



# Technical Assistance Report

---

Project Number: 51052-001  
Transaction Technical Assistance (TRTA)  
July 2017

## Uzbekistan: Railway Efficiency Improvement Project

This document is being disclosed to the public in accordance with ADB's Public Communications Policy 2011.

Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 28 June 2017)

Currency unit	–	sum (SUM)
SUM1.00	=	\$0.000252617
\$1.00	=	SUM3,958.56

## 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 US dollars.

<b>Vice-President</b>	W. Zhang, Operations 1
<b>Director General</b>	S. O'Sullivan, Central and West Asia Department (CWRD)
<b>Officer-in-Charge</b>	D. Pyo, Transport and Communications Division, CWRD
<b>Team leader</b>	K. Sakamoto, Transport Specialist, CWRD
<b>Team members</b>	M. Ajmera, Senior Social Development Specialist (Safeguards), CWRD A. Arenas-Poblete, Senior Operations Assistant, CWRD F. Insavaliyeva, Associate Project Analyst, CWRD K. Luu, Transport Specialist, CWRD S. Musaev, Senior Project Officer, CWRD L. Nazarbekova, Principal Counsel, Office of the General Counsel O. Samukhin, Transport Specialist, CWRD A. Silverio, Senior Operations Assistant, CWRD T. Tran, Senior Environment Specialist, CWRD
<b>Peer reviewer</b>	T. Fukayama, Transport Specialist, South East Asia Department

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

## CONTENTS

	<b>Page</b>
TRANSACTION TECHNICAL ASSISTANCE AT A GLANCE	i
I. THE ENSUING PROJECT	1
II. THE TECHNICAL ASSISTANCE	1
A. Justification	1
B. Outputs and Activities	1
C. Cost and Financing	2
D. Implementation Arrangements	2
APPENDIXES	
1. Cost Estimates and Financing Plan	4
2. List of Linked Documents	5

## TRANSACTION TECHNICAL ASSISTANCE AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number: 51052-001</b>	
<b>Project Name</b>	Railway Efficiency Improvement Project	<b>Department /Division</b>	CWRD/CWTC
<b>Nature of Activity</b>	Project Preparation	<b>Executing Agency</b>	O'zbekiston Temir Yo'llari
<b>Modality</b>	Regular		
<b>Country</b>	Uzbekistan		
<b>2. Sector</b>		<b>Subsector(s)</b>	
✓ Transport		Rail transport (non-urban)	
			<b>ADB Financing (\$ million)</b>
			1.00
		<b>Total</b>	<b>1.00</b>
<b>3. Strategic Agenda</b>		<b>Subcomponents</b>	
Inclusive economic growth (IEG)		Pillar 1: Economic opportunities, including jobs, created and expanded	
Environmentally sustainable growth (ESG)		Eco-efficiency	
Regional integration (RCI)		Global and regional transboundary environmental concerns	
		Pillar 1: Cross-border infrastructure	
		<b>Climate Change Information</b>	
		Climate Change impact on the Project	Low
<b>4. Drivers of Change</b>		<b>Components</b>	
Governance and capacity development (GCD)		Institutional development	
Knowledge solutions (KNS)		Organizational development	
		Application and use of new knowledge solutions in key operational areas	
		Knowledge sharing activities	
		Pilot-testing innovation and learning	
		<b>Gender Equity and Mainstreaming</b>	
		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	SDG8, SDG9, SDG13		
<b>6. Risk Categorization</b>		Low	
<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>1.00</b>	
Transaction technical assistance: Technical Assistance Special Fund		1.00	
<b>Cofinancing</b>		<b>0.00</b>	
None		0.00	
<b>Counterpart</b>		<b>0.10</b>	
Government		0.10	
<b>Total</b>		<b>1.10</b>	

## I. THE ENSUING PROJECT

1. The ensuing project will improve the efficiency of railway operations in Uzbekistan, a land-locked country reliant on railway transport to sustain its socioeconomic development. The project will be aligned with the following impact: Implementation of targeted programs to build affordable housing, development and modernization of road transport, engineering, communications and social infrastructure.<sup>1</sup>
2. The outcome of the project will be travel costs and environmental impacts reduced for passenger and freight transport throughout Uzbekistan's railway network. The outputs consist of (i) the procurement of 24 electric locomotives, (ii) upgrading of locomotive depots, and (iii) the implementation of an updated business plan which will improve the efficiency of the public railway operator - O'zbekiston Temir Yo'llari (UTY).
3. The project is expected to cost in total \$211 million. The Asian Development Bank (ADB) will provide a loan of \$170 million from its regular ordinary capital resources, to finance the procurement of 24 locomotives. This includes \$15 million of contingency. Counterpart financing (from UTY and the Government) of \$41 million will be used for the upgrade of locomotive depots to ensure the maintenance of the procured electric locomotives, cost of design and survey works, implementation of the improved business plan as well as taxes and duties. Both the ensuing loan and this transaction TA is listed in the country operations business plan, 2017-2019 for Uzbekistan.

## II. THE TECHNICAL ASSISTANCE

### A. Justification

4. The transaction TA (TRTA) will help the government to prepare the project, develop the appropriate institutional conditions to allow the sound development of the railway sector in future years, and help develop the capacity to implement the ensuing project.<sup>2</sup>

### B. Outputs and Activities

5. **Output 1: Due diligence on the proposed project completed.** The TRTA will support ADB and UTY to conduct full due diligence of the proposed project, including technical, economic and financial, governance, poverty and social, and safeguards aspects. The due diligence will build on top of, and augment the pre-feasibility study conducted by UTY for the project, and ensure that the project is prepared to meet all ADB policies and requirements.
6. The output of the due diligence exercise will be a draft report and recommendation of the President (RRP) and its linked documents. The outputs will also be shared with UTY as inputs to the government's feasibility study which will be prepared by UTY to fulfill national laws and regulations of Uzbekistan.
7. **Output 2: Updated business plan drafted.** The TRTA will help UTY to develop an improved business plan, which will be implemented under the ensuing project. The improved business plan will aim to enhance UTY's operational efficiency, including in the areas of locomotive and rolling stock utilization, operational practices, timely adjustment of tariffs and optimization of operating expenses. The intention is for the updated business plan to be a strategic

---

<sup>1</sup> Government of Uzbekistan. 2017. *Uzbekistan's Development Strategy for 2017-2021*. Tashkent.

<sup>2</sup> The TA first appeared in the business opportunities section of ADB's website on 23 March 2017.

document, which will help guide the future direction of UTY to ensure its leading position as a financially sustainable and technically excellent organization.

8. A part of the business plan will also identify future investment needs of UTY, and support the sound rationalization and prioritization of projects. UTY's capacity will be improved to enhance the project formulation process, including through the use of better traffic demand and market analysis.

9. Related to the above, the business plan will help articulate the future financing requirements of UTY, and identify ways in which financing can be structured to allow UTY to mobilize resources in an efficient and sustainable manner. Such resources may include domestic funds sourced from UTY's own revenue, Government of Uzbekistan funds, international financing institutions, and commercial financing.

10. **Output 3: UTY's capacity in project preparation and implementation improved.** UTY is technically highly competent in executing investment projects, including those with high complexity. Nevertheless, UTY requires capacity building in selected areas such as safeguard compliance and monitoring, and procurement and contract management for internationally financed projects. Capacity enhancement in such areas will allow UTY to attract larger levels of investments from international financiers in future.

11. On procurement, this output will assist UTY in preparing the bidding documents for the electric locomotives in full compliance with ADB's Procurement Guidelines. The principles behind ADB's procurement rules and regulations will be thoroughly explained. Hand-holding support will be provided in the preparation of bidding documents, and on the procurement process.

12. On safeguard compliance and monitoring, the output will provide hands-on support to UTY's staff in charge of environmental and social safeguards, so that UTY may develop full knowledge and understanding of ADB's Safeguards Policy Statement (SPS) 2009 and associated rules and regulations, and is able to prepare, implement and monitor safeguard actions in full compliance thereto.

13. Furthermore, the TA will support the conduct of knowledge transfer of international best practices on topics which are to be covered under, or related to the updated business plan as described in paragraphs 7 to 9. Topics will be selected based on a needs assessment of UTY, and be delivered by consultants and/or development partners specializing in such fields.

### **C. Cost and Financing**

14. The TA is estimated to cost \$1.1 million, of which \$1 million 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.

15. 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**

16. ADB will administer the TA. CWTC will select, supervise and evaluate consultants (details are in Table 1).

**Table 1: Implementation Arrangements**

Aspects	Arrangements		
Indicative implementation period	August 2017–July 2019		
Executing agency	O'zbekiston Temir Yo'llari		
Consultants	To be selected and engaged by ADB		
	ICS	36 person-months	\$724,000
	Resource persons	2 person-months	\$40,000
Procurement	To be procured by consultants		
	Shopping	1 contract	\$5,000
Advance contracting	To expedite the conduct of TRTA, selection of key individual consultant positions will commence through advance contracting 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	Software purchased under the TRTA 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.

17. **Consulting services.** The Transaction Technical Assistance (TRTA) will require approximately 23 person-months (PMs) of international consultants and 15 PMs of national consultants' inputs. Consultants will offer expertise in railway engineering with an emphasis on locomotives, railway business planning, procurement and contract management, transport economics and financial assessments, environment, resettlement and social development.

18. These consultants will be recruited individually, with either input-based or output-based contracts as appropriate. For project due diligence where feasibility study is under preparation by the executing agency (EA) following government internal requirements, hiring individual consultants with short duration is more appropriate for quick mobilization of consulting services, and more cost-effective than firms. The consultants will be engaged by ADB in accordance with the Guidelines on the Use of Consultants (2013, as amended from time to time) and TA Procurement Regulations applicable at the time of implementation.<sup>3</sup> The consultants will procure goods, mainly in the form of software for use in noise and environmental modelling and monitoring, and railway traffic modelling. 2 PMs worth of resource person contracts (maximum 10 working days each) will be reserved to allow inputs from highly specialized experts, particularly to support the preparation of the updated business plan.

<sup>3</sup> Terms of Reference for Consultants (accessible from the list of linked documents in Appendix 2).

**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	458.0
ii. National consultants	52.0
b. Out-of-pocket expenditures	
i. International and local travel	153.0
ii. Goods (rental and/or purchase) <sup>b</sup>	5.0
iii. Surveys	20.0
iv. Reports and communications	20.0
v. Miscellaneous administration and support costs	56.0
2. Surveys	86.0
3. Training, seminars, and conferences	
a. Facilitators	2.0
b. Travel cost of ADB staff acting as resource person	3.0
c. Venue rental and related facilities	10.0
d. Participants	30.0
e. Representation	5.0
4. Miscellaneous administration and support costs <sup>c</sup>	50.0
5. Contingencies	50.0
<b>Subtotal (A)</b>	<b>1000.0</b>
<b>Total</b>	<b>1000.0</b>

Note: The technical assistance (TA) is estimated to cost \$1.1 million, 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 9% 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 software for noise and environmental modelling as well as railway traffic modelling.

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

Source: Asian Development Bank estimates.



**LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/LinkedDocs/?id=51052-001-TARreport>

1. Terms of Reference for Consultants

## TRANSACTION TECHNICAL ASSISTANCE DRAFT TERMS OF REFERENCE FOR CONSULTANTS

1. To support UTY to conduct due diligence required for ADB financing, ADB intends to provide Transaction Technical Assistance (TRTA) resources of \$1,000,000, subject to ADB management approval. This will broadly cover the following activities:

- Conduct of standard due diligence on the proposed project, including technical, economic and financial, governance, poverty and social, and safeguards
- Support to UTY in the development of the updated business plan
- Provision of capacity building in selected areas, including safeguards

2. The required positions and person-months are indicated in Table 1. The Transaction Technical Assistance (TRTA) will require approximately 23 person-months (PMs) of international consultants and 15 PMs of national consultants' inputs. These consultants will be recruited individually. For project due diligence where feasibility study is under preparation by the executing agency (EA) following government internal requirements, hiring individual consultants with short duration is more appropriate for quick mobilization of consulting services, and more cost-effective than firms. The individual experts will be engaged by ADB in accordance with the Guidelines on the Use of Consultants (2013, as amended from time to time), and TA Procurement Regulations applicable at the time of implementation.

**Table 1: Summary of Consulting Services Requirement**

Positions	Person-Months Required
<b>International</b>	
Railway Engineer (Locomotives)	3
Railway Business Planning Specialists	6
Procurement and Contract Specialist	3
Transport Economist	2
Financial Specialist	2
Environment Specialist	3
Resettlement Specialist	3
Resource persons	1
<b>National</b>	
Railway Engineer (Locomotives)	3
Railway Institutional Specialist	3
Environment Specialist	3
Resettlement Specialist	3
Social Development Specialist	2
Resource persons	1

Source: Asian Development Bank estimates.

3. The outline terms of reference for the TA consultants are described in paras. 4–16 below.

4. **Railway Engineers (Locomotives) (International, 3 PMs, National, 3PMs).** Working closely with other consultants, UTY and ADB staff, (i) conduct technical due diligence of the project including review of overall scope and nature of the project, draft technical specifications for locomotives against operational requirements, suggested approach to operation and maintenance, cost estimates, and other relevant areas; and (ii) assist in the design of procurement and bidding documents for the ensuing project. In undertaking the above, pay

specific attention to the ability of the locomotives to operate under harsh climate conditions, and foreseen changes to climate parameters in future. Qualification: Bachelor's degree with professional work experience of preferably 10 years or more in railway locomotives engineering, having familiarity with various kinds of design norms in the world; Working experience or knowledge of ADB's operations is desirable; Must have proven analytical skills and working experience in ADB developing member countries; Uzbekistan project experience would be preferred.

5. **Railway Business Planning Specialists (International, 6 PMs combined).** Working closely with other consultants, UTY and ADB, assist UTY in the preparation of an updated railway business plan. Qualification: Bachelor's degree with professional work experience of preferably 10 years or more in railway business, especially related to railway business marketing, e-commerce, locomotive availability support including material management and staff training, fleet planning, and other relevant areas; Working experience or knowledge of ADB's operations will be desirable; Must have proven analytical skills and working experience in ADB developing member countries; Uzbekistan project experience would be preferred.

6. **Railway Institutional Specialist (National, 3 PMs)** Working closely with other consultants, UTY and ADB, (i) assess the current institutional set-up of UTY, (ii) assess the ongoing reforms being conducted by UTY, and (iii) help in the development of the improved business plan. Qualification: Bachelor's degree with professional work experience of preferably 10 years or more in institutional analysis, with a focus on state-owned enterprises and other public institutions; Working experience or knowledge of ADB's operations will be desirable.

7. **Procurement and Contract Specialist (International, 3 PMs)** Support UTY and ADB to (i) undertake procurement activities including EA's procurement capacity assessment in line with ADB's Procurement Framework and Procurement Regulations for ADB Borrowers (2017); (ii) based on the draft bidding documents prepared by UTY, update such documents to ensure full compatibility with ADB guidelines; (iii) receive, open, and assist EA in the procedures for obtaining ADB no-objection on evaluation of proposals, finalization of contracts, and contractor mobilization; and (iv) train EA staff on ADB procurement requirements and on contract management. Qualification: relevant Bachelor's degree with preferably 10 or more years' work experience in international bidding and procurement; excellent analytical skills and working experience in ADB developing member countries; prior experience of ADB projects in Uzbekistan is preferred.

8. **Transport Economist (International, 2 PMs)** Working in close tandem with the financial specialist, undertake an economic analysis of the proposed project in accordance with ADB's Guidelines for the Economic Analysis of Projects (2017) by (i) constructing a traffic forecast with and without the project; (ii) reviewing macroeconomic and sector contexts, (iii) conducting demand analysis, (iv) identifying the project rationale and alternatives; (v) identifying and comparing project costs and benefits (including additional environmental benefits), (vi) assessing project sustainability, (vii) conducting sensitivity and risk analysis, and (viii) identifying indicators for project performance monitoring. Place particular attention to the definition of the with and without project scenarios, considering whether and to what extent the new locomotives will replace old ones, and at what timing. Qualification: Bachelor's degree and a broad-based work experience (10 years of relevant professional experience) recognized as an expert in transport economics; proven analytical skills and working experience in ADB developing member countries; Uzbekistan experience would be preferred.

9. **Financial Specialist (International, 2 PMs)** Working in close tandem with the Transport Economist, undertake the financial analysis of the project and the executing agency in accordance with relevant ADB guidelines, by (i) preparing the detailed budget and financing plan for the project; (ii) determining the financial internal rate of return and comparing it against the weighted average cost of capital; (iii) preparing an updated financial management assessment (pertaining to UTY); (iv) identifying key risks and carrying out sensitivity analysis; and (v) identifying actions to ensure project sustainability and proposing related assurances or covenants. The aforementioned work shall be implemented with reference to the updated technical guidance note (TGN) for Financial Management Assessment (2015), the 2015 TGN for project financial reporting and auditing and the 2014 TGN for preparation of cost estimates. For all other issues not covered by these 3 TGN, the 2005 publication “Financial Management and Analysis of Projects” should be referred.<sup>1</sup> Qualification: Bachelor’s degree and a broad-based work experience (10 years of relevant professional experience) recognized as an expert in financial analysis; proven analytical skills and working experience in ADB developing member countries, with a recognized accountancy qualification such as a Chartered Accountant, Certified Public Accountant or Chartered Certified Accountant; Uzbekistan experience would be preferred.

10. **Environmental Specialists (International, 3 PM; National, 3 PMs)**. Work as a team to undertake tasks including but not limited to the below:

- Prepare a Rapid Environmental Assessment (REA) checklist to confirm the environmental classification of the proposed project.
- Prepare an Environmental Assessment and Review Framework (EARF) to provide guidance on assessment of direct, indirect and induced impacts of the replacement of diesel locomotives, the operations of electric locomotives, and the conversion or upgrading of depots in case if the depot locations will be identified in future. In the EARF, also include an assessment of anticipated climate change and develop disaster preparedness plans if necessary.
- If the project is classified Category B, prepare an Initial Environmental Examination (IEE) Report including a fully costed Environmental Management Plan (EMP), for the railway alignment and associated facilities. The IEE report should be prepared in accordance with the ADB’s Safeguard Policy Statement 2009.
- The EMP should include environmental mitigation measures, a monitoring program, capacity building measures and institutional arrangements for EMP implementation, based on assessment of the capacity of the Government and UTY in addressing environmental problems. If the existing facilities will be rehabilitated or reconstructed as part of the Project, undertake environmental audit to check whether the existing facilities, including the alignment and associated facilities, are in compliance with the Government environmental requirement, and with ADB’s environmental safeguards requirement. If discrepancies or incompliance will be identified, corrective actions should be proposed for each area of concern, including costs and schedule before and during the project implementation. The Environmental Compliance Audit Report could be attached as an appendix of the IEE.
- Undertake calculations on the gross and net greenhouse gases arising from the project, in adherence to Guidelines for Estimating GHG Emissions of ADB Projects: Additional Guidance for Transport Projects. The sources of data for the calculation should be specified and the target year should be made clear.

---

<sup>1</sup> Available at: <https://www.adb.org/projects/operations/financial-management-resources>

- Assist UTY in conducting public consultation as required by SPS 2009, obtaining necessary Government approval and permits to the IEE and for commencing the project activities.
- Provide capacity building to UTY's safeguard specialists on ADB's environmental safeguards.

11. Qualification: For International consultant relevant education background to undertake environmental impact assessment works and significant experience for preparing environmental impact assessment for similar projects, and be familiar with implementation of Uzbekistan's environmental protection law; preferably a master degree and at least 5 years' experience in work related with environmental impact assessment. Familiarity with the ADB Safeguards Policy Statement (SPS) 2009 is an advantage. For the national consultant relevant education background for data collection to prepare environmental impact assessment and some experience on preparing environmental impact assessment of project in Uzbekistan, and good knowledge of Uzbekistan's environmental law and regulation; preferably undergraduate degree with at least 3 years' experience.

12. **Resettlement Specialists (International, 3 PM; National, 3 PMs).** Work as a team to undertake but will not be limited to the following work:

- Reconfirm the project classification for Involuntary Resettlement (IR) and Indigenous Peoples Safeguards.
- Prepare options to minimize land acquisition and associated impacts.
- If the project is classified as B for resettlement, prepare a Resettlement Plan (RP) based on a census and assets inventory of the project affected persons that sets out strategies to mitigate adverse impacts and maintain living standards of affected people. It shall address the policy objectives of ADB and the government for land acquisition and resettlement, in line with the ADB SPS 2009 and relevant Government Law and Regulations.
- Conduct 100% census and assets inventory of the project affected persons based on a detailed measurement survey, a survey of their socio economic conditions, and carry out meaningful consultations with the affected persons.
- Describe the institutional arrangements for addressing social impacts/risks associated with the project, to develop grievance redress mechanism, and to develop effective arrangements to implement the RP.
- Prepare an estimated budget as part of the RP for implementing RP covering all aspects.
- Provide capacity building to UTY's safeguard specialists on ADB's involuntary resettlement safeguards.

13. Qualification: For International Consultant relevant education background and significant experience in preparing RP and implementing land acquisition and resettlement in Central Asia especially for projects in Uzbekistan; full understanding of ADB SPS 2009; preferably a master degree and over 7 years' experience and at least 3 years' work as resettlement specialist. Russian language skills are desirable. For national consultant relevant education background to undertake survey and consultations, and market price data generation for compensation of lost assets as part of RP preparation, and some experience in preparing RP with full understanding on Uzbekistan law and regulation on land acquisition; preferably undergraduate degree from land management institute with at least 3 years' related work experience.

14. **Social Development Specialist (National, 2 PMs)** Undertake but will not be limited to the following work:

- Conduct social impact assessment other than social aspects covered by safeguards requirement, especially poverty assessment, gender assessment, participatory assessment, labor impacts and other social impacts as described in ADB's Handbook on Poverty and Social Analysis: A Working Document (December 2012), and Operations Manual C1-Poverty Reduction (14 July 2004), C2-Gender and Development (6 December 2010), and C3-Incorporation of Social Dimensions into ADB Operations (6 December 2010).
- Conduct socio economic survey to prepare Poverty and Social Impact Assessment in compliance with ADB's Handbook on Poverty and Social Analysis: A Working Document (December 2012).
- Propose gender classification for the project and prepare measures to comply with such classification, including gender action plan if it is warranted.
- Prepare a summary poverty reduction and social strategy including gender strategy and/or measures as appropriate.

15. Qualification: relevant education background to conduct social impact assessment and significant experience in preparing poverty and social impact assessment. Familiar with ADB's policy on social impacts especially gender and poverty. Preferably master degree with at least 5 years' related work experience.

16. **Resource Persons (international and national consultants, up to 10 person-day each)**. Resource persons on railway signal and telecommunication, power supply, supervisory control and data acquisition system, electric locomotive workshop, institution development, etc. may be engaged during project preparation. They will provide specialized expertise to UTY as regards (i) recent technology development in railway electrification, operation and maintenance; (ii) improving the technical and cost side of UTY's feasibility study as needed; and (iii) other railway technical and institutional aspects as appropriate.