



In the name of Allah, the beneficent the merciful

Start



GOVERNMENT OF PAKISTAN

MINISTRY OF COMMUNICATIONS

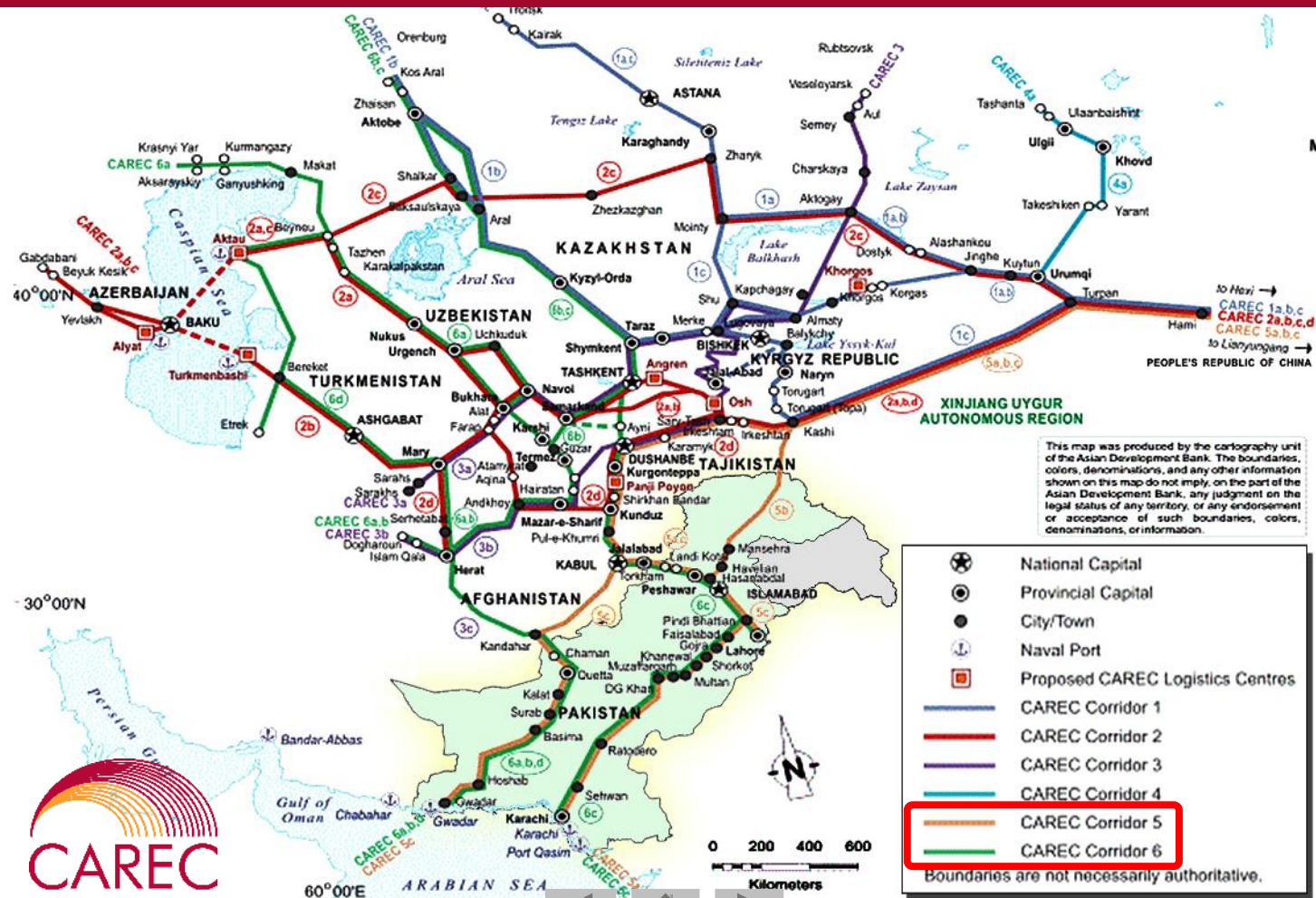
NATIONAL HIGHWAY AUTHORITY

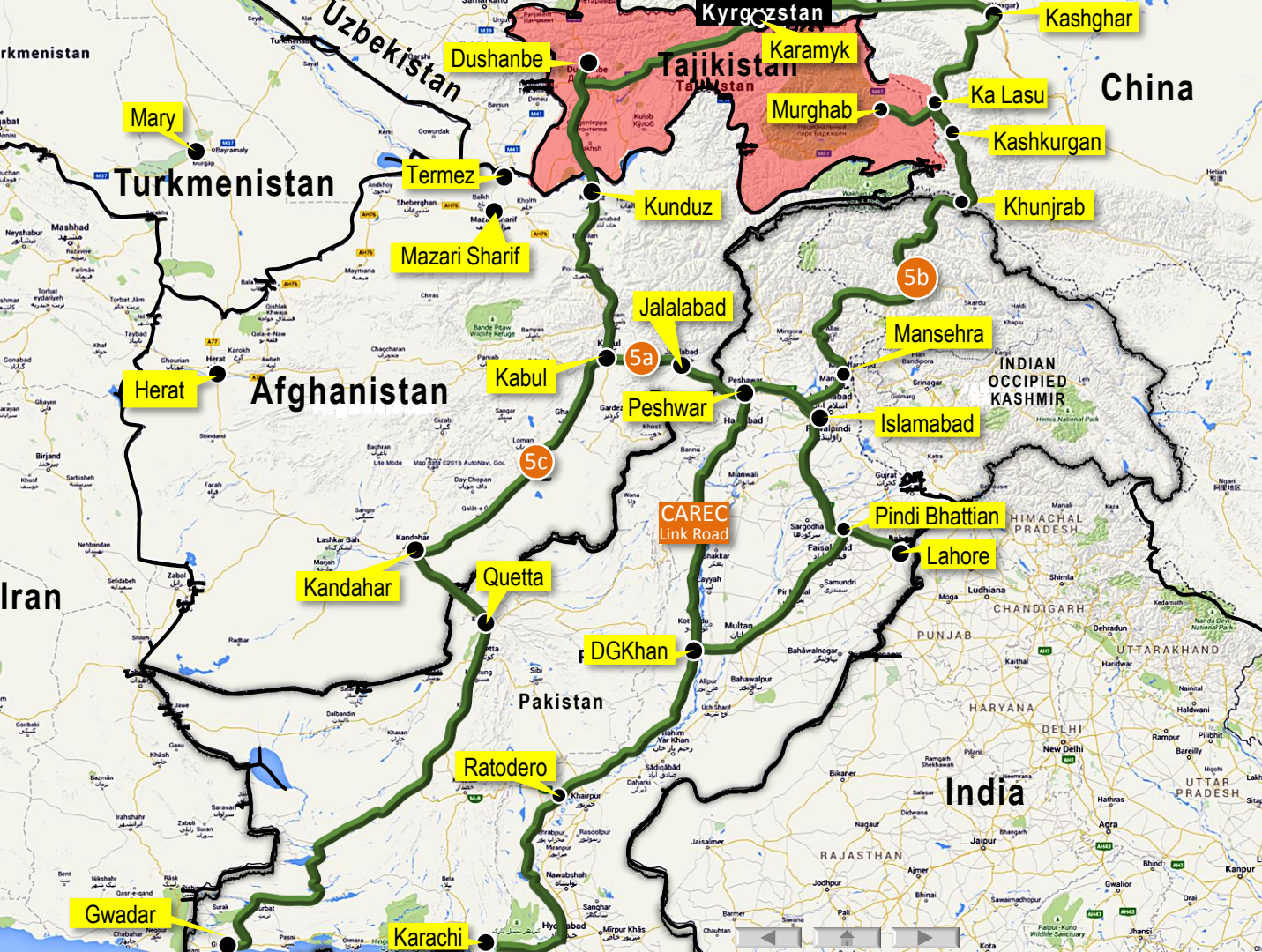


17th Meeting of Transport Sector Coordinating Committee (TSCC)

18-20 April, 2018

CENTRAL ASIA REGIONAL ECONOMIC COOPERATION (CAREC)





REGIONAL CONNECTIVITY

CAREC Corridor = 5a 5b 5c

CAREC Corridor = 5a

Location	Km	Total
Karachi-Ratodero	560	560
Ratodero-DG Khan	383	943
DG Khan-Pindi Bhatian	386	1329
Pindi Bhatian-Islamabad	239	1568
Islamabad-Kabul	449	2017
Kabul-Dushanbe	577	2594
Dushanbe-Karamyk	340	2934
Karamyk-Kashghar	975	3909

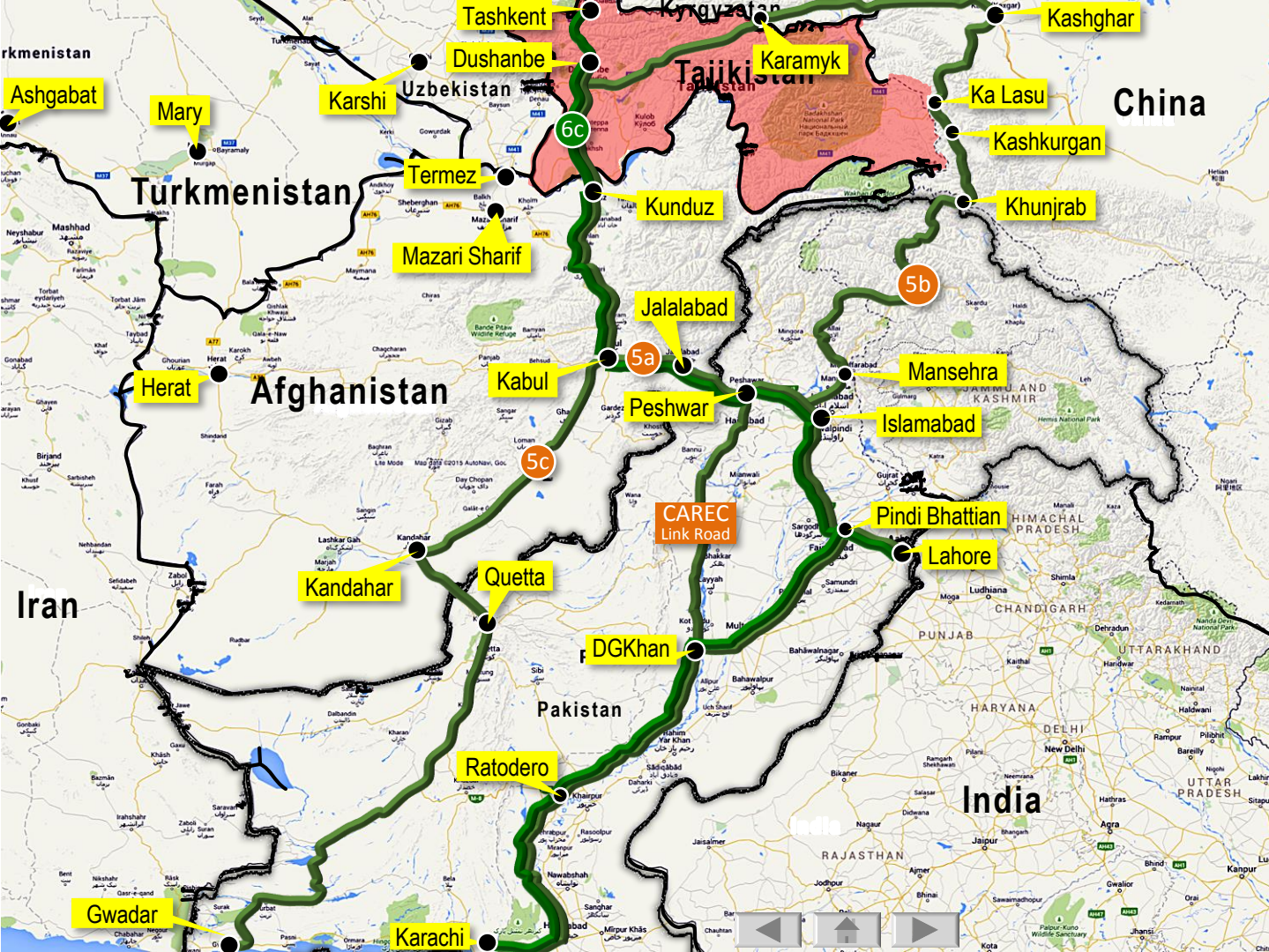
Click Here

CAREC Corridor = 5b

Location	Km	Total
Karachi-Ratodero	560	560
Ratodero-DG Khan	383	943
DG Khan-Pindi Bhatian	386	1329
Pindi Bhatian-Islamabad	239	1568
Islamabad-Mansehra	118	1686
Mansehra-Kashghar	1,026	2712

CAREC Corridor = 5c

Location	Km	Total
Gwadar-Quetta	858	858
Quetta-Kandahar	239	1097
Kandahar-Kabul	494	1591
Kabul-Kunduz	341	1932
Kunduz - Dushanbe	242	2174
Dushanbe-Kashghar	1,231	3405



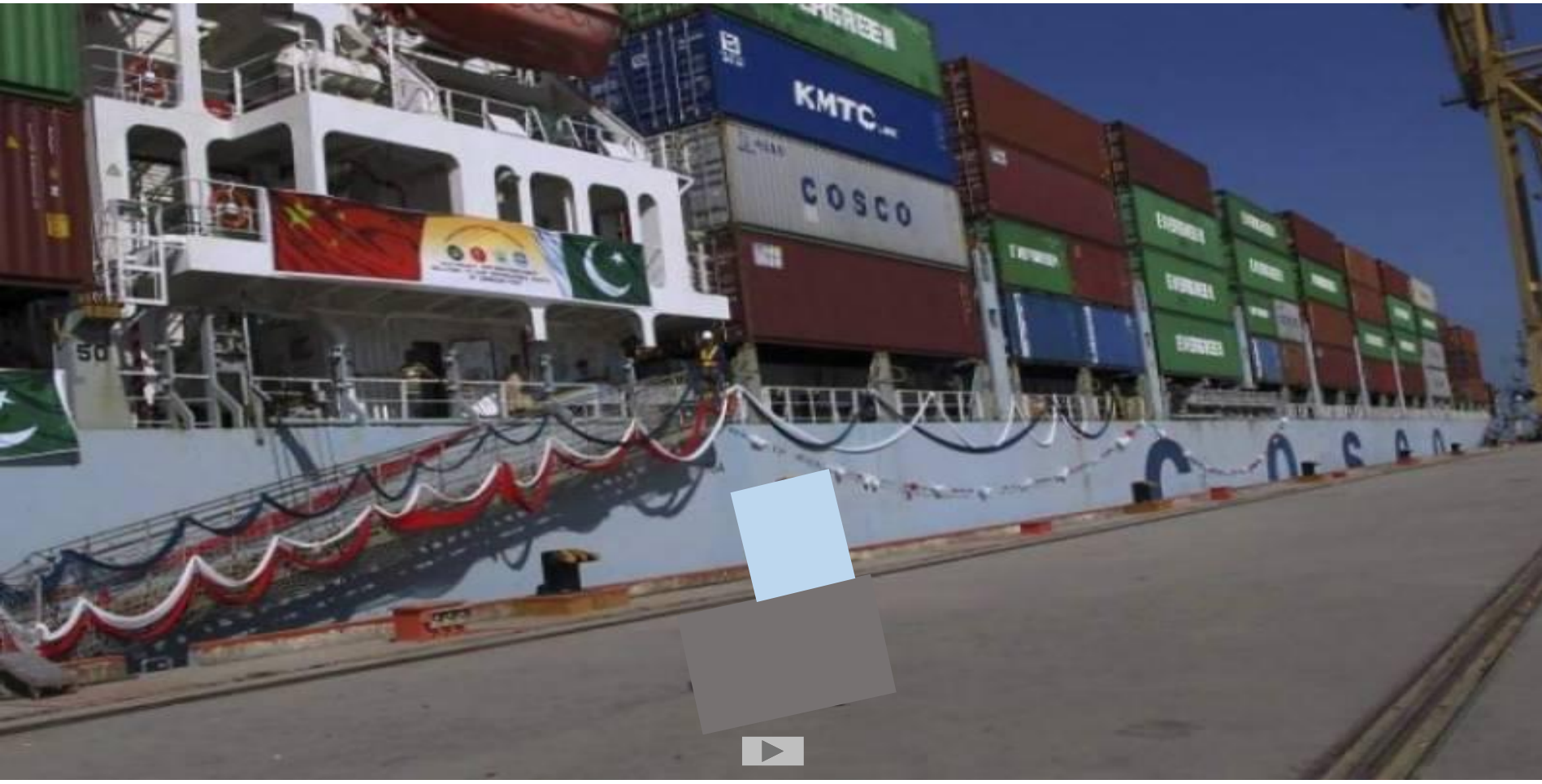
REGIONAL CONNECTIVITY

CAREC Corridor = 6c

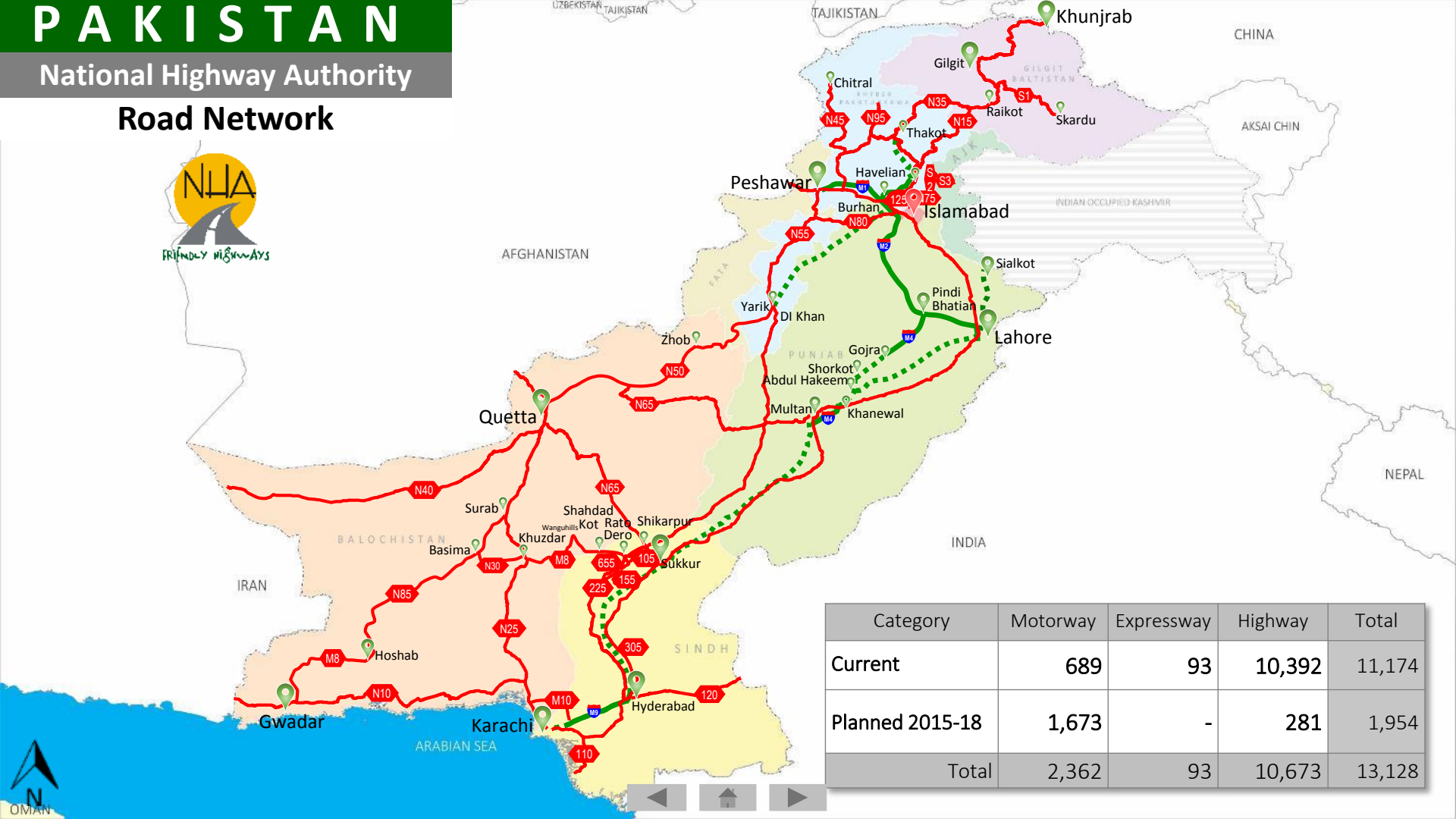
CAREC Corridor = 6c

Location	Km	Total
Karachi – Ratodero	560	560
Ratodero – DG Khan	383	943
DG Khan – Pindi Bhatian	386	1329
Pindi Bhatian-Islambad	239	1568
Islamabad – Kabul	461	2029
Kabul – Kunduz	336	2365
Kunduz – Dushanbe	242	2607
Dushanbe – Tashkent	427	3034

In a historic moment, Gwadar Port starts commercial shipping service 7 Mar, 2018

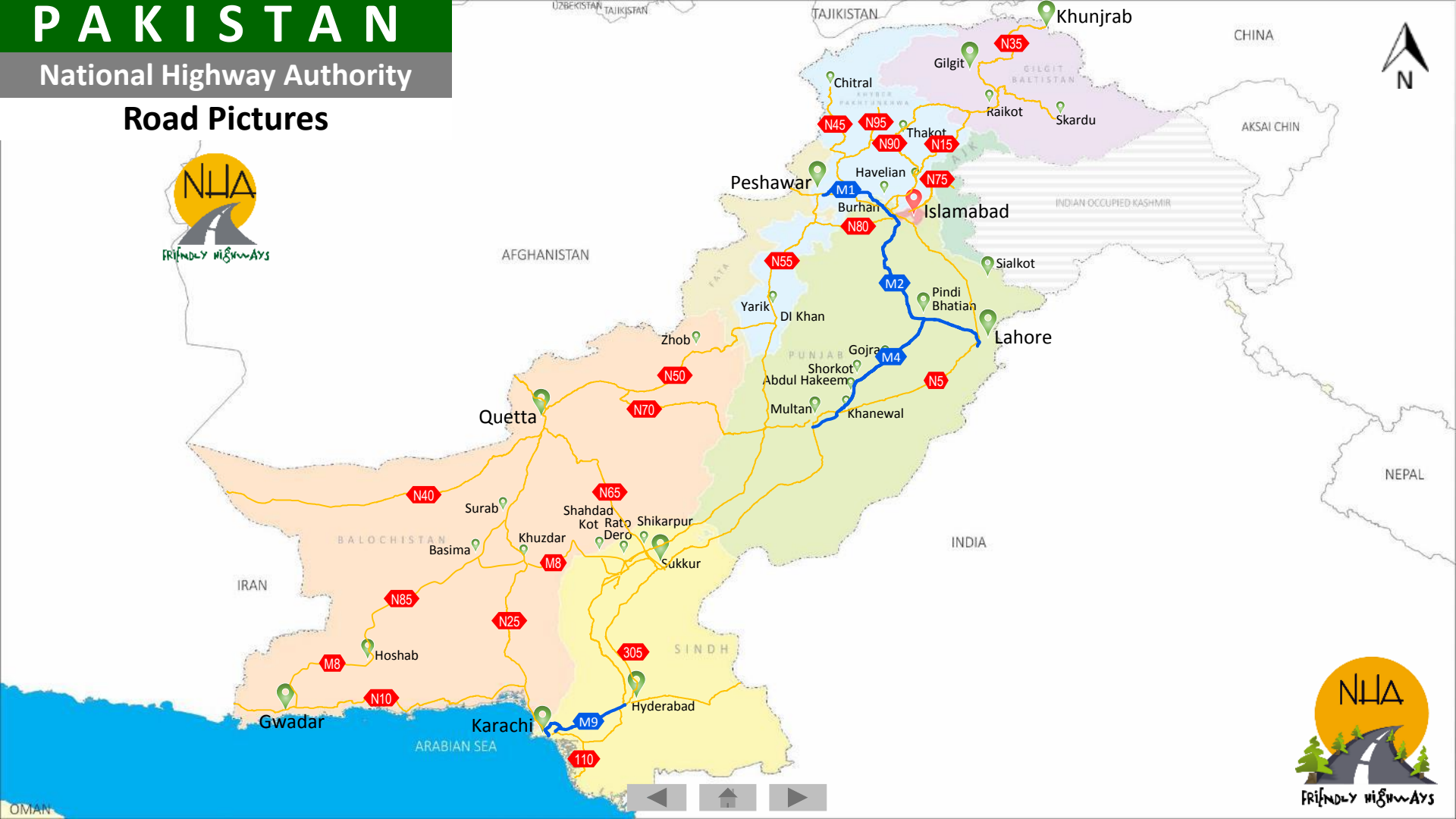


Road Network

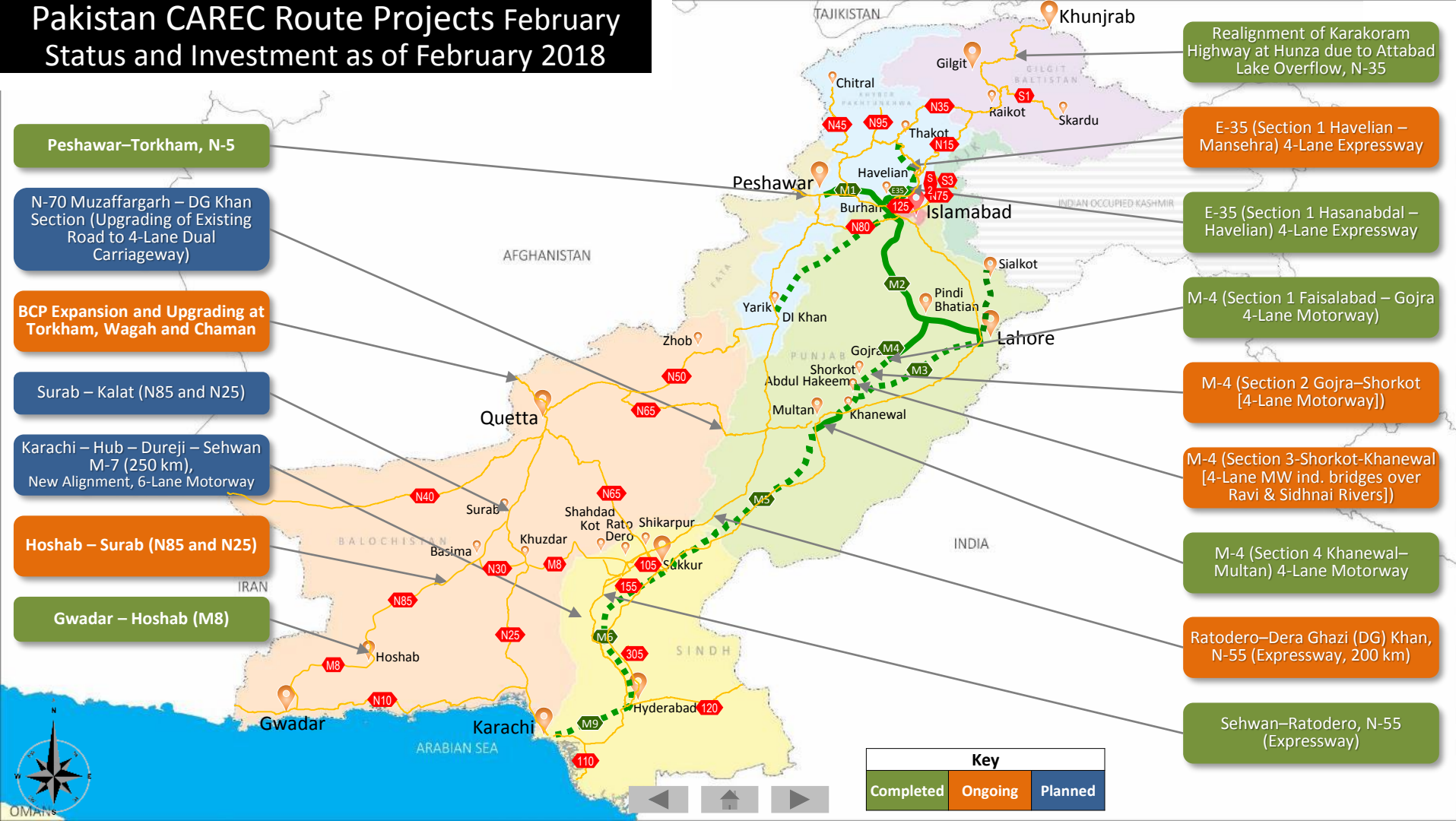


Category	Motorway	Expressway	Highway	Total
Current	689	93	10,392	11,174
Planned 2015-18	1,673	-	281	1,954
Total	2,362	93	10,673	13,128

Road Pictures



Pakistan CAREC Route Projects February Status and Investment as of February 2018





- In last four years, Pakistan has initiated an ambitious program of US\$ 13.63 Billion
- Complete North – South Motorway Link
- Strengthen East – West Connectivity i.e. Baluchistan
- Revival of Sick Mega Projects
- Largest BoT Regime under PPP Mode US\$ 3.4 Billion
- Off budget financing and cost saving of US\$ 4.43 Billion
- Contribution to GDP Growth i.e. 1.0% to 1.5%





Thank You

National Highway Authority

نیشنل ہائی وے اتھارٹی

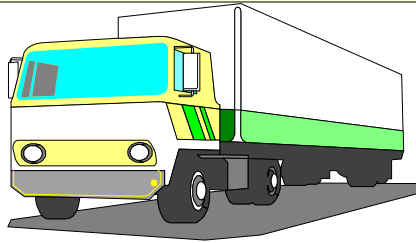
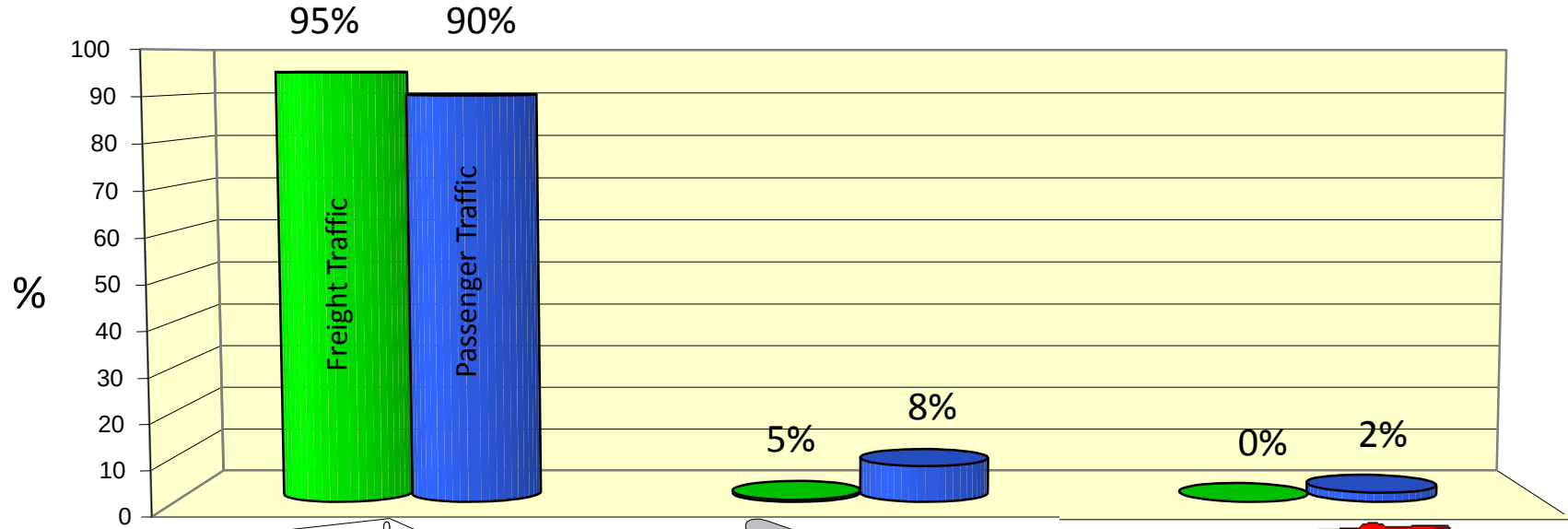


Trade & Transport Sector Vision

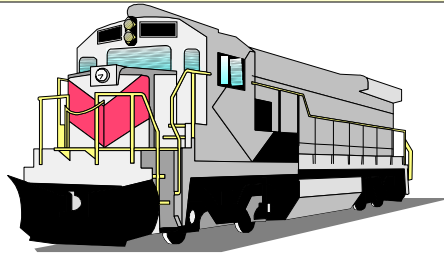
- **Improve trade competitiveness**
- Establish efficient / well integrated transport system
- **Reduce transport costs**
- Enhance road density from 0.32 to 0.64 Km / Km²
- **Develop Pakistan as hub of sub regional connectivity**



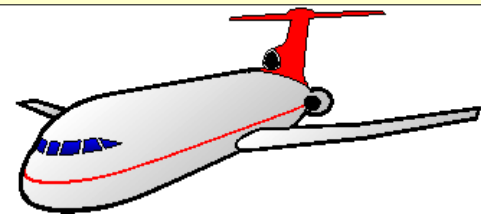
Reliance on Road Network



ROAD

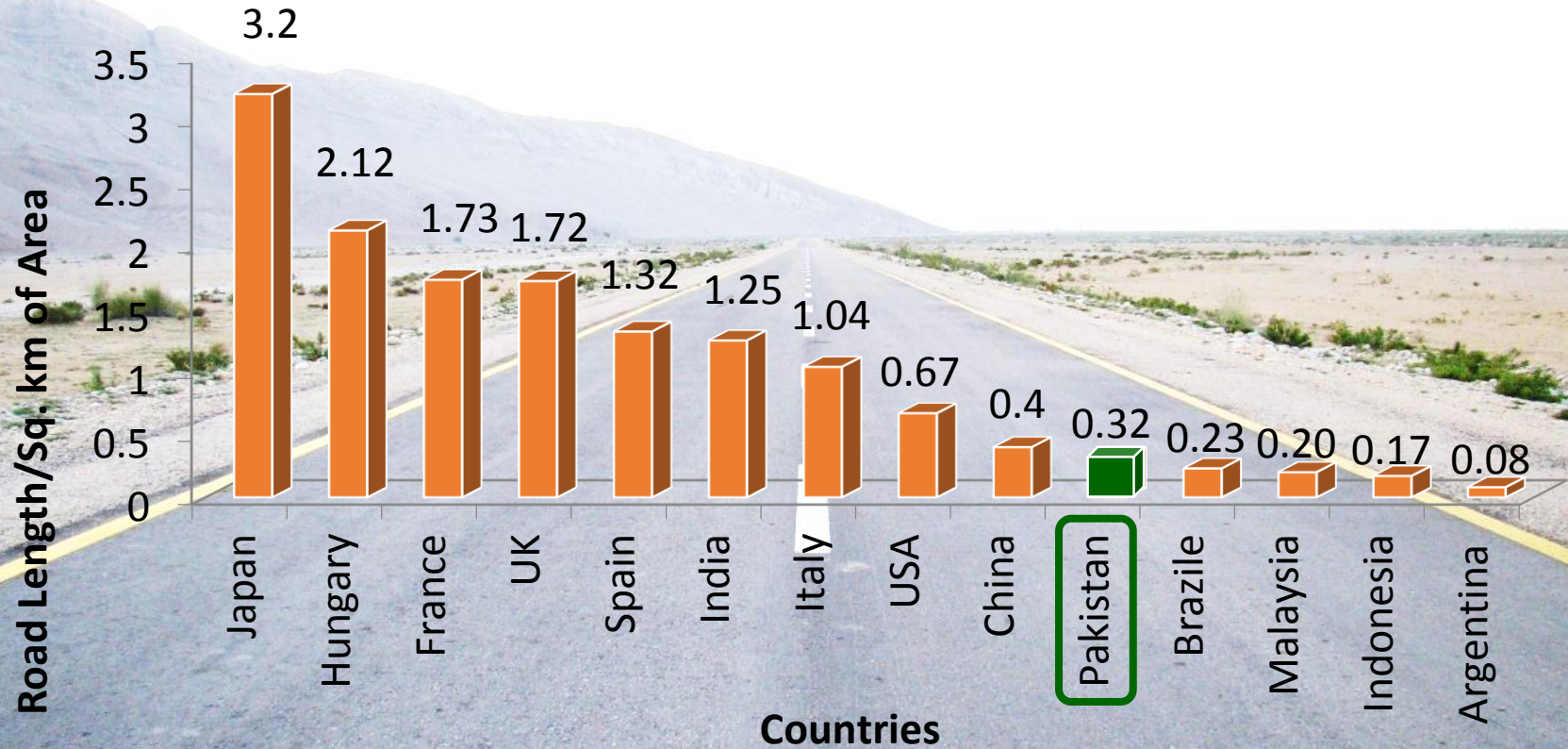


RAIL



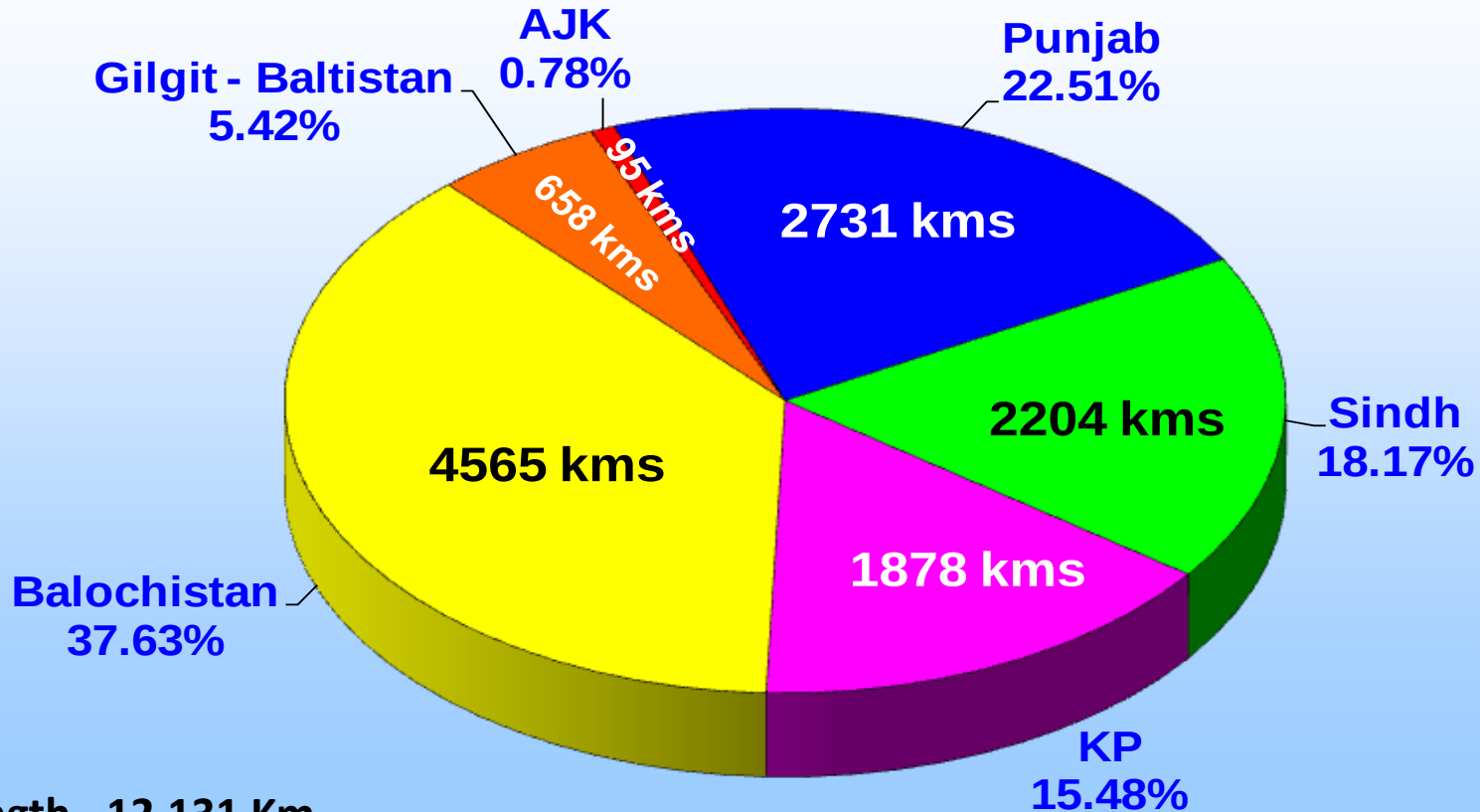
AIR

Road Density Comparison



Existing National Highways Network

Province Wise Length



Total Length - 12,131 Km

Existing National Highways Network

Sr. No.	Route No.	Road Description	Length in Kilometers		
			Motoway	Expressway	Highway
1	N-5	Karachi-Lahore-Peshwar-Torkham	-	-	1819
2	N-10	Makran-coastal; liari-Ormara-Gwadar-Jiwani	-	-	653
3	N-15	Mansehra-Naran-Jalkhad	-	-	240
4	N-25	Karachi-Kalat-Quetta-Chaman	-	-	813
5	N-30	Basima – Khuzdar	-	-	110
6	N-35	Hassanabdal-Thakot-Khunjrab	-	-	806
7	N-40	Lakpass-Dalbandin-Taftan	-	-	610
8	N-45	Nowsehra-Dir-Chitral	-	-	309
9	N-50	Kuchlack-Zhob-D.I.Khan	-	-	531
10	N-55	Kotri-Larkana-D.G.Khan-D.I.Khan-Peshawar	-	-	1264
11	N-65	Sukkur-Sibi-Quetta	-	-	385
12	N-70	Multan-D.G.Khan-Loralai-Qali Saifullah	-	-	447
13	N-75	Islamabad-Satra Mile-Lower Topa-Kohala	-	54	
14	N-80	Tarnol-Fateh Jang-Jand-Khushal Garh-Kohat	-	-	146
15	N-85	Hoshab-Panjgur-Nag-Baseema-Sorab	-	-	487
16	N-90	Khwazakhela – Besham	-	-	64
17	N-95	Chakdara – Kalam	-	-	135
18	N-105	Larkana - Naudero – Lakhi	-	-	61
19	N-110	Gharo - Ketī Bunder	-	-	90

Existing National Highways Network

Sr. No.	Route No.	Road Description	Length in Kilometers		
			Motorway	Expressway	Highway
20	N-120	Hyderabad - Mirpukhas - Khokhrapar	-	-	220
21	N-125	Taxila - Khanpur – Hairpur	-	-	44
22	N-155	Larkana - Moenjo Daro Road	-	-	28
23	N-255	Larkana - Nasirabad via RasheedWagan	-	-	34
24	N-305	Sakrand - Shaheed Benazirabad	-	-	35
25	N-455	Larkana - Kamber – Shahdadt	-	-	50
26	N-655	Ratodero - Naudero Road	-	-	18
27	S-1	KKH-Skardu Road (Strategic Road)	-	-	167
28	S-2	Kohala-Muzaffarabad	-	-	40
29	S-3	Muzaffarabad – Chakothi	-	-	55
30	M-1	Islamabad-Peshawar Motorway	155	-	-
31	M-2	Lahore-Islamabad Motorway incl. 32 Km	367	-	-
32	M-3	Pindi Bhattian-Faisalabad Motorway	53	-	-
33	M-4	Faisalabad - Khanewal - Multan 241	115	-	-
34	N-5A	Khanewal – Lodhran	-	-	102
35	M-8	Gwadar-Hoshab-Khuzdar-Ratodero	-	-	436
36	M-9	Karachi-Hyderabad Motorway	-	-	136
37	M-10	Karachi Northern Bypass	-	-	57
38	-	Layari Expressway	-	39	-
Total (Current National Highways)			690	93	10392

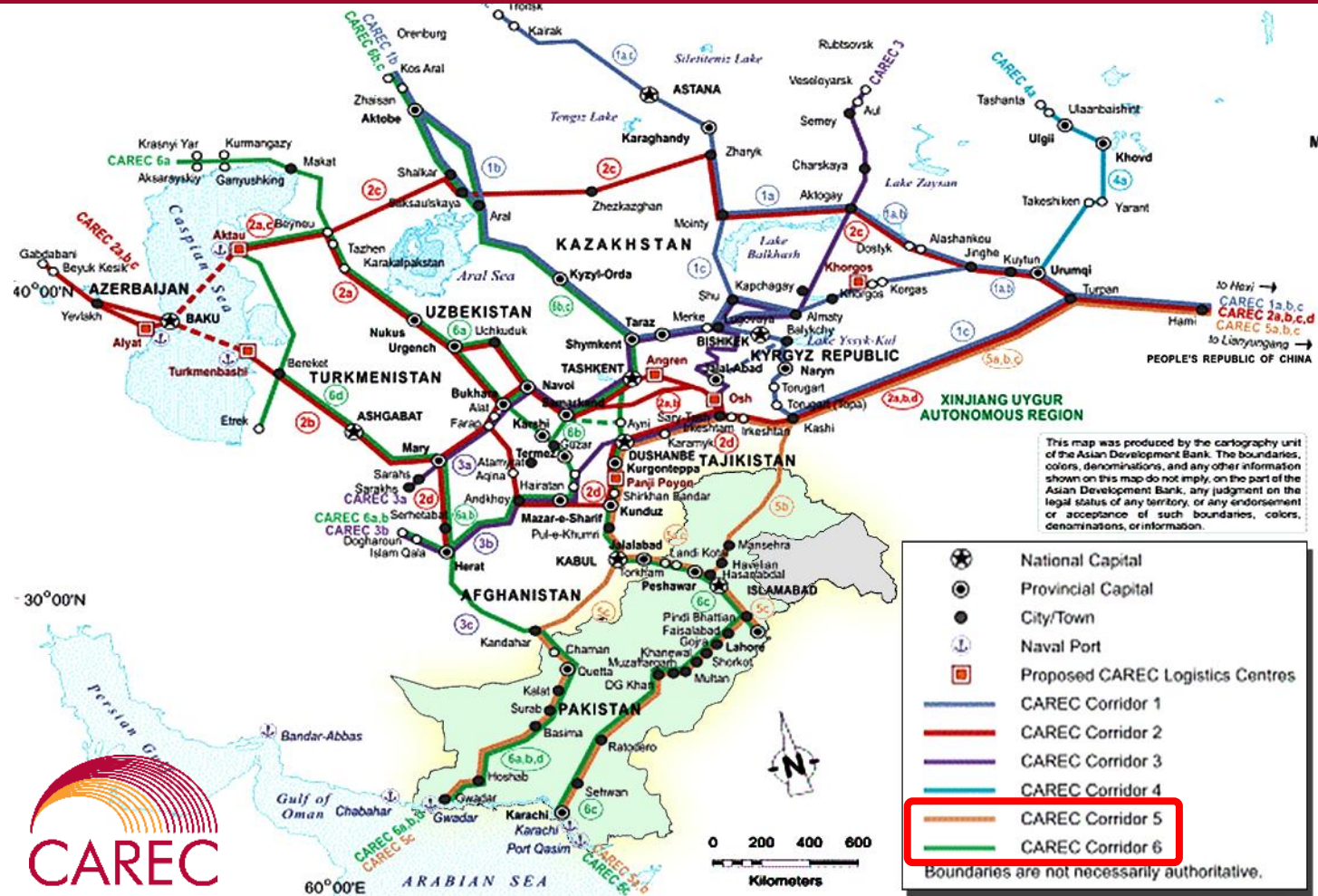
Planned 2016-18

Sr. No.	Route No.	Road Description	Length in Kilometers		
			Motoway	Expressway	Highway
1	KLM	Hyderabad – Sukkur	296	-	-
2	KLM	Sukkur - Multan	387	-	-
3	KLM	Abdul Hakeem – Lahore	230	-	-
4	E-35	Burhan - Havalian	60	-	-
5	CPEC	Havalian - Thakot	39	-	81
6	M-4	Gojra - Khanewal	124	-	-
7	SLM	Lahore - Sialkot	-	91	-
8	-	Yakmach - Kharan	-	-	200
9	CPEC	Islamabad – DIKhan	-	210	-
10	M-9	Karachi - Hyderabad	136	-	-
11	MMM	Muzaffarabad – Mangla - Mirpur	-	174	-
Total (Planned 2016-18)			1,272	475	281

LINK SLIDES



CENTRAL ASIA REGIONAL ECONOMIC COOPERATION (CAREC)



N-35 (KKH) Khunjrab – Hassanabdal (806 km)



N-35 (KKH) Khunjrab – Hassanabdal (806 km)



N-35 (KKH) Atta Abad Barrier Lake



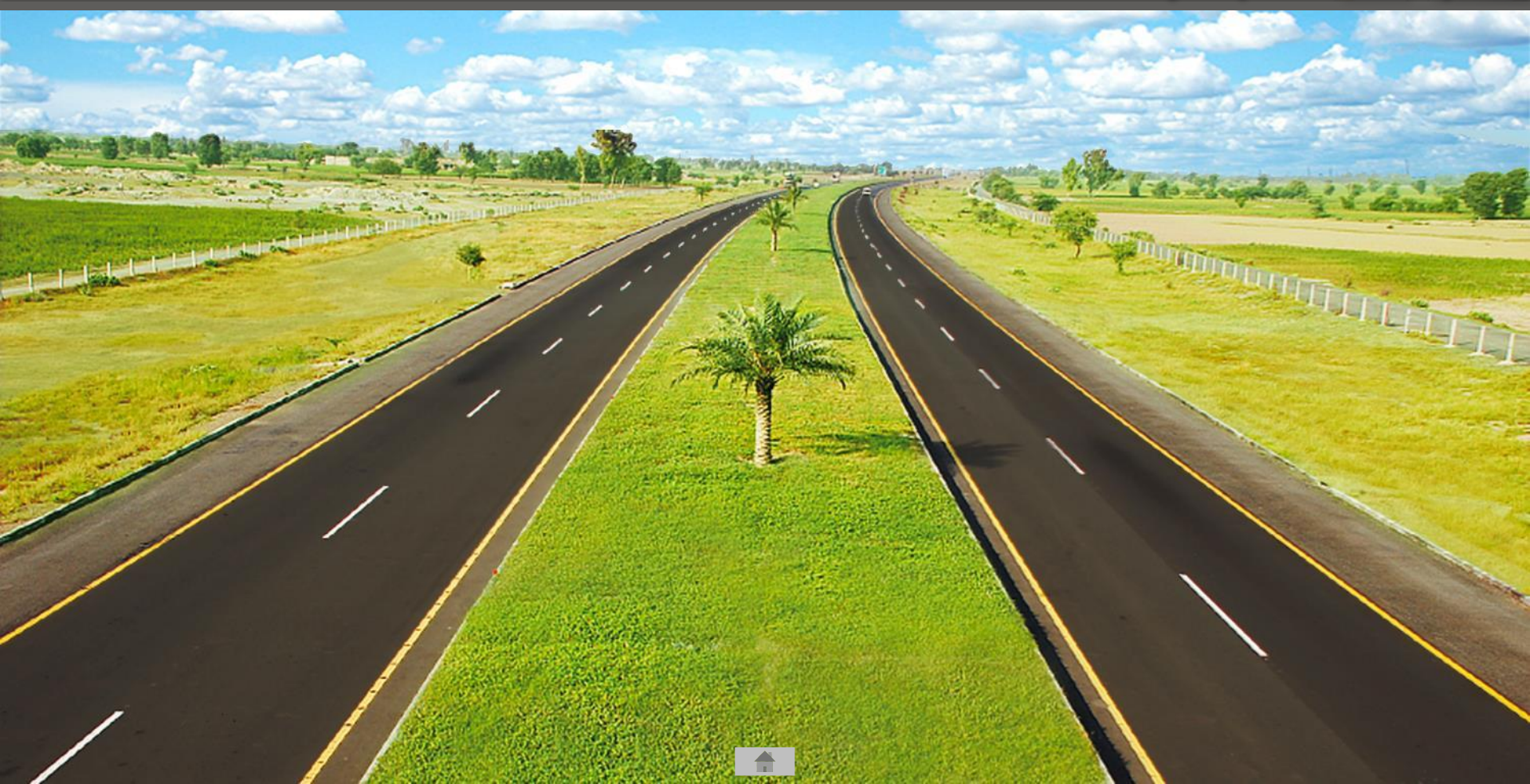
M-1 Peshawar – Islamabad Motorway (155 Km)



M-2 Lahore – Islamabad Motorway (357 Km)



M-4 Pindi Bhattian - Faisalabad Motorways (53 Kms)



M-4 Faisalabad – Gojra Motorway (59 Kms)



N-5 (Grand Trunk Road) Karachi – Peshawar 1,819 km



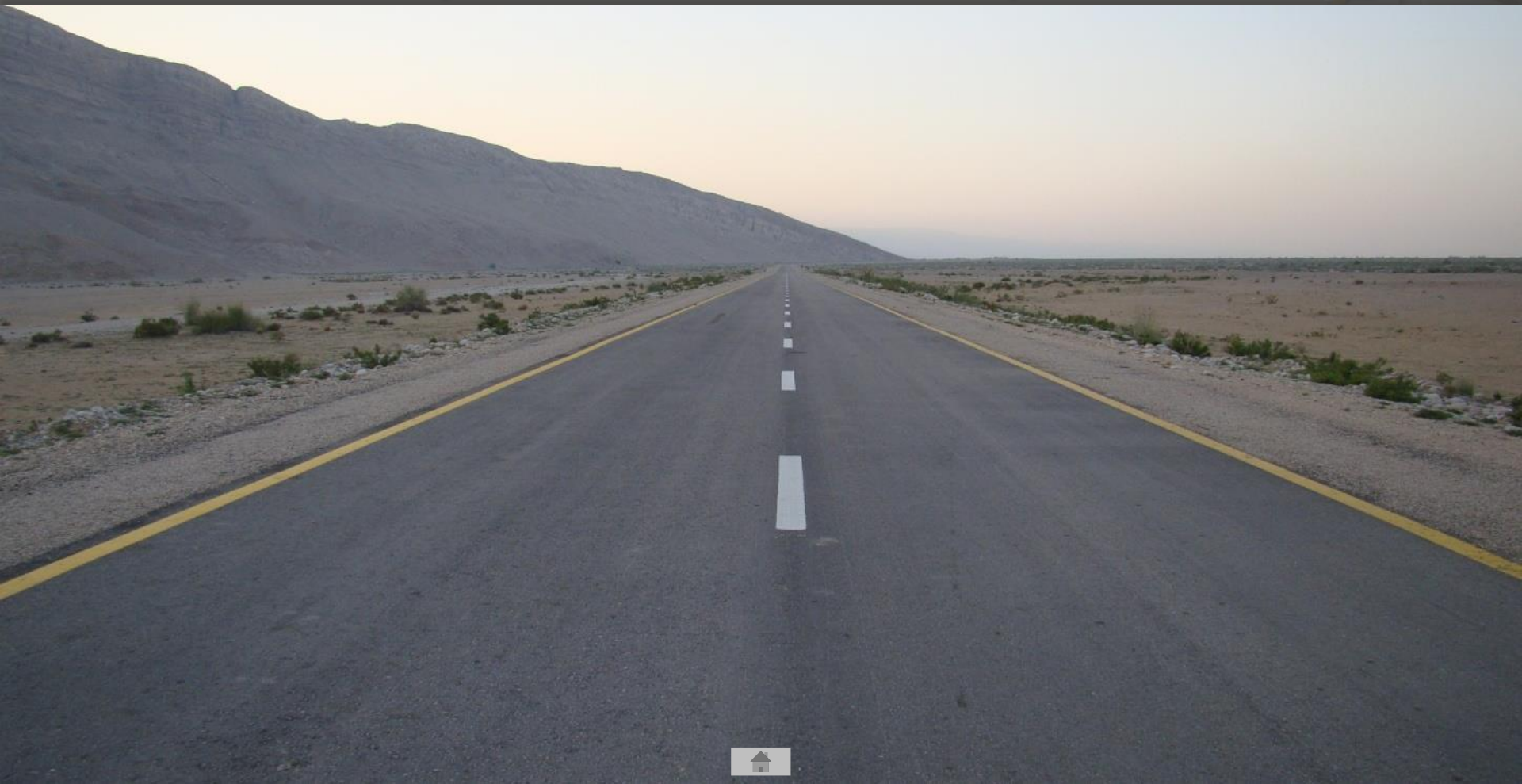
N-75 (Islamabad – Murree Dual Carriage Way) 54 km



N-10 (Makran Coastal) 653 km



M-8 (Gwadar – Turbat – Hoshab) 193 Km



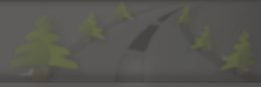
M-9 (Hyderabad – Karachi) 136 Km



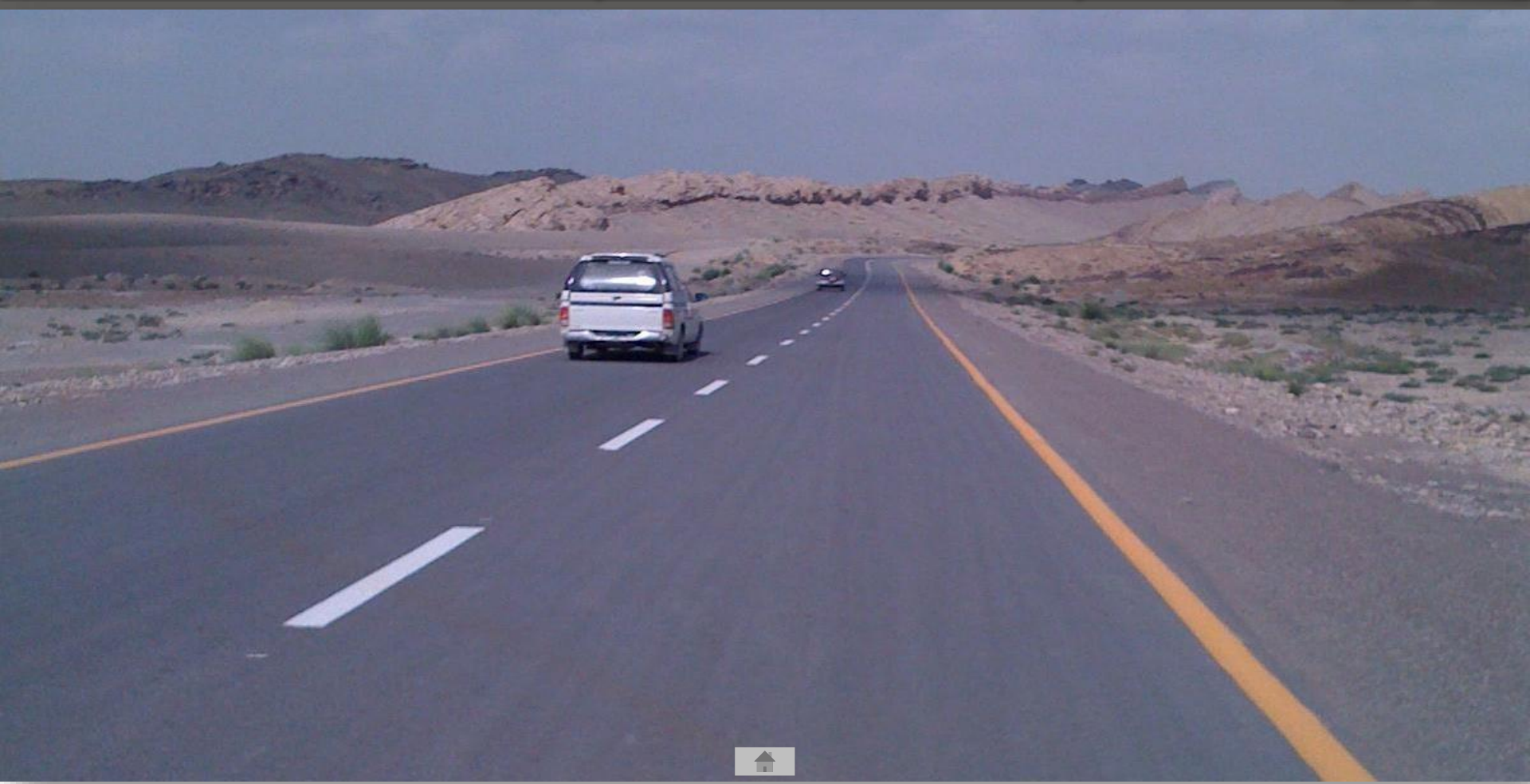
N-25 (Karachi – Kalat – Quetta – Chaman) 813 Km



N-40 Quetta – Taftan (Iran Border)



N-70 (DG Khan – Loralai)



N-85 (Sura – Basima – Hoshab)



N-45 (Nowsehra – Dir – Chitral) 309 km



N-90 (Khwazakhela – Besham) 64 km



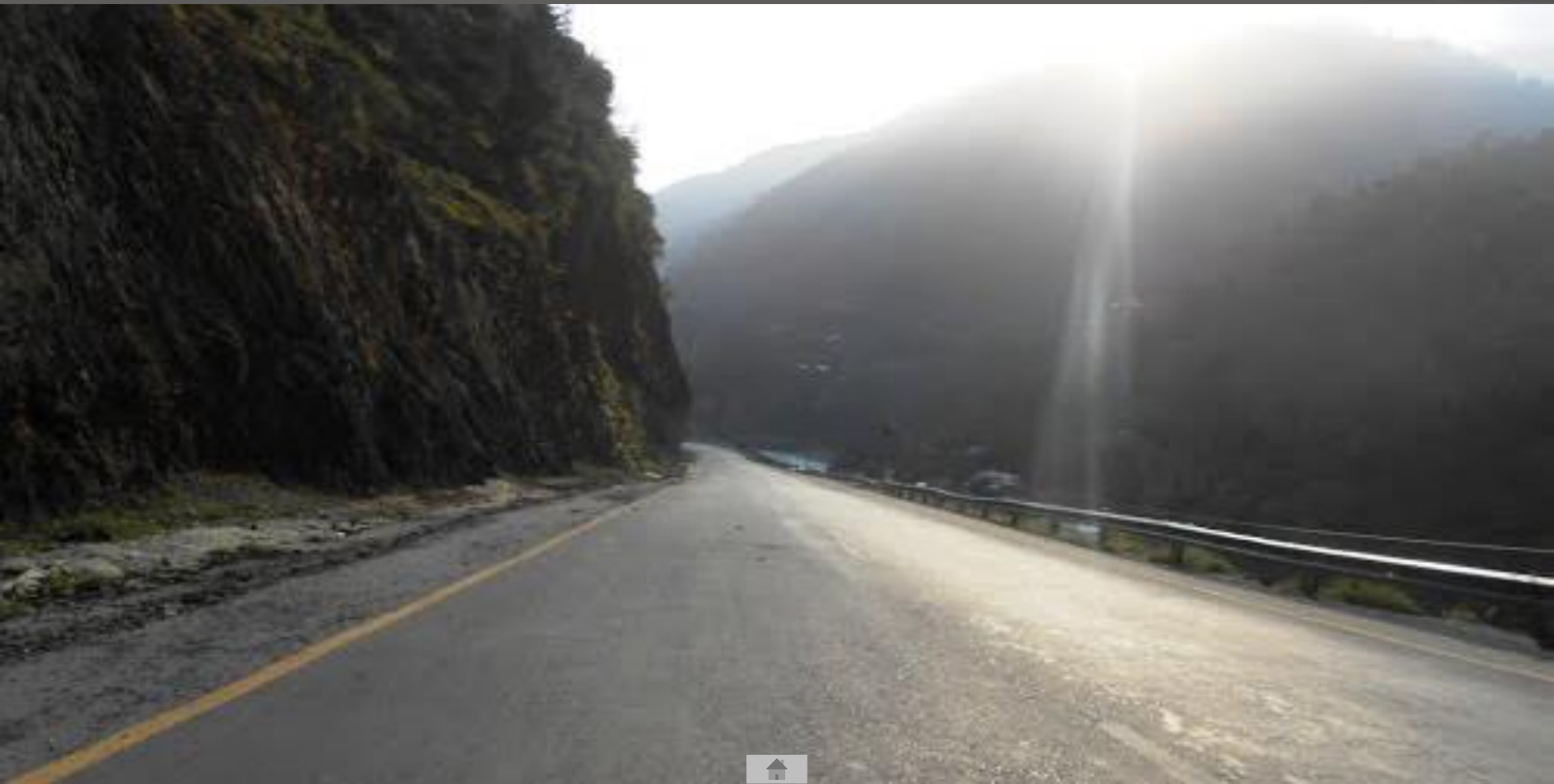
N-95 (Chakdara – Kalam) 135 km



N-15



N-15

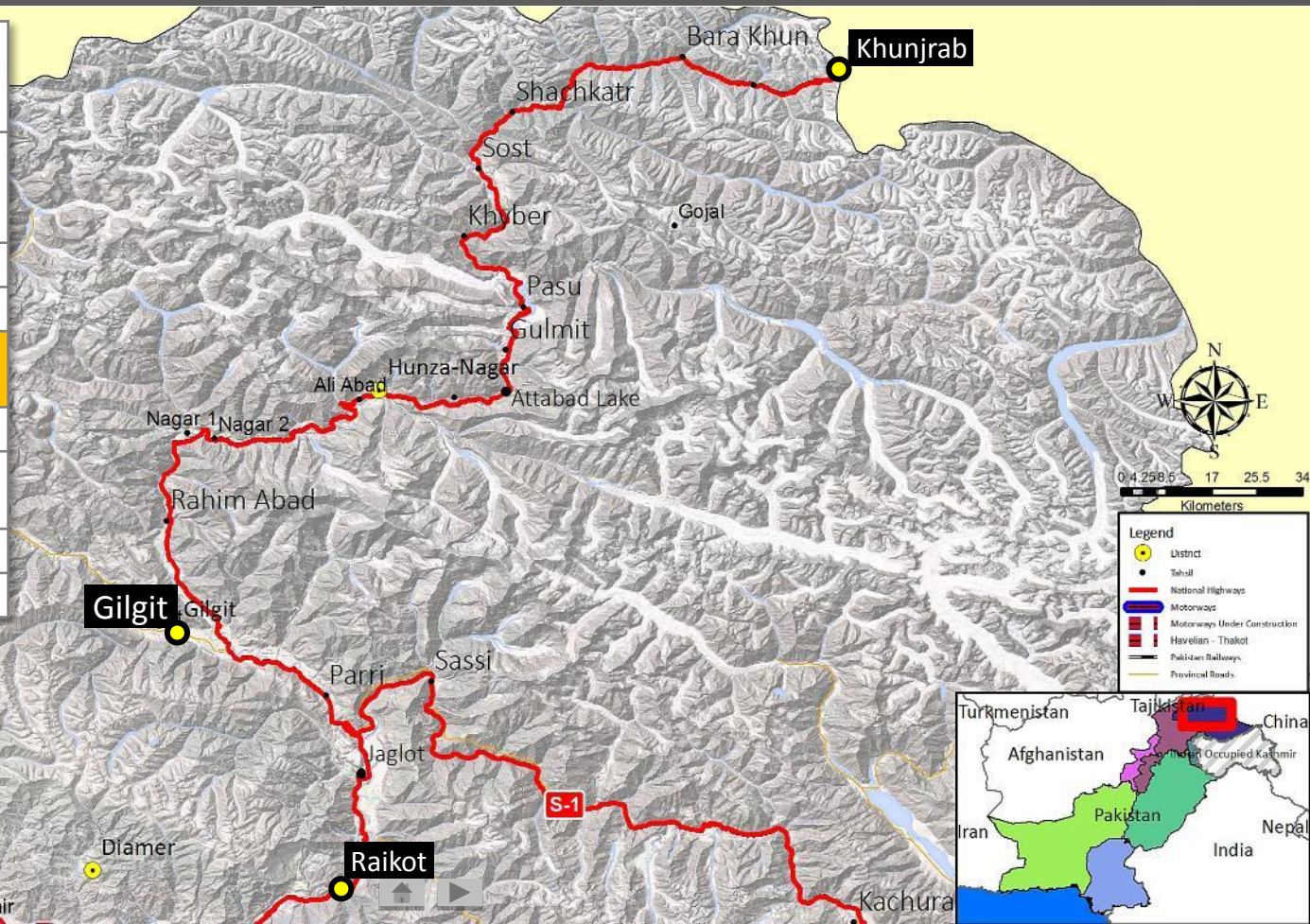


Link Slides



KKH Improvement / Up-gradation Project (Raikot – Khunjerab Section) 335 Km

Contractor	China Road and Bridge Corporation (CRBC)
Mode of Contract	Engineer, Procure, Construct-Contract (EPC/ Turnkey)
Total Project Cost	US\$ 510.42 Million
Date of Comm.	August 01, 2008
Date of Completion	Nov 30 th , 2013 (64 Calendar Months)
Tunnel (Mined)	02-697 meter
Tunnel (Open cut/Shed)	16 No's
Bridges (New)	35 No's
Culverts (New)	1,040 Nos.



Completed

CAREC: 5b

FEATURES OF KKH

Open Cut Tunnels



Open Slab Tunnels

Anchor Rope Ribbed
Panel Wall



2 way Tunnels

Sign Boards

Breast Wall

Drain

Slope Protection

Wide Bridges

Retaining Wall

Sign Boards



Guard Rail

Chevrons



Shoulder 0.6m wide

Ruling Gradient 4%

Shoulder 0.6m wide

7.3m Wide Carriageway

Asphalt Concrete

Cement Stabilized Base

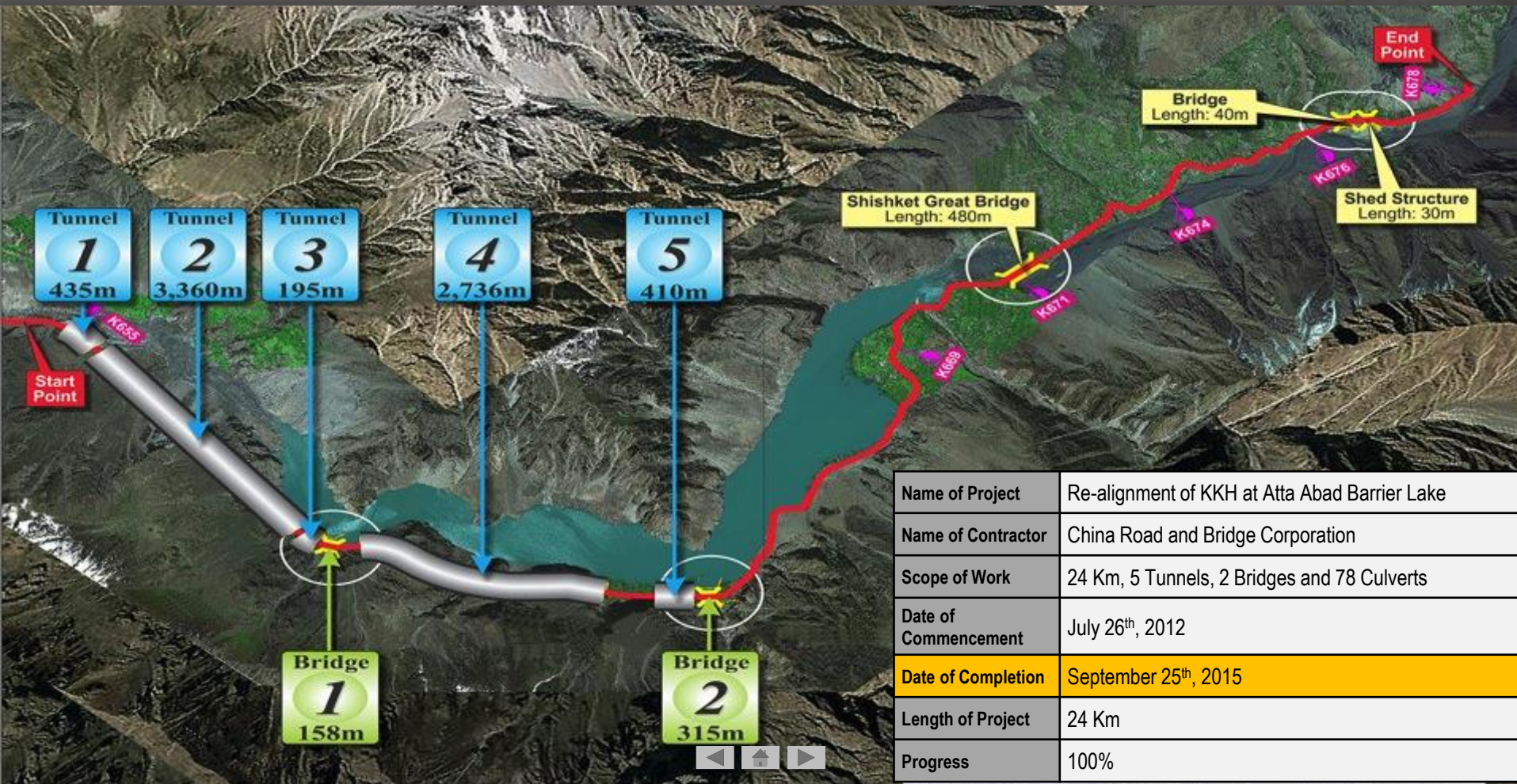
Graded Grit Subbase

Geogrid/Geotextile

Gravel Subgrade (for Frozen Soils)



Atta Abad Barrier Lake



Atta Abad Barrier Lake (KKH)



Atta Abad Barrier Lake (KKH)

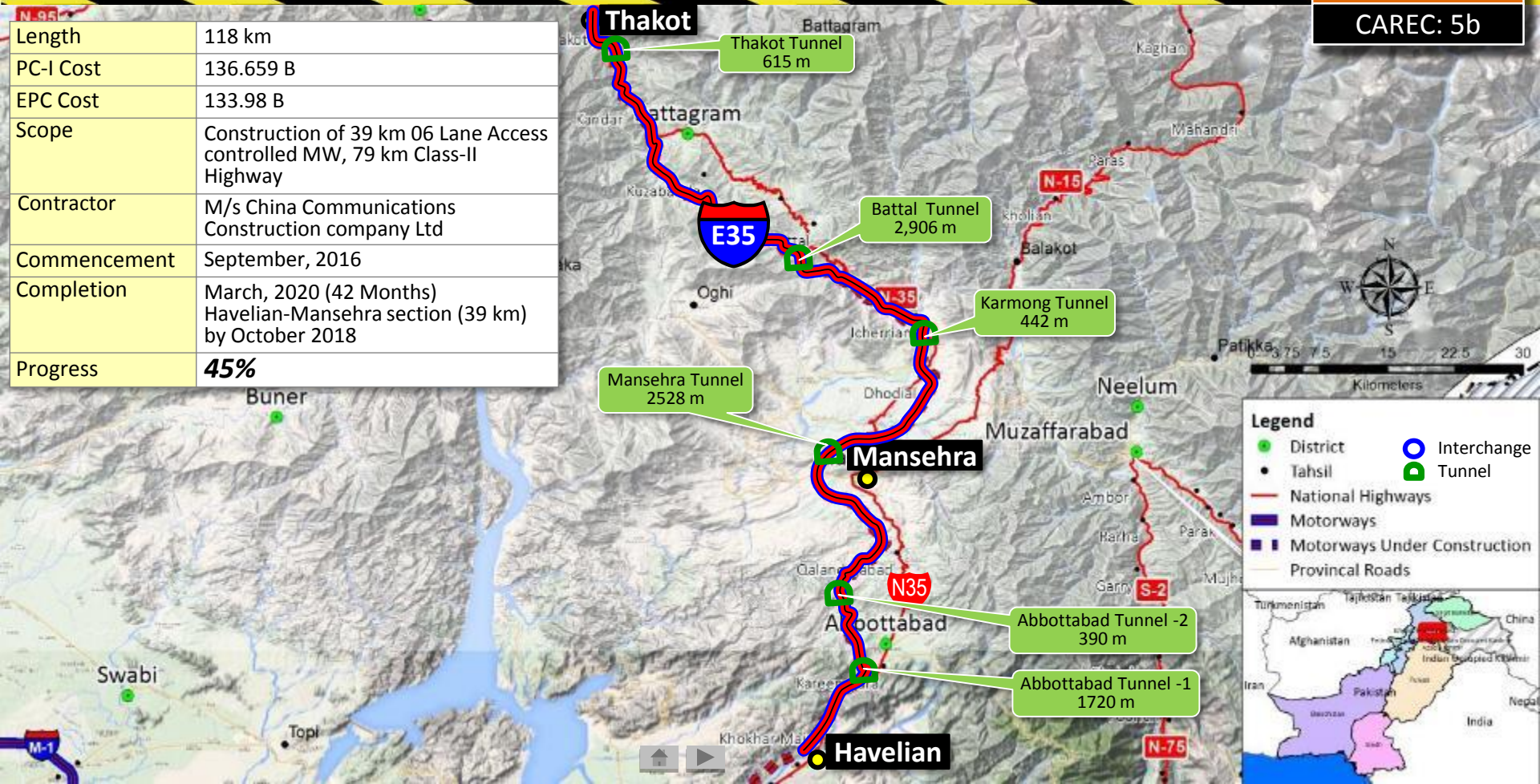


Havelian – Thakot Section (CPEC)

Ongoing

CAREC: 5b

Length	118 km
PC-I Cost	136.659 B
EPC Cost	133.98 B
Scope	Construction of 39 km 06 Lane Access controlled MW, 79 km Class-II Highway
Contractor	M/s China Communications Construction company Ltd
Commencement	September, 2016
Completion	March, 2020 (42 Months) Havelian-Mansehra section (39 km) by October 2018
Progress	45%



Salient Features

Length	118 Km
Contractor	M/s China Communications construction company Ltd
Type of Road	Expressway/ Access Controlled Highway (Class-II)
PC-I cost (Works)	PKR 136.65 Billion
PC-I cost (Land)	
Original	7.267 Billion
Under Revision	13.178 Billion
Contract Cost	PKR 133.98 Billion
Start Point	Havelian
End Point	Thakot
ROW	a. Havelian – Abbottabad 60 M b. Abbottabad – Mansehra 60 M c. Mansehra – Battagram 40 M d. Battagram –Thakot Section 40 M

TECHINICAL FEATURES OF THE PROJECT

Sr. No.	Item	Unit	Technical Standards and Sections		
1	Highway classification	-	Expressway (Havelian – Abbottabad) (27.601 KM)	Expressway (Abbottabad – Mansehra) (11.910 KM)	Class II Highway (Mansehra – Battagram) (79.170 KM)
2	No of Lanes	Nos.	06	06	02
3	Design speed	KM/h	100	80	60
4	Minimum radius of horizontal curve	m	437	252	125
5	Maximum longitudinal slope	%	4~6	4~6	6
6	Pavement structure	-	Flexible pavement	Flexible pavement	Flexible pavement

Detail of Structures

Sr. No.	Structure Description	Total Numbers
1.	Tunnels	06 No's (02x in Section-I&II having length of 2,110 meters and 04x in Section-III with length of 6,491 meters)
2.	Interchanges	03 No's
3.	Bridges	101 No's (Total Length= 12.769 KM)
4.	Culverts	440 No's
5.	Underpasses/Cattle creeps	29 No's
6.	Toll Plazas	07 No's
7.	Weigh Stations	07 No's
8.	Service Areas	02 No's

Tunnels Progress

S#	TUNNEL NAME	Description	Entrance Excavation Length (Meters)	Exit Excavation Length (Meters)	Total completed length (Meters)	Total length (Meters)	% completed length (Meters)
1	Abbotabad 1 # Tunnel	K73+260-K75+025	450.7	645.3	1096	1765	62.10%
		ZK73+316-ZK75+040	305.1	655.1	960.2	1724	55.70%
2	Abbotabad 2 # Tunnel	K78+260-K78+660	24.6	375.4	400	400	100.00%
		ZK78+253-ZK78+625	29	343	372	372	100.00%
3	Mansehra Tunnel	K100+922-K103+450	413	580	993	2528	39.28%
4	Karmang Tunnel	K13+227-K136+669	0	0	0	442	0.00%
5	Battal Tunnel	K144+874-K147+780	750	704	1454	2906	50.03%
6	Thakot Tunnel	K176+125-K176+640	565.5	0	565.5	615	91.95%

Abbottabad Tunnel No. 1 Entrance



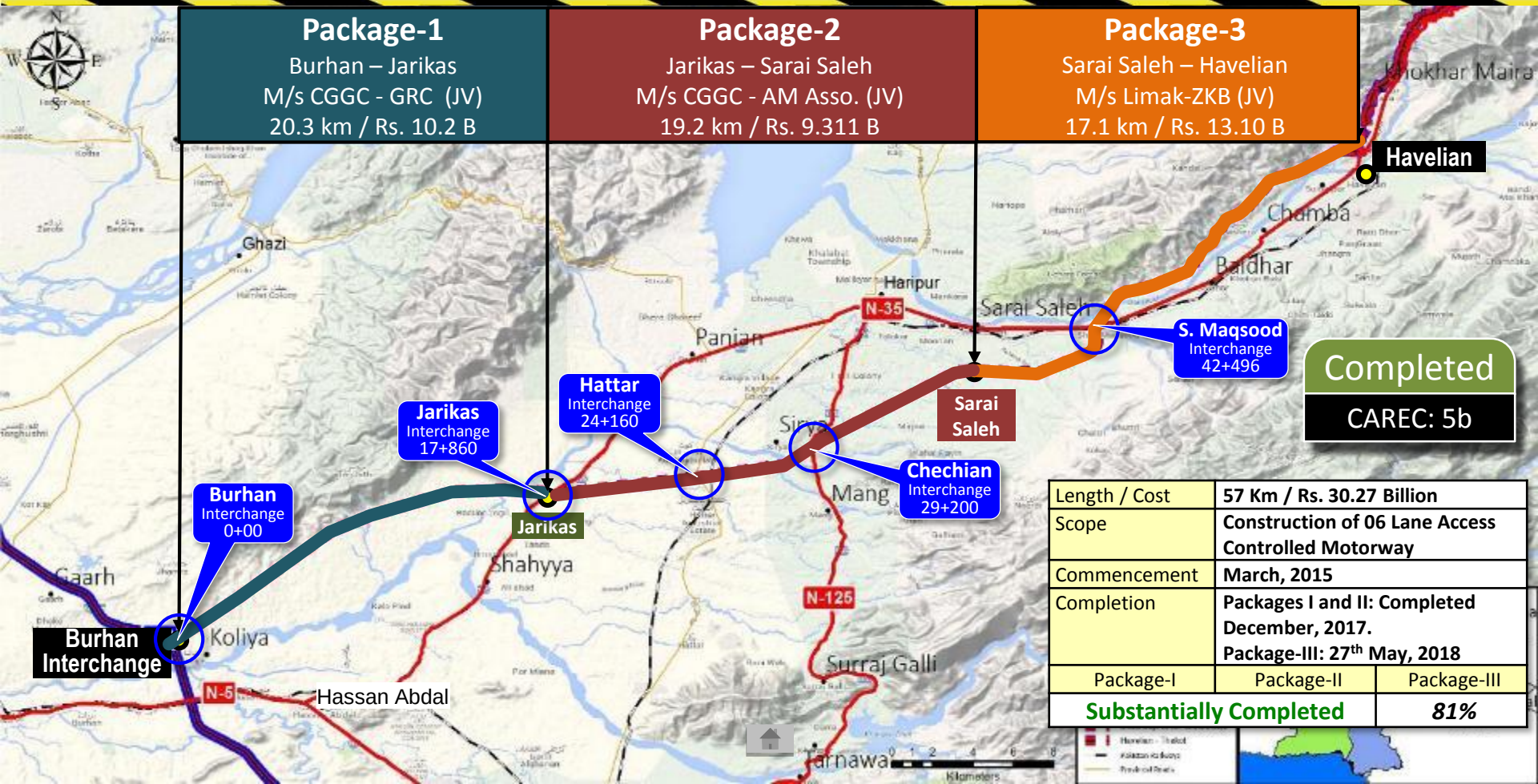
Abbottabad Tunnel No. 1 Exit



Abbottabad Tunnel No. 1 Exit



ADB Funded Burhan to Havelian (Hazara Motorway) 6 Lanes



Length / Cost	57 Km / Rs. 30.27 Billion	
Scope	Construction of 06 Lane Access Controlled Motorway	
Commencement	March, 2015	
Completion	Packages I and II: Completed December, 2017. Package-III: 27 th May, 2018	
Package-I	Package-II	Package-III
Substantially Completed		81%

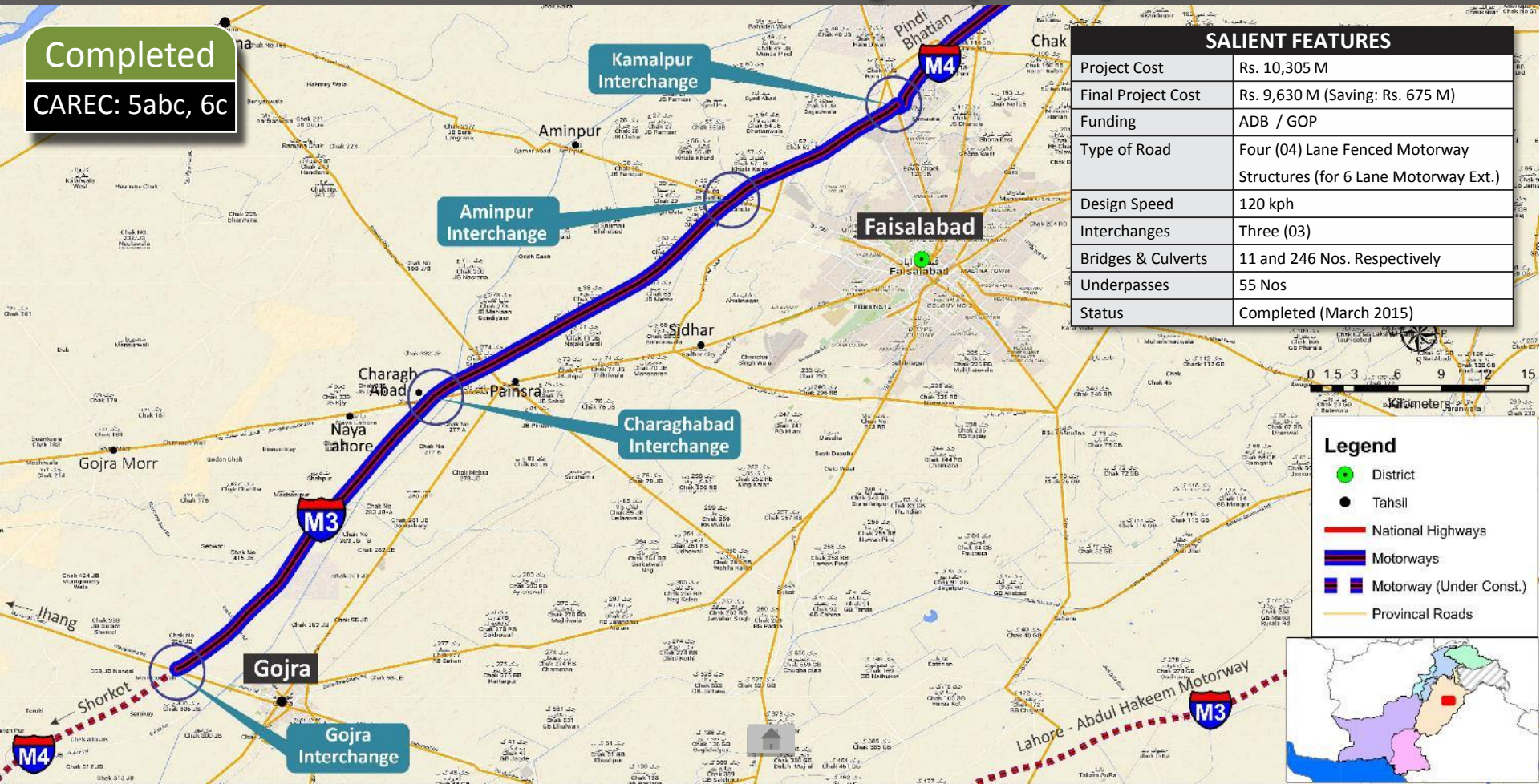
Faisalabad – Gojra (M-4)

Completed

CAREC: 5abc, 6c

SALIENT FEATURES

Project Cost	Rs. 10,305 M
Final Project Cost	Rs. 9,630 M (Saving: Rs. 675 M)
Funding	ADB / GOP
Type of Road	Four (04) Lane Fenced Motorway Structures (for 6 Lane Motorway Ext.)
Design Speed	120 kph
Interchanges	Three (03)
Bridges & Culverts	11 and 246 Nos. Respectively
Underpasses	55 Nos
Status	Completed (March 2015)



ADB Funded Gojra – Shorkot Section (62 Km)

Gojra – Shorkot Section (62 Km)		Project Details
Section/Package	Section-2A Gojra-Jamani	Section-2B Jamani-Shorkot
Length	31 km	31 km
Contract Cost	8.35 Billion	8.83 Billion
Scope	Construction of 04 Lane Access Controlled Motorway With 06 Lane Structures.	
Contractor	M/s Xinjiang Beixin	M/s China Railways 1 ST Group
Commencement	March, 2016	
Completion	2018	2018
Progress	62%	50%

Ongoing

CAREC: 5abc, 6c



ADB Funded Shorkot – Khanewal (M-4) 65 Km

Shorkot – Khanewal (M-4) 65 Km

Project Details

Section / Package	Section-3A Shorkot-Dinpur	Section-3B Dinpur-Khanewal
Length	31 km	34 km
Contract Cost	11.22 Billion	10.82 Billion
Scope	Construction of 04 Lane Access Controlled Motorway With 06 Lane Structures.	
Contractor	M/s China Gezhouba -GRC JV	M/s Xinjiang Beixin
Commencement	December, 2016	
Completion	September, 2018	
Progress	39%	32%

Ongoing

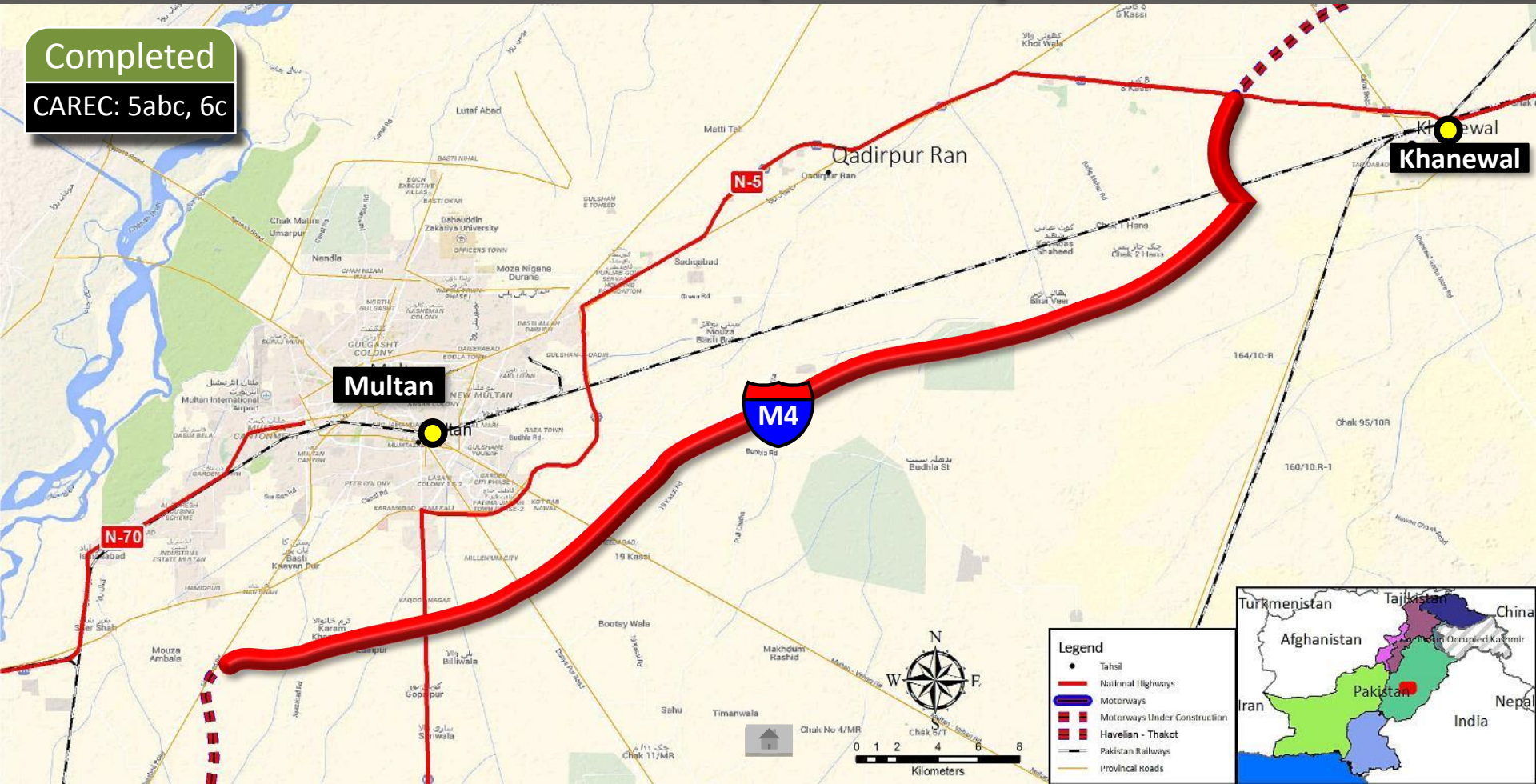
CAREC: 5abc, 6c



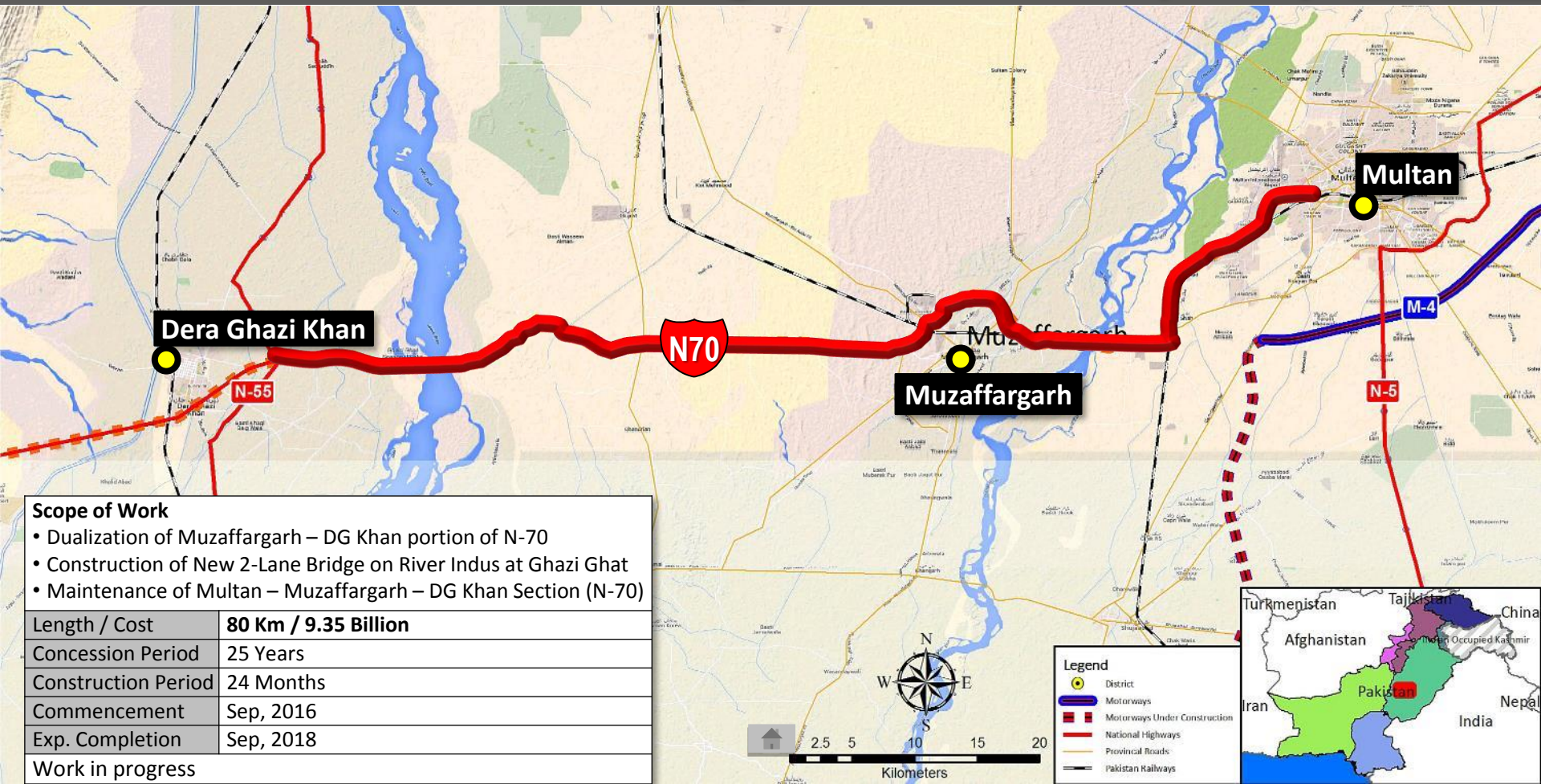
Khanewal – Multan (M-4 Ext.) 55.6 Kms

Completed

CAREC: 5abc, 6c



Multan – Muzaffargarh – DG Khan (N-70)



Scope of Work

- Dualization of Muzaffargarh – DG Khan portion of N-70
- Construction of New 2-Lane Bridge on River Indus at Ghazi Ghat
- Maintenance of Multan – Muzaffargarh – DG Khan Section (N-70)

Length / Cost	80 Km / 9.35 Billion
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Concession Period	25 Years
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Construction Period	24 Months
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Commencement	Sep, 2016
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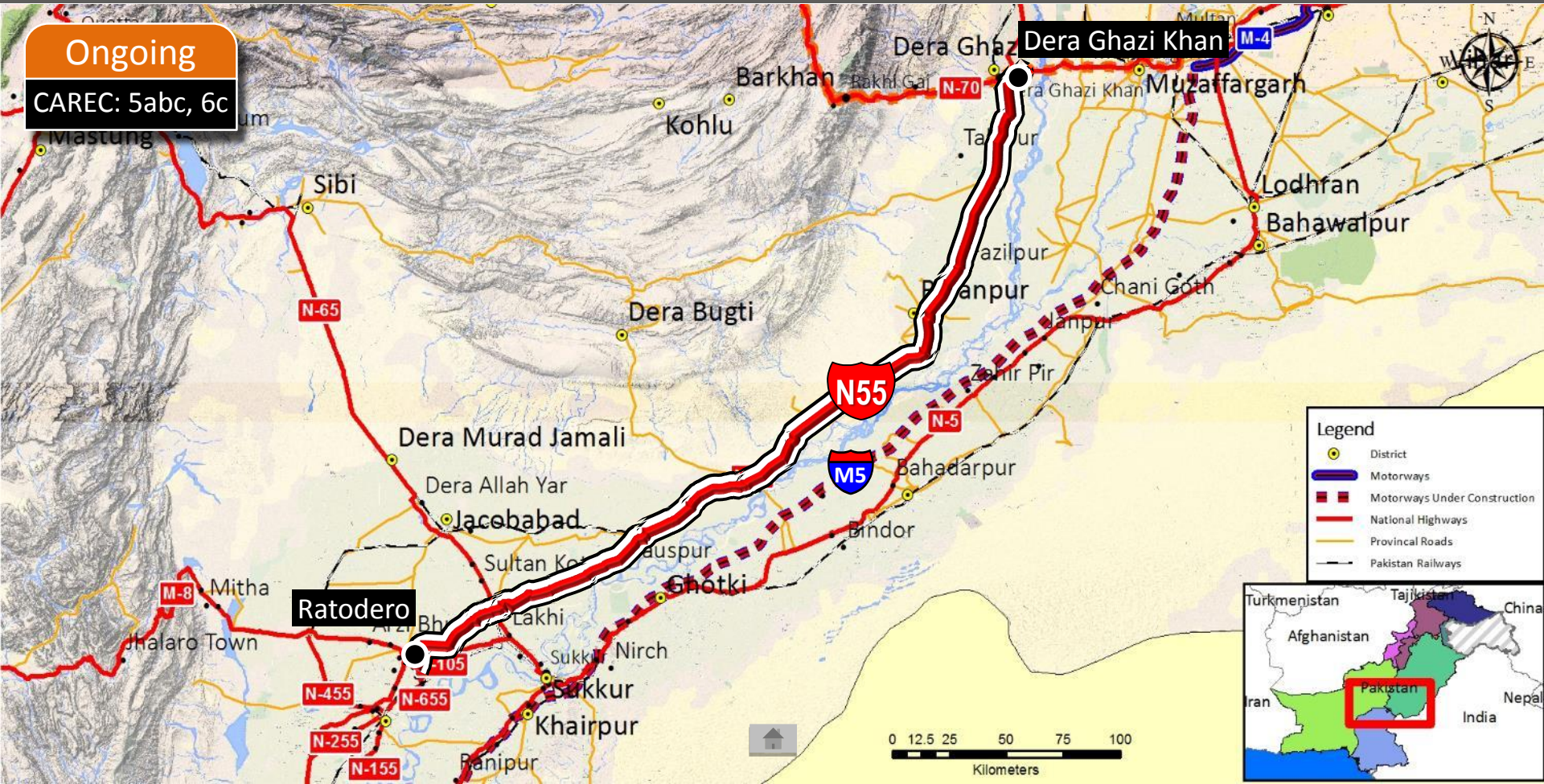
Exp. Completion	Sep, 2018
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Work in progress	
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Ratodero - Dera Ghazi Khan (N-55) (Expressway - 200 Km)

Ongoing

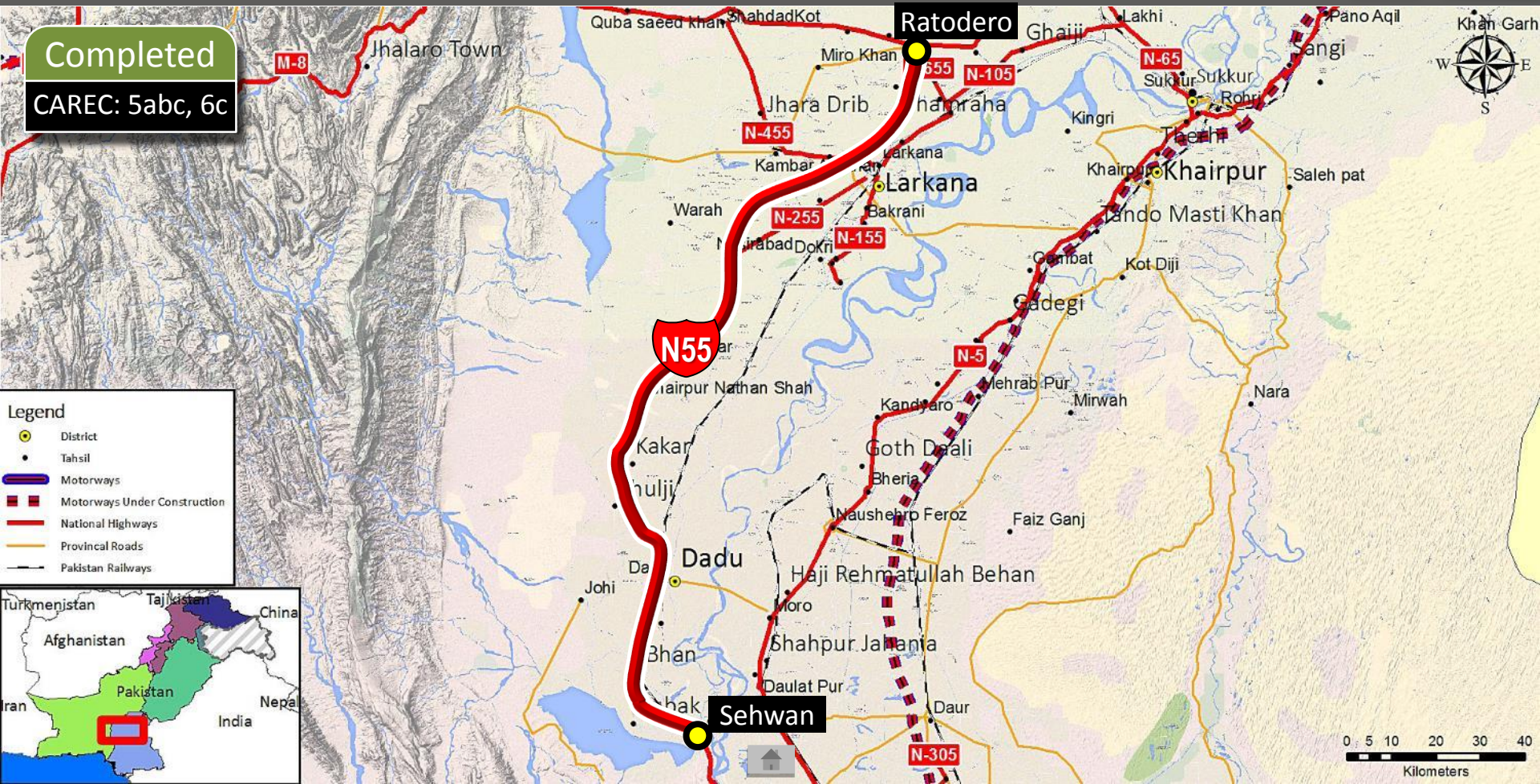
CAREC: 5abc, 6c



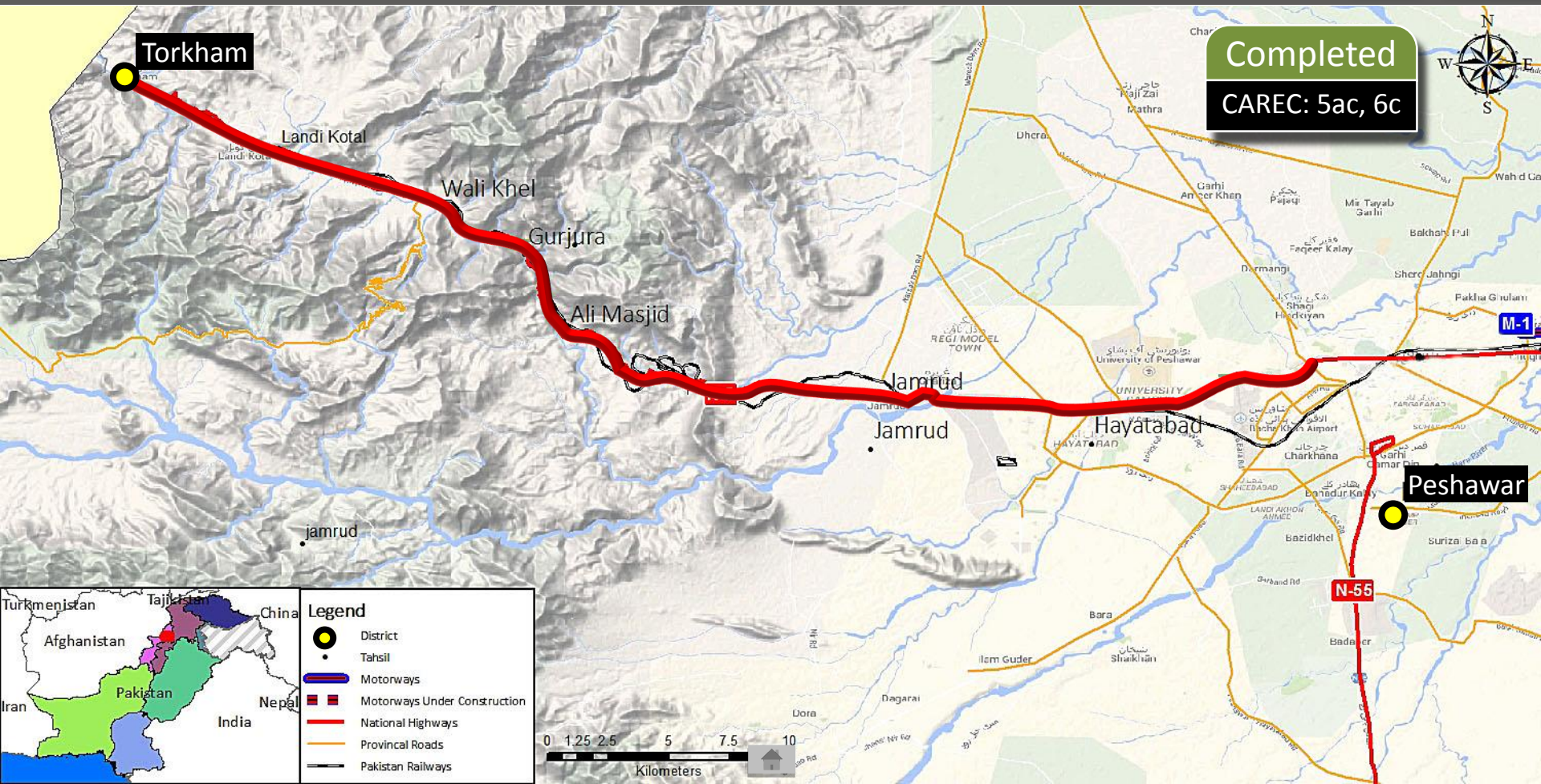
Sehwan - Ratodero (N-55) (Expressway -199 Km) – (JBIC & GOP)

Completed

CAREC: 5abc, 6c



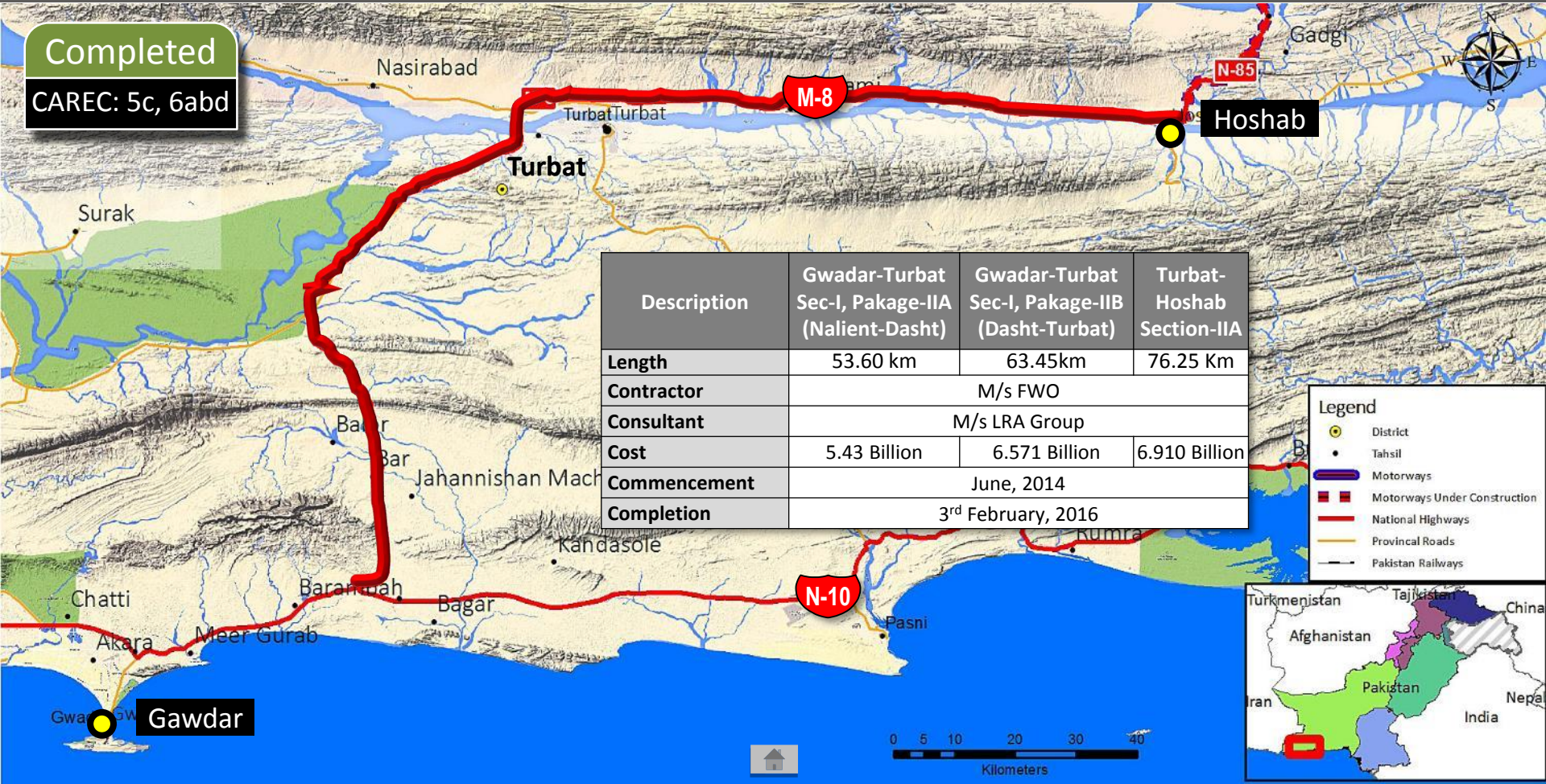
Peshawar - Torkham N-5 (47 km) USAID



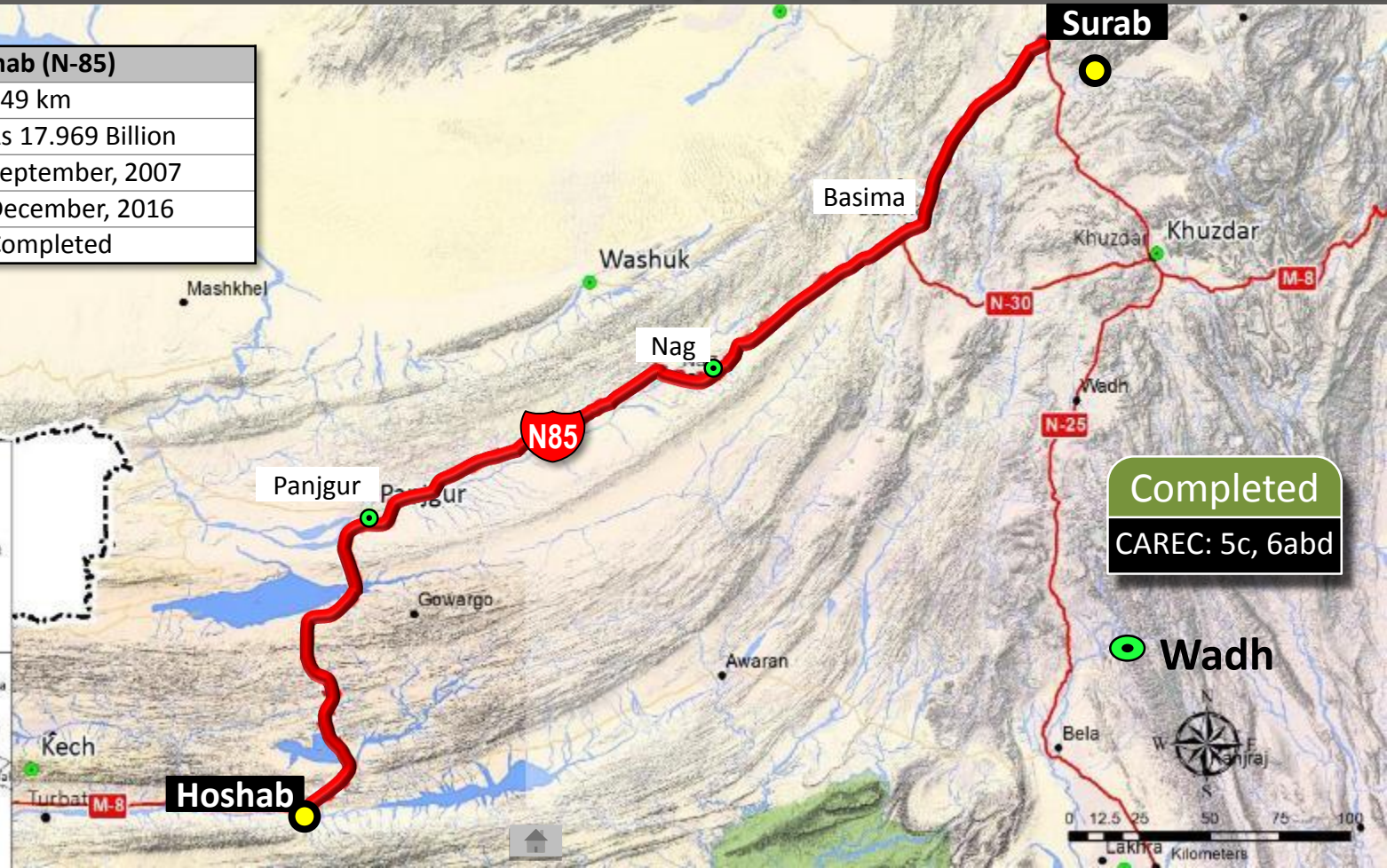
Gwadar – Hoshab Motorway (M-8) GoP

Completed

CAREC: 5c, 6abd



Surab-Hoshab (N-85)	
Length	449 km
Cost	Rs 17.969 Billion
Commencement	September, 2007
Completion	December, 2016
Status	Completed



Khuzdar-Kalat-Quetta– Chaman Section (N-25)

Jungle-PirAlizai -Chaman
existing 2 lane carriageway
56 km

Existing Carriageway

Balance work of **Kalat – Quetta - Chaman** (N-25) 226 km

Length / Cost	116 (Pckg. II & IV) / 90 MUSD
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Contractor	M/s FWO(EPC)
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Commencement	June, 2014
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Completion	June, 2016
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Additional works of 4xbridges, toll plazas, Wiegh bridges and Kuchlack Bypass are underway and shall be completed 2018

Completed

CAREC: 5c, 6abd

Additional Carriageway (Khuzdar – Chaman)

Length	431 km
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- FS completed/ Detailed Design underway

