



## Technical Assistance Report

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Project Number: 51360-002  
Transaction Technical Assistance Facility (F-TRTA)  
April 2018

# Turkmenistan: Preparing the Central Asia Regional Economic Cooperation Corridors 2, 3 and 6 (Turkmenabat–Mary–Ashgabat–Turkmenbashi) Railway Modernization Projects

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Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 9 April 2018)

Currency unit	–	Turkmen manat (TMT)
TMT1.00	=	\$0.2857
\$1.00		TMT3.5000

## ABBREVIATIONS

ADB	–	Asian Development Bank
CAREC	–	Central Asia Regional Economic Cooperation
COBP	–	country operations business plan
CPS	–	country partnership strategy
CWRD	–	Central and West Asia Department
EA	–	executing agency
km	–	kilometer
MRT	–	Ministry of Railway Transport of Turkmenistan
PAI	–	project administration instructions
PMU	–	program management unit
RRP	–	report and recommendation of the president
TA	–	technical assistance
TASF	–	technical assistance special fund

## NOTE

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

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## CONTENTS

## Page

### TRANSACTION TECHNICAL ASSISTANCE FACILITY AT A GLANCE MAP

I.	THE TECHNICAL ASSISTANCE FACILITY	1
A.	Justification	1
B.	Outputs and Activities	2
C.	Cost and Financing	4
D.	Implementation Arrangements	4
II.	THE PRESIDENT'S DECISION	5

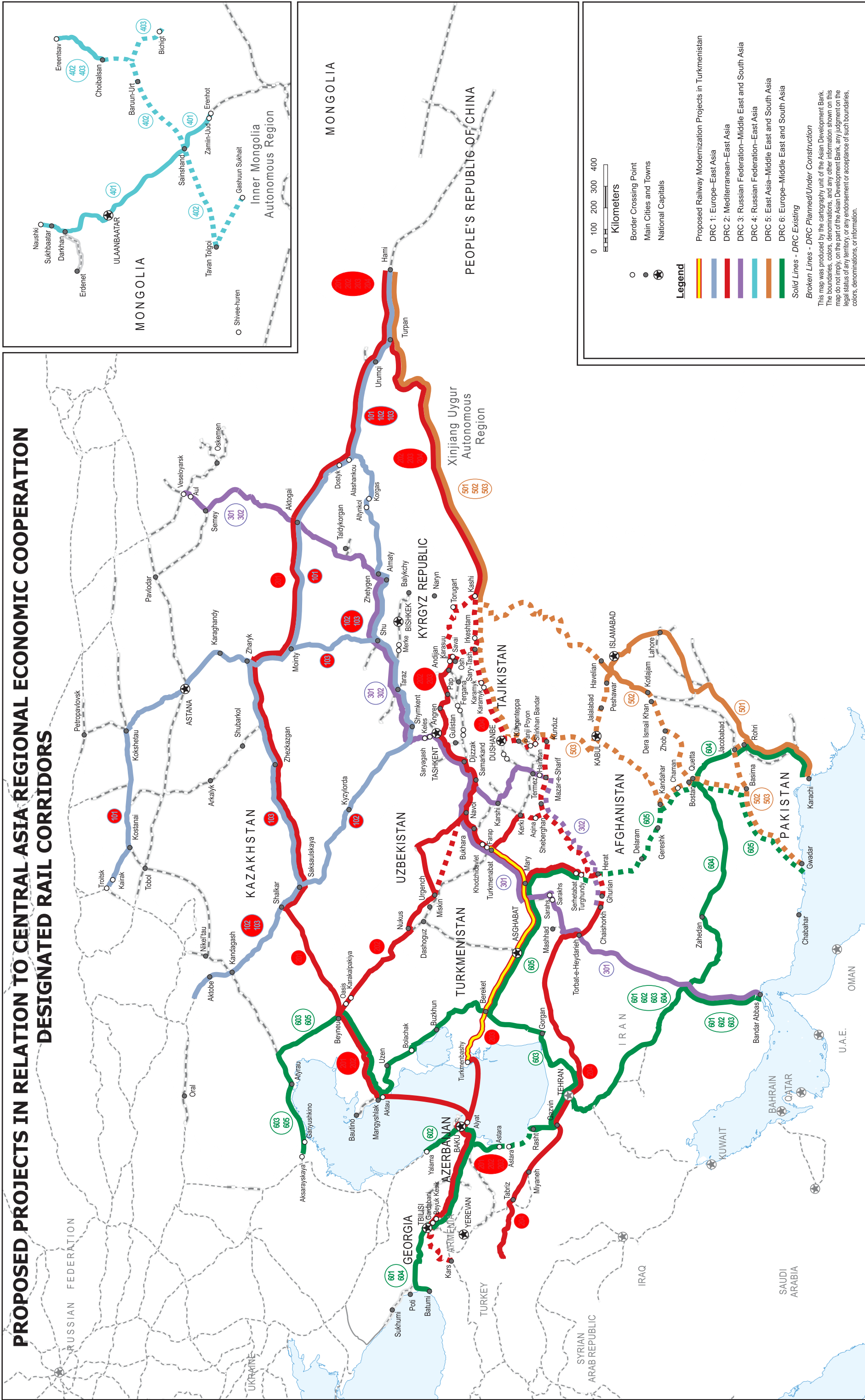
### APPENDIXES

1.	Cost Estimates and Financing Plan	6
2.	Projects under Technical Assistance Facility	7
3.	List of Linked Documents	8

## TRANSACTION TECHNICAL ASSISTANCE AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number:</b> 51360-002
<b>Project Name</b>	Preparing the Central Asia Regional Economic Cooperation Corridors 2, 3 and 6 (Turkmenabat–Mary–Ashgabat–Turkmenbashi) Railway Modernization Projects	<b>Department/Division</b> CWRD/CWTC
<b>Nature of Activity</b>	Project Preparation	<b>Executing Agency</b> Ministry of Railway Transport of Turkmenistan
<b>Modality</b>	Facility	
<b>Country</b>	Turkmenistan	
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>
✓ Transport	Rail transport (non-urban)	0.75
	<b>Total</b>	<b>0.75</b>
<b>3. Strategic Agenda</b>	<b>Subcomponents</b>	<b>Climate Change Information</b>
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Climate Change impact on the Project Low
Environmentally sustainable growth (ESG)	Eco-efficiency Global and regional transboundary environmental concerns	
Regional integration (RCI)	Pillar 1: Cross-border infrastructure	
<b>4. Drivers of Change</b>	<b>Components</b>	<b>Gender Equity and Mainstreaming</b>
Governance and capacity development (GCD)	Institutional development Organizational development	Effective gender mainstreaming (EGM) ✓
Knowledge solutions (KNS)	Application and use of new knowledge solutions in key operational areas Knowledge sharing activities Pilot-testing innovation and learning	
Partnerships (PAR)	Bilateral institutions (not client government) Implementation International finance institutions (IFI) Official cofinancing	
<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>	Complex	
<b>7. Safeguard Categorization</b>	Safeguard Policy Statement does not apply	
<b>8. Financing</b>		
<b>Modality and Sources</b>	<b>Amount (\$ million)</b>	
<b>ADB</b>	<b>0.75</b>	
Transaction technical assistance: Technical Assistance Special Fund	0.75	
<b>Cofinancing</b>	<b>0.00</b>	
None	0.00	
<b>Counterpart</b>	<b>0.08</b>	
Government	0.08	
<b>Total</b>	<b>0.83</b>	

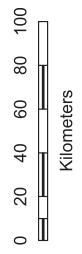
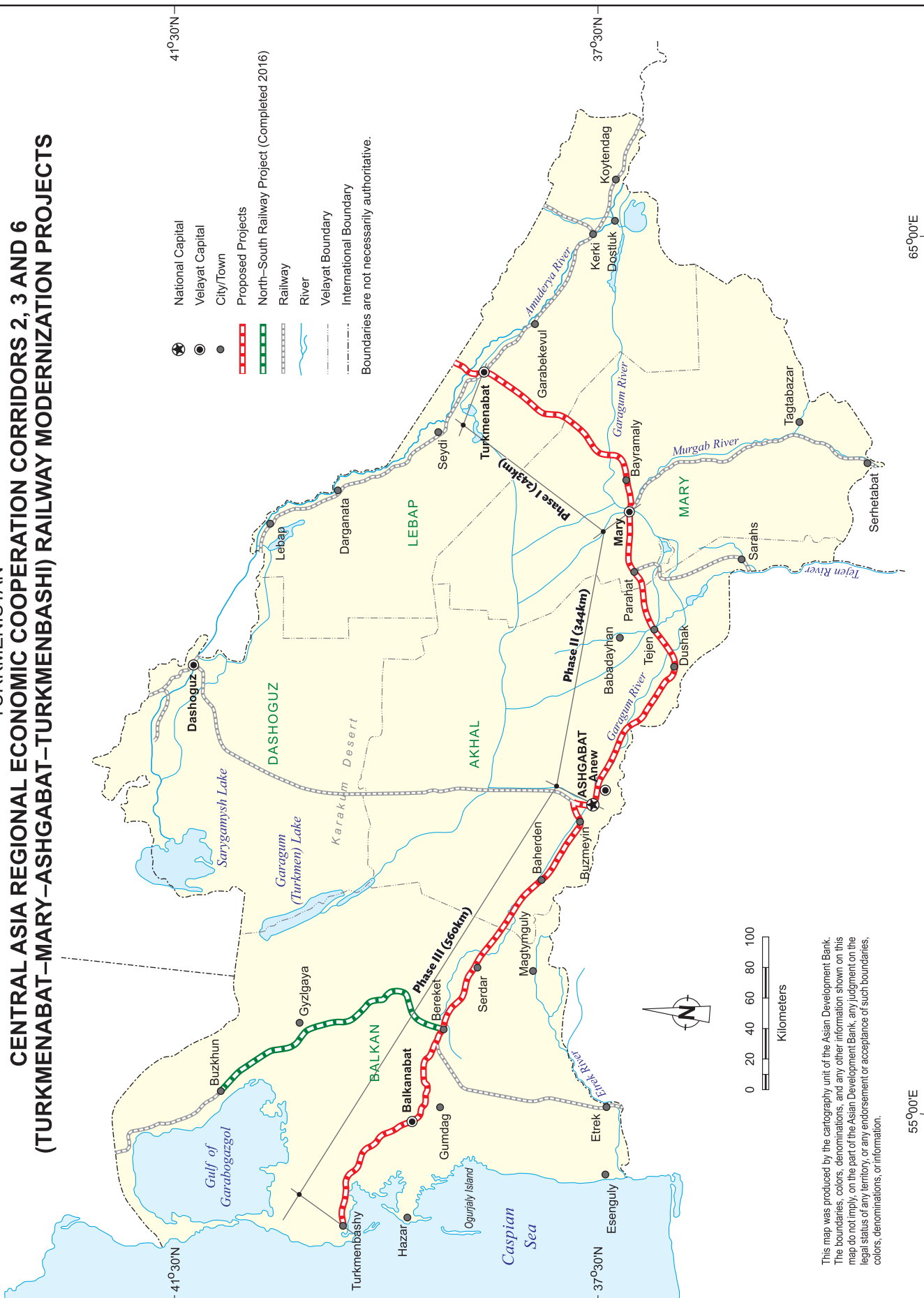
# PROPOSED PROJECTS IN RELATION TO CENTRAL ASIA REGIONAL ECONOMIC COOPERATION DESIGNATED RAIL CORRIDORS



# TURKMENISTAN

## CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDORS 2, 3 AND 6 (TURKMENABAT-MARY-ASHGABAT-TURKMENBASHI) RAILWAY MODERNIZATION PROJECTS

-  National Capital
  -  Velayat Capital
  -  City/Town
  -  Proposed Projects
  -  North-South Railway Project (Completed 2016)
  -  Railway
  -  River
  -  Velayat Boundary
  -  International Boundary
- Boundaries are not necessarily authoritative.



This map was produced by the cartography unit of the Asian Development Bank. The boundaries, colors, denominations, and any other information shown on this map do not imply, on the part of the Asian Development Bank, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries, colors, denominations, or information.

65°00'E

55°00'E

41°30'N

37°30'N

65°00'E

55°00'E

## I. THE TECHNICAL ASSISTANCE FACILITY

### A. Justification

1. The Government of Turkmenistan (the government) and the Ministry of Railway Transport (MRT) have requested assistance from the Asian Development Bank (ADB) for a program to modernize railways in Turkmenistan, between Turkmenabat, Mary, Ashgabat and Turkmenbashi.<sup>1</sup> The program is expected to be undertaken in three phases (Table 1).

**Table 1: Proposed Phases of the Turkmenabat-Mary-Ashgabat-Turkmenbashi Railway Modernization Program**

	Location	Length (km)	Schedule of Implementation	Foreign Investment Required (\$ million)
<b>Phase 1</b>	Turkmenabat-Mary	243	2018-2019	200
<b>Phase 2</b>	Mary-Ashgabat	344	2019-2020	150
<b>Phase 3</b>	Ashgabat-Turkmenbashi	560	2020-2021	200
Total		1,147		550

Source: Ministry of Railway Transport of Turkmenistan

2. It is intended for ADB to process Phase 1 as a standalone project, with Phases 2 and 3 financed through additional financing, subject to sound progress on Phase 1. This approach would allow ADB to help build up the EA's implementation capacity during Phase 1, and incentivize MRT to successfully implement Phase 1. The multitranche financing facility modality is considered inappropriate, due to the nascent relationship at operational level between ADB and MRT, challenges associated with the government making requisite policy-level changes ex-ante, and the lack of firmness of financial resources available from ADB and potential cofinanciers to cover all three phases. Aligned with these three proposed phases, this transaction TA facility will provide project preparation support and capacity building to these ensuing projects<sup>2</sup>, comprising;

- Central Asia Regional Economic Cooperation Corridors 2, 3 and 6 (Turkmenabat–Mary) Railway Modernization Project;
- Central Asia Regional Economic Cooperation Corridors 2, 3 and 6 (Turkmenabat–Mary–Ashgabat) Railway Modernization Project–Additional Financing; and
- Central Asia Regional Economic Cooperation Corridors 2, 3 and 6 (Turkmenabat–Mary–Ashgabat–Turkmenbashi) Railway Modernization Project–Additional Financing.

3. All ensuing projects are in the railway transport subsector, and relate to a contiguous 1,147km railway line. This is the arterial line for Turkmenistan's railway network, carrying more than 20 million tons of freight per year, 5 million passengers and linking three fourths of Turkmenistan's urban population along its route. The projects collectively contribute to the improvement of Central Asia Regional Economic Cooperation Corridors 2, 3 and 6, serving the east-west connection between East Asia and Europe, as well as the North-South connection between the Middle East and Central Asia and beyond. The improved railway line will also benefit other countries in Central Asia including Uzbekistan, as their access to the deep-sea ports on the Persian Sea, as well as to the Caspian Sea will be improved.

<sup>1</sup> This lending proposal was included in ADB. 2017. *Country Operations Business Plan: Turkmenistan, 2018–2020*. Manila.

<sup>2</sup> For the purpose of this transaction TA facility, each envisaged additional financing to the first ensuing project is considered a project for which preparatory activities are required.

4. Despite its importance in supporting regional and domestic connectivity, the line is in a poor state, arising from a backlog of maintenance issues inherited from the Former Soviet Union. The last capital repair was completed in the 1970s. Operational speeds are limited to 36.7km per hour, and major safety issues exist. The poor state of the line poses a major challenge to the expansion of freight and passenger train services on a reliable and safe basis. MRT prioritizes the Turkmenabat-Mary section as Phase 1, due to the higher traffic volume on this section, with Mary serving as a key junction for trains coming to and from Afghanistan, Iran and Uzbekistan.

5. The preparation of the first ensuing project and two additional financing require a similar set of due diligence, including safeguards, financial management, and economic assessments. The transaction TA facility is listed in the current Country Operations Business Plan (COBP).<sup>3</sup>

6. Each of the ensuing projects are considered high risk, due to (i) the challenging country context, (ii) history of implementation challenges in the previous North-South Railway Project,<sup>4</sup> (iii) MRT's limited knowledge of, and capacity to follow processes and procedures relating to international financing institutions, and (iv) multiplicity of contract packages envisaged.

7. Key expenditure items envisaged under the ensuing projects include (i) material for replacement rail and sleepers (ii) material for metal span structures such as bridges, (iii) signaling and telecommunications equipment, (iv) specialized machinery and equipment for track maintenance, (v) construction of new sleeper plant, and (vi) project management and construction supervision consultants.

## B. Outputs and Activities

8. The major outputs and activities are summarized in Table 2.

**Table 2: Summary of Major Outputs and Activities**

Major Outputs	Delivery Dates	Key Activities with Milestones
1. High-level screening and common due diligence across the three projects completed	30 June 2018	1.1 Procurement capacity assessment conducted by 30 April 2018 1.2 Integrity Due Diligence of the EA completed by 30 April 2018 1.3 Sector assessment including on operation and maintenance issues completed by 30 May 2018 1.4 Safeguard and gender screening and categorization for all three proposed sections completed by 30 May 2018 1.5 Financial management assessment conducted by 30 June 2018 1.6 Risk assessment and management plan prepared by 30 June 2018

<sup>3</sup> ADB. 2017. *Country Operations Business Plan for Turkmenistan, 2018-2019*. Manila. The TA is listed as "Modernization of Railways Project." The name of the TA has been revised to better reflect its nature and scope.

<sup>4</sup> ADB. 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to Turkmenistan for the North-South Railway Project*. Manila.



<b>Major Outputs</b>	<b>Delivery Dates</b>	<b>Key Activities with Milestones</b>
2. Project management capacity of the executing agency improved	31 September 2018	<p>2.1 EA staff trained on international competitive bidding procedures by 30 May 2018</p> <p>2.2 Draft Presidential Resolution for the projects prepared by 30 June 2018</p> <p>2.3 EA staff trained on safeguard compliance by 30 August 2018</p>
3. Due diligence and procurement packaging for the first ensuing project (Turkmenabat-Mary) completed	31 December 2018	<p>3.1 Terms of reference of project supervision consultants completed for advertisement by 30 July 2018</p> <p>3.2 Bidding documents for all packages prepared for advance contracting with tender date of 30 September 2018</p> <p>3.3 Draft safeguards documents completed for ADB's review by 30 September 2018</p> <p>3.4 Economic and financial analysis of the project completed by 30 September 2018</p> <p>3.5 Poverty and social analysis completed by 30 September 2018</p> <p>3.6 Gender analysis completed, and gender action plan prepared by 30 September 2018</p> <p>3.7 RRP drafted by 31 December 2018</p>
4. Due diligence and procurement packaging for the second ensuing project (Mary-Ashgabat) completed	30 June 2019	<p>4.1 Bidding documents for all packages prepared for advance contracting with tender date of 30 March 2019</p> <p>4.2 Draft safeguards documents completed for ADB's review by 30 March 2019</p> <p>4.3 Economic and financial analysis of the project completed by 30 March 2019</p> <p>4.4 Poverty and social analysis completed by 30 March 2019</p> <p>4.5 Gender analysis completed, and gender action plan prepared by 30 April 2019</p> <p>4.6 RRP drafted by 30 June 2019</p>

Major Outputs	Delivery Dates	Key Activities with Milestones
5. Due diligence and procurement packaging for the third ensuing project (Ashgabat-Turkmenbashi) completed	31 December 2019	5.1 Bidding documents for all packages prepared for advance contracting with tender date of 30 September 2019 5.2 Draft safeguards documents completed for ADB's review by 30 September 2019 5.3 Economic and financial analysis of the project completed by 30 September 2019 5.4 Poverty and social analysis completed by 30 September 2019 5.5 Gender analysis completed, and gender action plan prepared by 30 October 2019 5.6 RRP drafted by 30 December 2019

ADB = Asian Development Bank, EA = executing agency, RRP = report and recommendation of the president.  
 Source: Asian Development Bank staff estimates.

### C. Cost and Financing

9. The TA facility is estimated to cost \$825,000, of which \$750,000 will be financed on a grant basis by ADB's Technical Assistance Special Fund (TASF-other sources). The key expenditure items are listed in Appendix 1.

10. The government will provide counterpart support in the form of counterpart staff, office accommodation, and other in-kind contributions. The government was informed that approval of the TA does not commit ADB to finance any ensuing project.

### D. Implementation Arrangements

11. ADB will administer the TA facility. CWTC will select, supervise and evaluate consultants. The consultants will be attached to a program management unit (PMU) to be set up by MRT. They will work with the PMU to prepare the ensuing projects. Detailed design, for those project components which require them, will be conducted by the government's design institute. Consultants recruited under the TA facility will help check and improve such designs as required. The implementation arrangements are summarized in Table 3.

**Table 3: Implementation Arrangements**

Aspects	Arrangements		
Indicative implementation period	April 2018–December 2020		
Executing agency	Ministry of Railway Transport of Turkmenistan		
Implementing agency	Central and West Asia Department, ADB		
Consultants	To be selected and engaged by ADB		
	Individual: individual selection or as resource persons	International, 22 person-months, and National, 12 person-months	\$701,700
Procurement	To be procured by consultants		
	Shopping	2 contracts	\$10,000
Advance contracting	To expedite the conduct of the TA, selection of key individual consultant positions will commence through advance contracting		

Aspects	Arrangements
	following PAI 2.04. Negotiation and signing of the consulting contract will only occur after the TA becomes effective.
Disbursement	The TA resources will be disbursed following ADB's <i>Technical Assistance Disbursement Handbook</i> (2010, as amended from time to time).
Asset turnover or disposal arrangement upon TA completion	Any equipment or software purchased under the TA will be handed over to the Executing Agency upon TA completion.

ADB = Asian Development Bank, ICS = individual consultant selection, PAI = Project Administration Instructions, TA = technical assistance, TRTA = transaction technical assistance.

Source: Asian Development Bank staff estimates.

12. **Consulting services.** The transaction TA facility will require approximately 22 person-months (PMs) of international consultants and 12 PMs of national consultants' inputs. This includes a total of 2 person-months of resource person inputs, who will provide short-term, highly specialized inputs in support of the project preparation. Consultants will support ADB staff in the conduct of standard due diligence on the proposed projects, including technical, economic and financial, governance, poverty and social, and safeguards. They will also provide capacity building to the EA in selected areas, including procurement and safeguards.

13. These consultants and resource persons will be recruited individually, with either input-based or output-based contracts as appropriate. For project due diligence in a highly specialized subsector such as railways, hiring individual consultants is more appropriate, faster to mobilize, and more cost-effective than firms. ADB will engage the consultants following the ADB Procurement Policy (2017, as amended from time to time) and its associated project administration instructions and/or staff instructions.<sup>5</sup> Apart from work on common due diligence required across all three projects (outputs 1 and 2 in Table 2), the consultants will be sent separate notices-to-proceed for preparatory work on each of the three projects to be supported by the transaction TA facility. Such notices-to-proceed will follow the approval of each project's concept paper.

14. The consultants will procure goods, mainly in the form of software to be used for noise and environmental modelling and monitoring, and railway traffic modelling. These will be handed over to the EA upon TA completion.

## II. THE PRESIDENT'S DECISION

15. The President, acting under the authority delegated by the Board, has approved the provision of technical assistance not exceeding the equivalent of \$750,000 on a grant basis to Turkmenistan for preparing the Central Asia Regional Economic Cooperation Corridors 2, 3 and 6 (Turkmenabat–Mary–Ashgabat–Turkmenbashi) Railway Modernization Projects, and hereby reports this action to the Board.

<sup>5</sup> Terms of Reference for Consultants (accessible from the list of linked documents in Appendix 3).

**COST ESTIMATES AND FINANCING PLAN**  
(\$'000)

Item	Amount
<b>A. Asian Development Bank<sup>a</sup></b>	
1. Consultants	
a. Remuneration and per diem	
i. International consultants	500.8
ii. National consultants	47.1
b. Out-of-pocket expenditures	
i. International and local travel	121.8
ii. Goods (rental and/or purchase)	10.0
iii. Surveys	10.0
iv. Training, seminars, and conferences	5.0
v. Reports and communications	5.0
vi. Miscellaneous administration and support costs	2.0
2. Training, seminars, and conferences	10.0
3. Miscellaneous administration and support costs <sup>b</sup>	28.0
4. Contingencies	10.3
<b>Subtotal (A)</b>	<b>750.0</b>
<b>Total</b>	<b>750.0</b>

Note: The technical assistance (TA) is estimated to cost \$825,000, of which contributions from the Asian Development Bank are presented in the table above. The government will provide counterpart support in the form of counterpart staff, office accommodation and other in-kind contributions. The value of government contribution is estimated to account for 10% of the total TA cost.

<sup>a</sup> Financed by the Asian Development Bank's Technical Assistance Special Fund (TASF-other sources).

<sup>b</sup> Includes costs for translation and interpretation.

Source: Asian Development Bank estimates.

## PROJECTS UNDER TECHNICAL ASSISTANCE FACILITY

**Table A2.1: Indicative Consultants' Input Allocation**  
(person-month)

Item	Total	Project 1 (Turkmenab at-Mary) complex	Project 2 (Mary- Ashgabat) complex	Project 3 (Ashgabat- Turkmenbas hi) complex
International Transport Economist and Team Leader	5.0	2.0	2.0	1.0
International Railway Track and Alignment Engineer	3.0	1.0	1.0	1.0
International Railway Signaling and Communications Specialist	1.0	0.5	0.5	0.0
International Materials Engineer	1.0	1.0	0.0	0.0
International Railway Asset Management Specialist	1.0	1.0	0.0	0.0
International Procurement and Contract Specialist	3.0	1.5	1.0	0.5
International Financial Specialist	2.0	1.0	0.5	0.5
International Environment Specialist	3.0	1.0	1.0	1.0
International Resettlement Specialist	2.0	1.0	0.5	0.5
International Railway Sector Specialists and Resource Persons	1.0	0.5	0.5	0.0
National Railway Track and Alignment Engineer	3.0	1.0	1.0	1.0
National Environment Specialist	3.0	1.0	1.0	1.0
National Resettlement Specialist	3.0	1.0	1.0	1.0
National Social Development and Gender Specialist	2.0	1.0	0.5	0.5
National Railway Sector Specialists and Resource Persons	1.0	0.5	0.5	0.0

Source: Asian Development Bank staff estimates.

**Table A2.2: Indicative Technical Assistance Budget Allocation**  
(\$'000)

<b>Item</b>	<b>Total</b>	<b>Project 1 (Turkmenab at-Mary) complex</b>	<b>Project 2 (Mary- Ashgabat) complex</b>	<b>Project 3 (Ashgabat- Turkmenba shi) complex</b>
Updated risk category				
Training, seminars, and conferences	10.0	5.0	3.0	2.0
Miscellaneous administration and support costs	28.0	15.0	8.0	5.0
Contingencies	10.3	4.0	3.0	3.3

Source: Asian Development Bank staff estimates.

**LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/LinkedDocs/?id=51360-002-TARreport>

1. Terms of Reference for Consultants