

# Northern Afghanistan Railway Study

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## **Key Agenda Items**

- Why Afghanistan?
- The Opportunities
- The Northern Afghanistan Railway Study (NARS) Project
- Afghanistan National Railway Plan
- Project Scope
- Project Corridor
- CAREC Strategy 2020
- Gauge Selection
- Traffic Forecast
- Operating Plan
- Key Success Factors



### Why Afghanistan?

#### **Rail Transportation Potential**

- Primary solution for landlocked, developing countries/regions
- At the heart of the CAREC Program
- 75km of railroad vs 40,000 km of road network
- Rich in minerals and natural resources rail a more suitable long term transportation solutions than trucking.

#### **Country Shifting from Warzone to Developing State**

- Improved connection to the community and the region (access to China and South Asia)
- Building modern infrastructure
- Facilitate economic stability of modern Afghanistan



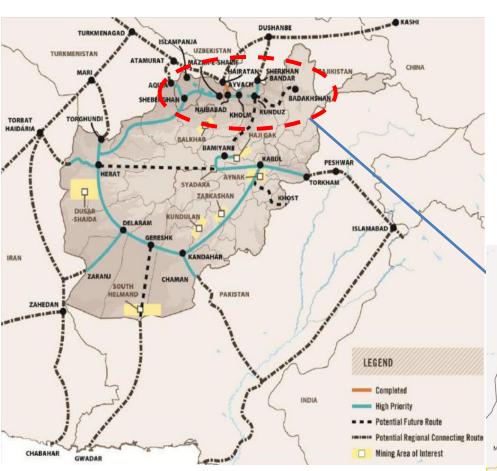
#### The Opportunities

- Pioneer Development of Modern Afghanistan
  - Complements the country's plans to develop mineral extractions industries for sustainable economic growth
- Become Part of the Local Rail Community
  - Become long-term strategic partner to Government of Afghanistan
- Raise Afghanistan's Profile as a Transit Route/Hub
  - Penetrate neighbouring countries Rail Market including China, Iran, Turkey and countries in Eastern Europe.
  - Dual gauge (Standard as well as Russian gauge) has been assessed suitable for Northern Afghanistan Railway.



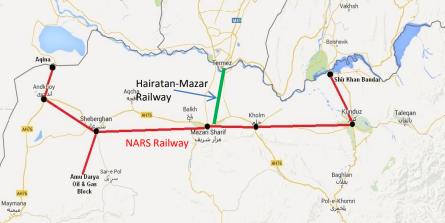
## THE NARS PROJECT

#### Part of the Afghanistan National Railway Plan



## Feasibility Study-Procurement of a 650km railway :

- Connecting Tajikistan to Turkmenistan through
- Afghanistan linking Amu Darya Oil & Gas Blocks
- Interconnecting <u>7 cities</u> (east to west)

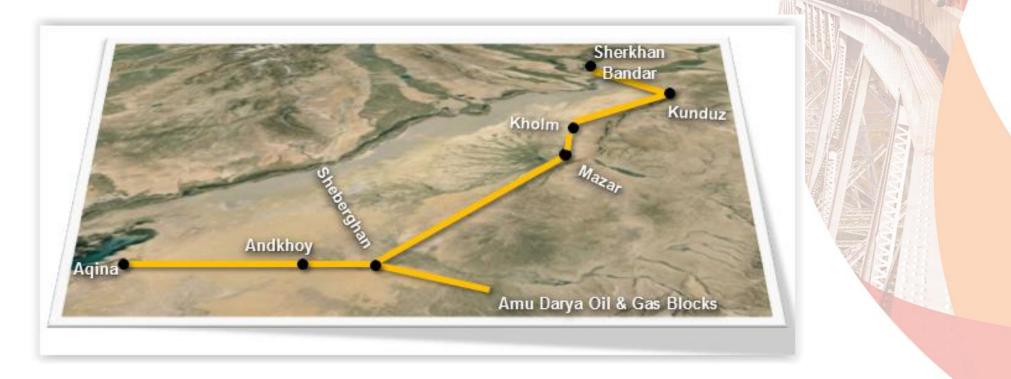


## **Project Scope:**

- Overview of potentially feasible rail alignments and construction options
- Detailed reconnaissance surveys to assess the various alternative routes for the rail link
- Market study (goods and passengers)
- **Hydrologic** review study
- Geotechnical investigations and soil tests
- Topographic surveys
- Identify the various technical options for railway construction
- Preliminary designs
- **Economic** feasibility, and **financial** viability of the various alternative routes
- **Economic** and **financial** analysis
- **Social** Impact Assessment
- Environmental Impact Assessment (EIA)
- Prepare implementation schedule and detailed work plan
- Procurement Support: EOI: Q1 2015 RFP: Q4 2015 Award: Q2 2016



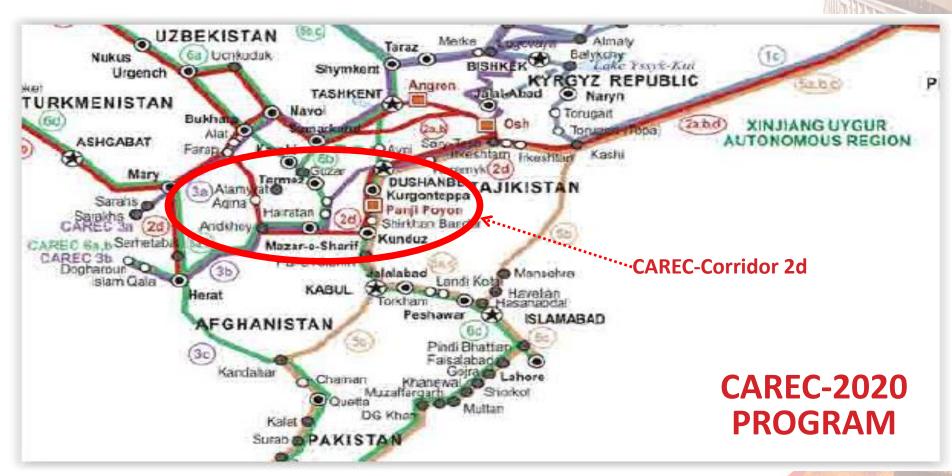
#### **The Project Corridor**



- From Mazar-e-Sharif through Sheberghan, Andkhoy and Aqina, to link with Turkmenistan at Aqina (270km)
- From Mazar-e-Sharif to Kholm connecting to Kunduz and Sherkhan Bandar at the border with Tajikistan (230km)
- From Sheberghan to the Amu Darya oil and gas blocks at Kashkari, Bazarkhami and Zamarudsay (150km)



#### Railway Corridor-Part of CAREC 2020 Program



 CAREC Rail Corridor-2d connects Sherkhan Bandar with Aqina via Kunduz, Mazar and Andkhoy same as in NARS Corridor

#### **Gauge Selection**

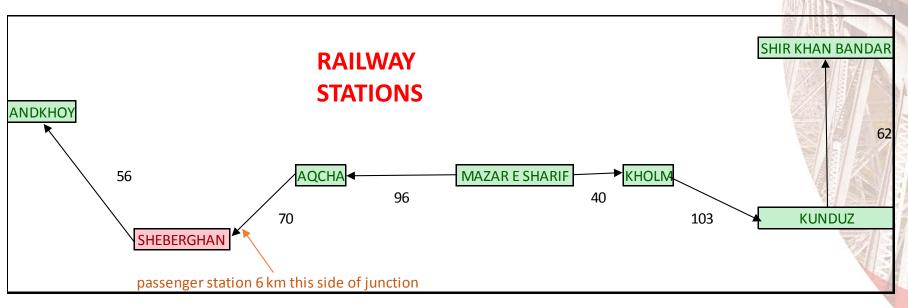
- Various scenarios considered for gauge selection in order to have a preferred system gauge (Standard Gauge) for Northern Afghanistan and also to meet the commitment of the MoU among Afghanistan, Turkmenistan and Tajikistan by providing a Russian Broad Gauge link between Turkmenistan and Tajikistan.
- Recommended Scenario: Make provisions in the infrastructure for a dual gauge but laying the rails for only one gauge (either Standard Gauge or Russian Broad Gauge as appropriate at the time of track laying); but allowing for the introduction of a second track in the future.
- Since Turkmenistan- Tajikistan link is going to be built first, the Russian Broad Gauge is the priority gauge of the NARS dual gauge design, and will be the first gauge to be constructed for the project. Provisions for Standard Gauge will be included in the design for construction at later stage.

#### **Traffic Forecast**

Traffic per Trade Group (million tonnes)	2017	2027	2037
Local	3.36	4.51	6.07
Domestic (oil)	0.22	0.22	0.22
Import	1.58	2.10	2.80
Export	35.70	35.72	35.75
Transit	5.25	7.22	11.32
TOTAL	46.11	49.78	56.15

- The construction of a new rail line in Northern Afghanistan has domestic benefits as well as significant regional and international trade benefits. This will create a more efficient and/or politically desirable shipping route for exports, imports and in-transit shipments.
- 20% of the 15 million tonnes of inter-city road traffic will be diverted to rail once the new rail line connects the seven northern cities
- 36 million tonnes of annual oil and mineral traffic from Afghanistan oil fields and mines would be added to rail freight.

#### **Operating Plan**



## Main Track Operating Speed

Passenger Train-120kph Container Train-100kph Bulk Unit Train- 80kph

# Yard and Terminal Required at

Aqina, Sheberghan, Naibabad, Kunduz, Sherkhan Bandar

#### **Stations Required at**

Andkhoy, Sheberghan, Aqcha, Mazar, Kholm Kunduz, Sherkhan Bandar



#### THE CHALLENGE **Key Success Factors**

- ADB Support & on-time decision making
- Stability in Country Security
- Active Contribution from Ministries, Local Councils and common Afghans
- Regional Cooperation and Integration



# **THANK YOU**

