

Working Party on Transport Trends and Economics (Ninth session)

Geneva, 4–5 February 2014

ISLAMIC REPUBLIC OF IRAN

Principal Engineer :Mrs.Nazanin Karimnezhad



Topics:



- **Introducing PPP-Freeways projects in Iran:**

- **Khoram Abad-Pole Zal Freeway(Construction Completed)**

- **Polezal-Andimeshk Freeway(Under Construction)**

- **Introducing few EATL priority railway projects:**

- **Ghazvin-Rasht-Anzali-Astara Railway(Under Construction)**

- **Bam-Chabahar Railway(Currently holding a tender for construction)**

- **Future Planning**



- ***Introducing PPP-Freeways projects in Iran:***

Khoram Abad-Pole Zal Freeway(Construction Completed)

Introduction:

Khoram Abad-Pole Zal Freeway is part of Tehran - Bandar Imam Axis, which is located within 500 km Southwest of Tehran.

Distance from Tehran to Bandar Imam is about 970 km inclusive of 805 km of freeway and highway which are either built or still under construction. The remaining two-lane road is Khoram Abad -Pole Zal with the length of about 165 km.

After the construction, the length has been reduced to 105 km. Therefore with construction of this freeway, distance from Tehran to Bandar Imam will be reduced about 60 km.

Khoram Abad-Pole Zal freeway construction has a significant impact on the operation of the full capacity of the Bandar Imam as the largest Iranian harbor of the North Persian Gulf and its future development.

Ministry of Roads & Urban Development

Construction & Development Of Transportation Infrastructure Co.

CONTRACTOR & PARTNERSHIP:

Khoram Abad - Pole Zal Construction & Maintenance Company

Construction Period: 1/2006- 11/2010

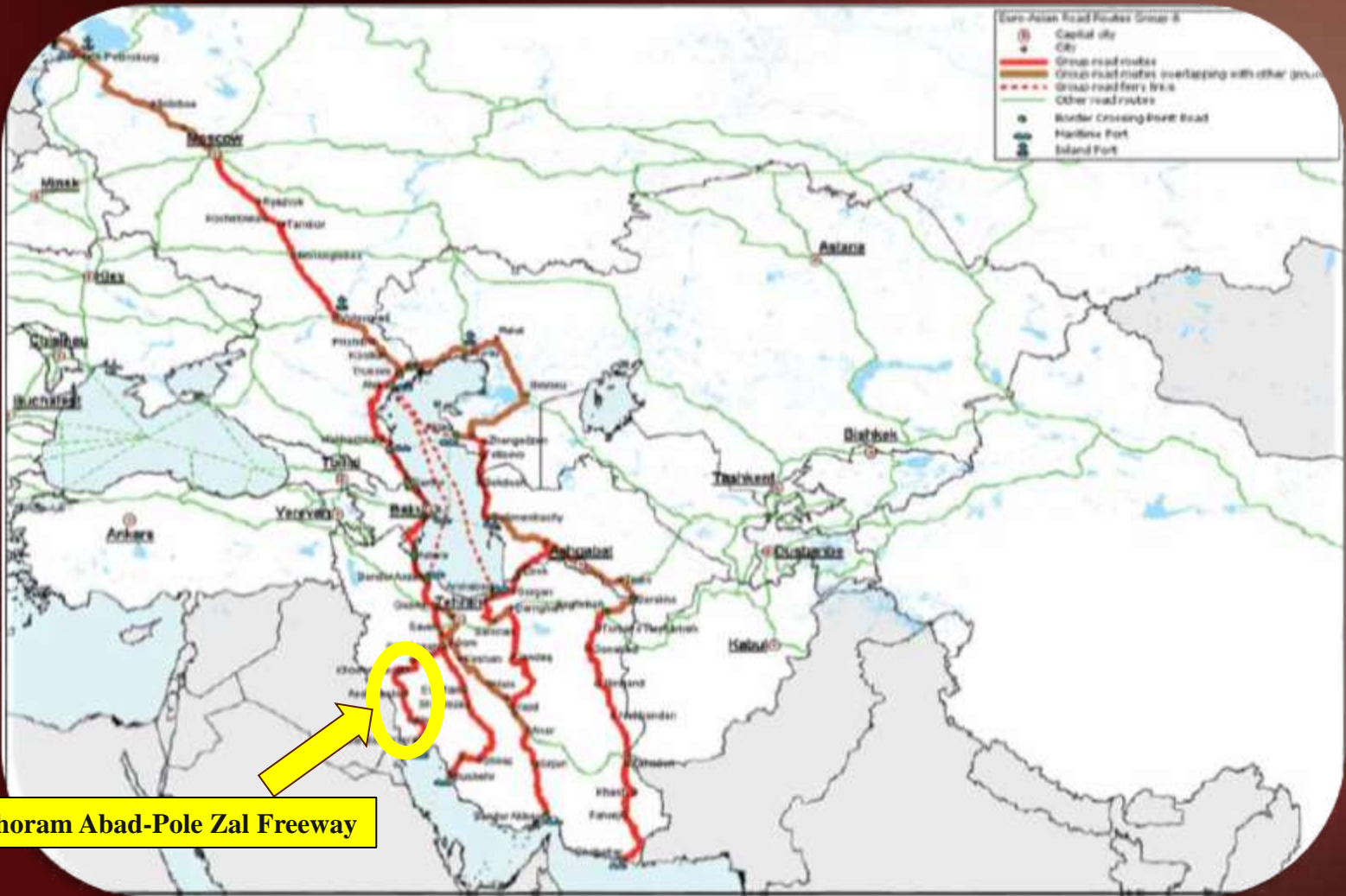




- *Introducing PPP-freeways projects in Iran:*

Khoram Abad-Pole Zal Freeway(Construction Completed)

EATL Road Route 6



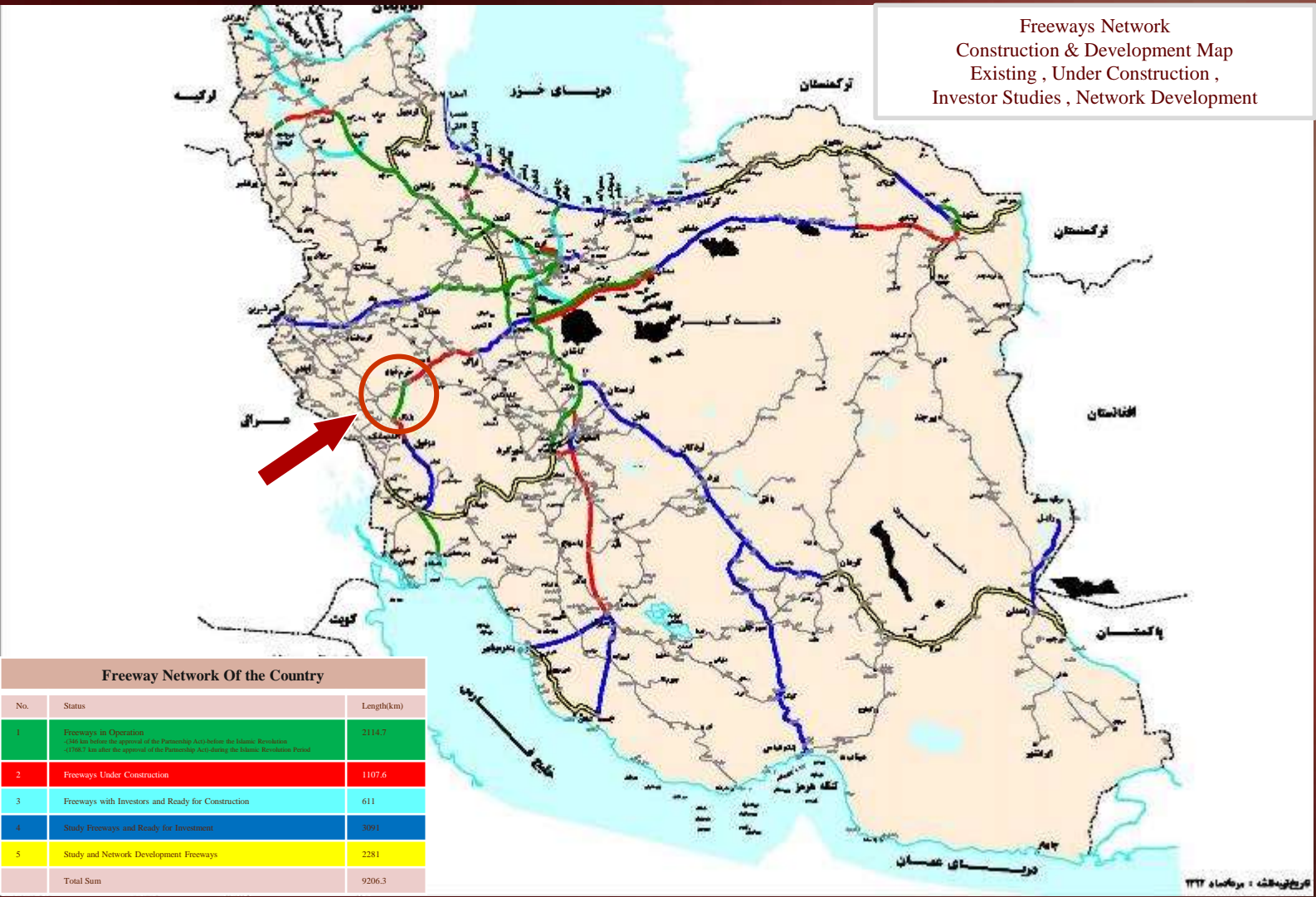
Khoram Abad-Pole Zal Freeway



- Introducing PPP-freeways projects in Iran:

Khoram Abad-Pole Zal Freeway(Construction Completed)

Khoram Abad-Pole Zal Project Map in the Main Tehran-Bandar Imam Axis

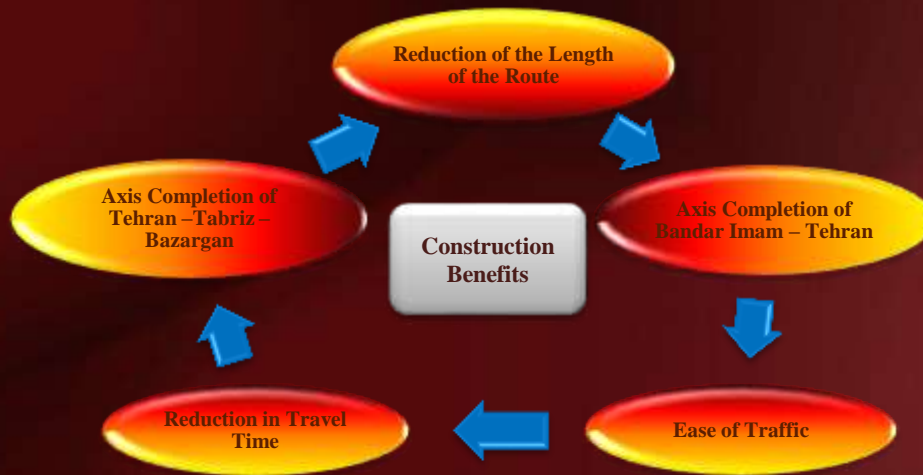




Introducing PPP-freeways projects in Iran:

Khoram Abad-Pole Zal Freeway (Construction Completed)

Construction Benefits of Khoram Abad –Pole Zal Freeway



Technical Specification

Route Length	105 km
Average Design Speed	90 km/h
Length of Bridges	2540m
Length of Tunnels	24600 m
Project Start Time and the Contract Duration	December 2005 - 5 years
Concreting	800,000 m ³
Excavation	40,000,000 m ³
Embankment	7,000,000 m ³
Sub-base	930,000 m ³
Base	460,000 m ³
Asphalt	1,000,000 ton

By constructing this freeway, the travel time of 2.5 hours for light vehicles and 5 hours for heavy vehicles in the existing road is reduced to less than half. The length of the existing road is 165 Km which is not only a very difficult route to cross but it also is one of the North to South bottleneck connections.

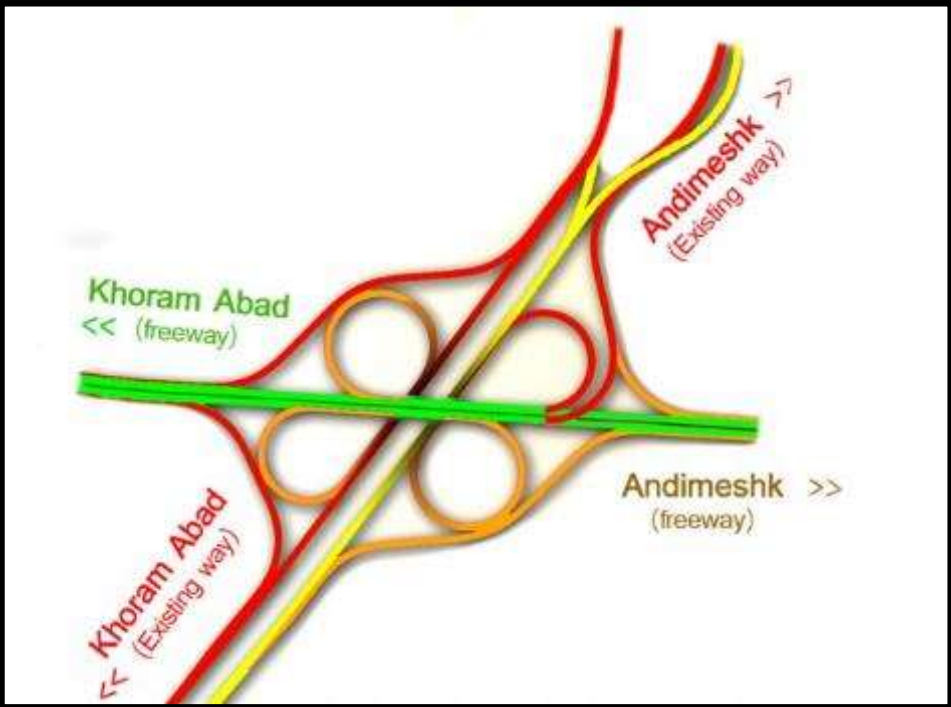
In addition to the ease of traffic and reduction of the length of the route and travel time at Tehran-Bandar Imam axis, and axis completion of Bandar Imam-Tehran-Bandar Anzali and Tehran-Tabriz-Bazargan, the following connection network will be created:

- *The shortest ground route between the Persian Gulf and the Caspian sea*
- *The shortest ground route between Bandar Imam and West coast and East coast of the Caspian sea.*
- *The shortest ground route between Bandar Imam and Turkey*



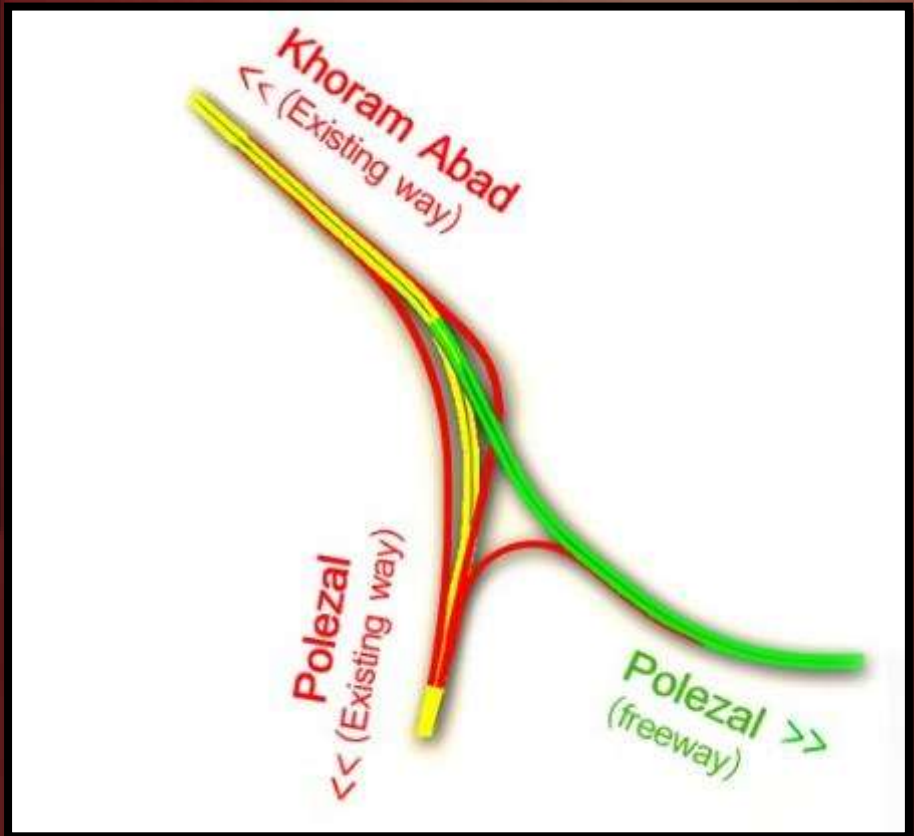
- Presenting PPP-freeways projects in Iran:

Khoram Abad-Pole Zal Freeway (Construction Completed)



Ending Interchange

Beginning Interchange

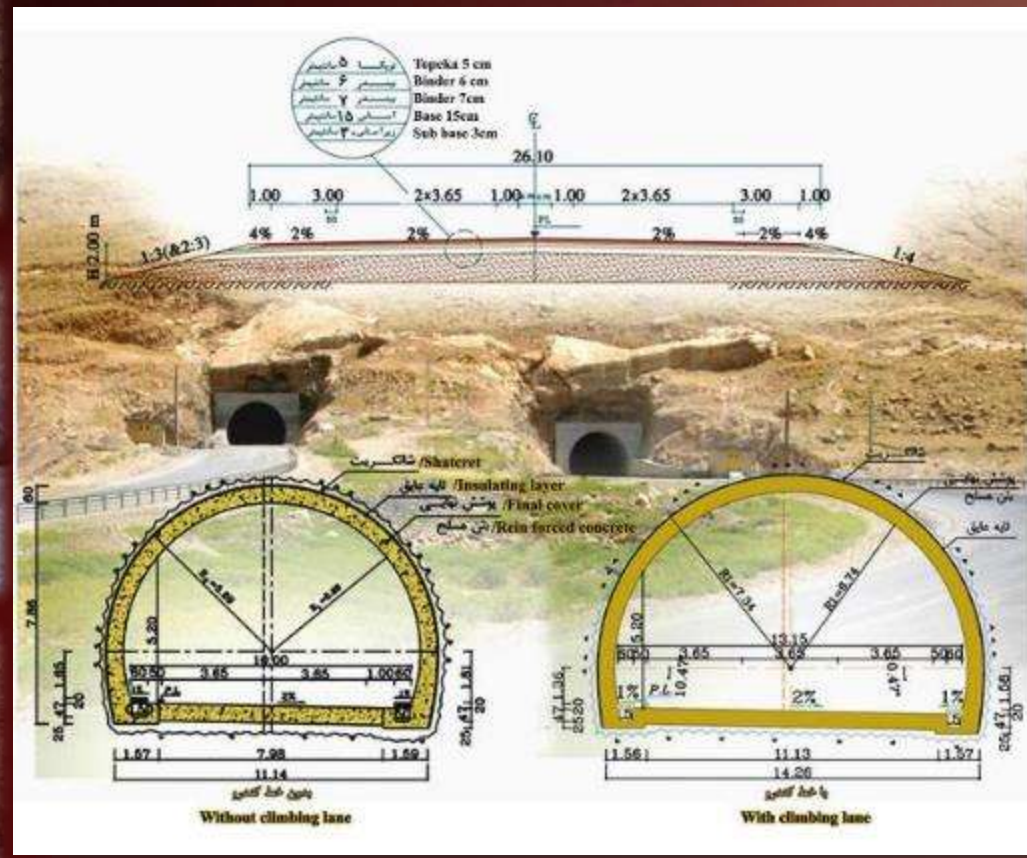




- Present PPP-freeways projects in Iran:

Khoram Abad-Pole Zal Freeway (Construction Completed)

Cross-Section Type





- Presenting PPP-freeways projects in Iran:**

Khoram Abad-Pole Zal Freeway (Construction Completed)

***Investment and Investment Return Method:**

Khoram Abad – Pole Zal freeway is constructed with participation of the Ministry of Road and Transportation and the construction, maintenance and operation company of Khoram Abad-Pole Zal freeway as a 50-50 share.

Investment and profit of participation will be amortized for about 25 years during the operation period through the collection of tolls from the vehicle passing through.

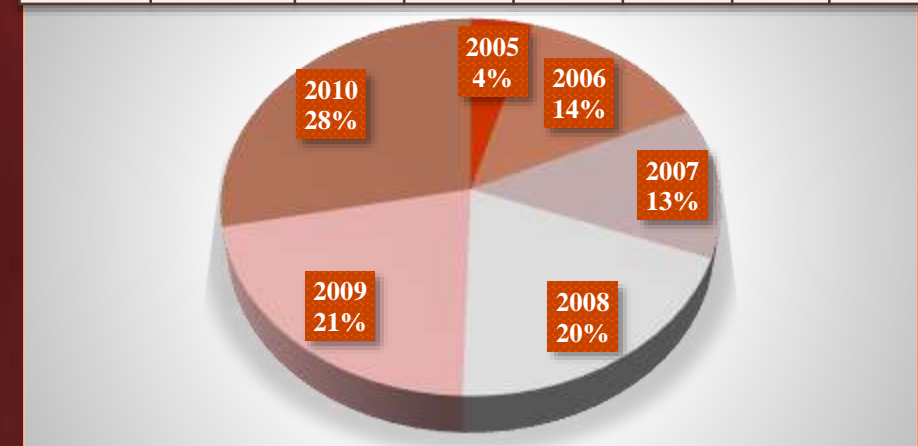
Considering that during the return on investment period, the freeway maintenance is the responsibility of the participating company, there will be a significant savings..

***Calculations Related to the Investment:**

Khoram Abad – Pole Zal freeway project commenced in December 2005 and taking into account the time of 58 months for the electrical installation of tunnels , the project continued to October of 2010 and is been in operation since November of 2010.

Payment Method of Project Costs by the Employer and the Investor:

Payment of Costs		Investor	Employer	Approved Cost	Share of the Partners	Total Cost	Year Constructed
Total							
Million Dollars	Milliard Rials						
37	330	100	230	100	184	368	2005
111	1025	539	486	170	485.5	971	2006
103	970	446	524	250	674	1348	2007
153	1479	634	845	400	849	1698	2008
161	1609	640	969	470	996.5	1993	2009
193	2125	1410	715	290	580	1160	2010
759	7538	3769	3769	1680	3769	7538	Total





• Presenting PPP-freeways projects in Iran:

Khoram Abad-Pole Zal Freeway (Construction Completed)

The Chart of Payment Method for the Project Cost by the Employer and the Investor:





- Presenting PPP-freeways projects in Iran:**

Khoram Abad-Pole Zal Freeway (Construction Completed)

General Information Related to the Cost of Construction and Return on Investment:

(Notes)	(Values)	(Description)
<p>1- Traffic Separation 45% Passenger Vehicles, 14% Mini Bus, 16% Bus and Two – Axis Vehicles, 13% Trucks and Three –Axis Vehicles, 12% Truck Trailers</p> <p>2- The toll for pickup truck, mini bus, bus, trucks and truck trailers are 2, 2.4, 3.2 and 4 times the passenger vehicle respectively.</p> <p>3-The exchange rate=0.000102</p>	7475 Milliard Rials***	(Total cost of construction)
	3769 Milliard Rials	(Expenses related to the participation)
	11500 Vehicles *	Daily traffic in the first year of operation
	4%	Traffic growth rate
	50000 Rials – 4.5\$**	Passenger Vehicle toll in the first year
	12 %	Annual Toll Growth Rate
	25% of toll	Annual Maintenance Costs
	25 %	IRR
	25 years	Investment Return Period

One of the reasons for the successful implementation of this project, is the timely supply of the required financial resources by the Employer and the Partner Company.

- The full allocation of annual credits and granting the license for the sale of Bonds by Deputy of Planning and Strategic Supervision of the President’s [former Management and Planning Organization]
- Quality is the most important indicator in the success of the construction projects. “Sufficient Project Cost Prediction”, “Implementation Time” and “Operation Supply” are completely realized in Khoram Abad freeway projects.



- **Presenting PPP-freeways projects in Iran:**

- **Pole Zal-Andimeshk Freeway (Under Construction)**

Introduction:

Pole Zal-Andimeshk freeway is a part of the main axis of Tehran-Bandar Imam freeway. The length of this axis is about 970 Kilometers with the major parts previously built and been in service as highways and freeways.

The location and status of the route between Arak to Andimeshk is as follow:

- From Arak to Khoram Abad is about 200 Kilometers, the implementation work has begun as a freeway.
- From Khoram Abad to Pole Zal is constructed as a 4-lane freeway with the length of 104 Kilometers, which resulted in a reduction of 65 Kilometers from the existing route. This part has been in operation since late 2010.
- From Pole Zal to Andimeshk, 50 Kilometers of the route remains as a 2-lane route which is very difficult to cross. The new freeway following Khoram Abad-Pole Zal's freeway, is under construction and will be in service this year.

Ministry of Roads & Urban Development

Construction & Development Of Transportation Infrastructure Co.

CONTRACTOR & PARTNERSHIP:

Pole Zal-Andimeshk Construction & Maintenance Company

Construction Period: 4/2011- 4/2014

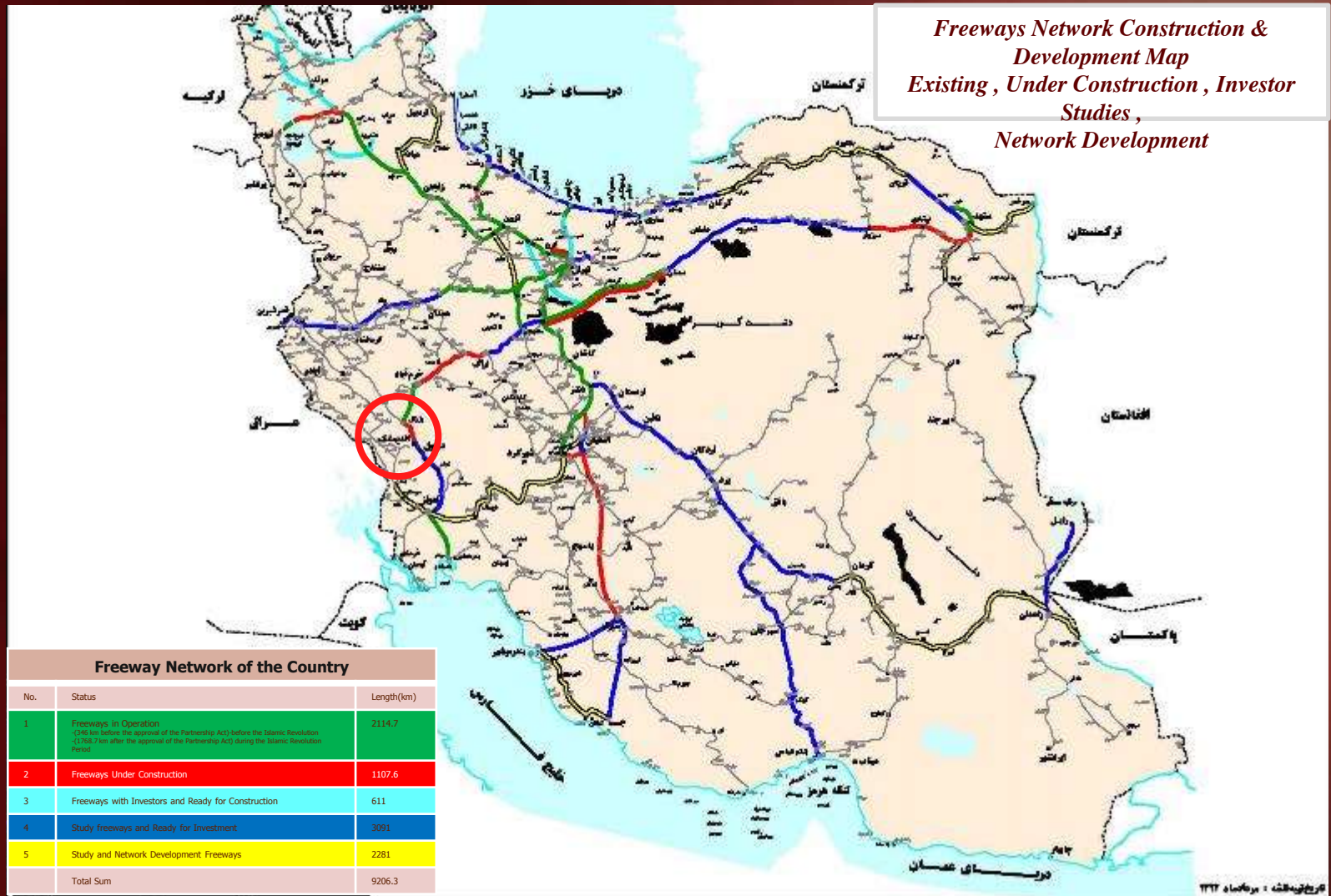




• Presenting PPP-freeways projects in Iran:

• Pole Zal-Andimeshk Freeway (Under Construction)

Pole Zal-Andimeshk Project Map in the Main Tehran-Bandar Imam Axis





• **Presenting PPP-freeways projects in Iran:**

• **Pole Zal-Andimeshk Freeway (Under Construction)**

Construction Benefits in the main Tehran-Bandar Imam Axis:

- With the construction of this freeway and completion of the remaining sections, a convenient communication network between Tehran and Bandar Imam is created. In addition to significantly reducing energy consumption, travel time, and vehicle depreciation, operating at full capacity and development of Bandar Imam which is Iran's largest harbor of the North Persian Gulf, is also provided.
- The following communication networks are also created once the axis of Bandar Imam-Tehran-Bandar Anzali and Tehran-Tabriz-Bazargan are completed
- Shorted ground route between the Persian Gulf and the Caspian Sea
- Shorted ground route between Bandar Imam and other countries located in Western and Eastern coasts of the Caspian Sea
- Shortest ground route between Bandar Imam and Turkey





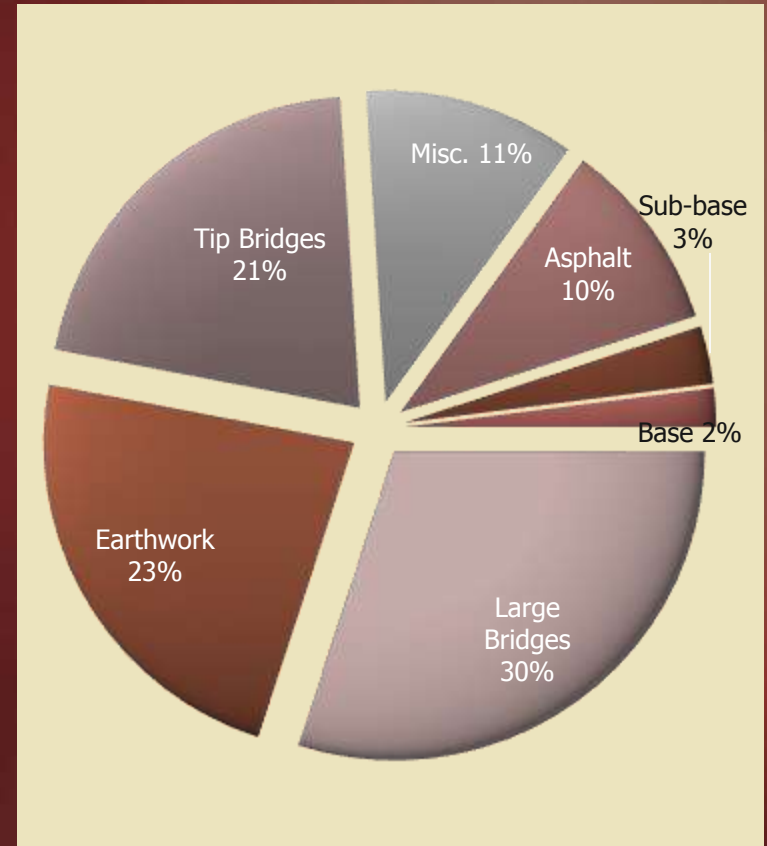
Presenting PPP-freeways projects in Iran:

Pole Zal-Andimeshk Freeway (Under Construction)

Technical Specification

Route Length	45 km
Average Design Speed	100 km/h
Number of Bridges	10 units
Length of the Largest Bridge	210m
Length of The Largest Span	110m
The Start & End Elevation	338 & 193m
Contract Price	932 Milliard Rials-31Million Dollars
Total Cost Including Land Acquisition , Misc. Costs and Value Added Costs	3912 Milliard Rials-130 Million Dollars
Return on Investment Period	25 Years
Vehicle Toll	30000 Rials-1 dollar
Concreting	250,000 m ³
Excavation	10,000,000 m ³
Embankment	3,300,000 m ³
Sub-base (30 cm)	490,000 m ³
Base (15cm)	220,000 m ³
Asphalt (18 cm)	535,000 ton

Expense Allocation Diagram





- **Presenting PPP-freeways projects in Iran:**

- **Pole Zal-Andimeshk Freeway (Under Construction)**

Investment and Return on Investment Method:

Pole Zal-Andimeshk freeway will be constructed and maintained by Abadrahan Construction Company with a 65/35% participation share with the Ministry of Road and Urban Development. Investment and the participation profit will be amortized over a period of 25 years and will be earned by the tolls collected from the passing vehicles. Considering that during the return on investment period, the maintenance of the freeway is the responsibility of the participant party, there would be a significant savings.





- Presenting PPP-freeways projects in Iran:**

- Pole Zal-Andimeshk Freeway (Under Construction)**

Project Financial Report

Total Project Estimate	Till Mid Sept. 2013	Description		Exchange rate: 1 dollar = 30000Rials
932	791	Payment Due to Contractors		Expenses
1881	1313	Contractor Price Adjustment		
105	79	Expedition		
376	76	Bitumen Price Difference		
395	271	Misc. Project Expenses		
173	120	Value Added Tax		
50	25	Acquisition Cost		
3912	2675	Total Expenses		
2543	1739	Share		Financial Resources
1295	1295	Deposits	Payments	
240	120	For the State price for bitumen		
1535	1415	Total		
1008	324	Remainder		
1369	936	Share		
863	863	Deposits	Payments	
280	280	Net Claims for Unpaid Work		
1143	1143	Total		
226	None	Remainder		

Summary of Required Financial Resources (Milliard Rials)

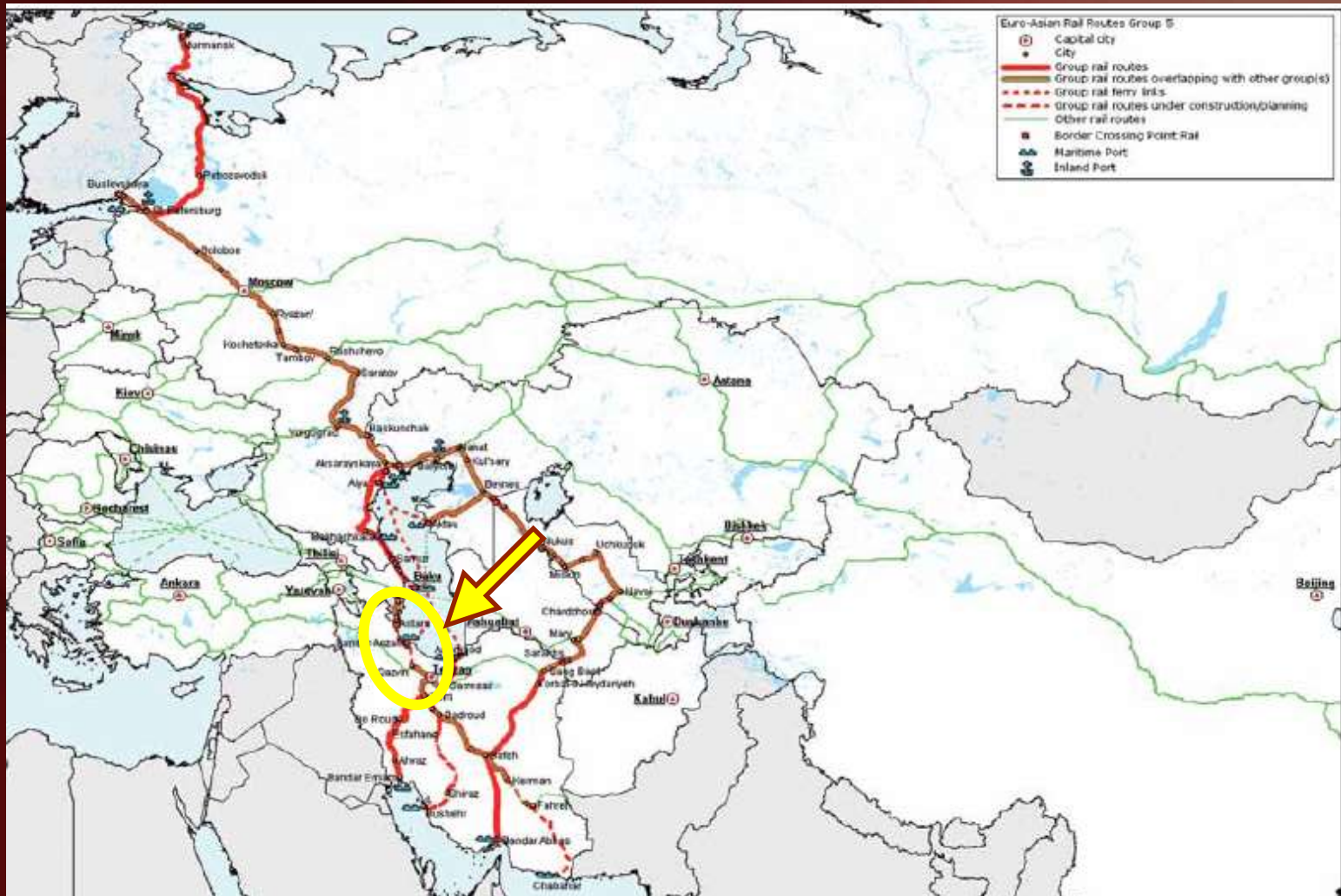
For the Completion of the Project (Dec. 2013)	Settlement of the Obligations Till Early Oct.	
1008	324	Share of the Ministry of Road
226	None	Share of the Participating Party



- Presenting some EATL priority railway projects:

- Ghazvin-Rasht-Anzali-Astara Railway (Under Construction)**

EATL Rail Route 5

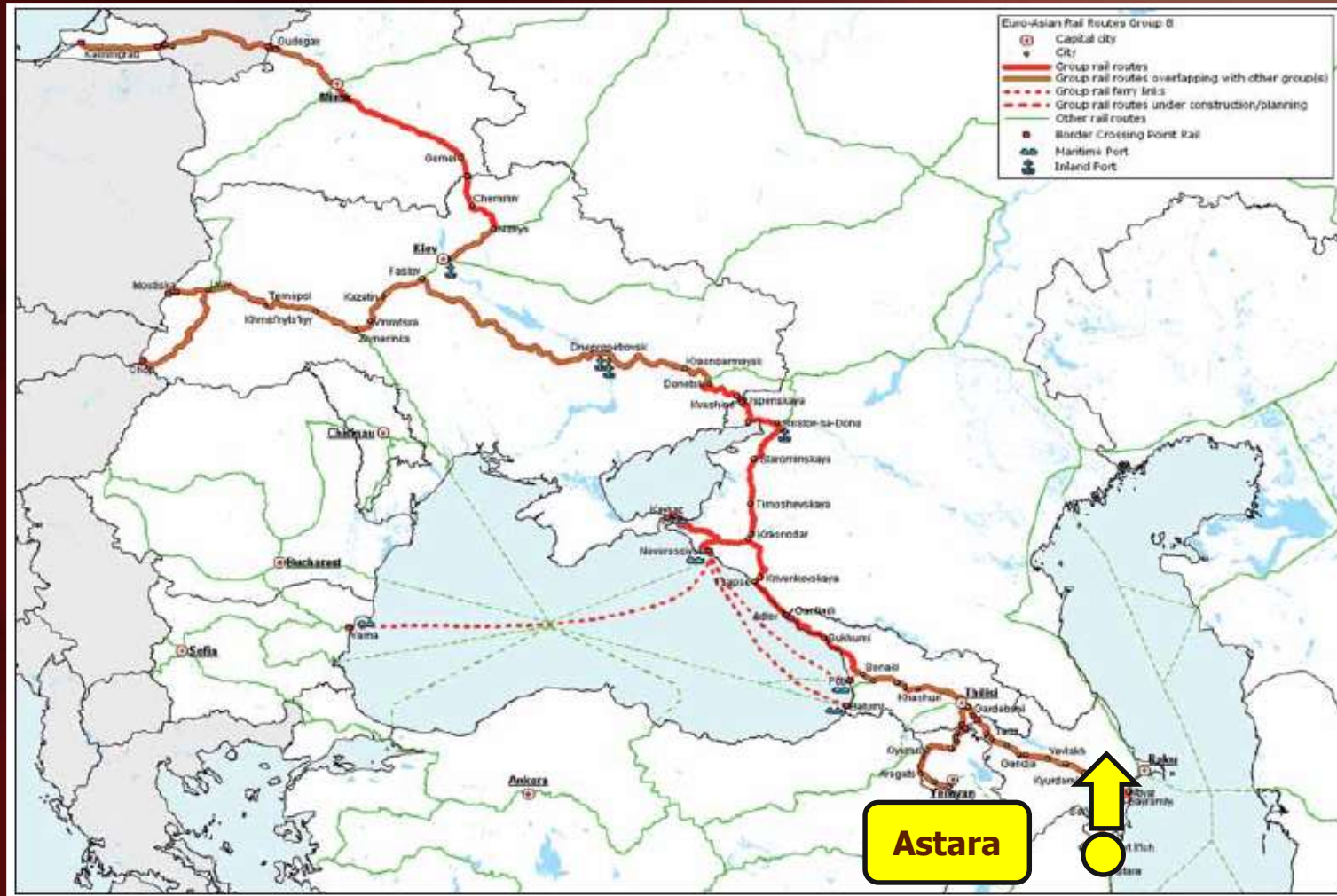




- Presenting some EATL priority railway projects:

- Ghazvin-Rasht-Anzali-Astara Railway (Under Construction)

EATL Rail Route 8





- Presenting some EATL priority railway projects:

- Ghazvin-Rasht-Anzali-Astara Railway (Under Construction)**

Project Location:





Presenting some EATL priority railway projects:

Ghazvin-Rasht-Anzali-Astara Railway (Under Construction)





- ***Presenting some EATL priority railway projects:***

- ***Ghazvin-Rasht-Anzali-Astara Railway (Under Construction)***



Introduction:

Ghazvin-Rasht-Anzali railway project is considered as one the most important railway lines among the officially accepted railway development plans. The construction activities have been commenced based on the national civil credits. Astra railway line would be extended from this project.

The value of this project is not limited to domestic cargo transport within Gilan province. This railway line performs a significant role in the import and export activities within the country and also can complete the North-South transit corridor of Iran towards the Persian Gulf and region countries. Based on the mentioned facts and considering the crucial importance of this railway project within the region, neighboring countries are closely following the construction activities and Russia and the Republic of Azerbaijan especially have announced their preparation for following and supporting of this railway line.

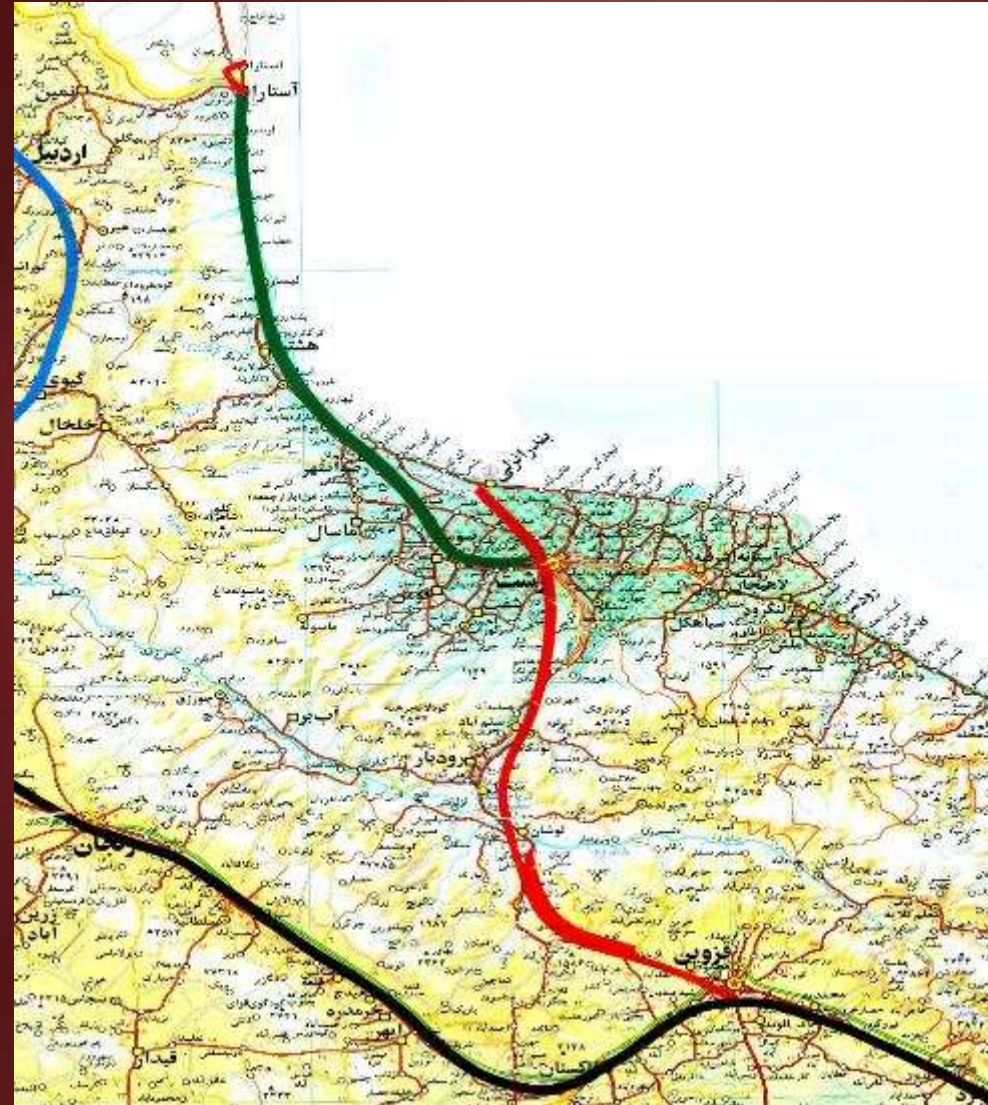


- **Presenting some EATL priority railway projects:**

- **Ghazvin-Rasht-Anzali-Astara Railway (Under Construction)**

Project Objectives:

- Providing a proper rail connection between Gilan province and also Anzali port with national railway network and also providing a rail link between Persian Gulf and Anzali port and the Republic of Azerbaijan and other Caucasus countries within the region
- Accomplishment of North-South rail corridor (Connecting Russia and European countries to Persian Gulf, India Peninsula, Southeast and Central Asia. In addition it is intended to facilitate the commercial and business tasks of Caspian Sea periphery countries, Batumi port and Pooti port of Black Sea
- Rail freight and passenger transport between Tehran and other provinces and Gilan province and vice versa.





- **Presenting some EATL priority railway projects:**

- **Ghazvin-Rasht-Anzali-Astara Railway (Under Construction)**

Project Technical Specifications:

Technical Specification(s)	Ghazvin-Rasht-Anzali		Rasht-Astra
Total length	226(Kilometers)		170 (Kilometers)
Length of double track section	42 (Kilometers)		-
Subgrade Platform Width	7 meters single track section – 11.7 meters double track section		
Minimum Curve Radius	1500 meters-some parts 500m		1500 meters
Maximum Station Grade	0.25%		
Maximum Project Grade	Single Track Section	1.5%0	1.5%
	Double Track Section	3.0%0	
Axle Load	25 Tones		
Rail Type	UIC 60		
Track Gauge	1435 Millimeters (Standard)		
Station Length	Single Track Section	1200 meters	1200 meters
	Double Track Section	1000 meters	
Maximum Tunnel Length	Single Track Section	1550 meters	-
	Double Track Section	2075 meters	
Total Tunnel Length	17.4 Kilometers		
Length of longest Bridge	Single Track Section	650 meters	N/A
	Double Track Section	200 meters	
Maximum Bridge Height	Single Track Section	30 meters	
	Double Track Section	52 meters	
Total Length of bridges in single track and double track sections	6.9 Kilometers		
Signaling and Communication	Electronic Interlocking System, C.T.C. System, and Fiber Optic Communication Cable along the route		
Design Speed	160 Kilometers per hour for passenger trains 120 Kilometers per hour for freight trains		
Traction type	Diesel-Electric with electrification provisions		



- **Presenting some EATL priority railway projects:**

- **Ghazvin-Rasht-Anzali-Astara Railway (Under Construction)**

Construction Obligations and Necessities:

This project would absorb mass export, import, and transit from Anzali port and would provide an appropriate basis for North-South railway corridor. The extension of this project towards Astra in Iran and Azerbaijan can introduce a safe and reliable rail connection between Caucasus, Russia, and European countries. Thus aforementioned project would facilitate the commercial and business exchange among the neighboring countries and also European countries and would enforce the transit corridor and correspondingly the economical and political relationship in the region.

Required Fleet:

Traffic Demand Evaluation:

Evaluation of transportation demands in the first year of operation 1388(2009)		
Passenger (Thousands)	Provincial	1350
	Local	135
Freight (Million Tones)	Local (domestic)	2
	Transit	1

Cargo*		Passenger*		Year
No. of Loco.	No. of Wagons	No. of Loco.	No. of Wagons	
10	529	4	50	2009
21	1082	6	83	2019
34	1746	11	141	2029



- **Presenting some EATL priority railway projects:**

- **Ghazvin-Rasht-Anzali-Astara Railway (Under Construction)**

Construction Costs:

Cost item		Ghazvin-Rasht-Anzali	Rasht-Asrta
Land Acquisition		262	1000
Substructure and Infrastructure	plains	1000	2000
	hillocks	200	
	mountains	1500	
	bridge	800	
	tunnel	2000	
Permanent Route		565	1000
Signaling and Communication		150	100
Buildings and Station Facilities	Service Stations	100	200
	1 st Grade	50	
	2 nd Grade	100	
	3 rd Grade	10	
Total		6737	4300

Engineering Services (3%) , Environmental Costs (1%) , Miscellaneous (2%) of infrastructure costs



- Presenting some EATL priority railway projects:

- Ghazvin-Rasht-Anzali-Astara Railway (Under Construction)**

Physical Progress Report- April 2013- Figures in Million Rials:

Exchange Rate(in 2010,11,12,13)
1 dollar = 11,16,32,30 thousand Rials

Physical Progress in April 2013	Required Credit for Completion of Work	Approved Credit for 2011	Contractor's Receivables	Physical Progress at end of 2011	Payments in 2011	Physical Progress at end of 2010	Payments in 2010	Last Increase	Last Work Completed	Contract Price	Consultant's Name	Contractor's Name	Approved Credit for 2011	Construction State	Segment Length (km)	Segment Title			
90/44	216000	1201200	163000	74	31824	71	4951	112297	112297	348000	Hezar Rah	Stratus	966000	Ghazvin	40/4	Section 1			
				0				65603	125873	219478									
46/43	431000			38	158981	27	72619	206859	254630	412689	412689	Hezar Rah			Stratus			14/3	Section 2A
78/41	243000			67	213886	54	91614	445370	533145	544520	544520	Hezar Rah			Teeraj			15/05	Section 2B
88/52	148000			72	121308	54	62016	170922	265553	284292	284292	Pars			Sadad			16/6	Section 3A
74/94	174000			62	99050	42	48415	212215	287549	314608	314608	Pars			Khalkhal Dasht			11/7	Section 3B
77/16	284000			59	87147	45	75140	153669	273742	356813	356813	Pasilo			Maskan & Omran			14/7	Section 4A
80/12	230000			62	94589	51	59790	209421	313740	362667	362667	Pasilo			Toos Amer			23/7	Section 4B
81/71	432000			69	27390	64	28553	103429	275012	276250	276250	Iran Oston			Metarah			27	Section 5A
																30002			52026
8	180000	8	0	8	3285	13839	65034	450408	450408	Iran Oston	Tabriz Sakhteman			41	Section 5B				

- **Presenting some EATL priority railway projects:**

- ***Ghazvin-Rasht-Anzali-Astara Railway (Under Construction)***

Conclusion:

By construction of Rasht-Astra railway line, the transit attractions and project feasibilities would certainly increase. These consequences are not investigated.

Ghazvin-Rasht-Anzali railway line comprises of multitude of social and economic benefits from national and provisional point of view that would convert this railway project to one of the important national railway projects. In spite of accepting accuracy in estimating the demand and revenue of this railway line, the sensitivity analysis of this railway line depicts that even in case of significant and unprecedented reduction in the volume of transit cargos (about 75%) and reduction in domestic cargo and passenger traffic (about 50%), the 20-year return period would be consistence which in turn shows the positive strength of this railway line. Also the reasonable variations in feasibility assumptions such as inflation rates, construction costs and etc. would not induce significant impact on the final results.



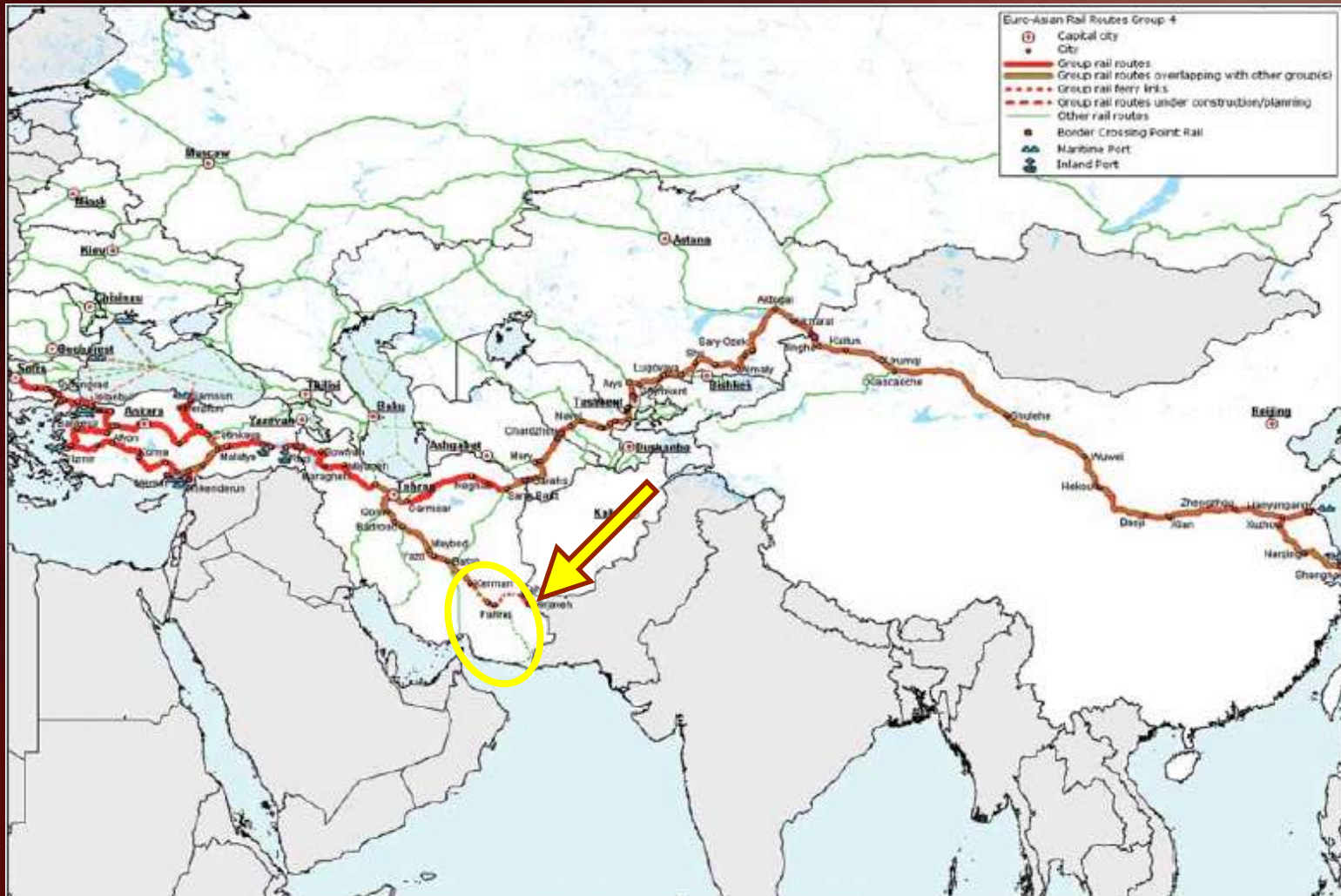
According to implemented surveys, the amortization of the initial and secondary constructional investments of this railway project is possible from self-originating revenues. Even if this railway line is regarded as an investment project (ignoring the social benefits of this railway project), after completion and activation of North-South transit corridor and attaining transit revenues and benefits, this railway project would still contain the commercial (economic) feasibility. In any event, the construction of this project not only cause economic and social profits in the national level but also can result in development of Gilan province and completion of North-South transit corridor.

It should be noted that in Letter of Agreement between the Deputy Minister of Russia Communication Route and the Iran's Railway President at the time, with confirmation of Minister of Road and Transportation (Dr. Dadman) the possibility of Russian financial cooperation, construction, and design and technical aids of this railway project and extending the line towards Astra port was discussed. In the aforementioned letter of agreement, the top officials of three Countries, Russia, Azerbaijan and Iran have stated their interest and tendency in expediting the construction of railway line between Ghazvin and Astra and the initial steps in this regard are predicted.



- *Presenting some EATL priority railway projects:*
 - *Bam-Chabahar Railway (in tender for construction)*

EATL Rail Route 4

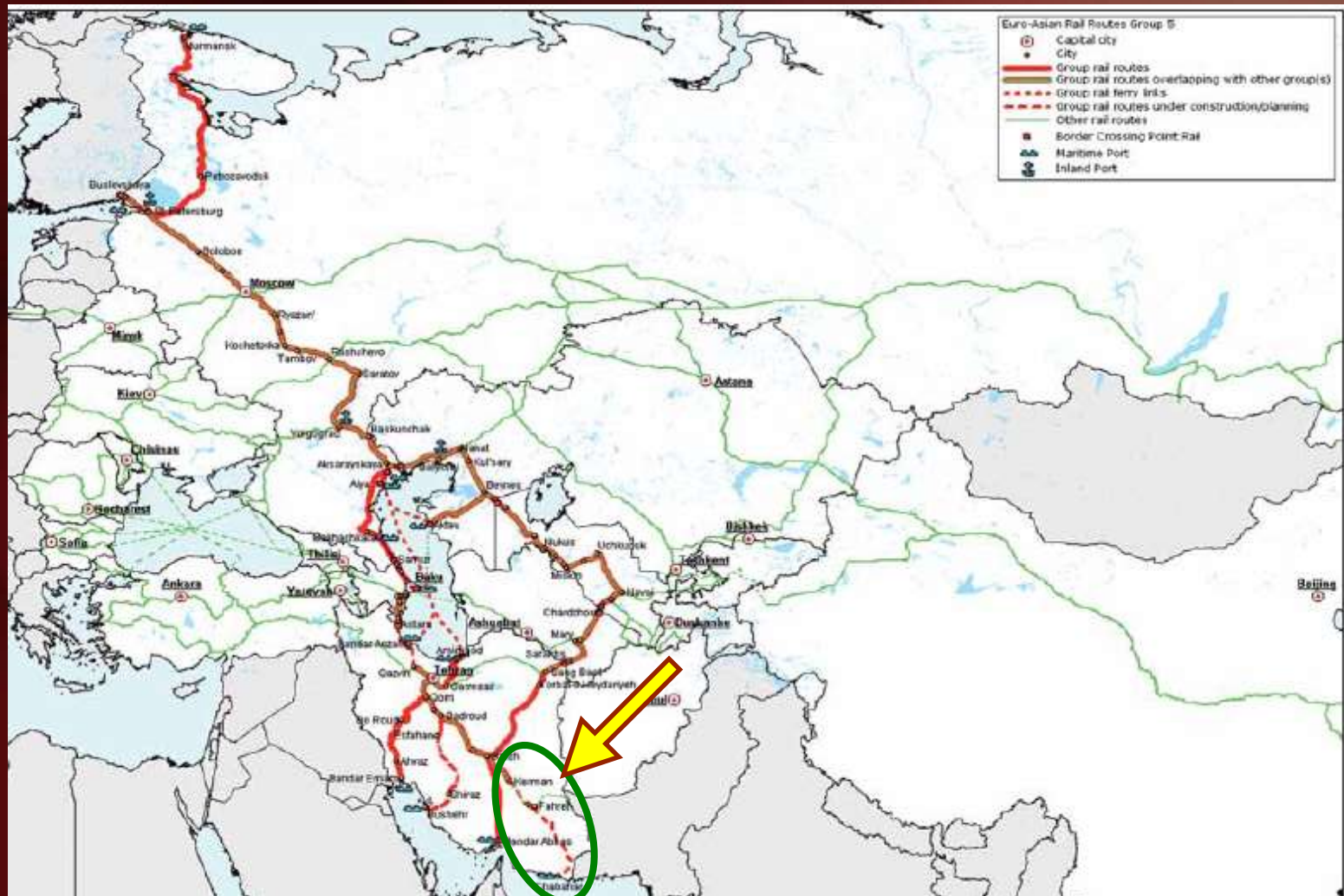




- Presenting some EATL priority railway projects:

- Bam-Chabahar Railway (in tender for construction)**

EATL Rail Route 5





- **Presenting some EATL priority railway projects:**

- ***Bam-Chabahar Railway (processing tender for construction)***



Free Region of Chabahar:

Imam, Abbas and Chabahar ports are all located in the Southern coasts of Iran. The locations of these three ports at the beginning, end and at the intermediate distance from the Southern coasts of Iran (Chabahar, Imam and Abbas, respectively), in terms of geographical distribution point, are clearly separated. Chabahar port is located at the lower geographical latitude and in terms of trade, it has a three-day sea travel advantage compared to Bandar Imam and Bandar Abbas (both are ports). Far East and Australia are regions which play an important role in the import and export trade of the Central Asian Countries. In practice, this advantage (shorter distance) can be superior in terms of travel time and trade cost which are important factors to the distributor of the goods.

Area: 140 Square Kilometers

Location: Far End Southeastern Iran, next to Oman Sea

- From North to Central Asian Countries and Afghanistan
- From East To Pakistan
- From South to Indian Ocean and Suez Canal
- From West by Odan Gulf to Mediterranean Sea



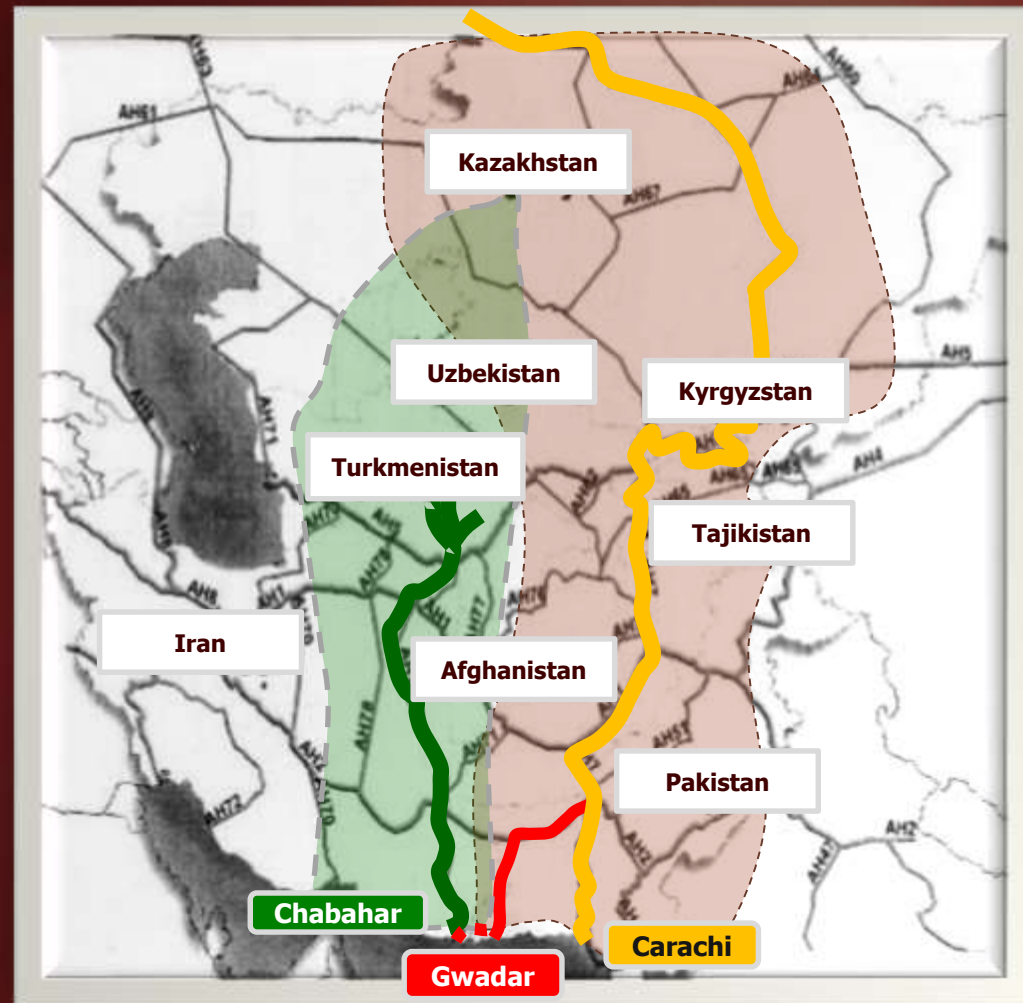


- **Presenting some EATL priority railway projects:**

- ***Bam-Chabahar Railway (processing tender for construction)***

Some of the General Benefits of the Free Zones:

- Exemption on taxes, custom fees and business profits
- Possibility of transit and re-issue of goods without limitations
- Freedom of entering and exiting the capital
- No need for custom visas
- Possibility for foreign banks & insurance companies' activities
- Possibility for domestic and foreign partnership & investment
- Full assurance of foreign investments and their profits





- *Presenting some EATL priority railway projects:*

- *Bam-Chabahar Railway (processing tender for construction)*

Special Characteristics of Chabahar Harbor:

In terms of normality, Chabahar is located in the lower latitude and is closer to the open waters more than 30 hours compared to Bandar Abbas



For the ships that berth in this harbor, for every ton of load, there would be a \$2 savings which considering the volume of turnover, this number is significant.

The capacity of this harbor will increase up to three times, meaning it would increase from 2 million tons to 6 million tons.



- **Presenting some EATL priority railway projects:**

- ***Bam-Chabahar Railway (Processing tender for construction)***

Project Objectives:

The expansion of the railway network and construction of Bam-Chabahar railroad and the connection of Chabahar harbor to the Northeast to Northwest railway network as one of the four-way border entries for cargo, and considering the unique characteristics of this harbor and the access to the open waters, this harbor would have the ability to absorb 25% of potential transferrable cargo through Iran. This potential cargo is estimated to be about 4 million tons.

Evaluation of transportation demands in 2013

**Anticipated transit freight
(Million Tones)**

7.5

Evaluation of fleet required in operational year

Freight		Year
No.Locos	No.Wagons	
110	2225	2013
140	2940	2022
175	3800	2032



• Presenting some EATL priority railway projects:

• Bam-Chabahar Railway (Processing tender for construction)





- **Presenting some EATL priority railway projects:**

- ***Bam-Chabahar Railway (Processing tender for construction)***

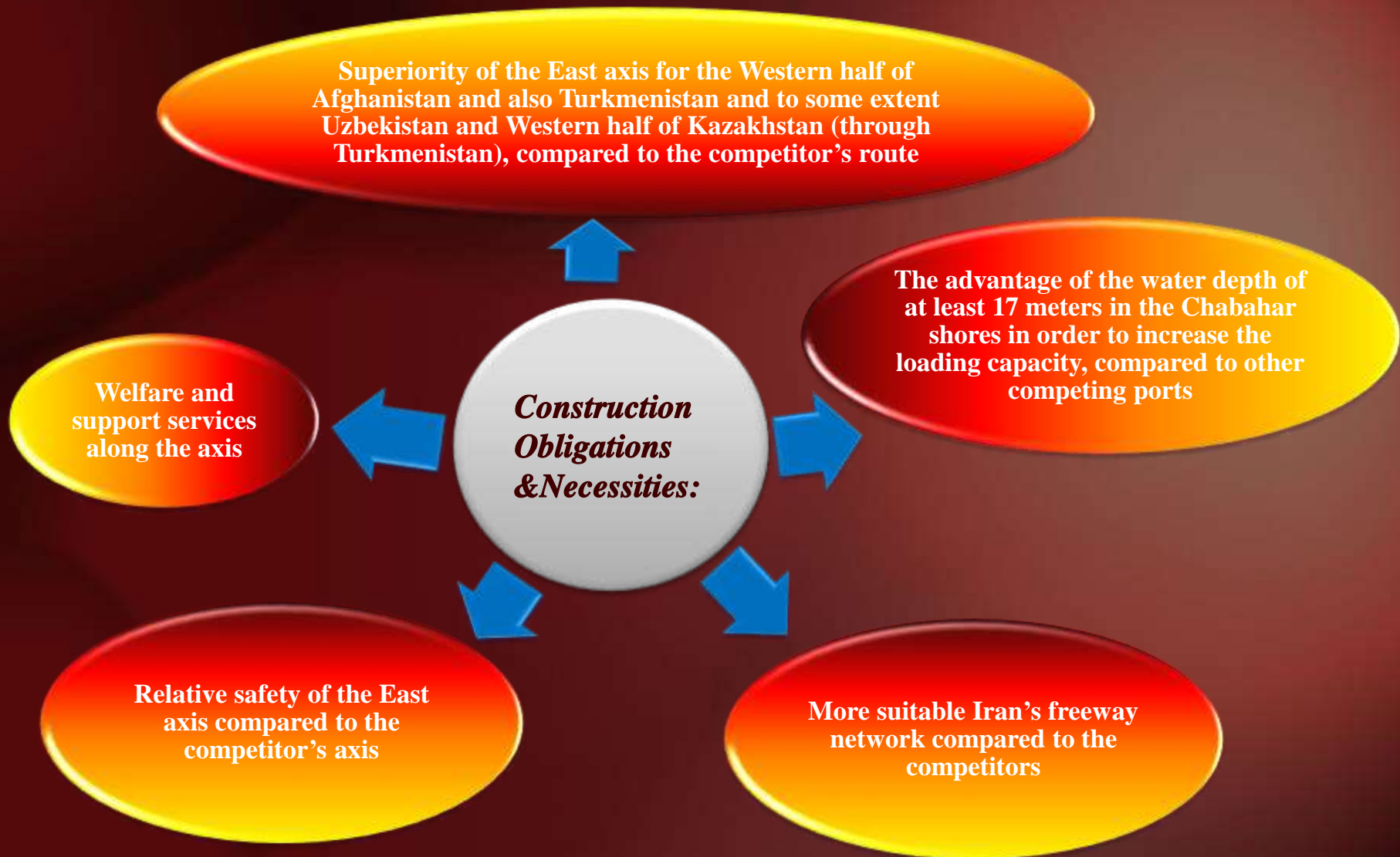
Project Technical Specifications:

Technical Specification(s)	Bam-Chabahar	
Total length	590(Kilometers)	
Subgrade Platform Width	7 meters	
Minimum Curve Radius	1250 meters	
Maximum Station Grade	0.25%	
Maximum Project Grade	1.5%	
Axle Load	25 Tones	
Rail Type	UIC 60	
Track Gauge	1435 Millimeters (Standard)	
Station Length	Single Track Section	1200 meters
	Double Track Section	1000 meters
Total Tunnel Length	4.21 Kilometers	
Signaling and Communication	Electronic Interlocking System, C.T.C. system, and fiber optic communication cable along the route	
Design Speed	120 Kilometers per hour for freight trains	
Traction type	Diesel-Electric	



- **Presenting some EATL priority railway projects:**

- ***Bam-Chabahar Railway (Processing tender for construction)***





- *Presenting some EATL priority railway projects:*

- *Bam-Chabahar Railway (Processing tender for construction)*



Project Current Physical Progress

During the recent prioritization of the Ministry of Roads and Urban Development officials for the civil projects, the construction project of Bam-Chabahar railway was placed on priority list and is currently selecting investors, contractors and consultants.



- **Presenting some EATL priority railway projects:**

- ***Bam-Chabahar Railway (Processing tender for construction)***

Construction Costs:

Cost item	Quantity (Million dollar)
Land acquisition	8
Substructure and infrastructure	163
Permanent Road	176
Signaling and Communication	48
Buildings and Station Facilities	19
Engineering Services	0.6
Environmental Costs	3
Miscellaneous	2
Pre-Operational Expenses	0.4
Locomotives	220
Freight Wagons	104
Total	744

Conclusion:

Considering the discussed subject and the interaction of the direct impact of the transportation network on production centers and distribution of the cargo and vice versa, the reasonable conclusion is that the prediction of the Harbor Organizations of the increased capacity of Chabahar harbor is only realized through creation of the Chabahar rail line and similarly, the creation of Chabahar rail line is justified by expanding Chabahar harbor.

By dividing this part into the two following parts:

1. Change in local conditions and increase in cargo demand
2. Change in international conditions and increase in cargo demand

it is predicted that this rail line construction and the change in the local conditions (development in the region), would increase the induced cargo demand to 250,000 tons up to maximum 1 million tons annually, starting the year of operation.

It is also predicted that this rail line construction and the change in the international conditions, would increase the induced cargo demand to 2-3 million tons annually, starting the year of operation, subject to the cooperation of the countries associated in transit corridors (Russia, Central Asia, India, ...).



- ***Future Planning:***

- **Future Planning:**

In the future meetings by conducting successful discussions with the Ministry of Roads and Urban Development officials and other stakeholders (involved parties), the hope is to prepare and submit more comprehensive and accurate reports from the conditions and appropriate investment infrastructures of the EATL project during the discussions on Iran's transportation infrastructure.



Thank you for your attention