing from the Recipient**, and will be responsible for preparation of the feasibility and detailed design of the project civil works in the Ferghana Valley**.** The terms of reference for feasibility design and detailed engineering design for the candidate roads in Ferghana Valley will be reviewed and agreed with the Bank. The consultants are expected to complete the feasibility studies prior to the first disbursement. Annex 3 elaborates more on the project implementation arrangements.

B. Results Monitoring and Evaluation (M&E)

38. **The project will use the Bank-financed M&E arrangements.** The RRF, through the PIU, will be responsible for collecting data, monitoring and reporting the project result indicators presented in Annex 1. The PIU will assign staff who effectively monitor projects and prepare reports in a timely manner. The PIU will be supported by the CTC to monitor progress of project implementation towards the achievement of the project results**.**

39. **The project will monitor beneficiary feedback through yearly road user satisfaction surveys and grievance redress mechanisms.** The survey will capture on the annual basis public opinion on quality, safety and reliability of the project roads[16]. It is designed to collect information from all groups of road users, including non-car users who are likely to be low-

[16] The baseline data is collected during project preparation and will be monitored during implementation.

income population or/and females (Annex 6). The survey will be complemented by a robust system of grievance redress mechanisms that will monitor the implementation of RPF/RAPS/EMF and also communicate systematic information on the objectives and progress of the project. The assistance will be provided to beneficiaries/project affected peoples as well as general public through focal points in local administrations as well as the PIU/RRF.

40. **A mid-term review of the Project will take place in September, 2019.** Its principal objectives will be to: (i) review progress in project implementation, (ii) review the project's results framework and make necessary adjustments, and (iii) review overall progress with the development of the road sector institutional capacity strengthening activities supported under component 2 and determine if a further assistance is required to implement the recommendations of the studies, in which case it will also determine sources of financing to support the next steps. For each of these objectives, the PIU/RRF will prepare reports as appropriate to guide discussions during the mid-term review.

41. **The impact evaluation will be conducted upon project completion to assess the project's contribution to the twin goals.** The study aims at capturing the project impact on welfare, human development, and labor market outcomes on the poor, the bottom 40 percent, unemployed youth, and female headed household among other vulnerable groups both before and after the project (Annex 6). The impact assessment will be built upon the findings of the Poverty and Social Impact Analysis (PSIA). The specific methodologies, survey instruments, measurements, and scope will be further defined and developed by CTC during project implementation. The sources of financing of main activities under the impact analysis, including data collection and analysis of relevant qualitative and quantitative data, will be determined during the mid-term review.

C. Sustainability

42. **The Government is committed to the development of the road sector.** RRF expenditures are forecasted to increase during 2013-2014 to more than double the average 2007-2012 expenditures, reaching US$1,029 million in 2014 or 1.6 percent of GDP (Annex 7). The project sustainability will largely depend on the RRF to effectively and efficient use the resources allocated to the regional road network. To achieve this, the following efforts would be made under this project: (i) strengthening Uzavtoyul's technical capacity to prepare sound regional roads rehabilitation and maintenance programs, and (ii) improving RRF's capacity to validate road programs and carry out technical audits to ensure value for money.

V. KEY RISKS AND MITIGATION MEASURES

A. Overall Risk Rating and Explanation of Key Risks

43. **The project overall implementation risk is rated as Substantial.** This rating reflects the current road sector institutional capacity and set up (rated as high). The RRF as the road sector financier does not have sufficient technical and management capabilities to manage large geographically dispersed investment programs. RRF's capacity appears limited regarding contract administration, fiduciary and safeguards management experience during project preparation. To address this PIU/RFF will be strengthened and supported by the CTC and SC. Consultants will be hired to provide on the job training to RRF/PIU staff emphasizing better

practices and international experience to prepare and implement the regional roads rehabilitation program. Lack of coordination between RRF and Uzavtoyul may also delay the implementation of some of the activities under the institutional strengthening component. To mitigate the risk, the Bank will provide opportunities to bring the two stakeholders together through close project implementation support.

44. **The implementation of procurement in accordance with Bank Procurement Guidelines also presents a substantial risk after mitigation measures listed in Annex 3.** Staff of the implementing agency has limited experience in implementing the projects in accordance with the Bank procedures and guidelines. Fiduciary risks are related to lack of capacity with procurement, and eventual non-compliance and even mis-procurement as a result of the authorities' price verification process, which is not in line with the Bank's Procurement Guidelines. This also delays awarding of contracts and contract implementation. To mitigate these risks, the Bank has agreed to assist in developing basic procurement capabilities in RFF. Training will be provided by the Bank's procurement specialists during project preparation and implementation. The Bank team as well as CTC and SC will support RRF/PIUs to improve procurement management and efficiency. The Bank will also closely monitor fiduciary aspects of the project by tracking all processes and delays resulting from the authorities' contract price verification system and registration of contracts. In the event of continuing systemic delays in procurement, the Bank will initiate mis-procurement process in accordance with the Bank Procurement Guidelines.

VI. APPRAISAL SUMMARY

A. Economic Analysis

45. **The selection of candidate roads followed a systematic screening.** Initially Uzavtoyul and RRF identified around 4,220 km out of 24,606 km, or 18 percent of the total regional road network that is in need of rehabilitation in 13 provinces. The regional roads included have a carriageway width of 5-7 meters, asphalt concrete road surface and AADT of about 1,800 vehicles. Out of the total 4,220 km of the regional roads, 40 road sections were selected, totaling around 400 km based on a combination of factors such as road conditions, traffic volumes, traffic continuity as well as a budget constraint to fit the project available envelop. The selected road sections are located in four provinces: (i) ten (10) sections in Tashkent and (ii) 30 road sections in the Ferghana Valley[17] (Andijan, Ferghana and Namangan regions). These road sections provide, for the most part, a connection link to national or international road network, and carry on an AADT of about 3,400. All of these sections are in very poor condition. Their riding quality was visually estimated to have an IRI (International Roughness Index, in m/km) of around 10.

46. **The results of the economic evaluation show that the overall Economic Internal Rate of Return (EIRR) of the Project is 44.3 percent and the Net Present Value (NPV) is US$ 209million.** EIRRs range from 21.4 percent to 217.4 percent, ensuring all road sections comply

[17] The candidate roads in the Ferghana Valley will be subject to further screening and prioritization based on the results of the feasibility studies which will be carried out during project implementation.

with a minimum 12% EIRR. The sensitivity analysis indicates that the majority of the project roads would be economically justified even if construction costs were 15 percent higher or if the project benefits were 15 percent lower. If construction costs were 15 percent higher, the overall EIRR reduces to 37.0 percent and if the project benefits were 15 percent lower, the overall EIRR reduces to 35.8 percent. Under the worst case scenario with an increase in costs and a decrease in benefits of 15 percent, the overall EIRR will be reduced to 30.3 percent. The inclusion of the social cost of CO2 emissions, at US$30 dollar per ton, will not change the economic evaluation results. The detailed economic analysis of the project's roads is presented in Annex 5.

47. **Public sector financing is considered to be the appropriate vehicle for financing road rehabilitation as the large initial costs are not commensurate with sector revenues.** In Uzbekistan the public investment in regional road infrastructure is the main option available to secure the necessary capital and operational expenditures to develop and maintain the regional road network. Moreover, the proposed financing by public sector is complemented with the responsibility for axle weight controls and road safety regulations which also are in the public domain. 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, road safety, transport planning, and environmental risk, safeguards, procurement, and financial management.

B. Technical

48. **The project will support rehabilitation of around 300 km of regional roads in Tashkent, Ferghana, Andijan and Namangan regions.** The main function of regional roads is facilitating the movement of local traffic (cars, buses, trucks, wheeled tractors and agricultural machinery), discouraging high-speed movements. Regional roads connect administrative centers, hospitals and schools of districts, towns and villages. Most regional roads are paved (asphaltic concrete), however they are in a poor state of repair. The pavement width varies from 5 to 7 meters (including three categories, i.e., III (7 m), IV (6 m) and V (5 m)) depending on traffic volumes. Most regional roads are Category IV with 6 meters pavement width and up to 2 meters shoulders or footpaths, designed to carry traffic volumes of up to 2,000 vehicles/day as per the Uzbekistan highway regulations[18]. Under the project no capacity expansion is envisaged, and road rehabilitation will mostly be executed within the designated road corridors largely following the existing horizontal alignment with enhancements wherever possible, including bridge and culvert repairs where appropriate. Road Safety Audits will be embedded in the engineering detailed designs. The civil works contracts will be designed to promote competition and allow streamlined contract administration.

49. **Civil works of the project consist mostly of rehabilitation works to bring the selected road sections and bridges to the required Uzbekistan design standards to meet the projected transport demand.** Such improvements are classified as current (e.g., mill, overlay and minor levelling) or capital repairs (e.g., replace asphalt and underlying aggregate, re-work and compact earthworks) and include widening of the carriageway with the provision of shoulders/footpaths, improvements to drainage, minor improvements to alignment, and asphaltic concrete (AC) surfacing. The pavement designs proposed are appropriate for existing

[18] SHNK 2.05.02-07, Roads, Uzbekistan, 2008.

and projected traffic levels. The design life will assume periodic maintenance around year 15. All the roads inspected have solid formations and embankments which can be utilized in the permanent works. Generally the water table is low and will not impact the pavement. The road sections will be designed to a standard of 6 meters carriageway plus 2 by 2 meter shoulders. The bridges along the project sections require minor repair work with the exception of two bridges in Tashkent and one in the Ferghana regions that will need to be strengthened. A summary of the civil works by type of intervention is provided in Annex 2. Generally, the works pose little or no significant technical issues. However, close monitoring of the construction quality by the SC and proactive schedule control from PIU, supported by the CTC, will be a key factor for successful implementation.

C. Financial Management

50. **Financial management capacity assessment of RRF was carried out as part of the preparation of the project.** The RRF (through its PIU) will be responsible FM and disbursement during project implementation including planning, budgeting, accounting, financial reporting, funds flow, internal controls and auditing. The RRF does not have prior experience in the implementation of the World Bank financed projects. FM capacity built under ADB and IBD financed projects will be utilized for the proposed project but further enhanced to meet World Bank minimum requirements. The PIU within RRF that would be responsible for FM and disbursement in the project is still to be established. FM and disbursement arrangements are expected to be acceptable after the effectiveness conditions listed in paragraph 52 below are met.

51. The overall FM residual risk for the project is substantial considering the country risk and the fact that this is the first World Bank-financed project to be implemented by RRF, and FM capacity is still to be built.

52. The PIU within RRF will be responsible for financial management of all project components including submission of quarterly unaudited interim financial reports (IFRs) and audited annual project financial statements to the World Bank. It is expected that the FM staff (one FM Specialist) currently working on ADB and IBD projects in RRF will be transferred to the project PIUs before project effectiveness (condition of effectiveness). Further, FM staff will be supported by the Project Implementation Support Consultants to be hired under the project. RRF and its PIU will follow the established planning, budgeting, accounting, internal control, reporting and auditing procedures that would be described in detail in Project Management Manual (PAM) which is still to be developed (condition of effectiveness). The PIU will manage project payments and maintain project accounting records, which would be segregated for this project. PIU will also be responsible for budgeting and planning procedures as well as preparation of quarterly interim unaudited financial reports (IFRs) Accounting system 1C – Accounting Software still needs to be acquired and tailored to meet the World Bank requirements (condition of effectiveness). The annual audited financial statements together with the auditor's opinion and the management letter will be provided to the Bank within six months of the end of each fiscal year and at the closing of the project. PIU will be responsible for selection and appointment project auditor, according to Terms of Reference acceptable to the Bank, and financial audit will be financed from the credit funds. FM arrangements are described in more detail in Annex 3.

53. **External Audit:** The annual audited financial statements together with the auditor's

opinion and the management letter will be provided to the Bank within six months of the end of each fiscal year and at the closing of the project. PIU will be responsible for selection and appointment project auditor, according to Terms of Reference acceptable to the Bank, and consistent with International Standards on Auditing (ISAs). Following the Bank's formal receipt of audited financial statements from the Recipient, the Bank will make them available to the public in accordance with the Policy on Access to Information through its website. The cost of external audit will be paid from the credit proceeds.

54. **Disbursement:** The Credit will disburse through transaction-based disbursement methods that include: (i) advances to the Designated Account, (ii) replenishments to the DA on the basis of either Statements of Expenditures (SOEs) for expenses below the defined thresholds or full documentation for expenses above the defined thresholds, (iii) payments against Special Commitments, (iv) reimbursement of eligible expenditures pre-financed by the Recipient (with full documentation and against SOEs), and (v) direct payments to third parties. Withdrawal applications will be signed by two persons: (i) an authorized representative of the Recipient (Ministry of Finance); and (ii) designated official in RRF. The project will be required to adopt e-disbursements. Flow of Funds and Disbursement Arrangements: RRF will open the DA in a commercial bank/financial institution acceptable to the Bank, with the ceiling of US$500,000.

55. No withdrawal shall be made in respect of any given road section under component 1 of the project unless the Association has received satisfactory evidence of the carrying out of the pertinent feasibility study (which shall include, inter alia, the relevant analysis of updated traffic data) of said road section under terms of reference and in a manner acceptable to the Association.

D. Procurement

56. **A Country Procurement Assessment was conducted in 2003 (by the World Bank and ADB) and it identified certain weaknesses in the public procurement system in Uzbekistan.** The recent assessments under the Country Integrated Fiduciary Assessment (CIFA) and the Public Expenditures Financial Accountability Assessment (PEFA) studies indicate that there is still ample room for changes and to improve the public procurement environment and the same weaknesses identified in country procurement assessment largely remain today: (i) absence of a unified legislative framework; (ii) inefficient and non-transparent procurement practices; (iii) absence of a single institution with oversight or regulatory function for public procurement; (iv) weak capacity for reviewing bidders' complaints; (v) complicated internal review/approval of bid evaluation reports which leads to lack of accountability and delays; (vi) no comprehensive anti-corruption measures; and (vii) low skills/capacity of the staff handling public procurement at various administrative level. Private sector suppliers and contractors remain unsatisfied with the rules governing public procurement and have little confidence in the system's fairness. Though the Government has started extensive reforms of its public procurement system including drafting a Public Procurement Law based on UNCITRAL Model law, at present, the procurement environment is considered as high risk.

57. Procurement for the proposed project will be carried out in accordance with the World Bank's "Guidelines": Procurement of Goods, Works and non-Consulting Services under IBRD Credits and IDA Credits & Grants by World Bank Borrowers" dated January 2011 and revised

July 2014 (Procurement Guidelines) and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011 and revised July 2014 (Consultant Guidelines) and provisions stipulated in the Credit/Financing Agreement. If there is conflict between the Government decrees, rules and regulations and the Bank Procurement and Consultant Guidelines, then Bank Guidelines shall prevail. In addition, the project will also follow "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants dated October 15, 2006 and revised in January 2011".

58. This is the first project in the Road Sector financed by the Bank. As part of preparation, the Bank team met other development partners (JICA and ADB) who are in the road sector to understand the procurement risks and mitigation measures implemented by them. This has been taken into account while carryout procurement capacity assessment, identification of risks and mitigation measures described below.

59. The procurement capacity assessment of the implementing agency carried out using PRAMS by the Bank team identified the following additional risks: (i) the government decrees and rules and regulations have internal conflict in major provisions such as price verification which leads to considerable delays in project procurement and implementation; (ii) the requirement to clear at each stage of procurement with eleven member Inter Ministerial Bidding Committee (IMBC) leads to tremendous delays and lack of accountability of the implementing agency in procurement and project implementation (iii) the difficulty in obtaining bank guarantee for bid security and performance security by the local bidders and non-availability of alternative instruments for such purpose in the country banking system in particular Joint Ventures; (iv) there are number bid evaluation committees/stages and the interdepartmental tender committee consists of eleven members and the minutes signing takes 2 months or more; (v) from bid opening to the start of contract implementation takes minimum of 6 to 12 months and (vi) considerable procurement delays due to registration of contracts with International Contractors/Suppliers/Consultants and price verification (this procedure is not in line with the Bank Procurement Guidelines) by MFERIT. The risk mitigation plan is at Annex 3. After risk mitigation, the procurement capacity and arrangements at the project level are considered acceptable. Procurement training will be provided to the PIU procurement specialists throughout the project implementation. More detailed information concerning the procurement under the project is described in Annex 3.

E. Social (including Safeguards)

60. **Social Impact.** The project activities are expected to make a positive impact on poverty alleviation as improved transport connectivity and service would benefit poor rural people through expanding access to markets, employment and social services and enabling users to travel more safely (Annex 6). The project will address the transport needs of low-income road users residing in remote villages in the lagging regions of the Fergana valley known for their low accessibility and poverty rates higher than the national average. Better connectivity in the lagging regions endowed with high agriculture potential could significantly increase the profitability of agricultural activities and benefit farmers directly through the improvement and expansion of their access to markets. This project will conduct an impact evaluation study to have a better understanding of the wider effects of improving the regional roads conditions on

social welfare and access to economic opportunities.

61. **Safeguards Policy.** The project triggers OP/BP 4.12 on Involuntary Resettlement. The project will not finance new road construction and the civil works will be performed within the existing right-of-way. However, minor social and economic impacts associated with the loss of land or assets (or access to land or assets) will result from the civil works to provide adequate sidewalks and drainage for rehabilitation works. Site visits to the 10 roads that have been identified so far to be part of the first phase of the project indicate that impacts are mainly related to removal of small structures (such as fences, gazebos, brickwork surrounding flower gardens) that have been informally built within the right-of-way. Private land acquisition or transfer of land usage rights are not foreseen, as all road sections affected by the project belong to the State or respective municipalities. In addition to small structures, fruit trees may also be affected if these have been planted within the right-of-way. During the civil works, the project may potentially lead to the loss or disruption of income sources of informal or formal vendors and businesses operating in project affected areas, including encroachments on rights of access and way. Neither physical resettlement of households nor restriction of access to resources is expected along the project road sections.

62. **As a guiding resettlement instrument, a Resettlement Policy Framework (RPF) has been prepared by the RRF.** The RPF was made available in-country and consulted with stakeholders on March 24 and 25, 2015 in Zangiota, Pskent, Urtachircik and Yangiyul oblasts. Details of the public consultation meeting were integrated in the RPF and the final version was disclosed in Infoshop on March 30, 2015 and in country on April 10, 2015. Resettlement Action Plans (RAPs) will be developed once the final design of the roads becomes known. Their implementation will be linked with corresponding civil works procurement milestones to ensure that compensation and assistance is delivered to project affected people prior to taking over of their land and other assets lost to the project activities.

63. **Gender Dimension.** The project is expected to generate positive impact and benefits for both women and men by addressing the distinct needs of both groups. Overall, expectations are that the roads upgrade would reduce travel times, enable users to travel more safely, enhance users' access to health service and schooling, enable easier access to markets and improve general connectivity. Road traffic data by road user category is not available but based on other Central Asian countries, male drivers who are often overrepresented in road fatality statistics stand to benefit from improved road conditions while sidewalks will be of particular benefit to pedestrians, such as children or women. The consultations to be held for the Resettlement Action Plans will encourage the active participation of the groups that may be less vocal such as women, the youth, the elderly, or community members living with a disability. All project affected people will be encouraged to express freely their needs, constraints and preferences in regard to the planned rehabilitation, improvement and construction road works to be done in their respective locations. Participation of women will be especially encouraged to account for their needs and other gender related issues as to avoid any negative gender impacts by also consulting with them separately. Results from the road user satisfaction surveys (part of project M&E framework) will be disaggregated and analyzed by gender, alongside age and other vulnerability factors, to enable rapid identification of potential negative impacts disproportionately affecting different user groups.

64. **Citizen Engagement**: Consultations with low-income households, women, and relevant stakeholders were carried out in the context of the Poverty and Social Impact Assessment

(PSIA) during project preparation. The PSIA captures the perception of project beneficiaries, including low-income and other vulnerable groups, on the adequacy of the proposed transport improvement interventions (Annex 6). The project will continue to monitor beneficiary feedback through yearly road user satisfaction surveys and grievance redress mechanism.

65. **A grievance redress and beneficiary feedback mechanism (GRM) has been designed for the implementation of RAP/RPF and cover also broader project activities.** The GRM, under the responsibility of RRF/PIU, is designed to capture feedback, complaints handling and resolution of the social and economic impacts associated with the project. The project will monitor on a quarterly basis the progress on addressing project-related grievances. This will be a part of the proposed M&E framework.

F. Environment (including safeguards)

66. **The project will finance the rehabilitation of existing roads predominantly within their existing right-of-way.** The project triggers OP/BP 4.01 Environmental Assessment and is classified as Category B for environmental assessment purposes. The RRF has prepared an Environmental and Social Management Framework (ESMF) which defines the environmental review procedures of the road rehabilitation works including the projected impacts and mitigation measures. The document was consulted with stakeholders on March 24 and 25, 2015 in Zangiota, Pskent, Urtachircik and Yangiyul rayons of Tashkent region. Details of the public consultation meeting was integrated in the ESMF and the finalized ESMF was disclosed in Infoshop on March 30, 2015 and re-disclosed in country on April 10, 2015.

67. **Based on the guiding principles outlined in the ESMF, Environmental Management Plans (ESMPs) will be prepared for project component 1.** Since the potential environmental impacts of the sub-projects will be modest and mostly known upfront, the ESMPs for them will be developed using the ESMP Checklist for Small-Scale Road Construction or Rehabilitation. ESMPs will be included into the tender packages to be issued by the RRF for procuring of works, and will then be incorporated into the contracts for the provision of work, so that compliance with ESMPs will be mandatory for contractors. Since the final design works are still ongoing for the 10 road sections which are planned for the first year, the ESMPs have been drafted but could not been finalized before the appraisal completion. As soon as the design works and the ESMPs are finalized, they will be ready for the tender process in the 1st year of project preparation.

68. **Natural Habitats OP/BP 4.04 is triggered.** It is anticipated that the project activities will be conducted on the existing routes and they will not involve large scale new construction. However, the policy is triggered to make sure that the environmental safeguards documents are informed about the definition of natural habitats and the ineligibility criteria about having any impact on natural habitats.

69. **The safeguard policies will be implemented by the RRF with a support of the CTC.** This arrangement will contribute to help build in house environment and social safeguards capacity within the RRF. Maintaining of adequate in-house capacity for safeguards management would be essential for ensuring the quality control of the supervision consultant's work and for taking relevant and timely actions on issues reported by the consultant.

70. Since the exact alignment of the candidate road sections is not defined, ESMF and RPF are prepared, consulted and disclosed (Para 59). EMPs and RAPs if required, will be prepared in parallel with the Detailed Engineering Design**.**

G. World Bank Grievance Redress

71. 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 http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

Annex 1: Results Framework and Monitoring

Country: Uzbekistan

Project Name: Regional Roads Development Project (P146334)

Results Framework

Project Development Objectives

PDO Statement

The proposed Project Development Objectives (PDOs) are to reduce road user costs on the project roads and develop a sustainable investment program for regional road asset management.

These results are at	Project Level

Project Development Objective Indicators

Indicator Name	Baseline	Cumulative Target Values							
		YR1	YR2	YR3	YR4	YR5	YR6	YR7	End Target
Vehicle operating costs for cars per km (Amount(USD))	0.27	0.27	0.26	0.25	0.24	0.23	0.21	0.21	0.21
Vehicle operating cost for trucks per km (Amount(USD))	0.52	0.52	0.50	0.48	0.46	0.44	0.42	0.41	0.41
Travel time measured by a proxy variable - average vehicle speed, km/hour (Number)	40	40	43	47	51	55	59	60	60
Adoption of a regional road rehabilitation and	Not prepared	Not prepared	Not prepared	Prepared	Prepared and	Prepared and	Prepared and	Prepared and	Prepared and

maintenance program (text)					adopted	adopted	adopted	adopted	adopted

Intermediate Results Indicators

Indicator Name	Baseline	Cumulative Target Values							
		YR1	YR2	YR3	YR4	YR5	YR6	YR7	End Target
Roads in good and fair condition as a share of total classified roads (Percentage) - (Core)	65	65	65.2	65.5	65.8	66.0	66.3	66.4	66.4
Size of the total classified network (Kilometers - Sub-Type: Supplemental) - (Core)	21995	21995	21995	21995	21995	21995	21995	21995	21995
Length of rehabilitated regional roads (Kilometers)	0	0	45	105	165	225	285	300	300
Regional road asset management system in place and used to prepare road maintenance programs (Yes/No)	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adequate equipment used for traffic surveys and road asset inventory conditions (Yes/No)	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Consolidated regional road data base using a GIS created and used (Yes/No)	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Road users satisfied with quality of roads (Percentage)	28	28	34	39	46	52	58	60	60
Female road users satisfied with quality of roads (Percentage - Sub-Type: Breakdown)	30	30	36	41	47	53	59	60	60
Male road users satisfied with quality of roads (Percentage - Sub-Type: Breakdown)	26	26	33	38	45	52	58	60	60

Indicator Description

Project Development Objective Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Vehicle operating costs for cars, US$/km	Road user costs are measured by vehicles operating costs for cars on the project roads. The indicator includes the costs of car usage, including fuel, tires, maintenance, repairs and depreciation costs.	Annual	HDM-4 analysis	RRF, World Bank
Vehicle operating cost for trucks, US$/km	Road user costs are measured by vehicles operating costs for trucks on the project roads. The indicator includes the costs of truck usage, including fuel, tires, maintenance, repairs and depreciation costs.	Annual	HDM-4 analysis	RRF, World Bank
Travel time measured by a proxy variable - average vehicle speed, km/hour	Road user costs are measured by travel time savings that are function of the average vehicle speed on the project roads.	Annual	HDM-4 analysis	RRF
Adoption of a regional road rehabilitation and maintenance program (text)	The program covers priority regional roads identified on sound technical and economic basis.	Annual	RRF	RRF

Intermediate Results Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
Roads in good and fair condition as a share of total classified roads	Percentage of the total classified road network in the project area that is in good and fair condition depending on the road surface and the level of roughness. Classified roads are the roads	Annual	Progress reports	RRF

	that have been included in the roads legislation as public roads. Please note that this indicator requires supplemental information Supplemental Value: Total classified network in the project area (KM) The Supplemental value is the total classified network in the project area. Classified roads are the roads that have been included in the roads legislation as public roads.			
Size of the total classified network	Classified roads are the roads that have been included in the roads legislation as public roads.	Annual	RRF	RRF
Length of rehabilitated regional roads	No description provided.	Annual	Progress reports	RRF
Regional road asset management system in place and used to prepare road maintenance programs	No description provided.	Annual	Progress reports	RRF/Uzavtoyul
Adequate equipment used for traffic surveys and road asset inventory conditions	No description provided.	Annual	Progress reports	RRF/Uzavtoyul
Consolidated regional road data base using a GIS created and used	No description provided.	Annual	Progress reports	RRF/Uzavtoyul
Road users satisfied with quality of roads	The percentage of respondents who are satisfied with the quality of the project roads. The baseline indicator is obtained from the road user satisfaction survey completed in April, 2015.	Annual	Road user satisfaction survey	RRF
Female road users satisfied with quality of roads	The percentage of female respondents who are satisfied with the quality of the project roads. The baseline indicator is obtained	Annual	Road user satisfaction survey	RRF

	from the road user satisfaction survey completed in April, 2015.			
Male road users satisfied with quality of roads	The percentage of male respondents who are satisfied with the quality of the project roads. The baseline indicator is obtained from the road user satisfaction survey completed in April, 2015.	Annual	Road user satisfaction survey	RRF

Annex 2: Detailed Project Description

UZBEKISTAN: Regional Roads Development Project

1. The Project consists of three main components, which are described in detail below.

2. **Component 1. Rehabilitation of Regional Roads (estimated total cost US$221.04 million, including IDA financing of US$181.04 million)[19].** This component will finance part of the priority regional road rehabilitation roads program, namely priority roads in four of the thirteen provinces and small scale road safety improvements to improve traffic safety along the selected project's road corridors[20] in one of the provinces. The priority road sections in the four provinces (Tashkent and the three oblasts in the Ferghana Valley) have been selected based on traffic volumes and road conditions[21]. Specifically, the component will finance the rehabilitation works of existing roads, including structure renewal as well as the rehabilitation of ancillary road connections (crossroads, access roads, drainage systems). This component will also support integration of road safety considerations into the design of the project's road sections and their subsequent implementation towards the mainstreaming of these practices in all the project roads.

3. The project will support rehabilitation of around 300 km of regional roads in Tashkent, Ferghana, Andijan and Namangan regions. The primarily function of regional roads is to facilitate the movement of local traffic. They provide transportation between the administrative centers, hospitals and schools of districts, towns and villages as well as a connection to the state roads. The majority of roads are paved (asphaltic concrete) however they are in a poor state of repair. The pavement width varies from 5 to 7 meters (Category III (7 meters with), IV (6 m) and V (5 m)) which has been appropriately based on traffic volumes. Most of the regional roads are of Category IV with 6 meters pavement width and up to 2 meters shoulders / footpaths. These are designed to carry traffic volumes of up to 2000 vehicles/day as per the Uzbekistan highway regulations[22]. Rehabilitation of the roads will mostly be executed within the designated highway corridors broadly following the existing horizontal alignment with enhancement where possible, with bridge and culvert repairs where appropriate. Road Safety Audits will be embedded in the engineering detailed designs. The civil works contracts will be designed to promote competition and allow streamlined contract administration.

4. Civil works of the project consist mostly of rehabilitation works to bring the selected road sections and bridges to the required Uzbekistan design standards to meet the projected transport demand. Such improvements are classified as current (mill, overlay and minor levelling) or capital repairs (replace asphalt and underlying aggregate, re-work and compact earthworks) and include widening of the carriageway with the provision of shoulders/footpaths, improvements to drainage, minor improvements to alignment, and asphaltic concrete (AC) surfacing. The pavement designs proposed are appropriate for witnessed and projected traffic levels. The design life will assume periodic maintenance at

[19] This estimates include contingencies and government contribution (taxes and custom duties).
[20] The project road corridor(s) will be selected in consultations with RRF, Uzavtoyul and Road Police and include project regional road(s) as well as other road sections (i.e. national roads) if required to achieve wider demonstration.
[21] The list of the candidate road sections identified in the Ferghana valley will be finalized based on the feasibility study, which will be carried out during project implementation.
[22] SHNK 2.05.02-07, Roads, Uzbekistan, 2008

around year 15. All the roads inspected have solid formations/ embankments which can be utilized in the permanent work. Generally the water table is low and will not impact the pavement. The road sections will be designed to a standard of 6 meters carriageway plus 2.0 x 2.0 meters shoulders. Most of the bridges along the project sections require minor repair work with the exception of two bridges in Tashkent and one in Ferghana regions that will to be strengthened.

Project Road Characteristics

No	Oblast	Code	Address	Length (km)	Traffic (AADT)	Trucks (%)	Cate_ gory	Road Condition
1	Andijan	4K103	0-13	8.0	2,945	7%	V	Poor
2	Andijan	4K-104a	0-4	4.0	1,949	13%	IV	Poor
3	Andijan	4K105	0-11	11.0	2,957	4%	III	Poor
4	Andijan	4K107	0-25	8.0	2,798	24%	IV	Poor
5	Andijan	4K116	0-15	8.0	2,132	35%	V	Poor
6	Andijan	4K83	0-17	8.0	12,235	2%	IV	Poor
7	Andijan	4K84	0-20	11.0	3,447	7%	IV	Poor
8	Andijan	4K85	0-19	8.0	2,321	16%	IV	Poor
9	Andijan	4K95	0-6	6.0	3,278	19%	IV	Poor
10	Andijan	4K98	0-17	10.0	11,036	3%	IV	Poor
11	Andijan	4K99	0-16	8.0	4,255	4%	IV	Poor
12	Andijan	4H 1071	0-8	8.0	2,182	24%	IV	Poor
13	Andijan	4H1110	0-13	8.0	3,410	10%	IV	Poor
14	Ferghana	4к -923	0-10	10.0	1,941	24%	III	Poor
15	Ferghana	4к-850	0-6	6.0	4,669	11%	IV	Poor
16	Ferghana	4к-881	8-15	7.0	5,300	11%	III	Poor
17	Ferghana	4K-883	0-6	6.0	2,071	12%	III	Poor
18	Ferghana	4K-923 A	0-8	8.0	2,570	13%	II	Poor
19	Ferghana	4H-900	0-7	7.0	1,973	5%	IV	Poor
20	Namangan	4K-427	0-5	5.0	4,244	38%	I	Poor
21	Namangan	4K-435	6-19	12.9	1,832	21%	III	Poor
22	Namangan	4K-436	5-25	20.0	3,855	37%	IV	Poor
23	Namangan	4K-447	0-20	20.0	3,684	44%	IV	Poor
24	Namangan	4K-462	0-19	19.0	3,751	42%	IV	Poor
25	Namangan	4K-467	0-22	22.0	2,529	4%	III	Poor
26	Namangan	4K-483	4-30	26.0	3,219	35%	IV	Poor
27	Namangan	4H-463	0-30	30.0	1,942	51%	V	Poor
28	Tashkent	4K708B	0-1	2.0	4,469	25%	IV	Poor
29	Tashkent	4K716B	0-2	2.0	2,856	25%	IV	Poor
30	Tashkent	4K761	4-16	12.0	3,390	25%	IV	Poor
31	Tashkent	4K743	0-7	7.0	4,269	25%	IV	Poor
32	Tashkent	4K744A	0-4	4.0	6,846	25%	III-IV	Poor
33	Tashkent	4K785B	0-12.	12.0	2,952	61%	III-IV	Poor
34	Tashkent	4к730	5-16	11.0	2,762	30%	III-IV	Poor
35	Tashkent	4к731	0-16	16.0	1,905	23%	IV-V	Poor
36	Tashkent	4H698	0-11	11.0	2,615	12%	IV	Poor
37	Tashkent	4н708	0-13	13.0	3,793	32%	III-IV	Poor
Total				394.9	3,417			

5. The first-year program covers the 10 road sections selected in the Tashkent region, with total length of approximately 90 km. The remaining road sections are in the Ferghana Valley (Andijan (tentatively 13), Ferghana (tentatively 6) and Namangan (tentatively 8)).

Selected roads per province[23]

Province	Number of sections	Length (km)
Tashkent	10	90
Namangan	8	155
Andijan	13	106
Ferghana	6	44
Total	**37**	**394**

6. **Component 2. Road Sector Institutional Strengthening (estimated total cost US$5.0 million, including IDA financing of US$5.0 million)**. This component will finance priority road sector institutional strengthening activities through following activities:

7. **Road asset management capacity review**: The support under this activity includes (i) the review of existing arrangements for regional road asset management, (ii) assessment of the technical capacity of the key agencies responsible for strategic planning and implementation of road rehabilitation/maintenance programs, (iii) identification of areas for improvement and preparation of priority activities. ECAPDEV-financed Project Preparation Consultants will provide support towards carrying out capacity assessment of Uzavtoyul in (i) collecting and compiling information on road inventory and condition (e.g. methodology for traffic surveys, available equipment for data recording and analysis, etc.); (ii) determining the condition of its regional road and need for improvement (i.e. methodology, guidelines, software tools, budget, etc.); and (iii) preparing maintenance/rehabilitation programs to maintain the road assets in good condition. The Consultants will identify technical specifications for the relevant equipment required under this activity.

8. **Support to develop regional roads rehabilitation programs**: Following the results of the road asset management review, the component will support the development of regional road database (e.g. data collection, relevant software and IT equipment, equipment for traffic and road inventory surveys, trainings…) and preparation of regional road rehabilitation and maintenance program(s). Training will also be provided to Uzavtoyul and RRF on road assets management concepts, economic evaluation of road investments and the use of the road asset management software, including GIS and map systems.

9. **Support to road construction industry (road construction contractors, scientific and project design institutes)**: This activity will support: (i) an assessment of the market structure of the local road construction industry and its capacity and identify measures to promote the development of small and medium size local contractors (ii) review of the regulatory framework and design standards for the road construction industry; (iii) development of technical/implementing regulations to apply new design standards and their harmonization with international standards; and (iv) technical capacity building of the scientific research institute on automobile roads (i.e. training, laboratory equipment).

[23] The list is provisional and subject to verification by the design, therefore it is expected that the total length of the roads to be included in the project will be less than 394 km. Therefore as estimate of 300 km is taken as a proxy for the actual scope of works.

10. More specifically, the following deliverables are envisaged:

- An evaluation of the construction industry's response to increased demand in the past five years covering (i) the analysis of demand and actual contracts; (ii) changes in the industry's structure, financial viability, productivity, and capacity including foreign contractors inputs; (iii) trends in road construction costs over the study period as well as the possible impact of limited supply on prices; and (iv) assessments of implementation delays and cost overruns;
- Identification of measures and actions to promote the development of small and medium size local contractors, taking into account the demand for the construction works in the next 10 years, desired level and quality of mechanization, quality and requirement of skilled manpower, access to funds and credit, manufactured materials and specialized plant needed to produce the planned road program,…
- Assessment of the regulatory framework for the road construction industry, including institutional set-up and capacity (e.g. skills, budget, equipment, etc.) of key agencies involved in development of standards and norms. The study will also review the existing technical regulations in the road sector and identify the areas for improvements;
- Recommendations for modernization or/and new development (if required) of technical standards and norms in the road construction sector. The possible areas for improvements are road construction design, road quality inspection (e.g. road pavement diagnostic surveys), use of modern materials and equipment, compatibility with the international standards…;
- Technical support (e.g. software, equipment) to key scientific agencies responsible for development of technical standards and norms in the road construction sector. This will enable them to implement the proposed regulatory reforms;
- Training or workshops in the field of engineering and research. Key areas could be new materials, survey techniques, latest construction techniques, value engineering methods, and road safety audits. This training program will target needs of road construction contractor, Uzavtoyul, national scientific research and road design institutes.

11. **Capacity strengthening of Republican Road Fund (RRF):** This includes training needs assessment (i.e. FIDIC rules, best practices in road management), preparation of manpower development plans for RRF and provision of equipment and devices to conduct road work inspections (pavement and structural material testing instruments).

12. **Road sector governance and capacity review**: This activity will support the overall road sector policy and institutional framework review. This includes road sector public expenditure review and identification of measures to increase accountability and value for money (i.e. validation of road rehabilitation/maintenance programs, management of technical audits…). More specifically, the following step are envisaged:

- Review of the policy and institutional framework for the road sector development and management and more specifically the role of the RRF in funding and delivering road infrastructure.
- Assessment of the level and composition of road sector expenditures, including the structure of public expenditures among the sectors and within the road sector (i.e.

capital and recurrent expenditures) and the alignment between stated policy objectives and expenditure allocations within the sector.

- Analysis of efficiency and effectiveness of public resources utilization. It will look on adequacy of planning and project selection (e.g. cost-benefit evaluation techniques, road design standards and unit costs, etc.), capital works execution (e.g. procurement procedures and practices, and project supervision) and overall governance (i.e. financial management and accounting, human resource management and planning, transparency, accountability and citizen engagement, etc.).
- Assessment of the feasibility of using Public-Private Partnership (PPP) for the management and maintenance of road assets.
- Estimation of the road construction and maintenance requirements and necessary volumes of sector funding to adequately meet the growing demand. Estimation of the level of road user charges required to bridge the financing gap and possible financing sources.
- Recommendations for restructuring the existing patterns of road sector management in order to improve efficiency, effectiveness, accountability and sustainability of public expenditure.

13. **Component 3. Project Management (estimated total cost US$9.3 million, including IDA financing of US$9.3 million).** This component will finance relevant activities to support project management and implementation, including: (i) core team consultants (CTC) to provide support to PIU in project contract management, procurement, and environmental and social safeguards; (ii) supervision consultants (SC) to support the supervision of all civil works of the entire roads financed under this project; and (iii) operating and incremental costs of PIU, including financial audits.

14. The estimated total project costs include around US$4.66 million of unallocated expenditures.

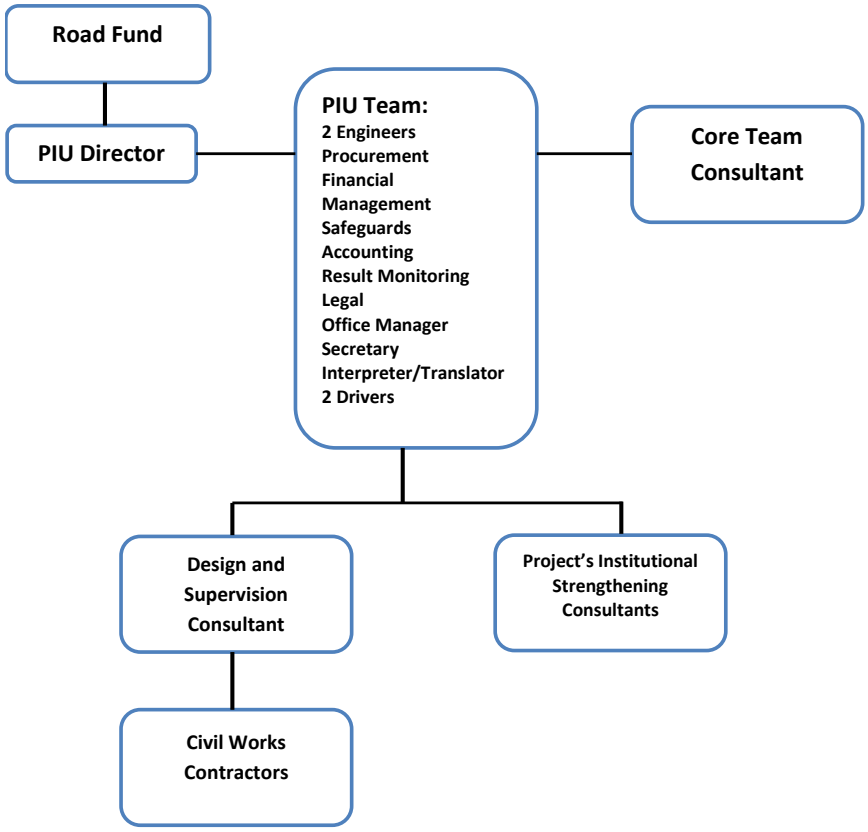
Annex 3: Implementation Arrangements

UZBEKISTAN: Regional Roads Development Project

Project Institutional and Implementation Arrangements

1. RRF will establish a Project Implementation Unit and appoint PIU Head (Director). The RRF/PIU will be staffed by assisted by technical, fiduciary, environment/social and administrative staff. The PIU will be supported by the Core Team Consultant (CTC) and by Supervision Consultants (DSC) financed by the project. The design consultants will be mobilized by the RRF/PIU through Recipient's financing to prepare feasibility studies and detailed design for the project civil works in the Ferghana Valley. The design and supervision consultants will provide ongoing support on project management and implementation by establishing and maintaining representatives in each of region and assigning a field supervision team to oversee physical works on site at each subproject. The CTC will review performance of the design and supervision consultants to ensure effectiveness of site supervision.

Implementation Arrangements



Financial Management, Disbursements and Procurement

2. The FM assessment of RRF was carried out, and concluded that the FM arrangements will meet the minimum World Bank requirements once the actions listed below are completed. The current fiduciary risk is assessed as Substantial due to the first time experience of RRF

with the World Bank, and considering that the capacity is still being built. The FM assessment of RRF reviewed the arrangements currently in place at two other PIUs within RRF, which are responsible for implementation of ongoing projects financed by ADB and IBD. Existing capacity is expected to be utilized for implementation of the proposed project, and the following additional actions have been agreed with RRF:

Summary of Actions

	Actions for capacity building	**Responsible party**	**Completion date**
1	Establishment of the PIU within RRF and hiring qualified FM specialist	RRF	By effectiveness (effectiveness condition)
2	PMM including FM sections is to be developed and agreed with the World Bank.	PIU within RRF	By effectiveness (effectiveness condition)
3	Install and modify an automated accounting system for fully automated project accounting and reporting.	RRF and PIU	By effectiveness (effectiveness condition)

3. **Staffing**: The PIU that is to be established will include an FM specialist. It is envisaged that one of the FM specialists currently working on other IFI financed projects will be hired for the purposes of this project. Still, the FM specialist will need to receive additional training on World Bank policies and procedures as well as receive additional implementation support after project effectiveness.

4. **Budgeting and planning**: RRF and its existing PIUs have established budgeting and planning procedures which will continue to be used. The annual work program and budget will be prepared by the PIU FM specialist, and reviewed and approved by the RRF Director. The project budgets would be prepared based on procurement plan, budgeted operating expenditures and disbursement estimates. All changes to the procurement plan would require review of the RRF Director and approval of the World Bank.

5. **Accounting**: The PIU within RRF will be responsible for maintenance of accounting records for components 1, 2 and 3 of the project. Project accounting records will be maintained in accordance with the Cash Basis IPSAS. At the same time, RRF will continue using accrual basis of accounting in compliance with the National Accounting Standards of Uzbekistan. PIU will install and modify the automated accounting and reporting system. This system will allow fully automated accounting and reporting, including automatic generation of SOEs, IFRs and other reports required by national legislation. The system will have inbuilt controls to ensure data security, integrity and reliability.

6. **Internal Controls**: The PIU will replicate existing policies and procedures adopted by PIUs implementing IFIs financed projects. The existing internal control system was assessed to be capable of providing reliable and adequate controls over FM and disbursement processes and procedures. These include controls for safeguard of assets, segregation of duties, authorization of transactions, review and approval of invoices and others. Internal control system to be used by PIU as well as additional reporting and auditing requirements will be

specified in detail in the PMM. The Project PMM will be prepared by the PIU within RRF prior to project effectiveness.

7. **Co-sharing**: Co-sharing will be in the form of tax exemptions. PIU will be exempt from paying VAT, Import VAT, Excise tax, Custom duties and Road fund charges on vehicles on goods, works, non-consulting services, consultants' services, training and incremental operating costs which are consumed under the project.

8. **Financial Reporting**: PIU will prepare and submit to the Bank Project IFRs every calendar quarter, starting with the quarter in which the first disbursements occur. The format of IFRs were agreed and will include (i) Project Sources and Uses of Funds, (ii) Uses of Funds by Project Activities, (iii) Project Balance Sheet, (iv) DA Statement and (v) a Statement of Expenditure Withdrawal Schedule. IFRs will be automatically generated by the project accounting software. These financial reports will be submitted to the Bank within 45 days of the end of each calendar quarter.

9. **External Audits**: PIU within RRF will be responsible for the annual audit of Project Financial Statements (PFS). The PFS audit will be conducted (i) by independent private auditors acceptable to the Bank, on TORs acceptable to the Bank and (ii) according to the ISA issued by the International Auditing and Assurance Standards Board of the International Federation of Accountants. The project audit will include (i) audit of financial statements, (ii) review of the internal control mechanisms. No entity audit is required. The following table summarizes the audit requirements for this project:

Audit Report	**Due date**
Audit of PFS include Project Sources and Uses of Funds, Uses of Funds by Project Activities, SOE Withdrawal Schedule, DA Statement, Notes to the Financial Statements, and Reconciliation Statement	Within 6 months of the end of each fiscal year and at the closing of the project.

10. The audited financial statements will be disclosed to the public in a manner acceptable to the Bank. Following the Bank's formal receipt of these statements from the Recipient, the Bank makes them available to the public in accordance with the World Bank Policy on Access to Information.

Disbursement

11. **Disbursement arrangements**: The Credit will disburse through transaction-based disbursement methods that include: (i) advances to the DA, (ii) replenishments to the DA on the basis of either Statements of Expenditures (SOEs) for expenses below the defined thresholds or full documentation for expenses above the defined thresholds, (iii) payments against Special Commitments (iv) reimbursement of eligible expenditures pre-financed by the Recipient (with full documentation and against SOEs), and (v) direct payments to third parties. Withdrawal applications will be signed by two persons: (i) an authorized representative of the Recipient (Ministry of Finance); and (ii) another designated official in RRF. The project will be required to adopt e-disbursements.

12. **Thresholds**: Disbursement will be made on the basis of full documentation for: i) works against contracts valued at US$500,000 equivalent or more; ii) goods and non-consulting services against contracts valued at US$200,000 equivalent or more; iii) consultants' services against contracts valued at US$100,000 equivalent or more for firms, and at US$50,000 equivalent or more for individual consultants. Disbursements below these thresholds and for expenditures against incremental operating costs and training would be made according to certified SOEs. Threshold for direct payments, reimbursements and issuance of special commitments is to be set at US$100,000 as requested by the PIU.

13. **Documentation for SOEs**: For all expenditures disbursed on the basis of SOEs, full documentation in support of the SOEs will be retained in PIU, for at least two years after the project closing date. This information will be available for review by Bank missions during project supervision and by the project audits.

Procurement

14. Procurement for the proposed project will be carried out in accordance with the World Bank's "Guidelines": Procurement of Goods, Works and non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011 and revised July 2014 (Procurement Guidelines) and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits & Grants by World Bank Borrowers" dated January 2011 and revised July 2014 (Consultant Guidelines) and the provisions stipulated in the Financing Agreement. For each contract to be financed by the Bank, the different procurement methods or consultant selection methods, the need for prequalification, estimated costs, prior review requirements, and time frame are agreed between the Recipient and the Bank project team in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. If there is conflict between the Government decrees, rules and regulations and the Bank Procurement and Consultant Guidelines, then Bank Guidelines shall prevail. In addition, the project will also follow "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants dated October 15, 2006 and revised in January 2011".

15. Country Procurement Assessment was conducted in 2003 (by the World Bank and ADB) and it identified certain weaknesses in the public procurement system in Uzbekistan. The recent assessments under the Country Integrated Fiduciary Assessment(CIFA) and Public Expenditures Financial Accountability Assessment(PEFA) studies indicate that there is still ample room for changes and improvement in the public procurement environment and the same weaknesses largely remain today: (i) absence of a unified legislative framework; (ii) inefficient and non-transparent procurement practices; (iii) absence of a single institution with oversight or regulatory function for public procurement; (iv) weak capacity for reviewing bidders' complaints; (v) complicated internal review/approval of bid evaluation reports which leads to lack of accountability and delays; (vi) no comprehensive anti-corruption measures; and (vii) low skills/capacity of the staff handling public procurement at various administrative level. Private sector suppliers and contractors remain unsatisfied with the rules governing public procurement and have little confidence in the system's fairness. Though the Government has started extensive reforms of its public procurement system including drafting

a Public Procurement Law based on UNCITRAL Model law, at present, the procurement environment is considered as high risk.

16. The procurement capacity assessment of the implementing agency (RRF) using PRAMS was carried out by the Bank team and identified the following additional risks: (i) the government decrees and rules and regulations have internal conflict in major provisions such as price verification which leads to considerable delays in project procurement and implementation; (ii) The requirement to clear at each stage of procurement with eleven member Inter Ministerial Bidding Committee (IMBC) leads to tremendous delays and lack of accountability of the implementing agency in procurement and project implementation (iii) the difficulty in obtaining bank guarantee for bid security and performance security by the local bidders and non-availability of alternative instruments for such purpose in the country banking system in particular Joint Ventures; (iv) there are number bid evaluation committees/stages and the interdepartmental tender committee consists of eleven members and the minutes signing takes 2 months or more; (v) from bid opening to the start of contract implementation takes minimum of 6 to 12 months and (vi) considerable procurement delays due to registration of contracts with International Contractors/Suppliers/Consultants and price verification (this procedure is not in line with the Bank Procurement Guidelines) by MFERIT. After risk mitigation, the procurement capacity and arrangements at the Project level are considered acceptable. Procurement training will be provided to the PIU procurement specialists throughout the project implementation.

17. The risks identified and mitigation measures are summarized in the table below:

Description of risk	***Rating of risk***	***Mitigation measures***	***Residual risk***
The Government Decrees and rules and regulations have internal conflict in major provisions such price verification.	S	The Bank Procurement and Consulting Guidelines shall be followed.	M
The difficulty in obtaining bank guarantee for bid security and performance security by the local bidders and non-availability of alternative instruments for such purpose on the country banking system.	S	There is an ongoing dialogue with the commercial banks to find a solution at this stage	S
Multiple Evaluation committees: The Bid Documents/RFPs, BER/TER have to be reviewed and cleared by the bid evaluation committee at PIU and then 11 member Inter Ministerial Bidding Committee (IBMC). These procedures lead to delays and lack of accountability at implementing agency level. , It takes up to a couple of months to sign the minutes and approve bid evaluation reports (BERs), etc.	H	Country Portfolio Performance Review Meetings will closely follow up delays and is in discussion to improve. The delays caused during the evaluation would be signaled to the Government and to the WB Governor's office.	S
Price verification and Contract registration requirements are arduous and will seriously	H	The project team will monitor contract award notification	S

impact project implementation		and publication of contract award details as per Bank Procurement and Consultant Guidelines. The team will further monitor receipt of signed prior review contracts and take timely action to ensure Bank Guidelines are followed.	
Staff of implementing agency has limited experience with the Bank procedures, guidelines.	H	Training will be provided by the Bank's the procurement specialist during project preparation and implementation. The team will support RRF/PIUs to improve procurement management efficiency. The procurement specialists and an operational officer would be based in the field and thus be able to provide timely support. Procurement supervision will be carried out on a timely basis as required by the client. Further hiring of experienced procurement specialists in the PIU may be required by the project effectiveness.	S
Government officials may intervene in the procurement decisions under the Project.	S	The Bank would follow-up closely that the Bank's procurement procedures are followed strictly. Any complaints shall be handled consistently and followed-up till fully addressed.	M
Inadequate complaint handling	S	The POM will describe the project complaint handling system including timeline to ensure all complaints are handled fairly in a timely manner. The project will ensure disclosure as described below	M

Overall Risk	High		Substantial

H: High; S: Substantial; M: Moderate and L: Low.

18. **Procurement Arrangement and Staffing**: The PIU under the Republican Road Fund is responsible for the day-to-day implementation of the project and has to be established yet. Further hiring of experienced international and national procurement specialists in the PIU may be required by the project effectiveness. Procurement training will be provided to the procurement specialists of the PIU and Road Fund staff throughout the project implementation. It would be strongly suggested that the Evaluation Committee members shall be also trained in the Bank procurement and evaluation procedures. The PMM shall be developed by the RRF and that shall reflect the detailed internal approval stages and the approval process and stages, timeline. The price verification and reasonableness of recommended contract value will be carried out as part of bid evaluation and the contracts will be awarded and signed as soon as Bank's no-objection is issued and signed contract and Performance Security (whenever required) is submitted to the Bank within 6 weeks of Bank's no-objection to the BER. The PMM will also indicate the timeline and procedures for complaint handling. Any complaints concerning the procurement or other aspects of the Project implementation have to be registered and dealt within a time frame agreed in the PMM.

19. Following the Memorandum of Understanding (MoU) signed on January 8, 2014 between the Bank and the Government the project will initiate advance procurement as soon as possible. The procurement of civil works contract for road works of Tashkent Region and selection of consultant for Design (including feasibility study for Namangan, Andijan and Fergana) and Construction Supervision Consultant should be initiated immediately, at least by negotiations.

20. The project will need retroactive financing to finance the above consultancy contract, PIU staff, civil works (Tashkent Oblast) and any other procurements as agreed in the procurement plan.

21. **Record Keeping**: The procurement specialist of the PIU would be responsible for maintaining of the procurement files/records. Separate files should be maintained for each contract (including both hard copy and electronic copy). All the procurement documents (including bids, technical and financial proposals of consulting services) should be kept to the end of the project and then transferred to the Government Archives. The originals of various valuable documents (such as bid security, performance guarantee, advance guarantee) are being kept in the safe by the PIU's accountant.

22. **Procurement Supervision and Procurement Post Review**: Routine procurement reviews and supervision support will be provided by the procurement specialist based in the region/country office. In addition, two supervision missions are expected to take place per year during which ex-post reviews will be conducted for the contracts that are not subject to Bank prior review on a sample basis (e.g., 20 percent in terms of number of contracts). One

ex-post review report will be prepared per fiscal year, including findings of physical inspections for not less than 10 percent of the contracts awarded during the review period.

23. **Disclosure**: The following documents shall be disclosed in the RRF website: (i) procurement plan with estimated cost and updates, (ii) invitation for bids for goods and works for all ICB and NCB contracts, (iii) request for expression of interest for selection/hiring of consulting services, (iv) contract awards of goods and works procured following ICB/NCB procedures, (v) list of contracts/purchase orders placed following shopping procedure on quarterly basis, (vi) short list of consultants, (vii) contract award of all consultancy services, (viii) list of contracts following DC or CQS or SSS on a quarterly basis, (ix) Monthly physical and financial progress of all contracts and (x) action taken report on the complaints received on a quarterly basis. The works bidding documents shall include a clause to put up a notice board in the construction site disclosing the contract details (description, contractor name and contract amount, starting date, completion date, physical progress and financial progress).

24. The following details shall be sent to the Bank for publishing in the Bank's external website and UNDB: (a) invitation for bids for procurement of goods and works using ICB procedures, (b) request for expression of interest for consulting services with estimated cost more than $ 300,000, (c) contract award details of all procurement of goods and works using ICB procedure, (d) contract award details of all consultancy services with estimated cost more than $300,000, and (e) list of contracts/purchase orders placed following SSS or CQS or DC procedures on a quarterly basis.

25. **Procurement Planning**: RRF has developed the Procurement Plan (see the summary below) covering procurement activities for the entire period of project implementation. This Procurement Plan will be continuously updated as the Project progresses and will be reviewed and approved by the Bank accordingly. The Procurement Plan will be published on the Bank's external website and Road Fund website by the time of Project negotiations. The General Procurement Notice (GPN) and advertisement of procurement opportunities will be published on the PIU's website and Uzbek media. The ICBs and major consultancy services will also be published in the Bank's external website and UN development business. The Recipient has the option of not disclosing the cost estimates while disclosing the procurement plan.

26. The items to be procured would include the followings:

(i) Procurement of Works: There will be two packages for (i) Rehabilitation of the Regional Roads in Tashkent Oblast and (ii) Rehabilitation of the Regional Roads in Andijan, Ferghana and Namangan Oblasts with up to five lots following the pre-qualification (PQ) process. There will two PQ process, one for Tashkent and another for Andijan, Ferghana and Namangan Oblasts.
(ii) Procurement of Goods: Goods procured under the project would include (a) road safety equipment; (b) equipment for traffic surveys, road inventory. These goods will be procured following ICB procedures. Small value equipment like vehicles, office equipment, etc. would be purchased through Shopping.

(iii) The Bank's latest Standard Bidding Documents (SBDs) for Goods and works including Standard PQD for works shall be used for procurement of goods and works following ICB procedure. Domestic preference according to the Procurement Guidelines will apply to goods contracts only.

(iv) Consulting Services: The major consulting services would include: (a) Construction Supervision Consultant; (b) TA to the Road Fund: (c) Road Sector Financing and Governance Review; (d) Road Safety Improvement and (e) Road Asset Management System and (f) financial audit. The Standards RFP will be used.

Procurement Plan – Works and Goods – Major procurements

Description of the procurement	**Estimated Cost (US$ equivalent)** [24]	**Procurement Method**	**WB Review (Prior/ Post)**	**Date of Draft BD to WB**	**Date of Contract Signature**
1	**2**	**3**	**4**	**5**	**6**
1. Rehabilitation and maintenance of regional roads in Tashkent oblast (90 km)	37,500,000	ICB following PQ	Prior	September 1, 2015	April 25, 2016
2. Rehabilitation and maintenance of regional roads in Andijan, Ferghana and Namangan oblasts (around 300 km) – three lots	127,080,000	ICB following PQ	Prior	September 10, 2016	May 5, 2017
3. Road Rehabilitation and Maintenance Programing Tools (Supply & Installation) Equipment for conducting traffic surveys, road inventory, road inspection works and road laboratory quality control and testing.	3,250,000	ICB	Prior	March 16, 2016	November 16, 2015

Procurement Plan – Major Consultancy Services

[24] Contingencies and taxes are not included

Description	Estimated Cost (US$ equivalent)	Procurement Method	WB Review (Prior/ Post)	Draft RFP (incl. TOR, Short List) to the WB	Date of Contract Completion
Construction Supervision Consultant	7,000,000	QCBS	Prior	September 16, 2015	September 30, 2021
Road asset management review. Development of regional roads rehabilitation program-Road sector governance review. Support to road construction industry. Capacity strengthening of RRF	1,750,000	QCBS	Prior	September 16, 2015	September 30, 2021
Core Team Consultants	500,000	QCBS	Prior	September 16, 2015	September 30, 2021
Financial Audit	200,000	LCS	Prior	December, 2015	September 30, 2021

Thresholds for procurement methods and Bank's prior review:

Expenditure Category	Contract Value Threshold (US$)	Procurement Method	Contracts Subjects to Prior Review (US$)
Goods (including technical services)	>=1,000,000	ICB	All ICB contracts
	< 1,000,000	NCB	First 2 NCB contracts
	<100,000	Shopping	First 1 contract
	NA	DC**	SSS contracts >=20,000
Works	>=5,000,000	ICB	All ICB contracts
	<5,000,000	NCB	First 2 contracts and contracts estimated to cost>=1,000,000
	<500,000	Shopping	First 1 contract
	NA	DC/SSS**	SSS contracts >=30,000
Consultant Services (including training)	Irrespective of Value	QCBS, QBS, FBS, LCS, CQS*	All contracts above >=300,000 for firms plus the first CQS contract regardless of value; and all contracts >=50,000 for individuals; and all SSS contracts.
	NA	SSS**	
	NA	IC	

Notes: a) Shortlist may compose entirely of national consultants for assignments of less than

US$300,000 equivalent per contract. b) *As appropriate, CQS may be adopted for assignments costing less than $300,000.
All negotiations with lowest bidder, cancellation of procurement, of selection process and/or re-bidding shall be subject to prior review. ** - to be reflected and agreed in the procurement plan in advance
ICB – International Competitive Bidding
NCB – National Competitive Bidding
DC – Direct Contracting
QCBS – Quality and Cost Based Selection
QBS – Quality Based Selection
LCS – Least Cost Selection
FBS – Fixed Budget Selection
CQS – Selection Based on Consultants' Qualifications
SSS- Single Source Selection

27. It has been agreed that if a particular invitation for bid comprises of several packages, lots or slices, and invited in the same invitation for bid, then the aggregate value of the whole package determines the applicable threshold amount for procurement and also for the review by the Bank. The NCB conditions will be part of Credit Agreement as an Annex 1 to the Schedule.

Safeguards

Environmental and Social (including safeguards)

28. **The project is classified as environmental Category B according to OP/BP 4.01**. It will finance the rehabilitation of several priority sections of the existing roads. Works to be undertaken in various locations will be similar in terms of applied technologies and scope. Their potential environmental risks and measures required for mitigation of these risks are also mostly common for the target sections of roads and are well known upfront. An Environmental and Social Management Framework (ESMF) and a Resettlement Policy Framework (RPF) will provide guiding principles for environmental and resettlement management. A checklist for developing site-specific ESMPs for small scale road construction or rehabilitation will be used as a simplified tool applicable to individual investments.

29. Works to be supported by the project are low risk activities to be undertaken on the existing roads in the current right-of-way, without tangible widening or re-routing of the carriageways. Most of these roads pass through significantly transformed landscapes, away from important habitats and biodiversity hotspots. If any road section is identified to be in a natural habitat, the sub-project will not be eligible for financing or a Level 1 restructuring will be necessary. Since the tentative project locations are not within the borders of any culturally or physically sensitive site, the OP 4.11 has not been triggered. Due to the scale of the works, a major excavation is not foreseen, but still in case anything found during project implementation, the chance find procedures will be initiated and the works will stop immediately until national and Bank clearance is obtained for proceeding. Potential environmental issues associated with rehabilitation of these roads are expected to be minor and

typical for small-scale rehabilitation works on roads, mainly comprising: construction waste management, sourcing of natural construction materials (soil/gravel/sand), running of small asphalt/concrete plants, and maintaining/servicing construction machinery.

30. Natural Habitats OP/BP 4.04 is triggered. It is anticipated that the project activities will be conducted on the existing routes and they will not involve large scale new construction. However, the policy is triggered to make sure that the environmental safeguards documents are informed about the definition of natural habitats and the ineligibility criteria about having any impact on natural habitats.

31. Project preparation and implementation include public consultation on the environmental and social risks associated with the project interventions as well as on the proposed ways of their mitigation. The final ESMF has been consulted with stakeholders, disclosed on Ministry of Finance's website on April 10, 2015 and was sent to Infoshop.

32. RRF is responsible for due application of environmental and social safeguards. Due environmental diligence of the RRF will include assuring: (i) presence of satisfactory site-specific ESMPs for all sections of roads under rehabilitation; (ii) presence of the required permits for waste disposal, quarrying and borrowing, operation of asphalt/concrete plants, etc., as applicable; (iii) proper application of mitigation measures provided in the site-specific ESMPs in the course of works and upon their completion; and (iv) observance of occupational safety rules as well as safety of traffic and pedestrian movement in and around work sites. For meeting such standards, RD, through FPU, will exercise quality control of ESMPs, guarantee their inclusion in the bidding documents and incorporation into the works contracts, and will maintain efficient mechanism of field environmental monitoring of works.

33. The Core Team Consultant will assist RRF/PIU to monitor compliance with safeguards documents. However, maintaining of adequate in-house capacity for safeguards' management would be essential for ensuring quality control of the supervision consultant's work and for taking relevant and timely action on the issues reported by the consultant.

34. **Social Impact**. Positive impact of the project activities is expected on poverty alleviation as improved transport service would benefit poor rural people through expanding access to markets, employment and social services and enabling users to travel more safely. Rehabilitation/maintenance/construction works of around 300 km of regional roads will benefit around 2.3 million inhabitants through better access to 145 villages and 5 districts in Tashkent. The Project will address the transport needs of low-income road users residing in the poorest and remote villages in the lagging regions known for their low accessibility and poverty rates higher than the national average of 13.5 percent. The improved accessibility could contribute in reducing the country's regional disparities as the better connectivity in the lagging regions endowed with high agriculture potential could significantly increase the profitability of agricultural activities and benefit farmers directly through an improvement and expansion of their access to markets.

35. **Safeguards Policy**. The Project triggers OP/BP 4.12 on Involuntary Resettlement but largely as a precautionary measure. The potential social impact that road works may entail in

terms of land acquisition and resettlement is considered to be acceptably low to moderate as the project will not finance new road construction and the civil works will be performed within the existing right-of-way. However, minor land acquisition may take place to provide adequate sidewalks and drainage for rehabilitation works. Neither resettlement nor restriction of access to resources or income streams is expected along the project road sections.

36. **As a guiding resettlement instrument, a Resettlement Policy Framework (RPF) has been prepared by the RRF.** The RPF was made available in-country and consulted with stakeholders on March 24 and 25, 2015 in Zangiota, Pskent, Urtachircik and Yangiyul oblasts. Details of the public consultation meeting were integrated in the RPF and the final version was disclosed in Infoshop on March 30, 2015 and in country on April 10, 2015. Resettlement Action Plans (RAPs) will be developed once the final design of the roads becomes known. Their implementation will be linked with corresponding civil works procurement milestones to ensure that compensation and assistance is delivered to project affected people prior to taking over of their land and other assets lost to the project activities.

37. **Gender Dimension**. During project consultations special attention will be paid to the gender aspect of the project to enable broad participation of both women and men. This will allow them to express freely their needs, constraints and preferences in regard to the planned rehabilitation, improvement and construction road works to be done in their respective locations. Participation of women will be especially encouraged to account for their needs as to avoid any negative gender impacts. Based on the meetings and consultations held with the affected people, the findings and resulting mitigation measures will be incorporated in the resettlement plan. However, it is likely that no gender-related constraints are expected under the project activities, as these will rather generate positive impact and benefits for both women and men with their livelihood improved. Overall, expectations are that the roads upgrade would reduce travel times; enable users to travel more safely; enhance users' access to health service and schooling; enable easier access to markets; and improve general connectivity.

38. **Citizen Engagement:** Consultations with low-income households, women, and relevant stakeholders were carried out in the context of the Poverty and Social Impact Assessment (PSIA) during project preparation. The PSIA captures the perception of project beneficiaries, including low-income and other vulnerable groups, on the adequacy of the proposed transport improvement interventions (Annex 6). The project will continue to monitor beneficiary feedback through yearly road user satisfaction surveys and grievance redress mechanism. The road user satisfaction survey will capture, on the annual basis, public opinion on quality, safety and reliability of the project roads. It is designed to collect information from all groups of road users, including non-car users who are likely to be low-income population or/and females. The survey will be complemented by a robust system of grievance redress mechanisms that will monitor the implementation of RPF/RAPS/EMF and also communicate systematic information on the objectives and implementation progress of the project. Assistance will be provided to the beneficiaries/project affected peoples as well as to the general public through focal points in local administrations as well as by the PIU/RRF.

Annex 4: Implementation Support Plan

UZBEKISTAN: Regional Roads Development Project

Strategy and Approach for Implementation Support

1. The implementation support strategy is informed by the risks and mitigation measures identified in the SORT, and it is tailored to the specific needs of the project. The main objective of the implementation support is to ensure quality of works, timely award of contracts, timely review and decision-making on consultants' reports by the RRF and adherence to the implementation schedule.

2. Supervision will also focus on monitoring compliance with World Bank fiduciary, environmental and social safeguards requirements. Emphasis will be placed on upstream reporting, auditing and accountability, and technical compliance measures to ensure early detection and remedy of problems.

3. The project implementation support will also put a specific emphasis on timely implementation of capacity building and strengthening activities in RRF and in Uzavtoyul and the implementation of the studies.

4. The PIU/RRF with the support of the CTC will prepare and submit to the Bank a detailed consolidated project implementation progress report on a quarterly basis. It will provide the status of the project activities and identify all implementation issues facing the project. These reports combined with site visits will be used as the basis for undertaking substantive reviews of implementation progress and reaching agreement with the client on: (i) the outcome of the reviews, (ii) decisions on consultants' studies and planning capacity building and strengthening activities under the project, (iii) the resolution of implementation issues facing the project, and (iv) revising the implementation schedule and verifying consistency between the project activities as planned and the financing plan, if needed.

Implementation Support Plan

5. The Bank's project team will provide timely and effective implementation support through combination of daily supervision and semiannual implementation support missions. Key members of the Bank's team, including the task team leader, road engineer, procurement, financial management, environmental and social development specialists are based in the region and in the country office in Uzbekistan. This will enable the task team to provide more effective supervision and daily implementation support to the RRF and Uzavtoyul. In addition, it will allow early detection and remedy of any issues that arise during implementation.

6. **Project Management**: The TTL of the project who is based in DC will conduct the quarterly supervision of the project, liaise with the client on a daily basis, and will coordinate with project team members based in the region and HQ to ensure timely guidance and support to the client.

7. **Capacity Building and Technical Assistance**. Transport specialists specializing in various areas (e.g., road safety, routine maintenance, road management system, transport economics) will be engaged to provide support to the RRF and Uzavtoyul in the timely and quality implementation of the respective activities.

8. **Engineering.** The road engineer will provide support to the RRF and Uzavtoyul in the review of designs, supervision and management of civil works contracts. The engineer jointly with the RD staff will conduct regular site visits and review of documentation to ensure adequate quality of the rehabilitation works.

9. **Financial Management:** FM support will be provided during project preparation and implementation and will consist of the following:

(a) Trainings on World Bank policies and procedures organized for PIU FM staff as needed during the project preparation and during project implementation;
(b) joint risk-based FM implementation support visits will be conducted within six months from the project effectiveness date, and then at risk determined intervals, covering the following: i) project accounting and internal control systems; ii) budgeting and planning arrangements; iii) disbursement arrangements and funds flows; iv) review of supporting documentation for selected project transactions;
(c) The Bank will also review project's quarterly IFRs as well as the annual audited project financial statements and accompanying management letters.

10. **Procurement**: The procurement related implementation support will include: (a) timely advice on various procurement related issues, (b) guidance on the Bank's Procurement Rules and Guidelines; and (c) monitoring of procurement progress against the procurement plan.

11. **Environmental and Social Safeguards:** The Bank's environmental and social safeguards specialists will provide regular support in further strengthening the safeguards management capacity of the RD's Resettlement and Environment Division. In addition, the Bank's environment safeguards specialist will closely monitor implementation of the agreed site specific ESMPs, will conduct site field visits on annual basis to monitor the implementation of safeguards policies and provide guidance to the RRF's environment safeguards team to address the issues that may arise. The social specialist will be engaged on as needed bases, if involuntary resettlement or land acquisition issues arise.

Period	Activity	Skills Needed	Resource Estimate in SWs
First 12 months	Project management	Task Team Leader	8
	Support with implementation of institutional capacity building and project implementation support activities	Transport Specialist	5
	Support with implementation of road safety technical assistance	Road Safety Specialist	1
	Project implementation guidance and sector dialogue advice	Program Task Leader	4
	Technical review of detailed designs	Road Engineer	4
	Procurement review of the bidding documents	Procurement Specialist	4
	Financial management and disbursements	Financial Management Specialist	3
	Environmental supervision	Environmental Specialist	3
	Support with social safeguard compliance	Social Development Specialist	1

12-62 months	Project management	Task Team Leader	24
	Support with implementation of institutional capacity building and project implementation support activities	Transport Specialist	12
	Support with implementation of road safety technical assistance	Road Safety Specialist	3
	Support with preparation and implementation of design-build contract	Transport Specialist	1
	Project implementation and sector policy guidance	Program Task Leader/Lead Transport Specialist	4
	Design supervision review and civil works implementation supervision	Road Engineer	4
	Environmental supervision	Environmental Specialist	5
	Social supervision	Social Development Specialist	1
	Financial management and disbursements	Financial management Specialist	4
	Procurement review of bidding documents and processes	Procurement specialist	8

Skills Mix Required

Skills Needed	Number of Staff Weeks	Number of Trips	Comments
Task Team Leader (TTL)	32	Field trips as required	Washington based
Transport specialist	17	Two	Country based
Road Safety Specialist	4	One	Washington based
Transport Specialist (ME expert)	1	One	Washington based
Road Engineer	8	Two	Region-based
Environmental Specialist	7	Four	Region based
Social Specialist	2	Four	Region-based
Procurement Specialist	12	Field trips as required	Country-based
Financial Management Specialist	7	Field trips as required	Region-based

Annex 5: Economic Analysis

UZBEKISTAN: Regional Roads Development Project

1. In order to ensure that all project roads generate sufficient economic benefits that warrant rehabilitation, a cost-benefit analysis was conducted for the project roads using the Highway Development and Management Model (HDM-4) that computes annual road agency and user's 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. The resources consumed and vehicle speeds are related to traffic volume and composition, and road surface type, geometric characteristics and roughness. The model computes the total transport costs for the without project and with project alternatives computing the net benefits of the project alternatives in relation to the without project alternative.

2. The quantified benefits computed by HDM-4 comprise savings in vehicle operating costs, travel time costs and road maintenance costs due to the road rehabilitation. The following assumptions were applied in the HDM-4 calculations (i) the discount rate is 12 percent and the evaluation period is 20 years; (ii) a conversion factor of 0.80 is applied to identify economic costs; (iii) the road works will start in 2015 and construction will be completed within one year; (iv) the average daily traffic annual increase rate from 2015 to 2019 is 6.0 percent and after 2020 it is 4.0 percent for all vehicles, considering that the average annual GDP growth in Uzbekistan from 2010 to 2013 was 8.0 percent and the GDP growth forecast by the IMF for Uzbekistan is 5.9 percent per annum from 2014 to 2018; (v) no generated traffic is considered to occur after the road rehabilitation; and (vi) the "without project" scenario assumes that routine maintenance, pothole patching and reconstruction, when the road reaches very poor condition, will be conducted over the evaluation period.

3. The table below presents the project roads basic characteristics and the estimated rehabilitation costs. The 37 project roads total 394.9[25] km and have an average traffic of 3,417 vehicles per day with 27 percent of trucks on average. All roads are in poor condition with an average roughness of around 10 IRI, m/km. The average cost of the rehabilitation works is assumed to be US$500,000 per km.

4. The table below presents the vehicle fleet economic unit costs, basic characteristics and typical traffic composition on the project roads, based on the HDM-4 calibration study done in 2014 for Uzbekistan26. The average percent of cars on the vehicle fleet is 71 percent.

[25] The project scope will include about 300 km of roads. The justification is provided in footnote 22 of Annex 2.
[26] Calibration of HDM-4 for Republican Road Fund Uzbekistan, June 2014, Padeco Co., LTD.

Table 1: Vehicle Fleet Economic Unit Costs and Basic Characteristics

	Car	Mini Bus	Bus	Small Truck	Medium Truck	Heavy Truck	Artic. Truck
Economic Unit Costs							
New Vehicle Cost (US$/vehicle)	11,500	17,000	90,000	17,500	35,000	45,000	120,000
New Tire Cost (US$/tire)	45.00	55.00	160.00	170.00	190.00	250.00	320.00
Fuel Cost (US$/liter)	0.58	0.58	0.39	0.58	0.39	0.39	0.39
Lubricant Cost (US$/liter)	6.40	6.40	6.40	6.40	6.40	6.40	6.40
Maintenance Labor Cost (US$/hour)	4.42	4.42	4.86	4.42	4.86	4.86	4.86
Crew Cost (US$/hour)	0.00	2.79	3.35	3.70	2.63	3.02	3.56
Overhead (US$/year)	400	450	800	450	450	600	800
Interest Rate (%)	12	12	12	12	12	12	12
Working Passenger Time (US$/hour)	3.37	1.16	1.16	0.00	0.00	0.00	0.00
Non-working Passenger Time (US$/hour)	1.01	0.35	0.35	0.00	0.00	0.00	0.00
Cargo Delay (US$/hour)	0.00	0.00	0.00	0.09	0.19	0.25	0.32
Basic Characteristics							
Kilometers Driven per Year (km)	15,000	34,000	70,000	30,000	40,000	86,000	86,000
Hours Driven per Year (hr)	550	850	1,750	1,300	1,200	2,050	2,050
Service Life (years)	10	8	12	8	12	14	14
Percent Private Use (%)	100	0	0	0	0	0	0
Number of Passengers (#)	4	11.0	36.0	0.0	0.0	0.0	0.0
Work Related Passenger-Trips (%)	30	62	64	0	0	0	0
Gross Vehicle Weight (tons)	1.3	3.4	14.2	3.7	7.5	14.8	29.7
Equivalent Standard Axels (ESA)	0	0.02	1.980	0.020	0.780	0.950	2.930
Typical Traffic Composition (%)	71%	2%	2%	5%	8%	7%	5%

5. The table below presents the resulting unit road user costs (vehicle operating costs and travel time costs), in US$ per vehicle-km, for different roughness levels.

Table 2: Unit Road User Costs Function of Roughness (US$ per vehicle-km)

Roughness (IRI, m/km)	Car	Mini Bus	Bus	Small Truck	Medium Truck	Heavy Truck	Artic. Truck
2	0.21	0.30	0.62	0.30	0.40	0.59	0.83
4	0.21	0.30	0.64	0.31	0.42	0.63	0.87
6	0.22	0.32	0.67	0.33	0.45	0.68	0.92
8	0.24	0.35	0.76	0.35	0.48	0.72	0.99
10	0.27	0.38	0.88	0.38	0.52	0.78	1.08
12	0.30	0.43	1.01	0.41	0.57	0.85	1.18

6. The overall Economic Internal Rate of Return (EIRR) of the program is 44.3 percent and the Net Present Value (NPV) is US$209.39 million. The table below presents the economic evaluation results per project road.

Table 3: Economic Evaluation Results

Oblast	Code	Address	EIRR (%)	NPV (M US$)
Andijan	4K103	0-13	35.1%	2.45
Andijan	4K-104a	0-4	22.7%	0.52
Andijan	4K105	0-11	35.3%	3.39
Andijan	4K107	0-25	33.2%	2.21
Andijan	4K116	0-15	24.9%	1.26
Andijan	4K83	0-17	217.4%	38.52
Andijan	4K84	0-20	41.9%	4.59
Andijan	4K85	0-19	27.2%	1.51
Andijan	4K95	0-6	39.6%	2.27
Andijan	4K98	0-17	187.1%	39.42
Andijan	4K99	0-16	53.5%	5.03
Andijan	4H 1071	0-8	25.5%	1.33
Andijan	4H1110	0-13	41.4%	3.27
Ferghana	4к -923	0-10	22.6%	1.29
Ferghana	4к-850	0-6	59.8%	4.51
Ferghana	4к-881	8-15	69.9%	6.71
Ferghana	4К-883	0-6	24.2%	0.89
Ferghana	4К-923 А	0-8	30.3%	1.86
Ferghana	4Н-900	0-7	23.0%	0.93
Namangan	4К-427	0-5	53.3%	3.13
Namangan	4К-435	6-19	21.4%	1.46
Namangan	4К-436	5-25	47.6%	10.38
Namangan	4К-447	0-20	45.2%	9.50
Namangan	4К-462	0-19	46.1%	9.35
Namangan	4К-467	0-22	29.8%	4.95
Namangan	4К-483	4-30	38.8%	9.49
Namangan	4Н-463	0-30	22.7%	3.86
Tashkent	4К708В	0-1	56.7%	1.38
Tashkent	4К716В	0-2	34.0%	0.58
Tashkent	4К761	4-16	41.1%	4.85
Tashkent	4К743	0-7	53.7%	4.43
Tashkent	4К744А	0-4	97.0%	6.28
Tashkent	4К785В	0-12.	35.2%	3.69
Tashkent	4к730	5-16	32.7%	2.96
Tashkent	4к731	0-16	22.2%	1.97
Tashkent	4Н698	0-11	30.9%	2.65
Tashkent	4н708	0-13	46.7%	6.54
Total			44.3%	209.39

7. Sensitivity analysis shows that all project roads would be economically justified even if construction cost were 15 percent higher or if the project benefits were 15 percent lower. The table below shows the results of the sensitivity analysis considering: (i) increasing construction costs by 15 percent, (ii) decreasing project benefits by 15 percent, and (iii) increasing construction costs by 15 percent and decreasing project benefits by 15 percent. If construction costs were 15 percent higher, the overall ERR reduces to 37.0 percent and if the project benefits were 15 percent lower, the overall ERR reduces to 35.8 percent. Under the worst case scenario of increase in costs and decrease in benefits by 15 percent, the overall EIRR reduces to 30.3 percent. The inclusion of the social cost of CO2 emissions, at US$30 dollar per ton, does not change the economic evaluation results due to the very small reduction on CO2 emissions expected with the project.

Table 4: Sensitivity Evaluation Results

Oblast	Code	Address	Base EIRR (%)	A: Cost + 15% (%)	A: Benefit - 15% (%)	A & B (%)
Andijan	4K103	0-13	35.1%	28.4%	26.9%	22.6%
Andijan	4K-104a	0-4	22.7%	17.0%	16.0%	13.2%
Andijan	4K105	0-11	35.3%	28.5%	27.0%	22.7%
Andijan	4K107	0-25	33.2%	26.6%	25.1%	21.1%
Andijan	4K116	0-15	24.9%	19.0%	17.9%	14.8%
Andijan	4K83	0-17	217.4%	201.4%	204.7%	177.0%
Andijan	4K84	0-20	41.9%	34.6%	32.9%	27.8%
Andijan	4K85	0-19	27.2%	21.1%	19.9%	16.5%
Andijan	4K95	0-6	39.6%	32.5%	30.8%	26.0%
Andijan	4K98	0-17	187.1%	172.3%	174.0%	150.3%
Andijan	4K99	0-16	53.5%	45.4%	43.6%	37.0%
Andijan	4H 1071	0-8	25.5%	19.5%	18.4%	15.3%
Andijan	4H1110	0-13	41.4%	34.1%	32.5%	27.4%
Ferghana	4к -923	0-10	22.6%	16.9%	15.9%	13.1%
Ferghana	4к-850	0-6	59.8%	51.3%	49.4%	42.1%
Ferghana	4к-881	8-15	69.9%	60.8%	58.9%	50.3%
Ferghana	4K-883	0-6	24.2%	18.3%	17.2%	14.3%
Ferghana	4K-923 A	0-8	30.3%	23.9%	22.6%	18.9%
Ferghana	4H-900	0-7	23.0%	17.2%	16.2%	13.4%
Namangan	4K-427	0-5	53.3%	45.3%	43.4%	36.9%
Namangan	4K-435	6-19	21.4%	15.7%	14.8%	12.2%
Namangan	4K-436	5-25	47.6%	40.0%	38.2%	32.4%
Namangan	4K-447	0-20	45.2%	37.7%	35.9%	30.4%
Namangan	4K-462	0-19	46.1%	38.6%	36.8%	31.2%
Namangan	4K-467	0-22	29.8%	23.4%	22.1%	18.5%
Namangan	4K-483	4-30	38.8%	31.7%	30.1%	25.4%
Namangan	4H-463	0-30	22.7%	16.9%	15.9%	13.1%
Tashkent	4K708B	0-1	56.7%	48.5%	46.6%	39.6%
Tashkent	4K716B	0-2	34.0%	27.3%	25.8%	21.7%
Tashkent	4K761	4-16	41.1%	33.9%	32.2%	27.2%
Tashkent	4K743	0-7	53.7%	45.6%	43.8%	37.2%
Tashkent	4K744A	0-4	97.0%	86.3%	84.7%	72.7%
Tashkent	4K785B	0-12.	35.2%	28.4%	26.9%	22.7%
Tashkent	4к730	5-16	32.7%	26.2%	24.7%	20.8%
Tashkent	4к731	0-16	22.2%	16.5%	15.5%	12.8%
Tashkent	4H698	0-11	30.9%	24.4%	23.1%	19.3%
Tashkent	4н708	0-13	46.7%	39.1%	37.4%	31.7%
Total			44.3%	37.0%	35.8%	30.3%

8. Public sector financing is considered to be the appropriate vehicle for financing the road rehabilitation as the large initial costs are not commensurate with sector revenues. Public investment in road infrastructure 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, road safety, transport planning, and environmental risk, safeguards, procurement, and financial management.

Annex 6: Project Contribution to Poverty Reduction and Shared Prosperity Corporate Agenda

UZBEKISTAN: Regional Roads Development Project

1. Drawing on existing economic and social sources for Uzbekistan as well as the Poverty and Social Impact Analysis (PSIA)[27] which has been carried out as part of project preparation, this section summarizes key economic and socio-demographic trends observed in Uzbekistan and the Ferghana Valley and Tashkent region. The section further describes the expected induced impact of the future railway link in the Valley, the proposed regional road project and, specifying likely benefits on the poor and the bottom 40 percent of the income distribution.

Poverty and Shared Prosperity in Uzbekistan, the Ferghana Valley, and Tashkent Province

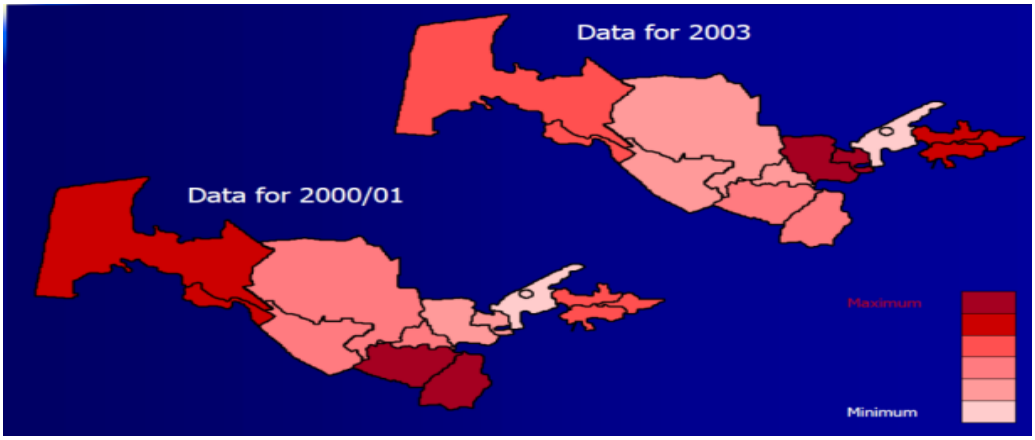
2. **Economic growth in Uzbekistan has been inclusive overall.** Uzbekistan has made laudable progress in expanding the country's economic base and improving the well-being of the poorer segments of society. The economy has grown by 8 percent annually since the mid-2000s and prospects are just as promising for the years ahead. Though data sources are scarce, there is evidence that growth in Uzbekistan's has generally been pro-poor. Indeed, recent studies suggest that based on a consumption-based poverty line threshold[28], the number of people considered poor, fell from 26.3 percent of the population to 14.5 percent in the 2007-2013 period, with similarly remarkable achievements on other social outcomes particularly health and sanitation indicators. For instance, the maternal mortality ratio fell from 59 to 28 per 100,000 live births between 1990 and 2010. Similarly, Uzbekistan successfully reached universal coverage in improved sanitation facilities by 2010. The Government's commitment to promoting equity and shared growth is further acknowledged on its Welfare Improvement Strategy which aims to reduce poverty further by 2015, with a special emphasis on boosting the incomes of rural households and bridging the existing income divide in the lagging regions. These developments suggest that Uzbekistan's path towards achieving middle-income status is on the right track and that growth has been benefited low-income other disadvantaged groups. Despite the positive trends, some regions lag behind vis-à-vis the national average in terms of income growth and equity. Overall there is evidence that important regional gaps in income still persist and in fact may have widened in the last five years.

Poverty Incidence in Uzbekistan by Region (2000-2003)[29]

[27] The objective of the exercise was to assess the expected distributional and socio-economic effects of improved rail connectivity in the Ferghana Valley and Tashkent province, with a particular focus on welfare gains for the poor and other vulnerable groups. By utilizing a series of quantitative and qualitative techniques s the study collected primary and secondary data and looked at the impact of improved connectivity with regard to labor markets, consumption, and access to basic goods and services among the lower income population. The first PSIA was approved in FY14 and focused exclusively on the distributional impact of the Pap-Angren Railway Project. Additional financing for this PSIA was received in Q2 FY15 and this second phase will analyze how road improvements envisioned under the Regional Roads Development Project could capture the ex-ante welfare effects of the project. The data collection and analysis will also cover the Tashkent Province, which was not included in the original exercise.

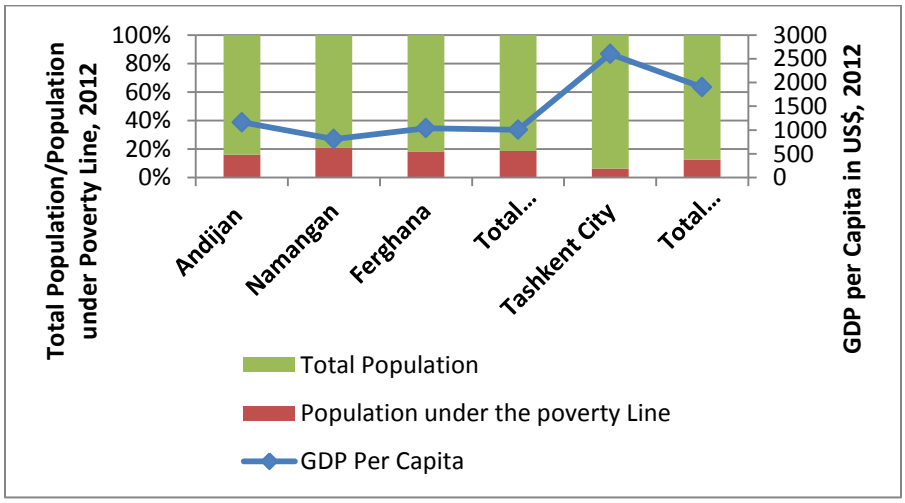
[28] Uzbekistan's national poverty line is measured by the minimum food consumption equivalent to 2,100 kilo-calories per person per day.

[29] World Bank, 2003



3. The Ferghana Valley constitutes the easternmost region of Uzbekistan and is topographically separated from the rest of Uzbekistan by a mountainous range crossed at the Kamchik Pass. GDP per capita in 2012 of the three Uzbekistan provinces located in the Ferghana Valley (Ferghana, Andizhan, and Namangan) was below the average for Uzbekistan by 11 percent, 32 percent and 52 percent respectively. Poverty levels and poverty density are also very high across the region; for example, the region concentrates one fourth of all the poor in Uzbekistan and 22 percent of the total population, compared to Tashkent city, which is home to 8.2 percent of the total population but only 2.1 percent of the poor in the country.

Figure 1: Selected Demographic Indicators for Uzbekistan and Ferghana Valley[30]



[30] World Bank, Poverty Reduction Strategy Paper 2008.

4. This geographic distribution of the disadvantaged population highlights the large differentiation in poverty rates between the regions as well as the fundamental difference between Tashkent city and other regions of the country, including Tashkent Oblast. While the poverty rate in the capital city was just 6.7 percent, in the larger province this figure amounted to 20.4 percent. Indeed, according to the 2005 household survey, Tashkent oblast is home to about one tenth of the total low-income population in Uzbekistan, that is, close to 2 million people.

Existing Connectivity and Mobility Constraints in Tashkent Province and the Ferghana Valley

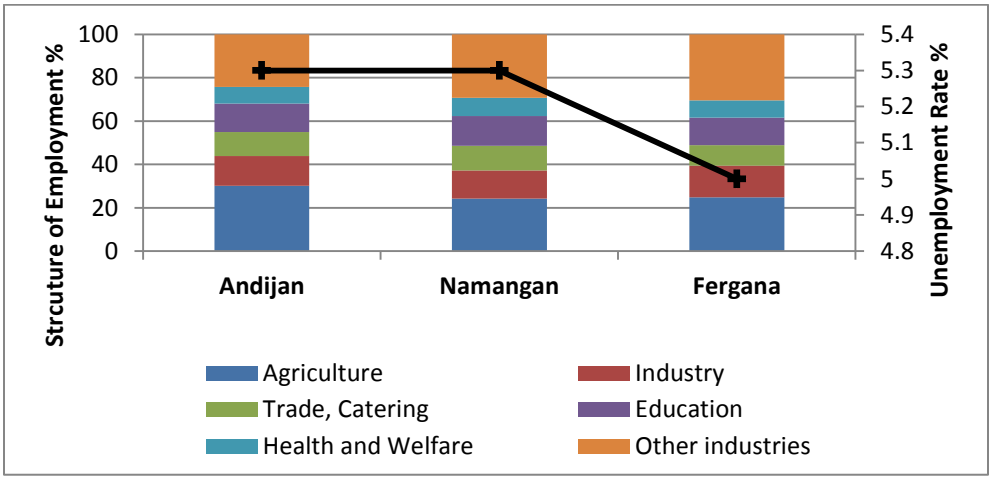
5. While the Ferghana Valley is a historically prosperous and densely populated region, it is not well served by the existing transport system. The region is connected to the rest of Uzbekistan by only two routes. They are (i) via rail and road through Tajikistan and (ii) via road through the Kamchik Pass. The pass is used for most freight transport and is the only means for movement of people in and out of the Uzbek part of the Valley, other than a very limited air service. The isolation of the Uzbek portion of the Ferghana Valley results from the fact that goods in and out of the area are affected by high transport costs as most goods have to transit three countries, and passengers pay high prices to enter or exit the area. Similarly, the regional road network is not in good condition and this leads to significant connectivity and accessibility constraints for the local population, particularly in rural areas. The PSIA found, for example, that (evidence related to local and regional roads in Ferghana and how this affects marketing of products, inter-regional mobility, and access to services). The lack of connectivity in the region calls for the improvement of existing transport links and the development of new ones.

6. The PSIA unveiled that the labor market in the Ferghana Valley is heavily skewed and volatile, with women having very few opportunities outside farming and the handicraft sector. The unemployment rate among men is about 6 percent compared to over 10 percent for women and as much as 30 percent among young and unskilled women. Unpaid domestic work predominates with up to 45 percent of women working within the household. Furthermore, there is significant labor migration in the winter months with most men taking up the seasonal employment opportunities. About 500,000 able-bodied male population of the Valley (or, about 30 percent) work and live abroad for periods of between 3 and 8 months. While remittances received by their spouses partially cover household expenses, the lack of permanent jobs in the formal sector makes subsistence particularly difficult for unskilled, young women. The employment and incomes of men and women improve between March and November, with the highest peak in July, and drops between November and March, with the lowest peak in February. Therefore, in the absence of stable, year-round job opportunities, low-income households must smooth consumption and remain highly vulnerable to unforeseen idiosyncratic and covariate shocks.

7. Transport constraints adversely affect the development of key sectors of the regional economy. Findings from the PSIA suggest that inadequate transport connections have significantly restricted the job creation, growth, and the trading potential of key economic sectors, particularly fruit and vegetables production and processing, handicrafts, and mining. The problem is more acute in the development of SMEs as high transport costs constitute an entry barrier for small competitors and do not allow vulnerable groups such as small scale

farmers to market their products in markets with larger demand or for other groups to diversify away from subsistence farming into other sectors.

Figure 2. Structure of Employment in Ferghana Valley[31]



8. The costs of transporting commodities and consumer goods in and out of the Ferghana Valley are relatively high and adversely affect the profitability of the SME sector and small-scale farming. Entrepreneurs and farmers in the three provinces of the Ferghana Valley reported that transport costs could represent anywhere between 10 and 200 percent of the cost of production, when the freight needs to be transported outside the Valley or when supplies come from abroad, with the costs varying significantly when there are road closures due to weather. Similarly, while the road-based infrastructure within the Ferghana, Namangan and Andijan provinces is, on the whole, reliable and accessible, transport links to travel outside the provinces are inadequate and require several transshipments, which further increase the selling costs. Farmers in the region also report having to pay more for as fertilizers, seedlings, seed potatoes, fuel for land cultivation, equipment and machinery for growing and processing farm produce in the winter months; the increase in the traffic volume along the highway that runs via Kamchik pass has made these vital supplies dearer in the last years.

9. Passenger services in the region are not reliable and not affordable, imposing a significant mobility constraint on low-income households. Demand for passenger services has been increasing in the last ten years but supply has not kept its pace. While the main purposes for inter-regional trips continue to be for employment activities, to attend a higher education institution, or visit health centers with more advanced facilities, evidence from the PSIA suggests that the demand for trips for other purposes such as family visits, pilgrimage and tourisms has grown exponentially. While most of the trips that occur within the village take place by foot, fixed route taxis/mini-buses are quite predominant for longer trips as are trips in private vehicles (See Table 1 below and Box 1). Thus, those residing in the more remote areas may need to find a taxi to get to their destination, incurring excessive costs. Tariffs for inter-regional trips tend to be very volatile ranging from 25,000 to 50,000 Uzbek sums, but even

[31] Labor and Employment in Uzbekistan, 2013

higher when there are fluctuations in fuel and supplies. A trip to Tashkent, can thus represent as much as 20 percent of a poor household's income, making long distance trips virtually impossible, and hence, severely curtailing a household's access to economic, social and cultural opportunities outside its place of residence.

Table 1: Modal Share and Trip Purpose in Selected Project Villages

	To educational institutions (28 times a month, on average)	To get wages and income (23 times a month)	Shopping (8 times a month)	To medical institutions (4 times a month)	Visiting relatives/acquaintances and other recreational activities (5 times a month)
By foot	17 %	8 %	16 %	7 %	8 %
Fixed-route taxi	5 %	10 %	24 %	14 %	28 %
Buses	1 %	2 %	2 %	0,5 %	1 %
Taxi	1 %	4 %	7 %	4 %	10 %
Own car	1 %	5 %	9 %	7 %	12 %
Bike	0,1 % *	2 %	0,02 %	0,05 %	0,4 %
Scooter/ cart/ tractor	%	0,1 %	0,1 %	0,1 %	0 %

Source: PSIA for the project

Box 1. Passenger Services and Mobility Patterns in the Ferghana Valley and Tashkent Province

Public transport supply in the Ferghana Valley is quite diverse and has been increasing significantly as inter-province trips have become more frequent. Household surveys carried out as part of the PSIA tend to demonstrate that residents in Andijan, Ferghana and Namangan provinces have a relatively vast set of options for meeting their intra- and inter-regional mobility needs. The following modes of transport are being used by household for passenger and freight transportation:

- For trips within their provinces and within the Valley, about 70 percent of all types of passengers use fixed-route taxis like *'Damas'*, *'Gazel'*, *'Ford'*, etc., with passenger capacity from 8 to 15 passengers. These modes are used mostly for visiting relatives for family, for events like holidays and rituals, and lastly for business, work, and study outside the place of residence.
- About 25 percent of all types of passengers make use cars of Soviet-made cars and *'Nexia'*, *'Lacetti'* with capacity of 4 passengers for trips within their provinces, within the Valley, and outside the Valley. Not surprisingly this mode comes at a higher price than the fixed-route taxis and thus is reserved for the upper quintiles of the income distribution who can comfortably afford them.
- About 4 percent of passengers travel by airplane for trips outside their provinces and the country. The main reason for these trips is labor migration and business. This mode of transport is unreliable in the winter because of fogs in the Valley and constitutes the priciest transportation mode in the country.
- Finally, about 1 percent of passengers are currently using the Uzbek Railroad network within their provinces and the Valley mainly, for accessing shopping and recreational centers in the larger cities of the region and for visiting relatives.

Household surveys carried out in the three Provinces, showed that about 12 percent of responders made trips outside the Valley in the period between January and July of 2014. While the majority of population in the region is quite mobile at large, when one looks more closely at passenger profiles, some distinctively different mobility patterns become evident. The poor have low mobility, travel for shorter distances usually within their rayon, and spend a higher proportion of their income on public transport. For example, the survey showed that only 3 percent of passengers making inter-urban trips belonged to the lowest quintile. Moreover, the data points

to some gender-related disadvantages in inter-urban mobility patterns; while women on the whole pay less than men for trips between provinces, they accounted between 30 and 35 percent of total trips made outside the provinces in the period under scrutiny. This can be explained because a significant share of women performs domestic activities and thus are far more likely to stay at home and not commute at all. Repressed transport demand by women might be due to unequal access to the labor force, household decisions on resource allocation, geographic isolation, or safety concerns.

The findings demonstrate that while the transport market for passengers in the region allows travelling to different geographical markets through a wide variety of transport services and varying prices. However, modal usage is still dominated by low-capacity, often unsafe and polluting modes characterized by unreliable service. The establishment of a well-managed railway link can hence play a critical role in the region's transport network, providing efficient and low cost transport in this high density corridor, particularly for the low income groups and women who, as we have seen, face distinctive disadvantages in their mobility and access to transport services.

Project Contribution to the Twin Goals

10. **Adequate connectivity and accessibility are both a critical requirements for poverty reduction and shared prosperity**. While transport alone cannot reduce poverty, the construction of roads, railways, and inland waterways or the improvement of existing infrastructure, serve a pervasive role in boosting household incomes and reducing income inequality (Booth et. al, 2001). From a distributional perspective, the economic and transportation literature in general supports the hypothesis that investment in road infrastructure may have a significant impact on the poorest sectors of society, by enhancing their chances to access employment and investment opportunities, markets, and basic services in education and health, and other livelihood outcomes.

11. **Road investments in particular, can unambiguously boost economic activity within a specific locality, potentially closing the income divide that is often observed in lagged regions.** Improving the quality of a road has both direct and indirect effects on the livelihoods of the poor. At the most direct (and measurable) level, road rehabilitation projects reduce the time and costs associated with transportation. The increased demand for transportation may ensure that more trips are made along the improved road, that transport fares fall and commodities are transported cheaply and more conveniently. Indirect impacts would then be observed at the household level, as real consumption increases by virtue of both lower prices for consumer goods as well as increased earnings from employment and business opportunities created during project execution (e.g. short-term labor intensive works and associated forward linkages) and after the project is completed (e.g. added investment and jobs throughout the catchment area). Finally, another indirect effect would stem from enhanced access to health, education and other services, thereby strengthening capabilities and enabling the poor to accumulate human capital. In sum, road investments are relevant in reducing poverty because of their effect in the general conditions that enable pro-poor economic growth to occur.

12. **The project will cover populated areas in the Ferghana Valley and Tashkent Province where accessibility constraints and logistical bottlenecks negatively affect economic development**. The project will focus on the rehabilitation of about 300 km of regional road sections. In Tashkent province, it is planned to rehabilitate 90 km of regional road sections, providing better access to most populated areas around Tashkent capital city - Orta Chirchik, Yukori Chirchik, Yangiyul, Pskent, and Zangiota districts. The project area in this province covers around 27,200 households, totaling a population of around 150,000

inhabitants. The project will rehabilitate (i) about 106 km of regional road sections in the most populated region in the country, Andijan region, covering 68 villages, around 178,800 households with population of around 983,500; (ii) about 155 km of regional road sections in Namangan region, covering 31 villages, around 51,400 households with population of around 282,700; and (iii) about 44 km of regional road sections in Ferghana region, covering 46 villages, around 161,600 households with population of around 889,000. In total, the proposed project will have impact on around 419, 000 households and 2,305,200 beneficiaries. All of these villages are located in regions, which rank low in terms of accessibility and with national poverty rate at 13.5 percent according to 2014 data. Hence, it is expected that the project will also address the transport needs of low-income road users and promote local development in the areas of influence through greater access to economic opportunities.

13. The project will improve micro-accessibility within the area of influence comprising the Ferghana Valley and Tashkent, complementing the Bank financed Pap-Angren Railway Link thereby ensuring important connectivity gains for the isolated region of the Ferghana Valley and beyond. This is so because the rehabilitation of these roads will improve access of the population residing far from the railway to the railroad transport for trips both within the Valley and for the same purposes as trips on automobile roads, and outside the Valley. Thus, these two projects are going to have a synergic effect on accessibility of educational and healthcare services for the low-income population, on their living standards, self-employment and search for work. Indeed, both of these projects together, could improve the mobility and accessibility for a combined population of 11.2 million, including family farmers and economy entrepreneurs located in the catchment area of both projects who heavily rely on good transport links to market their products and utilize cheap inputs and new technologies. By improving accessibility for small rural producers the project will help developing their integration into productive value chains, enable the acquisition of cheaper and better inputs and technologies for farming, and improve the information flows which ultimately enable them to better respond to market. Low cost, road-based transport would then become a critical instrument for farmers to reach markets, retain more of the delivered price of their goods, and ultimately boost their incomes.

14. **The project is intended to have a broad set of direct and indirect outcomes**. First, through the rehabilitation of selected strategic regional road corridors, the project will reinforce the inland infrastructure significantly reducing transport costs for key primary goods produced in provinces of Tashkent, Namangan, Ferghana, and Andijan. From a regional perspective, the project is expected to result in greater trade, specialization, efficiency, and competitiveness gains. Moreover, by stimulating investment and facilitating inter-regional trade, the project may contribute to the local development of the three provinces, alleviating the existing economic isolation and potentially enhancing productivity levels for industry and agriculture.

15. As part of project preparation, extensive consultations took place with households and road users throughout the project catchment area. The PSIA found that, over 90% of the population are not satisfied with the condition of the target road sections. For example, 70% estimated the condition of the road sections as ‘very poor or poor’, 27% as ‘fairly poor’, and 3% as ‘good’. As a consequence, the project will have immediate effects on the quality of transportation throughout the project area, in terms of comfort, safety, time savings and lower costs. The table below summarizes the statements provided by 1230 households interviewed in 10 different sections of the project area:

Expected benefits and Advantages (in order of higher benefits perceived by the population of interest)	*Expected disadvantages during road works* (in order of higher disadvantages perceived by the population of interest)	*Measures required* (in order of most important measures demanded by the population of interest)
More comfortable ride (smooth ride, no decelerations and accelerations, etc.)	Increased level of dust, noise and exhaust during road works	Install smooth surface
Higher safety for pedestrians	Danger for pedestrians of increased speed of cars and buses	Install hard surface pavement on the roads and sidewalks
Less time required for trips	Lower traffic speed and jams because of road works	Install lights on the roads and sidewalks
More comfortable walking	Higher risks for pedestrians and bikers	Provide more pedestrian road crossings
More access to educational and medical institutions	Higher risks of accidents	Provide/renew marks on the roads for vehicles
Less risks of accidents	Interruptions in water, electricity and gas supply	Provide necessary signs for managing traffic and speed
More opportunity to visit relatives, and for recreation	Demolition of dwellings and seizure of HH land plots	Widen the road
Less expenses for repair of HH owned vehicles	No road connected to the main highway	Promptly remove snow/ice
Fuel savings (higher traffic speed)		Install traffic lights
Improved safety for bikers		Provide more comfortable bus stops (benches, sheds, protection from the wind)
Easier access to places where people get their pensions and social allowances		Provide bike lanes
Less risks to the safety of passengers' goods		Provide places for stopping/parking of vehicles
More cafes/shops/service businesses and jobs in them		Provide necessary signs for U-turns
Better mobility for jobs/ work/income		Install, or restore, the drainage system
More access to shopping for staple goods		Launch a bus
Possible cut in transportation fares		Do not allow heavy trucks onto the roads in settlements which cause damages to roads and houses, and noise and exhaust pollution
No damage to the dwellings, no noise and exhaust from heavy trucks		

16. Consultations with low-income households, women, and relevant stakeholders carried out in the context of the Road User Satisfaction Survey suggest that the project is expected to have largely positive impacts on their livelihoods[32]:

- Enhance access to education and health facilities in own and neighbor provinces.
- Increase economic and cultural exchanges within and between the provinces.
- Create new enterprises, including enterprises at, and around, the improved roads. This would result in a potentially high number of job opportunities in both skilled and low skilled professions.
- The project could potentially lead to improved employment stability and incomes of those already employed.
- Development of the tourism industry with forward linkages to other well-established sectors, particularly textiles and handicrafts.
- Increased tax revenues for local authorities, which should result in higher transfers for low income vulnerable groups, such as female headed households.

17. **In this respect, the project will contribute to poverty reduction and income equality** through: (i) access to inputs and output markets, (ii) access to labor opportunities, and (iii) access to education and health services. The rehabilitation of regional and to a lesser extent the local roads will improve villagers' access to market opportunities and the net prices they encounter for inputs and outputs. Similarly, good connections to nearby towns will also enable villagers to commute to jobs there on one hand, while also influencing firms to relocate to previously unreachable areas where there is a sufficiently large labor poor, on the other. Moreover, roads are critical for obtaining access for rural households who were previously deprived of access to health, education and other public services. Consequently, besides from potentially enhancing efficiency, competitiveness, agglomeration and specialization, the project can have largely pro-poor outcomes.

18. **Third, the project will have important synergies with the Bank-financed Pap-Angren railway Project**, which aims to reduce transport costs increase transport capacity and reliability through the construction of a rail link between the Uzbek part of the Ferghana Valley and the rest of Uzbekistan. Both of these projects together, could improve the mobility and accessibility for a combined population of 11.2 million, including family farmers and economy entrepreneurs located in the catchment area of both projects who heavily rely on good transport links to market their products and utilize cheap inputs and new technologies. By improving accessibility for small rural producers the project will help developing their integration into productive value chains, enable the acquisition of cheaper and better inputs and technologies for farming, and improve the information flows which ultimately enable them to better respond to market. Low cost, road-based transport would then become a critical instrument for farmers to reach markets, retain more of the delivered price of their goods, and ultimately boost their incomes.

19. **The innovative impact evaluations upon project completion and yearly road user beneficiary surveys will be conducted to assess the project's contribution to the twin goals**, examining the effect on income and consumption, access to basic services, asset

[32] Besides from the transportation-related outcomes noted above

ownership among other welfare indicators. This impact assessment and road user satisfaction survey will seek to answer the following questions: (i) what impact has the road rehabilitation made in the lives of the residents in the treatment areas and their communities?; (ii) how relevant, effective, efficient, sustainable and inclusive was the project in terms of solving transport-related problems in the area, improving welfare outcomes, and promoting investment, job creation, and market development?; (iii) have there been any differentiated welfare impacts among the poor, the B40, and other vulnerable groups such as women and ethnic minorities?; (iv) what lessons can be drawn from the project that can be taken to further develop the program? While the specific methodologies, survey instruments, measurements, and scope will be further defined and developed during project implementation, at the most basic level, the main activities of the impact analysis will include collection and analysis of relevant qualitative and quantitative data, conducting an assessment of potential poverty and social impacts through the rehabilitation roads with recommendations for enhancement, and examining induced effects on local and regional economies including changes in agricultural and off farm employment, investment and business development, and market access.

Annex 7: Review of Roads Sector Management in Uzbekistan

UZBEKISTAN: Regional Roads Development Project

1. Uzbekistan is a road transport intensive economy. Moving about 10 percent of international cargo that passes through the country and about 90 percent of Uzbekistan's domestic passenger and short-haul cargo traffic, its road network carries around 60,000 tons-km per km square. This is four and two times higher than Azerbaijan and Kazakhstan, respectively. Motorization rates have also significantly increased over the past years, almost doubling in Tashkent city during the period 2000-2010. More vehicles and private road-hauling companies, and shorter transport hauls of manufactured goods have increased road freight. This market share growth is likely to continue, especially for general cargo. With the country's high rates of economic growth, vehicles fleets are projected to increase to respond to a growing demand. Therefore, improving the quality of its road transport system will have a wider impact on domestic connectivity, trade and competitiveness.

2. The total length of the roads network reaches 185,000 km, out of which 42,530 km are classified "primary roads" (highways) which correspond to the core roads network. The roads within the core network are classified as international (3,626 km), national (16,909 km) and regional (local) (21,995 km). According to official statistics, about 98 percent of the core roads network is paved. While asphalt is the main material used for pavement on primary roads, accounting for almost 50 percent of the total length, the use of less costly options (i.e. cold mix, gravel and earth) increase gradually as the importance of road decreases. An independent examination of pavement performance conducted under ADB loan revealed that the condition of the road network is not satisfactory - more than half of the network needs periodic maintenance or rehabilitation.

Table 1: Road Network Details (primary roads), 2011

Road Classification	Total	Pavement Type					Road Category				
		Concrete	Asphalt	Cold Mix	Gravel	Earth	1	2	3	4	5
International	3626	232	2296	864	234		1333	1324	630	239	100
National	16909	109	9349	6876	210	365	945	3907	4847	6217	993
Regional	21995	9	9964	10206	1230	586	66	237	2047	12944	6701
Total	42530	350	21609	17946	1674	951	2344	5468	7524	19400	7794

Source: Republican Road Fund

3. There is no Ministry of Transport in Uzbekistan. The Cabinet of Ministers remains the entity responsible for overall policy and regulatory functions. The road agency Uzavtoyul SSC has a status of special authorized agency and reports directly to the Cabinet of Ministers33. This agency is staffed with about 30,000 employees, mostly assigned to the 13 regional territorial divisions (TMUs) and 160 rayon (Districts) maintenance units across the country34. Each TMU is responsible for the regional road network within the jurisdiction of each oblast. Uzavtoyul, through its 7 highway maintenance units (HMUs), also covers maintenance or "linear" management" of international and national roads. Uzavtoyul carries road inventory

[33] The rest of the network is managed by local authorities

[34] The activity of maintenance units is concentrated to cover liner maintenance, winter maintenance, landscaping, and routine repair of roads, bridges and other ancillary structures

twice a year with the primarily goal to assess road conditions, verify that the reported works have been completed and collect traffic and axle load data. The organization structure of Uzavtoyul is presented at the end of this Annex.

4. The Republican Road Fund (RRF), established under the Ministry of Finance in 2003 as a part of sector reform, is the government agency responsible for road investment planning, project implementation, and financial management of road construction and maintenance, and policy making. This was important change in restructuring the sector into more functional areas and strengthening oversight on expenditures. The Fund also manages road projects funded by international financial institutions by selecting contractors and consultants based on competitive bidding process. The organization structure of the RRF is presented at the end of this Annex.

5. Uzavtoyul territorial divisions submit the road maintenance and rehabilitation programs to the RRF who consolidates and validates the programs as the road sector financier. Feasibility studies and designs for new projects are prepared by the Design Institute (Uzyulloyiha) while the State Committee on Architecture and Construction is responsible for the control on compliance with existing construction norms and standards. Rehabilitation works are usually outsourced to 10 in-house construction units of Uzavtoyul. However a small number of private contractors has recently emerged and participate in the road construction industry market. A State owned road equipment pool-company[35] helps private contractors to access road-construction equipment. Supervision of the quality control of civil works is traditionally done in-house, but the concept of independent supervision engineer was tested under projects funded by international financial institutions, such as the Asian Development Bank (ADB), the Islamic Development Bank (IsDB).

6. The focus of the Government of Uzbekistan has been on the improvement of international road corridors. The Accelerated Development Program (ADP)[36] was launched in 2010 to accelerate the reconstruction and rehabilitation of road corridors of strategic importance to the country. Within the ADP, the Government plans to invest US$3.3 billion for the construction and rehabilitation of 2,300 km of international and national roads by 2015. While most of the funds to implement the ADP are being provided by the Government's own resources, financing from external sources (ADB, IsDB and other funds) are covering about US$1.4 billion of the investment needs.

7. ADB's contribution to Uzbekistan for the improvement of road sector started in 2007 with an investment of US$75.3 million into the reconstruction of two sections of the A380 highway37 in the Republic of Karakalpakstan (km 876 – km 916) and Khorezm Province (km 490 – km 581), totaling 131 km. The two projects have been completed as of January 2013. ADB continued its support under Central Asia Regional Economic Cooperation Corridor 2 Road Investment Programs. In the first phase of the program, initiated in 2010, ADB

[35] A state-owned road equipment pool company established under the ADB loan for the CAREC Road Project leases equipment to all contractors.

[36] This program, launched under Resolution No. 14461 of the president of the Republic of Uzbekistan, dated 21 December 2010, is the updated version of National Development Program for 2009-2014, consisting of a sector strategy and road map.

[37] The road A 380 is the main route between the northwest and southeast of Uzbekistan and serves as an increasingly important international corridor between Afghanistan (via Termez), Tajikistan, and Turkmenistan, and Kazakhstan and Russian Federation. The A380 highway is designated as CAREC Corridors 2 and 6 (overlap with each other in Uzbekistan) and part of Asian Highway, Transport Corridor Europe Caucasus Asia Corridor, and European Highways.

committed to provide US$ 600 million at the overall, mainly for 222 km road reconstruction of selected sections of A380 highway, located in the Republic of Karakalpakstan, Khrezm and Bukhara provinces (first section: km 440-490; second section: km 355-440; third section: km 315-355, fourth section: km 581-628). The three projects (sections 1-3) of the Investment Program have already commenced and the loan agreements have signed in the amount of US$455 million. The second phase of the Program, whose total financing amount is US$530 million, supports rehabilitation and upgrading of roads sections A380 (km 228 – km 315) in the Bukhara province, A-373 (km 116 - 190) and A373/4R11238 (km 0-75) in Tashkent and Namangan provinces. The loans in the amount of US$350 have already been initiated and the construction works is in the progress.

8. The implementation of other sections financed by other donors is also on schedule. In 2010, the IsDB allocated $167.2 million for reconstruction of 100 km of M39 Tashkent-Termez highway (first section: km 1330- 1395; second section: km 1400-1410; third section: km 1426-1451) in Surkhandarya province. A year later the Arab Group (Kuwait Fund) issued $30 million to reconstruct a 73-km section of the Guzar-Chim-Kukdala Highway (4P87) in southern Uzbekistan. The project forms a part of the transport corridor connecting the capital city Tashkent with city of Termez at the border with Afghanistan.

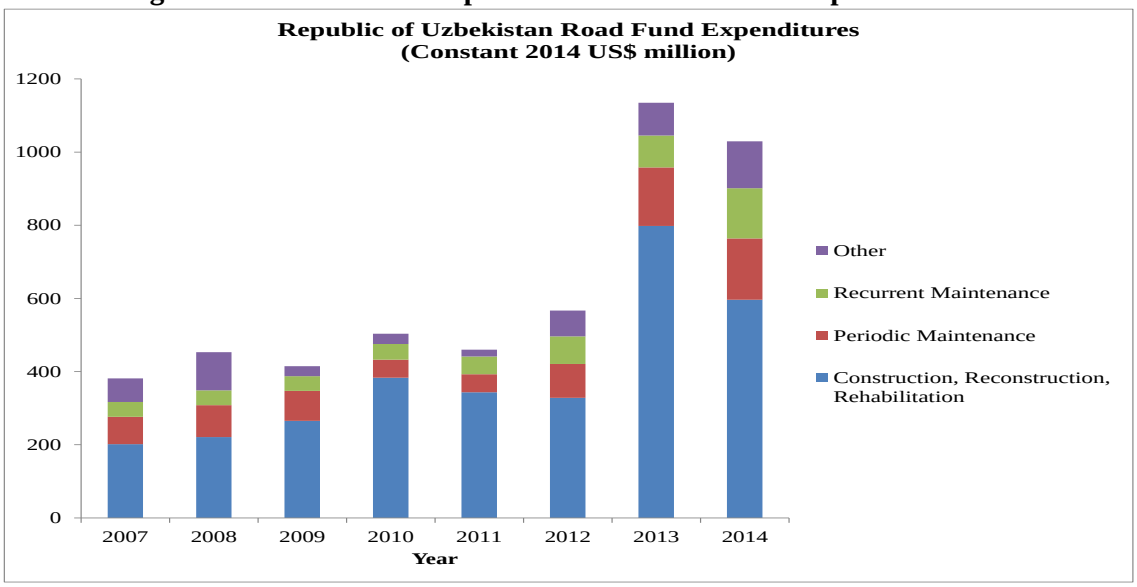
9. The funding for road sector has constantly increased during 2007-2012 and reached US$567 million in 2012. This continuous increase can be attributed to the reconstruction, rehabilitation or upgrading of the international and national core roads network within the ambition development plan, to which majority of the funds (63percent) were allocated. The focus in capital expenditures has adversely affected funding for periodic and routine maintenance, while total revenue of the Republican Road Fund appear to be sufficient to maintain all roads that are in sustainable condition (good or fair condition)[39]. The most neglected part of the road network appears to be the regional and local roads, which comprises 58 percent of the total network, but only receives 6 percent of maintenance expenditure.

10. A significant jump together with higher levels of allocation for maintenance in Republican Road Fund expenditures is expected for 2013-2014. It is forecasted to more than double the average 2007-2012 expenditures, reaching US$1,029 million in 2014 or 1.6 percent of GDP. During 2013-2014, reconstruction, rehabilitation or upgrading expenditures are forecasted to represent 64 percent of total expenditures similar to 2007-2012. Maintenance expenditures will increase on average to US$6,488 per km per year, of which US$3,849 per km per year is for periodic maintenance, which is sufficient to cover 4 percent of the network each year. Routine maintenance expenditures will be on average US$112 million year, of which 37 percent is allocated to international roads.

[38] The A373 highway stretching from Tashkent to Osh, Kyrgyzstan, is the only link connecting Ferghana valley with the rest of the country and serves as important road corridor link between the People's Republic of China and the Central and West Asia regions. The A373/4R112 highway extends A373 highway from Kamchik to Namangan.

[39] The Network Maintenance and Development Plan prepared by the ADB suggests that the annual funding need for clearing the backlog routine repairs is approx. $93 million between 2011 and 2016 and then approximately $83 million per year

Figure 1: Breakdown of Republic of Uzbekistan RRF Expenditures



Source: RRF

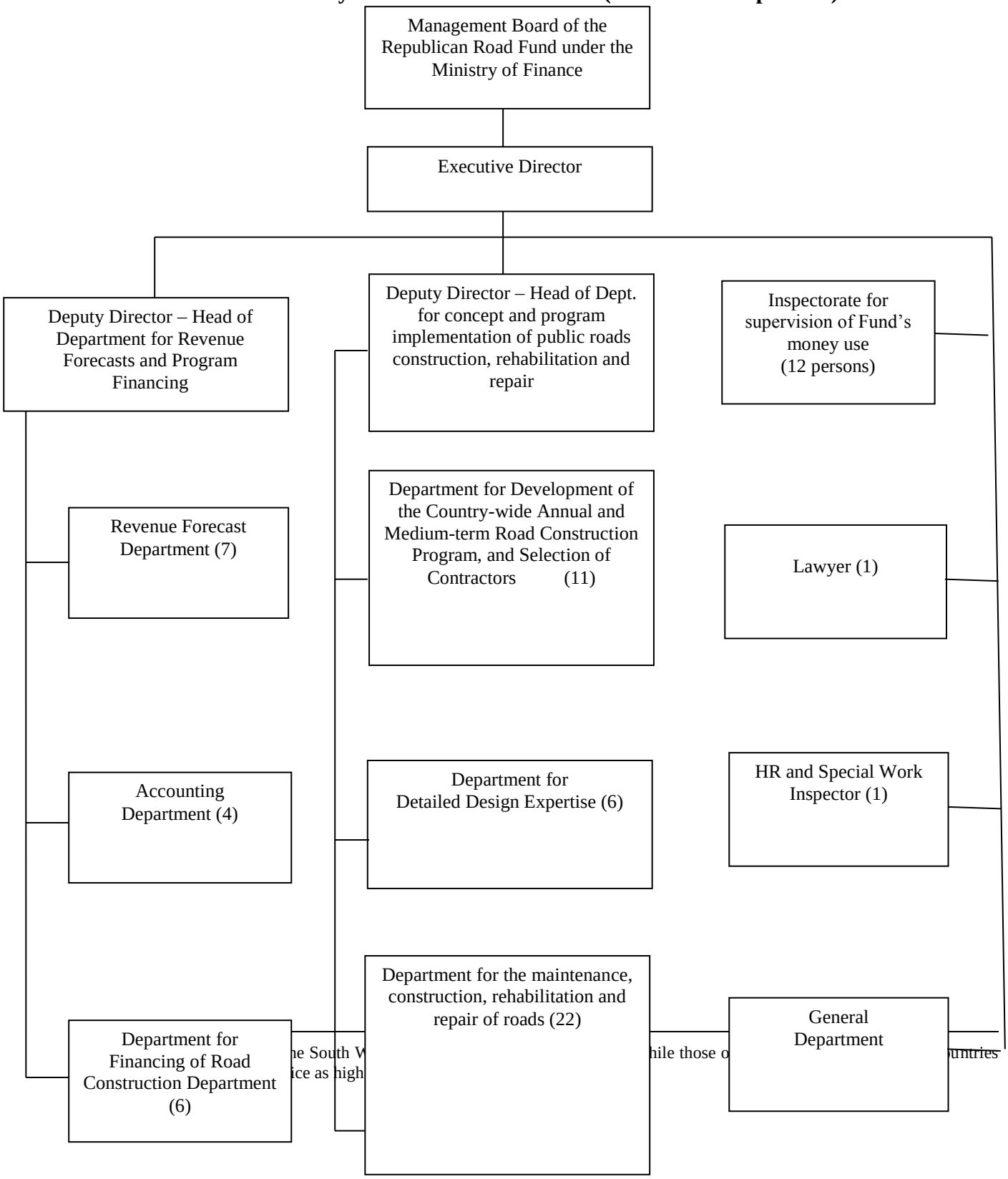
11. At the national level, day-to-day responsibilities for road safety are set out in the Law of the Republic of Uzbekistan "On Road Traffic Safety"[40] and Resolution of the Cabinet of Ministers "On measures for ensuring traffic safety".[41] Responsibility for implementation of this law is assigned to the traffic police administration (GAI) under the Ministry of Interior. GAI performs the following tasks:

- Exercises controls over observation of the Law, Traffic Rules and other legislative documents on road safety by participants of the road traffic;
- Develops standards, rules and norms on the road traffic safety;
- Registers vehicles, violation of the traffic rules and cases of traffic accidents;
- Issues driving licenses;
- Examines cases on administrative violations which refer to its competence by law.

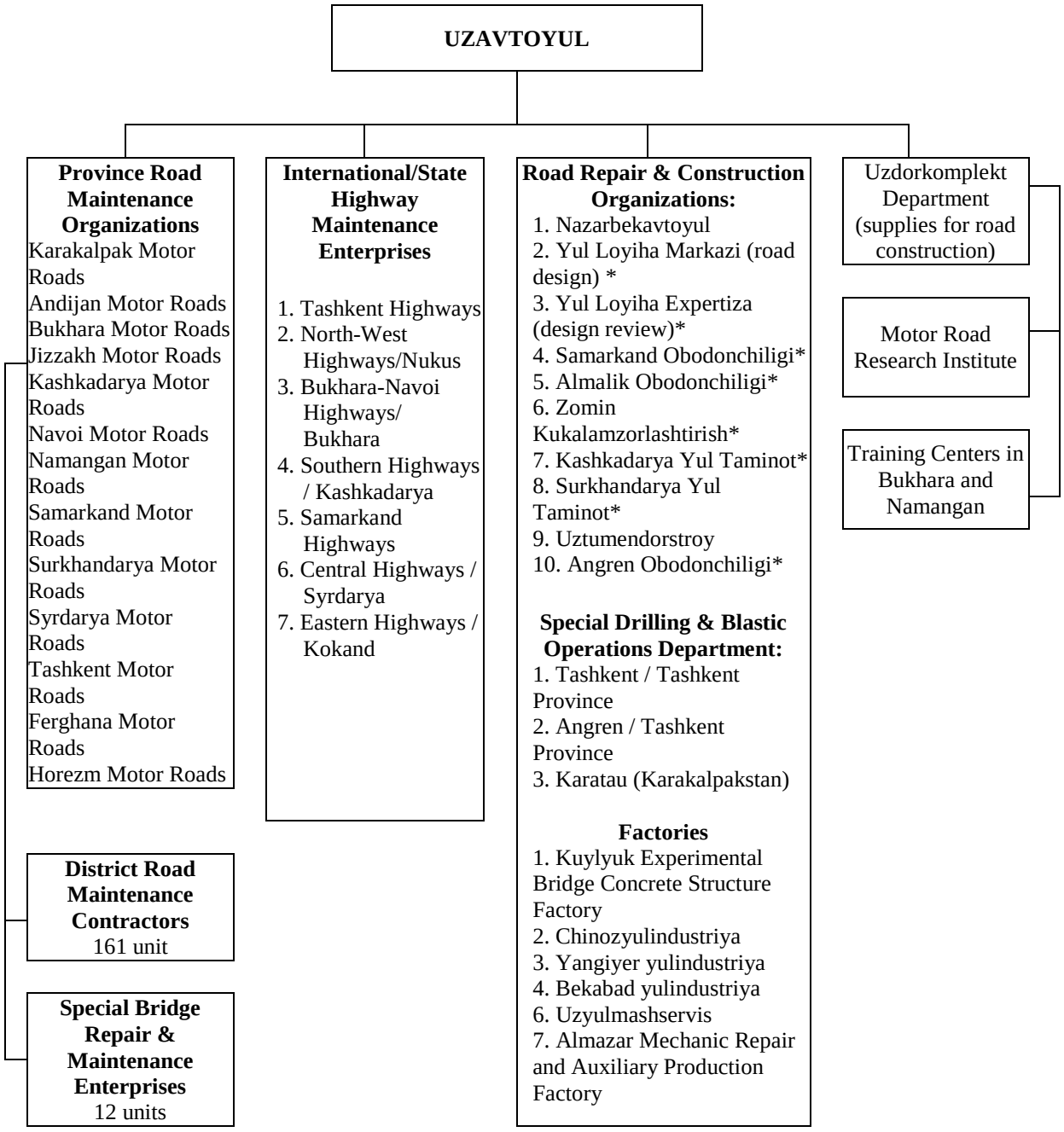
12. In 2010, GAI reported 10,500 accidents, resulting in 11,000 injuries and 2,100 deaths, a rate of 75 per million inhabitants. This recorded rate, while considerably higher than rates experienced in Western European countries[42], seems surprisingly low compared with those reported for other countries in the region.

[40] Republic of Uzbekistan (1999), *Law of the Republic of Uzbekistan*, No. 818-1, August 19, 1999.
[41] Republic of Uzbekistan (2000), Resolution No. 472 of the Cabinet of Ministers of the Republic of Uzbekistan, *On measures for ensuring traffic safety*, December 11, 2000.
42 The annual fatality rate per million inhabitants is as low as 30 in many high income cities such as London and Tokyo. At the national level, a clear distinction can be seen in the European Union between groups of countries. Those of the North West show

Organizational Chart of the Executive Directorate of the Republican Road Fund under the Ministry of Finance of Uzbekistan (total staff – 76 persons)



Organizational Chart of Uzavtoyul State/Joint State Company



(*) Companies in which the state share is realized in accordance with the Privatization Programs (they cooperate with Uzavtoyul on contractual basis)

Annex 8: Map of the project road sections in the Tashkent region

UZBEKISTAN: Regional Roads Development Project