



# Report and Recommendation of the President to the Board of Directors

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Project Number: 48025-003  
March 2017

## Proposed Loan Republic of Uzbekistan: Central Asia Regional Economic Cooperation Corridor 2 (Pap–Namangan– Andijan) Railway Electrification Project

This is the version of the document approved by ADB's Board of Directors that excluded information that is subject to exceptions to disclosure set forth in ADB's Public Communications Policy 2011.

Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 9 March 2017)

Currency unit – sum (SUM)

SUM1.00 = \$0.000289662

\$1.00 = SUM3,452.30

## ABBREVIATIONS

ADB	–	Asian Development Bank
CAREC	–	Central Asia Regional Economic Cooperation
IEE	–	initial environmental examination
km	–	kilometer
LARP	–	land acquisition and resettlement plan
PAM	–	project administration manual
PIU	–	project implementation unit
UTY	–	O'zbekiston Temir Yo'llari

## NOTE

In this report, "\$" refers to United States dollars.

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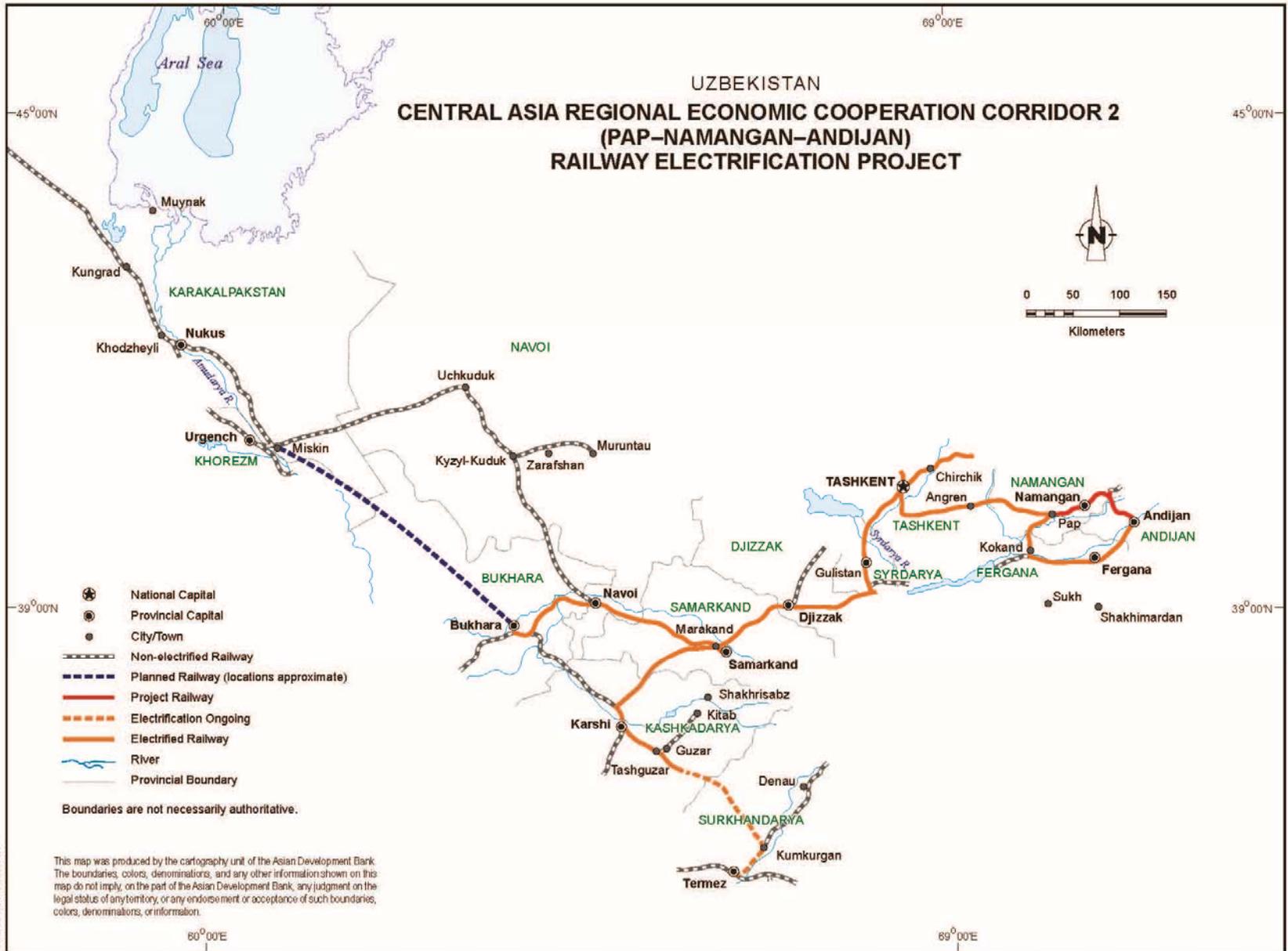
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## PROJECT AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number: 48025-003</b>	
<b>Project Name</b>	Central Asia Regional Economic Cooperation Corridor 2 (Pap-Namangan-Andijan) Railway Electrification Project	<b>Department /Division</b>	CWRD/CWTC
<b>Country Borrower</b>	Uzbekistan Government of Uzbekistan	<b>Executing Agency</b>	O'zbekiston Temir Yo'llari
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>	
✓ Transport	Rail transport (non-urban)		80.00
		<b>Total</b>	<b>80.00</b>
<b>3. Strategic Agenda</b>	<b>Subcomponents</b>	<b>Climate Change Information</b>	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Mitigation (\$ million)	80.00
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns	CO <sub>2</sub> reduction (tons per annum)	10,000
Regional integration (RCI)	Pillar 1: Cross-border infrastructure	Climate Change impact on the Project	Medium
<b>4. Drivers of Change</b>	<b>Components</b>	<b>Gender Equity and Mainstreaming</b>	
Knowledge solutions (KNS)	Application and use of new knowledge solutions in key operational areas	Some gender elements (SGE)	✓
<b>5. Poverty and SDG Targeting</b>		<b>Location Impact</b>	
Geographic Targeting	No	Nation-wide	High
Household Targeting	No		
SDG Targeting	Yes		
SDG Goals	SDG9, SDG10, SDG13		
<b>6. Risk Categorization:</b>	Low		
<b>7. Safeguard Categorization</b>	Environment: B Involuntary Resettlement: B Indigenous Peoples: C		
<b>8. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>80.00</b>	
Sovereign Project (Regular Loan): Ordinary capital resources		80.00	
<b>Cofinancing</b>		<b>0.00</b>	
None		0.00	
<b>Counterpart</b>		<b>97.45</b>	
Government/O'zbekiston Temir Yo'llari		97.45	
<b>Total</b>		<b>177.45</b>	
<b>9. Effective Development Cooperation</b>			
Use of country procurement systems			No
Use of country public financial management systems			No



## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan to the Republic of Uzbekistan for the Central Asia Regional Economic Cooperation Corridor 2 (Pap–Namangan–Andijan) Railway Electrification Project.<sup>1</sup>

2. The project aims to electrify the remaining 145.1 kilometers (km) of non-electrified track linking major cities in the populous Fergana Valley with Tashkent. This will facilitate direct and efficient operation of both freight and passenger train services, and promote the socioeconomic development of the Fergana Valley.<sup>2</sup>

## II. THE PROJECT

### A. Rationale

3. **Strategic location.** Surrounded by Afghanistan to the south, Kazakhstan to the north and northwest, the Kyrgyz Republic to the northeast, Turkmenistan to the southwest, and Tajikistan to the southeast, Uzbekistan serves three of six Central Asia Regional Economic Cooperation (CAREC) corridors. With 31 million people, Uzbekistan is the most populous country in Central Asia. Being a double landlocked country requiring crossing at least two countries to reach seaports, transport plays an important role in sustaining its socioeconomic development.

4. The project targets the Fergana Valley, which covers the Andijan, Fergana, and Namangan regions of Uzbekistan. The valley is home to nearly one-third of the country's population and has a population density of 468 people per square kilometer. The valley holds vast industrial and agricultural potential which remains to be fully tapped. Poor transport connectivity is one of the obstacles to the development of the Fergana Valley.

5. **Critical role of railways.** Rail transport has a unique competitive advantage over road transport for moving commodities and goods in bulk over long distances. The 4,669 km Uzbekistan rail network carries about 60 million tons of freight and 15 million passengers annually. Since 2004, Uzbekistan's gross domestic product has grown by more than 7% per year. This has contributed to strong demand for rail transport. Improvements in relationships between Uzbekistan and its immediate neighbors will further add to such demand.

6. **Major achievements.** Uzbekistan has continued to modernize its railway infrastructure. Since its founding in 1994, O'zbekiston Temir Yo'llari (UTY), the vertically integrated public railway company, has gradually implemented a holistic railway modernization program, including the completion of a unified rail network, electrification and modernization of existing lines, and improvement of rolling stock. The government accorded particular importance to electrification, with 2,446 km or 52% of the network now electrified.<sup>3</sup> Such efforts have also been supported by the European Bank for Reconstruction and Development, Japan International Cooperation Agency, Kreditanstalt für Wiederaufbau (KfW), Kuwait Fund for Arab Economic Development, Organization of the Petroleum Exporting Countries (OPEC) Fund for International Development, the People's Republic of China, and the World Bank.<sup>4</sup>

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<sup>1</sup> The design and monitoring framework is in Appendix 1.

<sup>2</sup> The Asian Development Bank (ADB) provided project preparatory technical assistance for Central Asia Regional Economic Cooperation Corridor 2 (Pap–Namangan–Andijan) Railway Electrification Project (TA 8706-UZB).

<sup>3</sup> Government of Uzbekistan, Decree of the President of the Republic of Uzbekistan no. PP-993; 5 November 2008.

<sup>4</sup> Development Coordination (accessible from the list of linked documents in Appendix 2).

7. UTY has worked with development partners to undertake institutional reforms. With support from the Asian Development Bank (ADB), the government initiated UTY reforms in 1997, under which ancillary rail services were largely separated from core operations.<sup>5</sup> The downsizing of staff and noncore assets improved the efficiency and sustainability of operations. Since 2015, the World Bank is supporting the further modernization of business processes, including accounting system reform. Even with these reforms, the nature of railways as a public good requires the continued support of the public sector.

8. **Remaining challenges.** Despite these efforts, the railways still face long transport times, inadequate service quality, and high operating costs, because of aged or inadequate infrastructure, operational inefficiencies, competition from road transport, and an insufficient number of locomotives. This results in lost economic opportunities, suboptimal regional trade, and negative environmental impacts. The project tackles this core problem by accelerating investment in critical railway infrastructure, namely, the electrification of non-electrified tracks in the densely populated Fergana Valley.

9. **Envisaged benefits.** The project will increase the mobility of goods and people in the Fergana Valley, improve environmental and safety performance of railways, and accelerate regional connectivity. As of 2016, rail operations on the Pap–Namangan–Andijan line are limited to two passenger trains and three freight trains per day. By extending an adjacent project being undertaken by UTY to electrify the Pap–Kokand–Margilan–Andijan line, the project will allow reliable, more frequent, and higher-speed connections between the major cities and towns in the Fergana Valley.

10. Switching from diesel to electric traction will reduce the amount of noise, vibration, and air pollution from each train. By increasing the capacity and attractiveness of rail travel, the project will help shift transport away from roads and reduce local pollutants and greenhouse gases. The project will reduce carbon dioxide emissions by 10,000 tons per year. Operational safety in the Fergana Valley will be improved through a dedicated project component on railway safety.

11. The project supports the development of the Fergana Valley–Tashkent Economic Corridor. The completion of the Pap–Angren line in mid-2016 allowed for the first time a continuous, electrified railway link between the Fergana Valley and Tashkent. The project will extend the electrified network to major cities and towns in the Fergana Valley. Travel time from Namangan to Tashkent will be cut from the current 5 hours by road to about 3 hours by rail, enabling better access to employment opportunities in Tashkent. Also, businesses headquartered in Tashkent will be able to move more of its activities to the Fergana Valley. For freight transport, UTY forecasts up to a fourfold increase in the amount of freight to be carried annually between the Fergana Valley and Tashkent, subject to the electrification of lines in the Fergana Valley being completed.

12. The project railway is part of CAREC Corridor 2, linking Uzbekistan to the People’s Republic of China to the east and Europe to the west. The project railway forms a central link on CAREC designated rail corridors 202 and 203.<sup>6</sup>

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<sup>5</sup> ADB. 1998. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Technical Assistance Grant to the Republic of Uzbekistan for the Railway Rehabilitation Project*. Manila (Loan 1631-UZB and TA 3068-UZB); and ADB. 2000. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Technical Assistance Grant to the Republic of Uzbekistan for the Railway Modernization Project*. Manila (Loan 1773-UZB and TA 3529-UZB).

<sup>6</sup> ADB. 2017. *Unlocking the Potential of Railways: A Railway Strategy for CAREC, 2017–2030*. Manila (endorsed at the 15th CAREC Ministerial Conference on 26 October 2016 in Islamabad, Pakistan). pp. 30–31.

13. **Lessons learned.** ADB has provided two loans to Uzbekistan for the rehabilitation and modernization of the railway infrastructure, and a loan for the electrification of a railway line between Marakand and Karshi.<sup>7</sup> ADB's Independent Evaluation Department rated the rehabilitation and modernization projects *successful* and the government's and UTY's performance *highly satisfactory*.<sup>8</sup> The electrification project is substantially complete, ahead of schedule, and on budget. Lessons learned from the implementation of these projects include (i) scoping the project to focus on components that add most value to UTY, i.e., electrification, as opposed to general track works; (ii) designing realistic capacity development components to avoid an ad hoc approach to process reforms that cannot be completed within the project time frame; and (iii) optimally packaging procurement to maximize competition and avoid delays.

## B. Impacts and Outcome

14. The project will be aligned with the following impacts: (i) stimulated economic growth in the Fergana Valley, and (ii) increased regional trade along CAREC Corridor 2. The outcome will be the improved level of passenger and freight service on the Pap–Namangan–Andijan railway line.

## C. Outputs

15. **Output 1: Railway infrastructure along the Pap–Namangan–Andijan line upgraded.** The project will electrify 145.1 km of the single-track main railway line to 27.5 kilovolts alternating current. This electrification includes the locomotive depot in Andijan, a spur line to Uchkurgan, and a bypass being constructed by UTY and the government (para. 16). It will also construct two traction substations and dispatcher points, procure maintenance equipment and machinery, modernize signaling and communications facilities, and construct external power supply facilities that will transmit electricity from the main grid to the traction substations.

16. The project will build upon another initiative by UTY and the government to realign 6.7 km of the railway line to bypass a section of the line that currently traverses the territory of the Kyrgyz Republic. The construction of this bypass is not part of the proposed ADB project. The construction of the bypass is expected to be substantially completed by the first quarter of 2018.

17. **Output 2: Safety of railway operations improved.** It is expected that train frequencies and speeds will increase as a result of the project. Furthermore, the power lines may pose electrocution risks. To offset any potential negative impacts, the project will support UTY in (i) assessing the existing and anticipated safety situation to the general public; (ii) supporting the development of practical countermeasures; and (iii) training staff to plan future railway developments in the safest manner. The needs of women and children will be explicitly considered in the development of safety measures. Training of UTY staff will extend to all relevant female staff.

18. **Value added by ADB.** ADB will add value to the project primarily through the injection of international best practice in the development of a low-carbon, safe, and sustainable mode of

<sup>7</sup> ADB. 1998. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Technical Assistance Grant to the Republic of Uzbekistan for the Railway Rehabilitation Project*. Manila (Loan 1631-UZB); ADB. 2000. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Technical Assistance Grant to the Republic of Uzbekistan for the Railway Modernization Project*. Manila (Loan 1773-UZB); and ADB. 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Republic of Uzbekistan for the Central Asia Regional Economic Cooperation Corridor 6 (Marakand–Karshi) Railway Electrification Project*. Manila (Loan 2781-UZB).

<sup>8</sup> Independent Evaluation Department. 2010. *Performance Evaluation Report: Uzbekistan—Railway Rehabilitation Project and Railway Modernization Project*. Manila: ADB.

transport. Throughout the project preparation, ADB staff and consultants shared their expertise in the project's technical design with staff from UTY. This will continue throughout project implementation, including through the supervision consultants. Better operational safety of railways, brought about by output 2, will provide a blueprint for improvements in other parts of the UTY-operated network. In implementing the project, UTY will also build its capacity in the cost-efficient procurement of goods and plant under international competitive bidding. This will also support UTY's efforts to tap into international financing sources for investments in railways.

#### D. Summary Cost Estimates and Financing Plan

19. The project is estimated to cost \$177.45 million (Table 1). It is proposed that the \$80 million ADB loan will finance (i) supervision consultants; (ii) procurement of plant, i.e., design, delivery, installation, and commissioning of traction substations and section posts; material for overhead catenary system; signaling and communications facilities; and supervisory control and data acquisition system; (iii) procurement of maintenance equipment and machinery; and (iv) procurement of materials for external power supply. The government, through UTY, is expected to finance the balance, which will cover land acquisition and resettlement, civil works, taxes and duties, and financing charges during implementation. Detailed cost estimates by expenditure category and financier are in the project administration manual (PAM).<sup>9</sup>

**Table 1: Summary Cost Estimates**  
(\$ million)

Item	Amount <sup>a</sup>
<b>A. Base Cost<sup>b</sup></b>	
1. Electrification of Pap–Namangan–Andijan railway line	126.26
2. Improvement of operational safety	4.10
<b>Subtotal (A)</b>	<b>130.36</b>
<b>B. Taxes and Duties<sup>c</sup></b>	<b>38.50</b>
<b>C. Contingencies<sup>d</sup></b>	
1. Physical	3.20
2. Price	2.80
<b>Subtotal (C)</b>	<b>6.00</b>
<b>D. Financial Charges During Implementation<sup>e</sup></b>	<b>2.59</b>
<b>Total Project Cost (A+B+C+D)</b>	<b>177.45</b>

<sup>a</sup> In late 2016 prices.

<sup>b</sup> Includes costs for land acquisition and resettlement (about \$2.3 million), studies, monitoring, and reporting.

<sup>c</sup> Taxes and duties of \$38.50 million will be exempted and counted as the government's contribution.

<sup>d</sup> Physical contingencies calculated at 2% for civil works, land acquisition, and resettlement; and 3% for electrification system installation and consultancy services. Price contingencies calculated at 3% on foreign exchange costs and 2% on local currency costs.

<sup>e</sup> Includes interest and commitment charges. Interest for the Asian Development Bank (ADB) loan during construction has been calculated at the 5-year forward London interbank offered rate (LIBOR) plus a spread of 0.5%. Commitment charges for the ADB loan are 0.15% per year to be charged on the undisbursed loan amount.

Sources: Asian Development Bank and O'zbekiston Temir Yo'llari estimates.

20. UTY and the government have requested a regular loan of \$80 million from ADB's ordinary capital resources to help finance the project. The loan will have a 25-year term, including a grace period of 5 years; an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; a commitment charge of 0.15% per year; and such other terms and conditions set forth in the draft loan and project

<sup>9</sup> Project Administration Manual (accessible from the list of linked documents in Appendix 2).

agreements. Based on the straight-line repayment method, the average loan maturity is 15.25 years, and the maturity premium payable to ADB is 0.10% per year.

**Table 2: Summary Financing Plan**

<b>Source</b>	<b>Amount (\$ million)</b>	<b>Share of Total (%)</b>
Asian Development Bank		
Ordinary capital resources (regular loan)	80.00	45.08
Government and O'zbekiston Temir Yo'llari	97.45	54.92
<b>Total</b>	<b>177.45</b>	<b>100.00</b>

Sources: Asian Development Bank and O'zbekiston Temir Yo'llari estimates.

21. Following the methodology developed by the joint climate finance group of multilateral development banks, climate mitigation is estimated to cost \$80 million. ADB will finance 100% of mitigation costs.

## **E. Implementation Arrangements**

22. UTY will be the executing agency. It has a sound track record of execution of similar projects, as well as operation and maintenance of electrified and non-electrified lines. UTY's project implementation unit (PIU), a structural division in charge of electrification projects, will be responsible for day-to-day implementation of the project. UTY's other technical departments will assist the PIU during project implementation. UTY will coordinate with local government bodies in Andijan and Namangan during project preparation and implementation. It will work in association with Uzbekenergo, the public power utility company, especially on the installation of external power supply.

23. All procurement financed under the ADB loan will follow international competitive bidding procedures pursuant to ADB's Procurement Guidelines (2015, as amended from time to time). ADB's prior review procedures will be followed. UTY will include the relevant sections of ADB's Anticorruption Policy (1998, as amended to date) in all bidding and contractual documents. Civil works and supply of materials and equipment from ADB nonmember countries will be financed by UTY from its own resources and procured under existing government procedures consistent with the principles of economy and efficiency.

24. UTY and ADB have taken advance actions to ensure procurement readiness. UTY solicited expressions of interest for the supervision consultants in January 2017. UTY also submitted bidding documents for the procurement of maintenance equipment and machinery in January 2017. Bidding documents for the procurement of plant, as well as for the procurement of materials for external power supply are substantially complete and will be launched prior to loan signing.

25. Additional financing may be considered if the project performs well. Such additional financing may cover the procurement of electric locomotives, which would be used for trains serving the project railway and the wider electrified network. Additional project preparatory technical assistance will be used to achieve readiness for the additional financing in areas such as design, safeguard requirements, and capacity.

26. The implementation arrangements are summarized in Table 3 and described in detail in the PAM.

**Table 3: Implementation Arrangements**

Aspects	Arrangements		
Implementation period	May 2017–June 2021		
Estimated completion date	30 June 2021		
Estimated loan closing date	31 December 2021		
Management			
(i) Oversight body	Ministry of Finance		
(ii) Executing agency	UTY		
(iii) Implementation unit	UTY's project implementation unit		
Procurement	ICB (3 lots)	Traction substations, section posts, material for overhead catenary; signaling and communications; SCADA (plant)	[This information was deemed confidential according to paragraph 97(v) of ADB's Public Communications Policy.]
	ICB	Equipment and materials for external power (goods)	
	ICB	Machinery, tools, and equipment for maintenance (goods)	
Consulting services	QCBS (80:20)	Project implementation and supervision consultant (219 person-months)	
Retroactive financing and/or advance contracting	Advance contracting will be carried out on all procurement packages and consulting services. Retroactive financing will be allowed for up to 20% of the loan amount, envisaged for equipment and materials for external power (goods); machinery, tools, and equipment for maintenance (goods); and project implementation and supervision consultants.		
Disbursement	The loan proceeds will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2015, as amended to date) and detailed arrangements agreed between the government and ADB.		

ADB = Asian Development Bank, ICB = international competitive bidding, QCBS = quality- and cost-based selection, SCADA = supervisory control and data acquisition, UTY = O'zbekiston Temir Yo'llari.

Source: Asian Development Bank.

### III. DUE DILIGENCE

#### A. Technical

27. The technical features of the project follow well-established engineering practices that are within the capacity and experience of UTU to execute. UTU successfully completed electrification of the 114 km Tashkent–Angren section in 2010; the 140 km Marakand–Karshi section in 2015 (under ADB financing); and the 305 km Angren–Pap–Kokand–Andijan section in 2016 (under World Bank cofinancing). Given that the installation of the overhead catenary system will be implemented under normal traffic operations, careful coordination with existing train operations and provision of high-level safety measures for the on-site work will be needed. This will also require strong coordination with Uzbekenergo and local government bodies. Considering the need for phasing and interfacing works under various components, a team of international consultants will assist UTU in supervising construction. UTU also has sufficient capacity to operate and maintain electrified railways. Currently, it maintains 2,446 km of electrified lines. UTU has conducted continuous staff training on the maintenance of the electrified lines and modernized signaling and communications facilities, as well as the safe operation of electric traction locomotives. The same measures will be applied upon completion of the project to ensure the efficient and safe operation and maintenance of the project railway.

## B. Economic and Financial

28. **Economic viability.** ADB carried out an economic analysis of the project, comparing the incremental costs of the project with the incremental benefits.<sup>10</sup> ADB assessed the current and forecast traffic with and without the project, based on estimates made under the recently completed World Bank cofinanced Pap–Angren Railway Project,<sup>11</sup> updated where necessary with information from the feasibility study conducted by UTY and its design institute for the project.<sup>12</sup> The main economic benefits of the project are (i) time savings for freight traffic, (ii) time savings for passenger journeys, (iii) reductions in carbon dioxide emissions, (iv) energy cost savings, and (v) locomotive maintenance cost savings. The project is economically viable, with an economic internal rate of return of 19.7%, and a net present value of \$92.12 million at a 12.0% discount rate. The project remains viable against a 10% reduction in projected freight traffic, a 10% reduction in projected passenger traffic, and a 10% increase in costs.

29. **Financial sustainability.** To ascertain the project's financial sustainability, ADB conducted a financial evaluation of UTY as an institution, and a financial analysis of the project.<sup>13</sup> The assessment indicates that UTY as an institution would have the financial capacity to implement the project, fund its contribution to the project costs, repay the ADB loan, and make the required payments on its existing debt. Notwithstanding, there are some indications of decreasing profitability of UTY, and its operating income ratio is envisaged to drop below 20%. ADB will continue policy dialogue and support UTY in updating its business plan to ensure operational efficiency and financial sustainability. The financial analysis of the project was done on an incremental basis to compare cash flow with and without the project. The financial internal rate of return is 2.16%, exceeding the calculated weighted average cost of capital of 1.18%. The financial analysis highlighted the importance of maintaining freight transport revenue for UTY and the project to remain financially sustainable.

## C. Governance

30. **Financial management.** A financial management assessment of UTY confirmed that it has sufficient capacity to manage and maintain the accounting systems, financial controls, and audit arrangements required for the project. Low to medium risks exist in the accounting system and reporting integration. UTY has developed an approach to managing this risk, but a different approach may improve the quality and accuracy of the information available to management, and reduce the time needed to prepare and distribute accounting information reports. ADB will work with the World Bank, which is now assisting UTY in accounting system improvements, to this effect.

31. **Procurement.** A project procurement risk assessment confirmed that UTY as a whole has sufficient experience and staff skills on procurement. Procurement risk is assessed *moderate*. However, the risk assessment identified some capacity issues of the PIU to manage international procurement. New staff has replaced procurement staff with experience from the previous ADB-financed project. A systematic issue is related to inefficient internal approval processes of the government, including contract registration and price verification. The project will improve the PIU's capacity on procurement and project management through training and support by international procurement and contract management consultants. UTY needs to

<sup>10</sup> The analysis was conducted based on ADB. 1997. *Guidelines for the Economic Analysis of Projects*. Manila.

<sup>11</sup> World Bank. 2015. *International Bank for Reconstruction and Development Project Appraisal Document on a Proposed Loan in the Amount of US\$195 Million to the Republic of Uzbekistan for a Pap–Angren Railway Project*. Washington, DC.

<sup>12</sup> UTY. 2016. *Electrification of the Pap–Namangan–Andijan Railroad*. Tashkent.

<sup>13</sup> In accordance with ADB. 2005. *Financial Management and Analysis of Projects*. Manila.

ensure close coordination with Uzbekenergo for the procurement of external power supply to avoid overall implementation delay.

32. **Anticorruption.** ADB's Anticorruption Policy was explained to and discussed with the government and UTY. The specific policy requirements and supplementary measures are described in the PAM.

#### **D. Poverty, Social, and Gender**

33. Lack of access to safe and affordable transport significantly hinders the socioeconomic development of rural households as well as the industrial and agriculture sectors. A social and poverty assessment ascertained that the project will contribute to reducing transport cost and travel time; provide safe means of transport; and increase access to jobs, markets, health care, and education facilities for the local population. The primary beneficiaries will be passengers, including women, children and students; freight transporters; and agro-industrial producers. The project will support measures to mitigate any potential negative social impacts that may arise, particularly on the operational safety of the electrified railway. The special safety needs of women and children will be considered in the safety action plan that the project will develop. Further, UTY staff, including all women technical staff, will be trained on safe railway operations.

#### **E. Safeguards**

34. **Environment (category B).** UTY prepared an initial environmental examination (IEE) for the entire project scope, which includes two environmental management plans: one to cover the electrification of the railway line and traction substations, and another to cover the external power supply transmission line. The IEE also includes a due diligence assessment and corrective action plans for the associated and existing facilities, described in paras. 39–40. Overall, the project supports the development of an environment-friendly mode of transport. With electrification, local air pollution and greenhouse gases are expected to be reduced. Possible negative environmental impacts would include electromagnetic fields from catenary and transmission lines; railway and electric shock risks; change in the level of noise and vibration due to increased speed and frequency of trains; and waste generation related to equipment replacement and construction activities. There are no ecologically and culturally sensitive receptors present in the area of influence. Only parts of 20 properties located inside the right-of-way could be affected by the electromagnetic field and noise, and this is adequately addressed in the IEE and land acquisition and resettlement plan (LARP).

35. The environmental management plan provides mitigation and monitoring measures, as well as a capacity-building plan. Contractors will be responsible for implementing the mitigation measures. UTY's PIU has full-time safeguard staff with access to monitoring equipment for air quality, noise, and vibration. They will be assisted in their tasks by the supervision consultants' civil engineering and environmental specialists. The loan has funds allocated for institutional strengthening, including safeguard compliance and railway safety improvement. UTY will implement the corrective action plans, with assistance from the project's supervision consultant if required. UTY conducted meaningful and full public consultation along the existing and new alignments, as well as around the external power supply facilities. ADB and UTY disclosed the draft IEE report on 16 February 2017 in compliance with ADB's Safeguards Policy Statement (2009).

36. **Resettlement (category B).** The project will require the permanent acquisition of 10.85 hectares of land, which will partially affect 116 parcels of land. This comprises 95.5% arable and/or crop cultivation land and 4.5% orchard and/or garden land. In addition, 24 residential and

nonresidential structures, located within the right-of-way of the railway track, will be affected. The construction of transmission lines will create temporary impacts, affecting an estimated 725 people in 145 households. UTY, supported by technical assistance consultants, has prepared a draft LARP that adequately addresses the impacts for mitigation. A due diligence report on the associated and existing facilities, described in paras. 39–40, is provided as an appendix to the draft LARP.

37. In compliance with ADB's requirements, UTY provided relevant information from the LARP to potential project-affected persons through public consultations in November 2016. Once the detailed design becomes available, UTY will develop the draft LARP into two implementable LARPs—one for the external power supply, and another for the electrification of the railway line and two traction substations. When finalized, these LARPs will be reviewed by ADB, posted on the ADB website, and implemented by UTY before civil works can begin.

38. UTY has a dedicated safeguard specialist who will supervise the preparation and implementation of the LARPs, assisted by the supervision consultants. This arrangement addresses the issue of institutional capacity to manage any social risks. Following UTY's submission of the draft LARP, notification for land acquisition per the country's Land Code, which requires 6 months' notice to be given by the district *khokimiat* (local authority), has been issued to the proposed affected households.

39. **Associated and existing facilities.** A small section of the electrification will be over tracks that are being constructed by the government and UTY to bypass the existing tracks that traverse through the neighboring Kyrgyz Republic. The construction of this bypass is outside the project scope and is being conducted by the government and UTY regardless of ADB financing for the electrification project. The government and UTY confirmed that the bypass construction was initiated without anticipation of ADB financing the project. The bypass is therefore considered an associated facility that is not funded as part of the project but essential for or dependent on the project. There is also an existing facility outside the project scope, comprising the building and maintenance activities at the Andijan Depot.

40. For associated and existing facilities outside the project scope, ADB's Safeguards Policy Statement requires an assessment of impacts and risks to the project.<sup>14</sup> ADB has conducted a due diligence and/or audit and developed corrective action plans for environmental and involuntary resettlement issues.<sup>15</sup>

41. **Indigenous peoples (category C).** The country in general, and the project area in particular, does not have indigenous peoples' communities as defined in ADB's Safeguard Policy Statement for operational purposes. No further action will be required.

## F. Summary of Risk Assessment and Risk Management Plan

42. Based on a risk assessment covering public financial management, procurement, corruption, and other areas, the project benefits and impacts are considered to far outweigh

<sup>14</sup> The Safeguard Policy Statement does not discuss the issue of associated facilities in respect of the social safeguards. However, ADB. 2012. *Involuntary Resettlement Safeguards: A Planning and Implementation Good Practice Sourcebook—Draft Working Document*. Manila. Provides guidance on the issue such that, if due diligence establishes that ADB's reputation is at risk, ADB may not support the project.

<sup>15</sup> ADB. 2013. Safeguard Review Procedures. *Operations Manual*. OM F1/OP. Manila (para. 39 and footnote 14). discusses this issue as a risk and requires collaboration to achieve the outcomes consistent with ADB requirements on a case-by-case basis. The implementation of the corrective action plan has been agreed between ADB and UTY, and is included in the legal covenants.

such risks. Major risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.<sup>16</sup>

**Table 4: Summary of Risks and Mitigating Measures**

<b>Risks</b>	<b>Mitigation Measures</b>
Complex coordination between UTY, Uzbekenergo, design institutes, and local authorities may delay procurement packaging and project implementation.	UTY as the executing agency will systematically coordinate with Uzbekenergo under a formalized agreement, and in further coordination with design institutes and local authorities.
Danger to the general public along the railway may increase because of the electrification and increased train speed and frequency.	The project will include an output for improving the safety of railway operations in the Fergana Valley.
Multiple layers of review and approving authorities, lengthy procedures to register a contract, and verification of contract prices may delay procurement and implementation.	Linked to the government's efforts to improve project implementation, ADB will continue policy dialogue to simplify the approval procedure and remove contract price verification for ADB-financed contracts.
Competition from road transport reduces uptake of railway services.	ADB will continue to engage in policy dialogue with the government to ensure coordination among modes as part of government policy. ADB will help further improve the competitiveness of UTY to retain both freight and passenger traffic.

ADB = Asian Development Bank, UTY = O'zbekiston Temir Yo'llari.

Source: Asian Development Bank estimates.

#### **IV. ASSURANCES AND CONDITIONS**

43. The government and UTY have assured ADB that implementation of the project shall comply with all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement, as described in detail in the PAM and loan documents.

44. The government and UTY have agreed with ADB on certain covenants for the project, which are set forth in the loan and project agreements. No withdrawals will be made from the loan account until the subsidiary loan agreement is signed between the government and UTY, and become effective in accordance with its terms.

#### **V. RECOMMENDATION**

45. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of \$80,000,000 to the Republic of Uzbekistan for the Central Asia Regional Economic Cooperation Corridor 2 (Pap–Namangan–Andijan) Railway Electrification Project, from ADB's ordinary capital resources, in regular terms, with interest to be determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; for a term of 25 years, including a grace period of 5 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and project agreements presented to the Board.

Takehiko Nakao  
President

31 March 2017

<sup>16</sup> Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).



<p><b>Key Activities with Milestones</b></p> <p><b>1. Railway infrastructure along the Pap–Namangan–Andijan line upgraded</b></p> <p>1.1 Overhead power lines, traction substations, and external power supply facilities designed, installed, and commissioned by Q2 2020</p> <p>1.2 Signaling and communications facilities supplied, installed, and commissioned by Q4 2020</p> <p><b>2. Safety of railway operations improved</b></p> <p>2.1 Detailed assessment of the operational safety of the Pap–Namangan–Andijan railway conducted by Q3 2019</p> <p>2.2 Action plan to enhance railway operations for the general public in the Fergana Valley developed by Q4 2019</p> <p>2.3 Training of UTY staff on safe railway operations conducted by Q4 2019</p> <p><b>Project Management Activities</b></p> <p>Requests for proposals for project management and construction supervision consultants launched by Q1 2017 and contracts awarded by Q3 2017</p> <p>Major procurement packages bid out in Q2 2017 and contracts awarded by Q1 2018</p> <p><b>Inputs</b></p> <p>ADB: \$80.00 million (ordinary capital resources, regular loan)</p> <p>Government and UTY: \$97.45 million</p> <p><b>Assumptions for Partner Financing</b></p> <p>Not Applicable</p>
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ADB = Asian Development Bank, CAREC = Central Asia Regional Economic Cooperation, CO<sub>2</sub> = carbon dioxide, km = kilometer, km/h = kilometers per hour, Q = quarter, UTY = O'zbekiston Temir Yo'llari.

<sup>a</sup> Defined by project.

<sup>b</sup> ADB. 2014. *CAREC Transport and Trade Facilitation Strategy 2020*. Manila.

Source: Asian Development Bank.

**LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/RRPs/?id=48025-003-3>

1. Loan Agreement
2. Project Agreement
3. Sector Assessment (Summary): Railway Transport
4. Project Administration Manual
5. Contribution to the ADB Results Framework
6. Development Coordination
7. Financial Analysis
8. Economic Analysis
9. Country Economic Indicators
10. Summary Poverty Reduction and Social Strategy
11. Initial Environmental Examination
12. Resettlement Plan
13. Risk Assessment and Risk Management Plan

**Supplementary Documents**

14. Financial Management Assessment
15. Social Due Diligence Report