



*Islamic Republic of Afghanistan*



**Afghanistan Railway  
Authority**

**Regional Connectivity  
and  
Development Plan  
of  
Afghanistan Railway Network**

**Date: 16/04/2018**

### Introduction :

Regional connectivity is regarded as the level and effectiveness of regional networks to facilitate flows of goods, services, people and knowledge across national boundaries. The role of regional connectivity in supporting economic growth and development cannot be overemphasized.

### Vision:

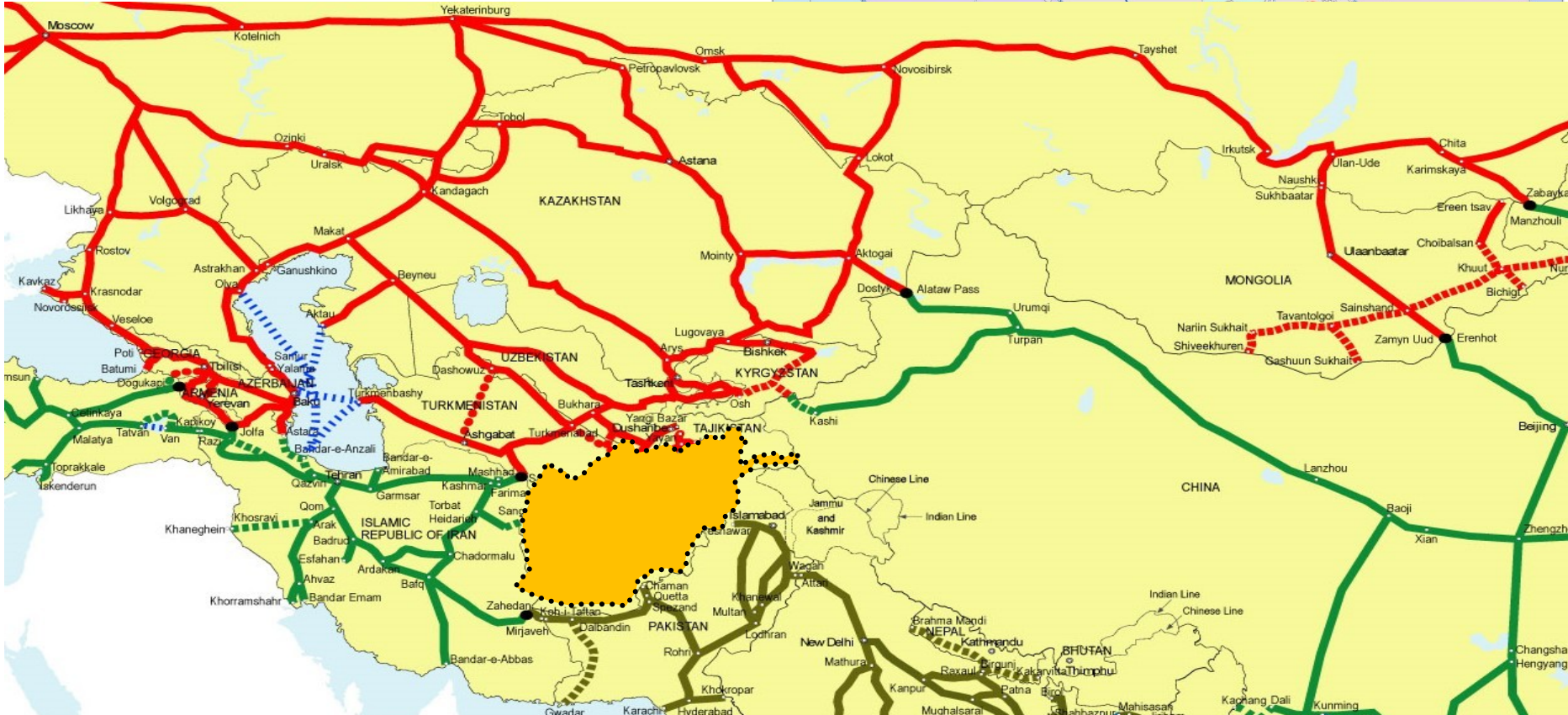
Afghanistan is the country that can become the land-bridge and the round-about of the region, connecting Central Asia to South Asia, provide land routes for Chinese goods to Europe similarly vice versa and serve as the hub for Silk Road's trade and transit route.

Moreover, Afghanistan can be the means of giving economic access to warm ports to Central Asian nations via connecting Charbahar in Iran and Karachi and Gwadar ports in Pakistan . The realization of this vision will result in strong economic integration of the region with net increase in the economy of every country and play a significant role in reducing poverty.

### Drivers of Regional Connectivity:

1; The Soft Infrastructure elements for instance : Policy ,Legal , regulatory &



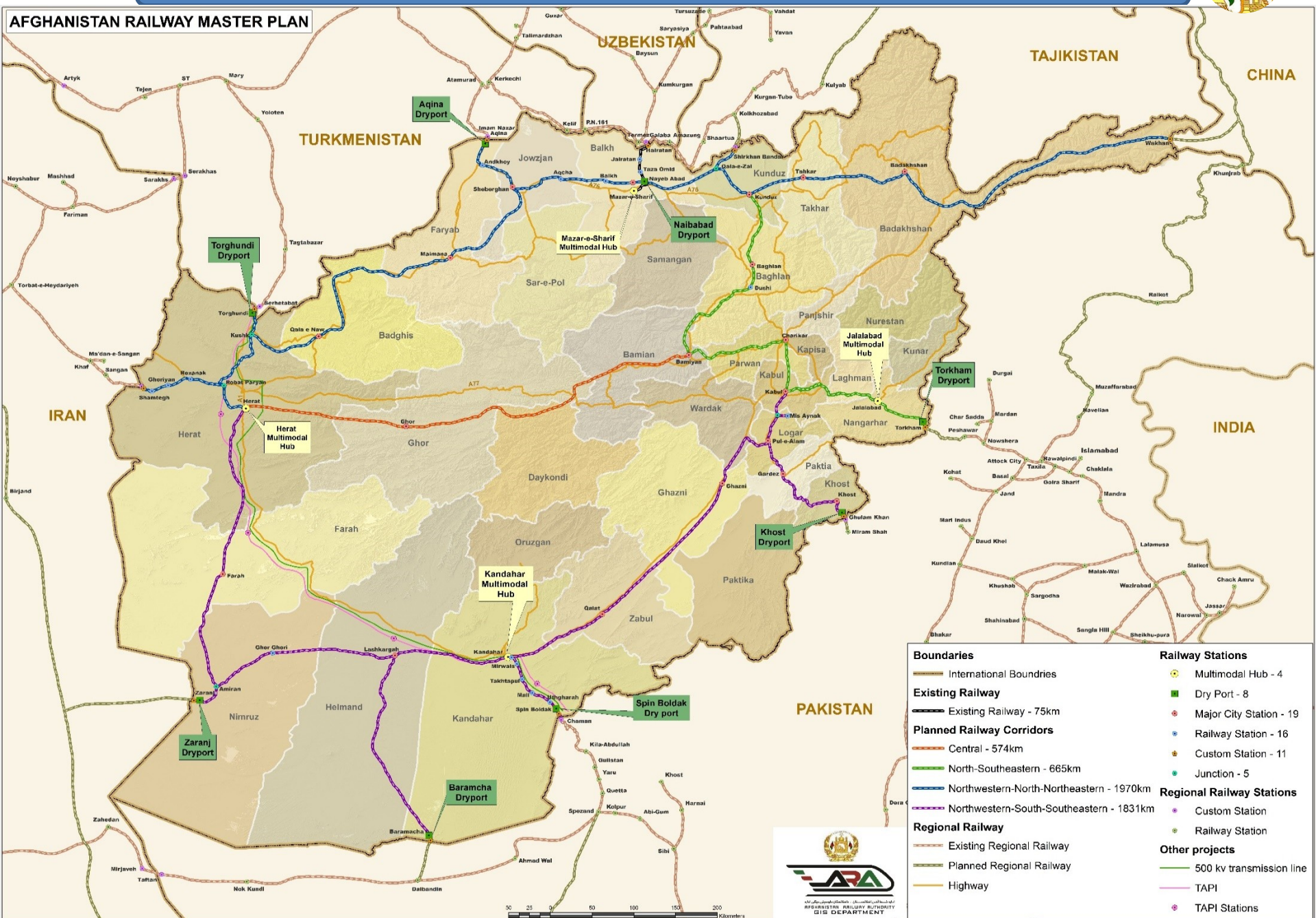


- 1- landlocked country.
- 2- Almost no railway network as bottleneck .
- 3- distinguished technical features of regional railway networks





## AFGHANISTAN RAILWAY MASTER PLAN



Boundaries	Railway Stations
International Boundaries	Multimodal Hub - 4
<b>Existing Railway</b>	Dry Port - 8
Existing Railway - 75km	Major City Station - 19
<b>Planned Railway Corridors</b>	Railway Station - 16
Central - 574km	Custom Station - 11
North-Southeastern - 665km	Junction - 5
Northwestern-North-Northeastern - 1970km	<b>Regional Railway Stations</b>
Northwestern-South-Southeastern - 1831km	Custom Station
<b>Regional Railway</b>	Railway Station
Existing Regional Railway	<b>Other projects</b>
Planned Regional Railway	500 kv transmission line
Highway	TAPI
	TAPI Stations







# Five Nation Railway Route (China, Kyrgyzstan, Tajikistan, Afghanistan, Iran)



Iran	Afghanistan	Tajikistan	Kyrgyzstan	China	Total Length (KM)
78 Km	902 Km	470 Km	215 Km	215 Km	<b><u>1818</u></b>

## Background:

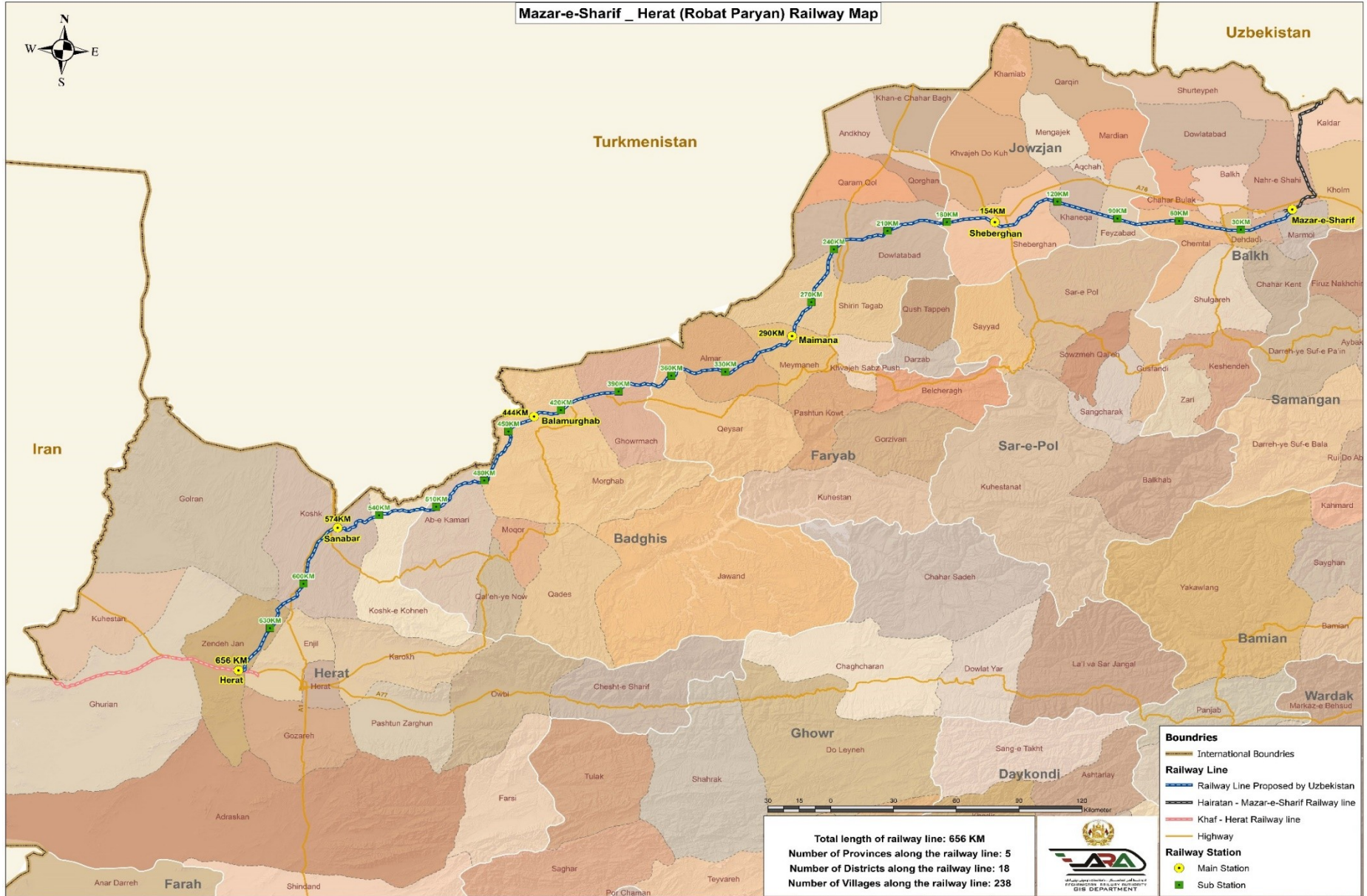
- The first ministerial meeting was held in Tajikistan 2012.
- This corridor(KITAI) recognized by the ECO and it's a part of their goals.
- This corridor will construct with standard gauge.
- The second ministerial meeting will be held in Kabul in next three months
- 

## Current Status of the project in Afghanistan:

- This project divided in two Phase,
- Phase 1: from sherkhan bandar to Shebrghan (287 km)
- Phase 2: from shebrghan to Herat (615km)
- The per- feasibility study of hole alignment is completed which was funded by ADB.
- Feasibility study of the first phase completed in 2015, funded by ADB
- Feasibility study of second phase completed in 2018, funded by China Government



Mazar-e-Sharif \_ Herat (Robat Paryan) Railway Map



**Total length of railway line: 656 KM**  
**Number of Provinces along the railway line: 5**  
**Number of Districts along the railway line: 18**  
**Number of Villages along the railway line: 238**





## Technical Indicators

№	Name of indicators	Unit of measurement	Indicators
1	Length of railway	km	657
2	Length of station paths	km	170
3	Slope of the route	%	up to 18
4	Stations and driveways	units	30
5	Length of receiving and dispatch paths	meters	850
6	Type of traction	-	diesel
7	Length of communication backbone	km	725
8	Volume of excavation works	mln. cubic meters	349,4
	including drilling and blasting operations	mln. cubic meters	25,2
9	Construction works, including:	units/km	938/46
	bridges	units/km	179/11
	overpasses	units/km	10/0.6
	tunnels	units/km	2/17
	pipe-culverts	units/km	747/17
10	Crossings including:	units	106
	protected/unprotected	units	8/98

## Project volumes of cargo transportation

Type	The period of exploitation					Thousand Tons
	1 <sup>st</sup> year	2 <sup>nd</sup> year	3 <sup>rd</sup> year	4 <sup>th</sup> year	5 <sup>th</sup> year and onwards	
	<b>TOTAL</b>	<b>5 320,6</b>	<b>6 916,8</b>	<b>8 991,8</b>	<b>11 689,4</b>	<b>15 196,2</b>
<b>Import to Afghanistan</b>	<b>4 573,3</b>	<b>5 945,2</b>	<b>7 728,8</b>	<b>10 047,4</b>	<b>13 061,7</b>	
from Kazakhstan	1 978,6	2 572,2	3 343,9	4 347,1	5 651,2	
from China	1 199,5	1 559,4	2 027,2	2 635,3	3 425,9	
from Uzbekistan	868,1	1 128,5	1 467,0	1 907,2	2 479,3	
from Russia	377,9	491,2	638,6	830,1	1 079,2	
from EU	87,9	114,3	148,6	193,2	251,1	
from other CIS countries	61,3	79,7	103,6	134,6	175,0	
<b>Transit to Iran and Further</b>	<b>518,6</b>	<b>674,2</b>	<b>876,5</b>	<b>1 139,4</b>	<b>1 481,3</b>	
from Uzbekistan	397,7	517,0	672,1	873,7	1 135,8	
from Kazakhstan	53,5	69,6	90,4	117,5	152,8	
from Russia	37,4	48,6	63,2	82,1	106,7	
from Tajikistan	30,1	39,1	50,9	66,1	86,0	
<b>Transit from Iran</b>	<b>228,7</b>	<b>297,3</b>	<b>386,5</b>	<b>502,5</b>	<b>653,2</b>	
to Tajikistan	199,6	259,5	337,4	438,6	570,2	
to Kyrgyzstan	23,2	30,2	39,3	51,1	66,4	
to Kazakhstan	5,8	7,6	9,9	12,8	16,7	



## Cost Estimation

No	Activities	Capital Investments (Million USD)
1	Railway Construction 657 km plus Stations	1207.7
2	Project, prospect, topographi, geological works, route survey, etc.	50
3	Purchase and mobilization of construction equipment	165,00
4	Temporary buildings and structures, construction headquarters, temporal access roads and off-road roads, construction sites, construction of temporary communications	25
5	Installation of sleeper factories , crash plants	60
6	Transshipment Yard	60
7	Wages	150,00
8	Land acquisition of the whole alignment (3% of the total cost).	50
9	Security for the project	75
<b>TOTAL</b>		<b>1842.7</b>

Note: All activities stipulated in this list does include all taxes , custom duties and charges.

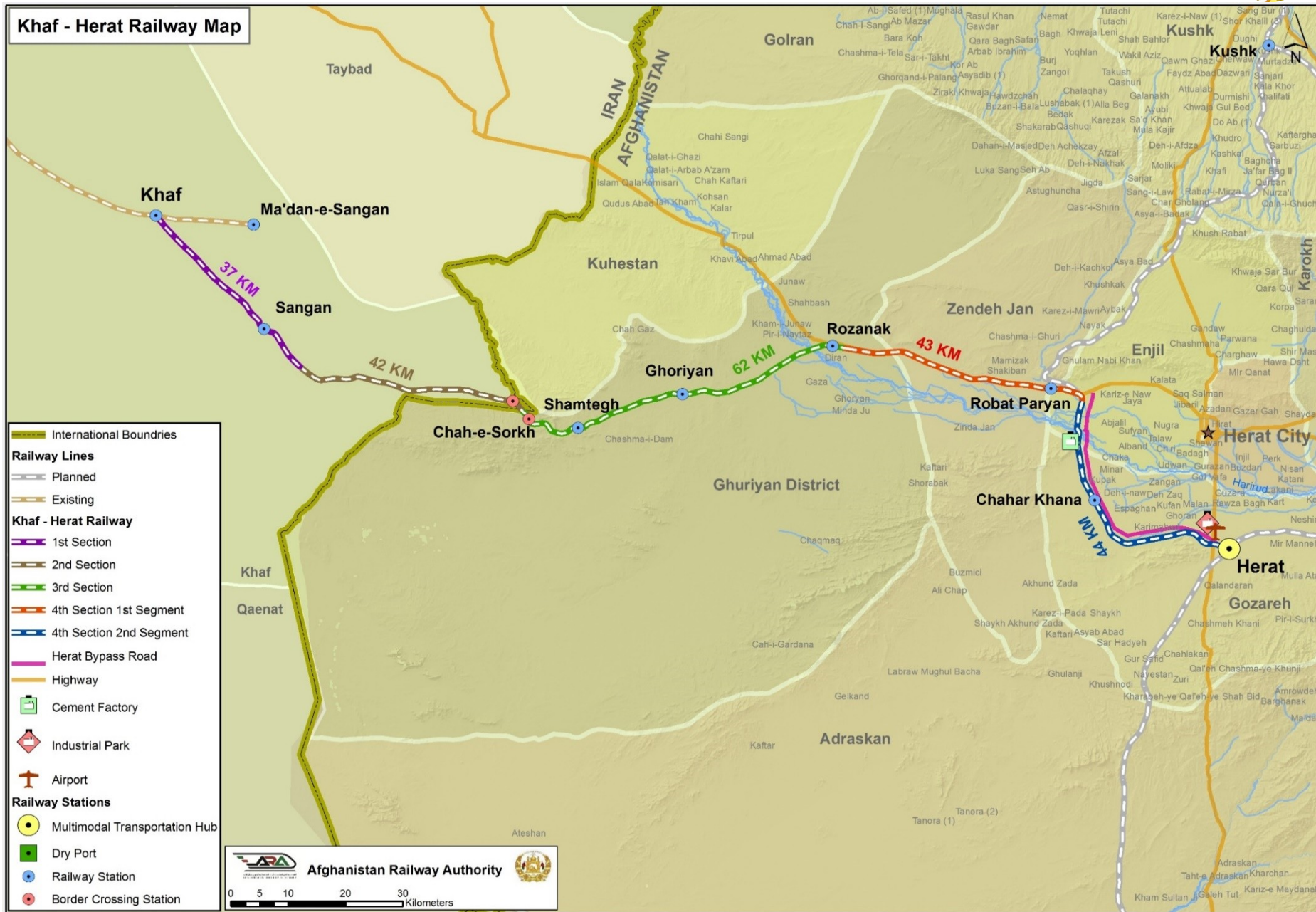




- Location = Mazar, Sheberghan, Faryab, Badghis and Herat
- Project Type = Detailed Design & Construction
- Total length = 657 Km
- Estimated Cost = 1.8 - 2 B USD
- Connecting = Uzbekistan, Turkmenistan & Iran Through Afghanistan (Mazar, Sheberghan, Faryab, Badghis and Herat).
- EIRR = 8.55 %
- FIRR = 3%
- Possible Co-Financing opportunities : ( ADB, WB,AIIB, IDB , bilateral Donors , Consortium Development for Financing, Design, Construction and Operation of the Project)

Funding of The Project	
Estimated Cost	1.8 - 2 Billion USD
Fund Available	Uzbekistan – 500 Million USD
	ADB – 200 Million USD
<b>Fund Required</b>	<b>1.3 Billion USD</b>

Khaf - Herat Railway Map



**International Boundaries**

**Railway Lines**

- Planned
- Existing

**Khaf - Herat Railway**

- 1st Section
- 2nd Section
- 3rd Section
- 4th Section 1st Segment
- 4th Section 2nd Segment
- Herat Bypass Road
- Highway



**Infrastructure**

- Cement Factory
- Industrial Park
- Airport

**Railway Stations**

- Multimodal Transportation Hub
- Dry Port
- Railway Station
- Border Crossing Station

**Afghanistan Railway Authority**

0 5 10 20 30 Kilometers



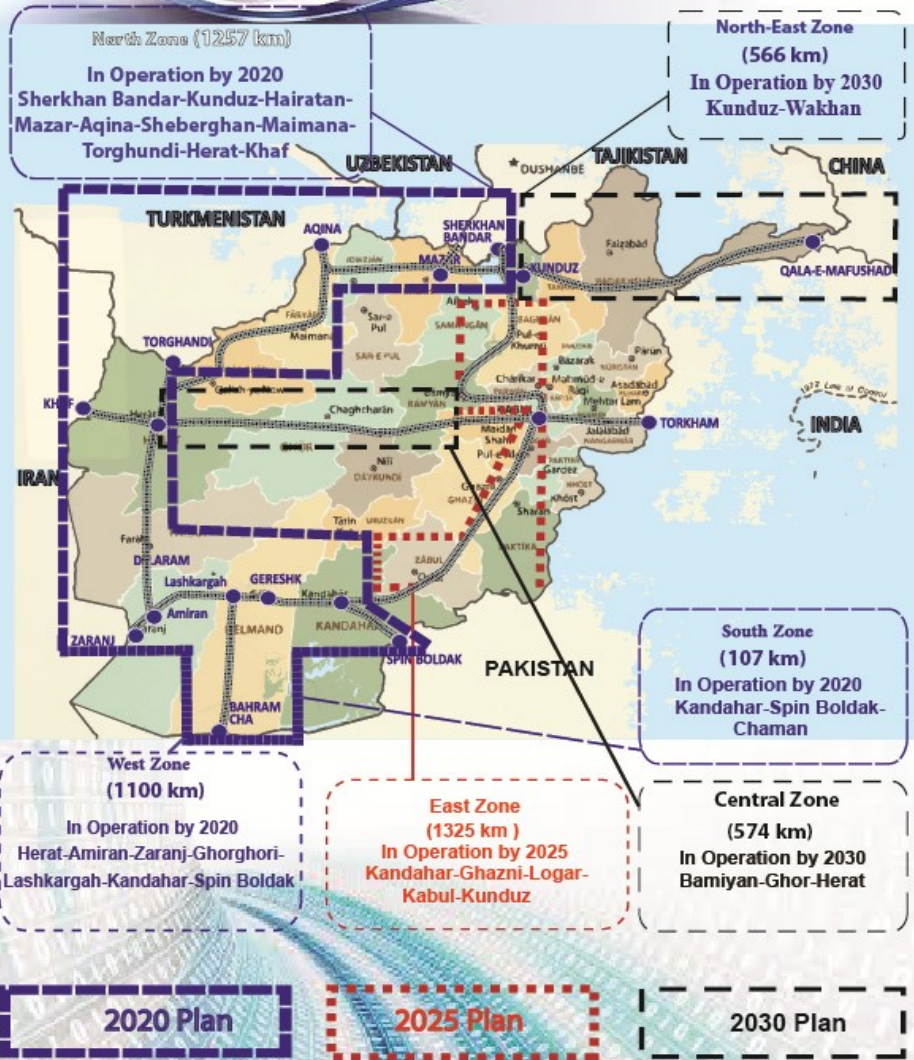
- This project has divided into four sections
- The first two sections are in Iran territory (78 km)
- The third and fourth section in Afghanistan territory (149 km)
- Construction of the third section (62 km) funded by Iranian government, the operation will be started June 2018.
- The fourth section has a two phase, the first phase (43km) founded by AFG, the construction will be started by the end if May 2018.
- The second phase of segment four will be funded by the Italian Government (soft loan) the construction of this project will be started by the end of 2018.

### Fulfillment of Transportation/Trade & Transit Needs :

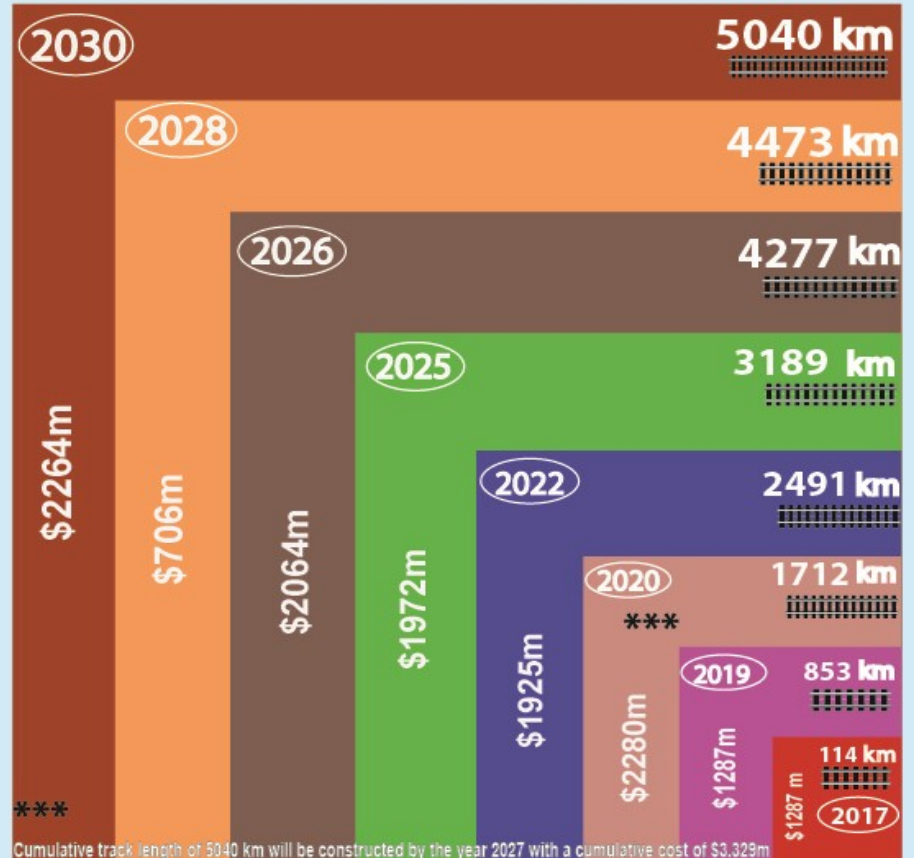
1. Transferring commercial, industrial and constructional goods and assets
2. Export of mineral products of the country to international and regional business markets
3. Export of agricultural products
4. Provide opportunities for transporting international and regional transit goods and assets
5. Linkage and connection of provinces with business centers across the country
6. Obtaining public facilities and services
7. Attraction in investment and private sector development
8. Creating job opportunities and providing new works and activities
9. The increasing interregional positive growth rate would stimulate for the economic opportunities in Afghanistan.



## ON THE FAST TRACK



## COST TO CONNECT



Cumulative track length of 5040 km will be constructed by the year 2027 with a cumulative cost of \$3,329m



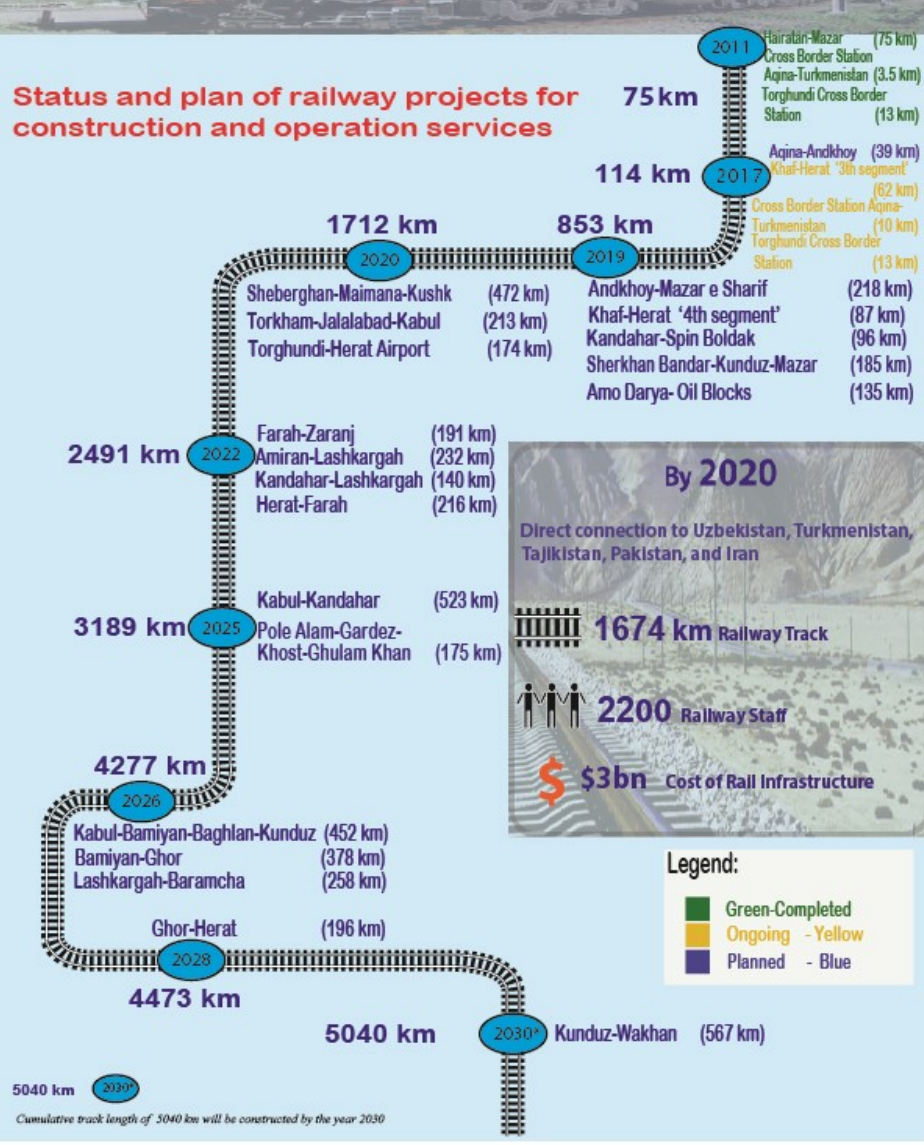
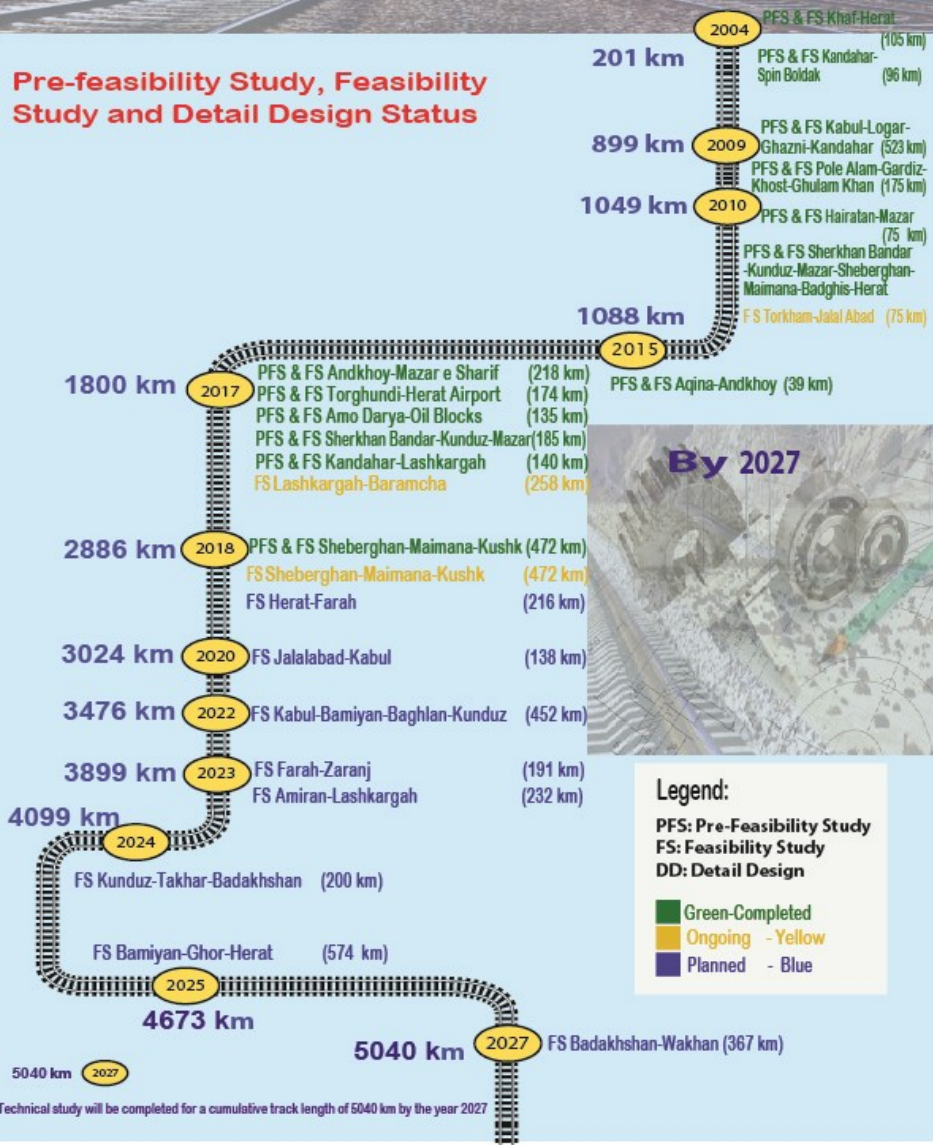


## The Journey of Railway Directorate in Afghanistan

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### Pre-feasibility Study, Feasibility Study and Detail Design Status

### Status and plan of railway projects for construction and operation services



Thank You

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