

# Corridor Performance Measurement and Monitoring (CPMM)

Key Updates from Annual Report 2016  
Dushanbe (September, 2017)



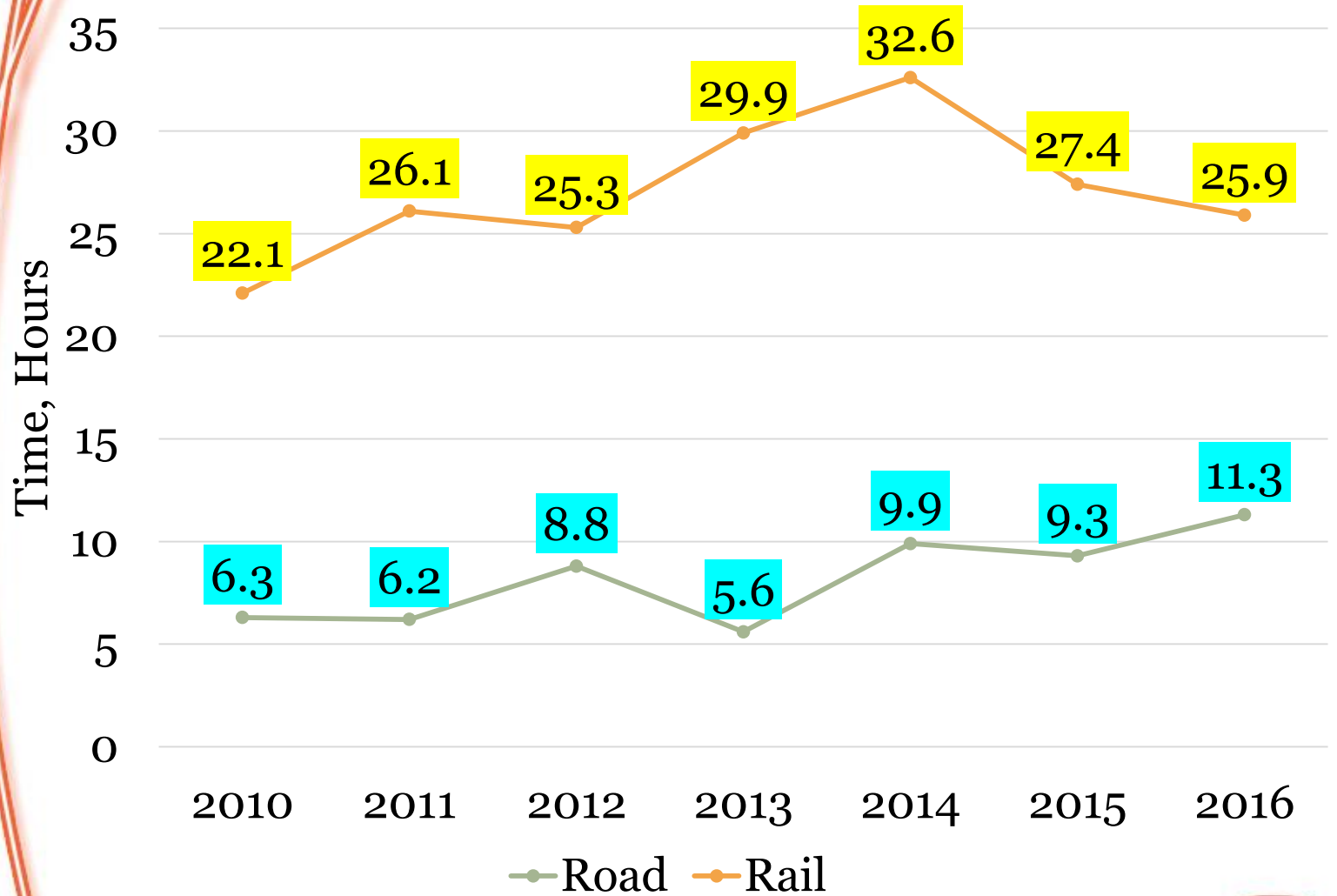
Corridor Performance Measurement and Monitoring:  
**CAREC Experience and International Prospects**

- 1 What is CPMM?
- 2 Trade Facilitation Indicators
- 3 Corridors Analysis
- 4 Conclusion
- 5 CPMM – New Direction

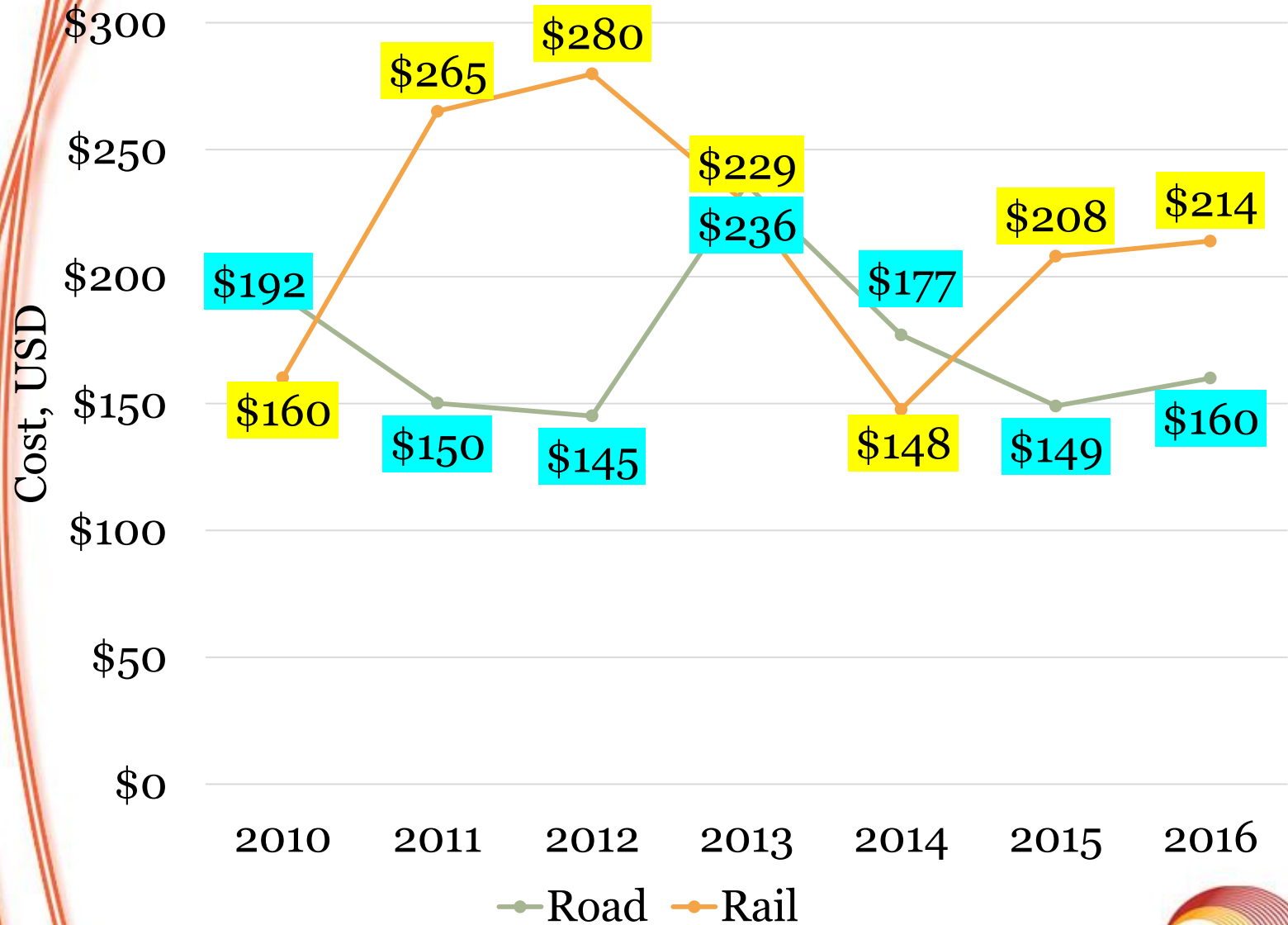
- An ADB CAREC developed tool to measure corridor efficiency.
- Time and cost of shipments are measured from actual monthly shipment samples
- Customized for land-locked countries with emphasis on land transport.
- Refer to [cfcfa.net](http://cfcfa.net) for more info.

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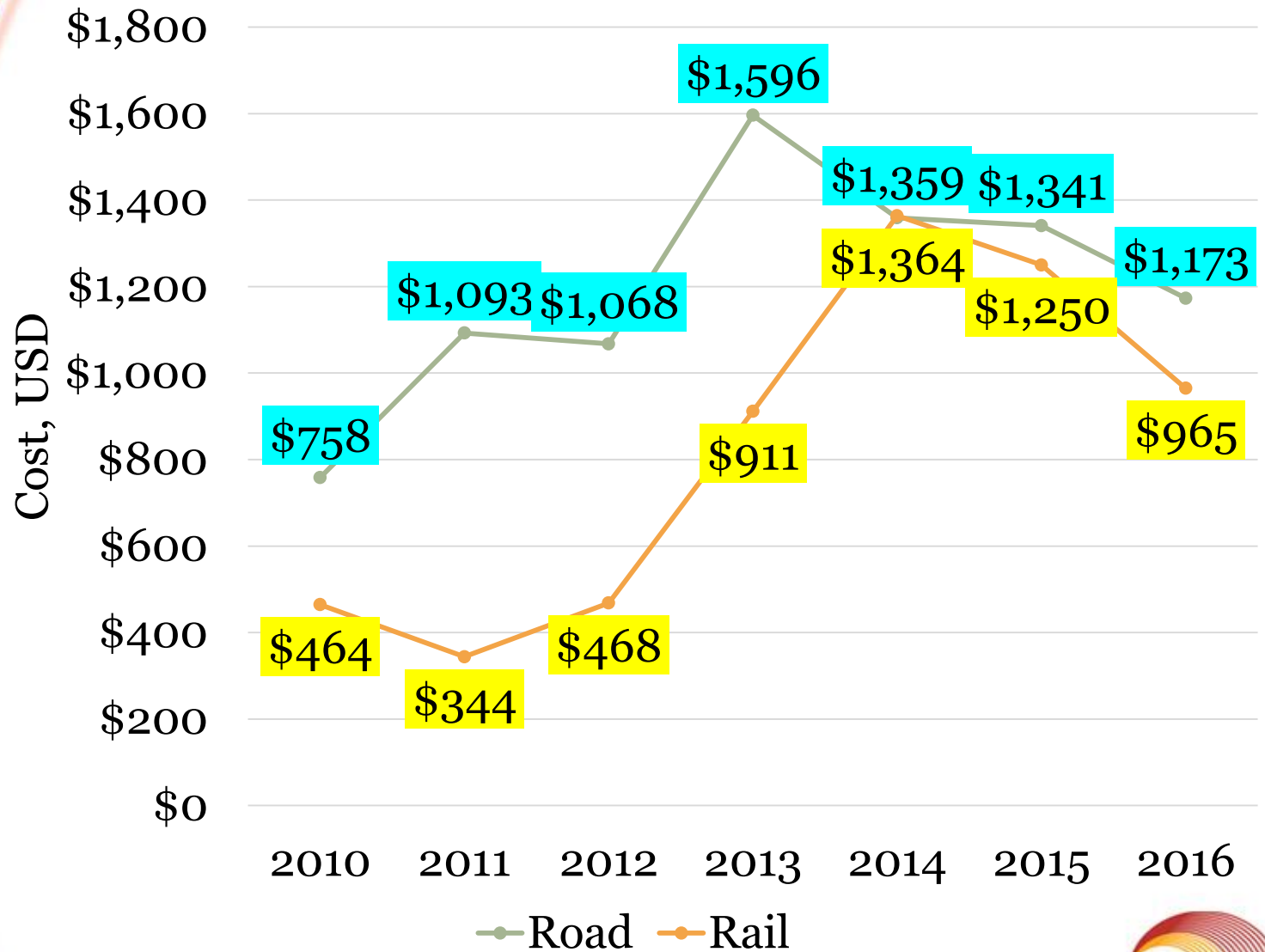
# TFI1 : Average Border Crossing Time



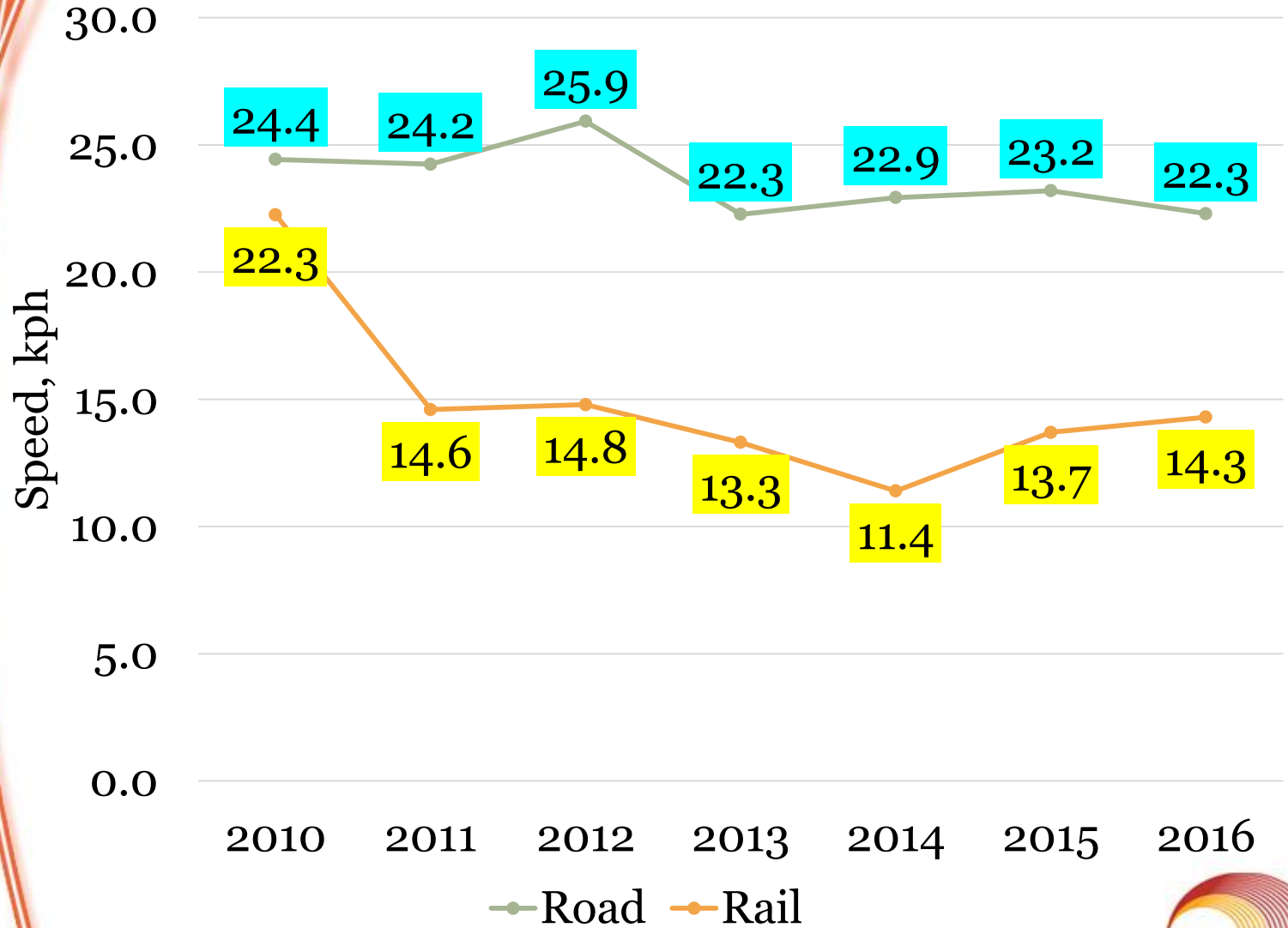
# TFI2 : Average Border Crossing Cost



# TFI3 : Average Total Transport Cost



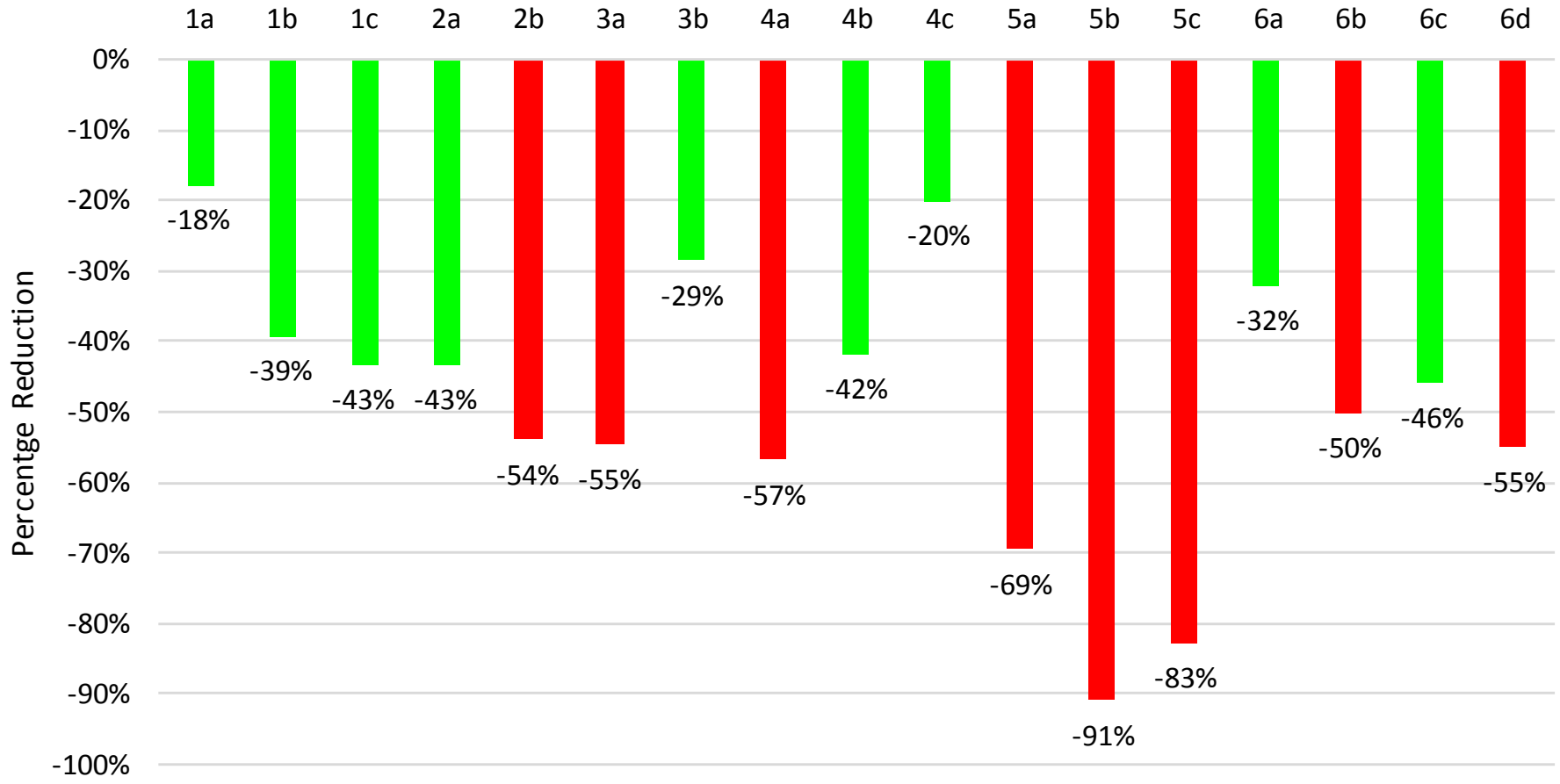
# TFI4 : Average Speed





# ...8 out of 17 sub-corridors suffered >50% drop in speed

## Speed Reduction of Road Transport by Sub-Corridors, 2016



# Summary of Bottlenecks

(Both Road and Rail)

Source : CPMM Annual Report 2016

**Rail : 44.4 hours**

**Dostyk (KAZ)**

Inbound Corridor 1, 2

**Rail : 20.2 hours**

**Alashankou (PRC)**

Outbound Corridor 1, 2

**Rail : 20.6 hours**

**Zamyn Uud (MON)**

Inbound Corridor 4

**Rail : 45.3 hours**

**Erenhot (PRC)**

Inbound Corridor 4

**Road : 39.7 hours**

**Shirkhan Bandar (AFG)**

Inbound Corridor 2, 5, 6

**Road : 9.4 hours**

**Shirkhan Bandar (AFG)**

Outbound Corridor 2, 5, 6

**Road : 7.0 hours**

**hours**

**Khorgos (PRC)**

Outbound Corridor 1

**Rail : 22.7**

**Rail : 54.0 hours**

**Altynkol (KAZ)**

Inbound Corridor 1

**Road : 42.7 hours**

**Spin Buldak (AFG)**

Inbound Corridor 5, 6

**Road : 59.5 hours**

**Chaman (PAK)**

Outbound Corridor 5, 6

**Road : 31.1 hours**

**Torkham (AFG)**

Inbound Corridor 5, 6

**Road : 34.7 hours**

**Peshawar (PAK)**

Outbound Corridor 5, 6

**Road : 18.8 hours**

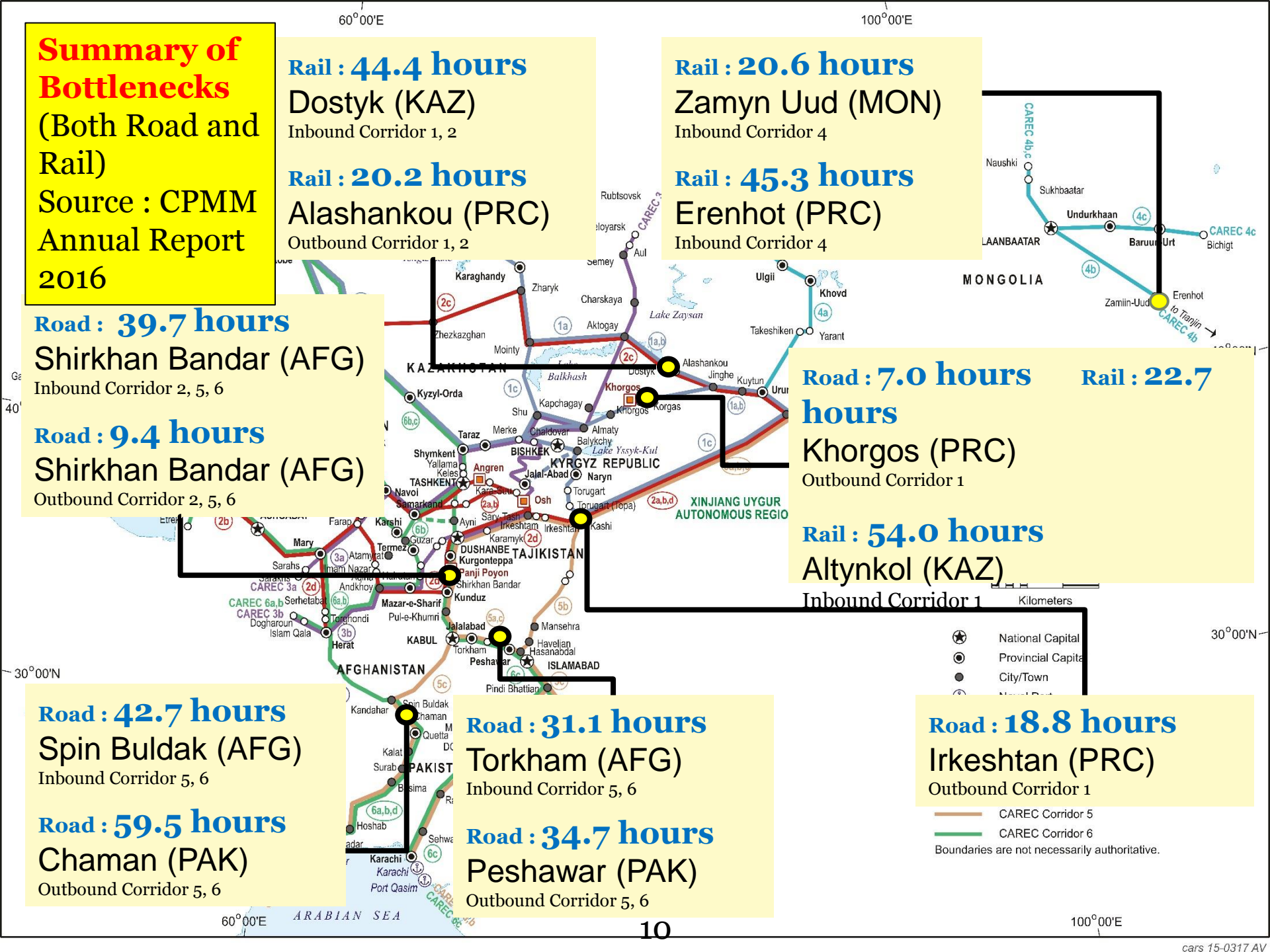
**Irkeshtan (PRC)**

Outbound Corridor 1

— CAREC Corridor 5

— CAREC Corridor 6

Boundaries are not necessarily authoritative.



**Road : \$261**  
**Farap (TKM)**  
 Inbound Corridor 2, 3

**Rail : \$299**  
**Towraghondi (AFG)**

**Summary of High Cost Border Points (Both Road and Rail)**  
 Source : CPMM Annual Report 2015

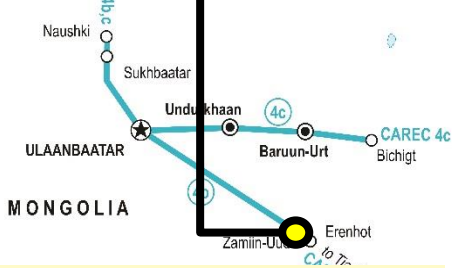
**Road : \$99**  
**Spin Buldak (AFG)**  
 Inbound Corridor 5, 6

**Road : \$125**  
**Chaman (PAK)**  
 Outbound Corridor 5, 6

**Road : \$224**  
**Yarant (MON)**  
 Inbound Corridor 4

**Road : \$222**  
**Takeshiken (PRC)**  
 Outbound Corridor 4

**Rail : \$267**  
**Erenhot (PRC)**  
 Inbound Corridor 4



**Rail : \$486**  
**Dostyk (KAZ)**  
 Inbound Corridor 1

**Road : \$332**      **Rail : \$638**  
**Khorgos / Altynkol (KAZ)**  
 Inbound Corridor 1

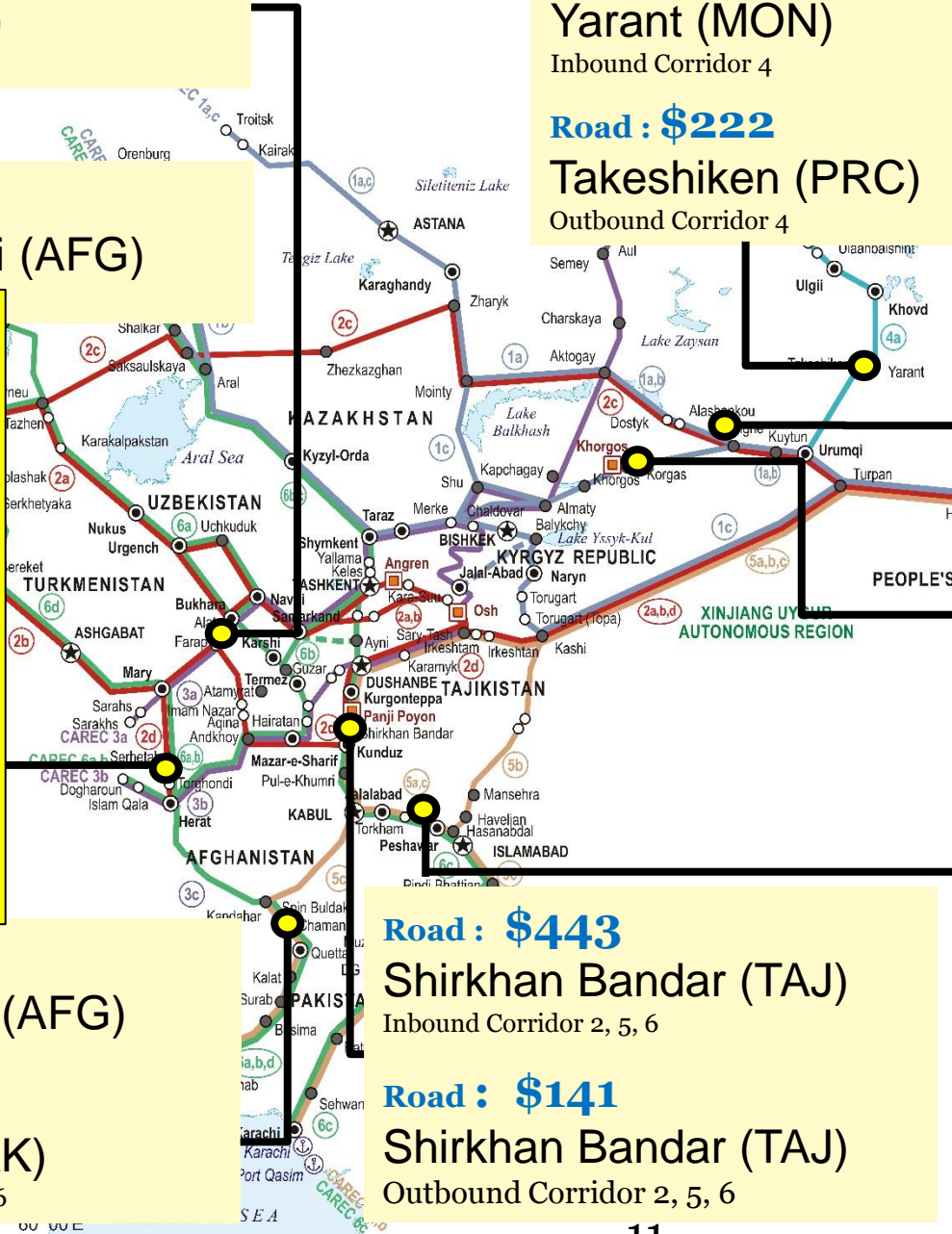
**Road : \$599**  
**Khorgos (PRC)**  
 Outbound Corridor 1

**Road : \$443**  
**Shirkhan Bandar (TAJ)**  
 Inbound Corridor 2, 5, 6

**Road : \$141**  
**Shirkhan Bandar (TAJ)**  
 Outbound Corridor 2, 5, 6

**Road : \$219**  
**Torkham (AFG)**  
 Inbound Corridor 5, 6

**Road : \$303**  
**Peshawar (PAK)**  
 Outbound Corridor 5, 6



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# CAREC Corridor 1 (Speed Map) “Western China-Western Europe”



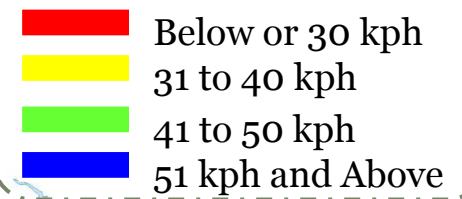
## Observations

1. Truck speeds are rapid in PRC section as well as the trunk road from Almaty to Astana.
2. Road rehabilitation and improvement can increase speeds in KGZ and western part of KAZ.

This map was produced by the cartography unit of the Asian Development Bank. The boundaries, colors, denominations, and any other information shown on this map do not imply, on the part of the Asian Development Bank, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries, colors, denominations, or information.

# CAREC Corridor 2 (Speed Map) "Trans-Caspian"

SWOD



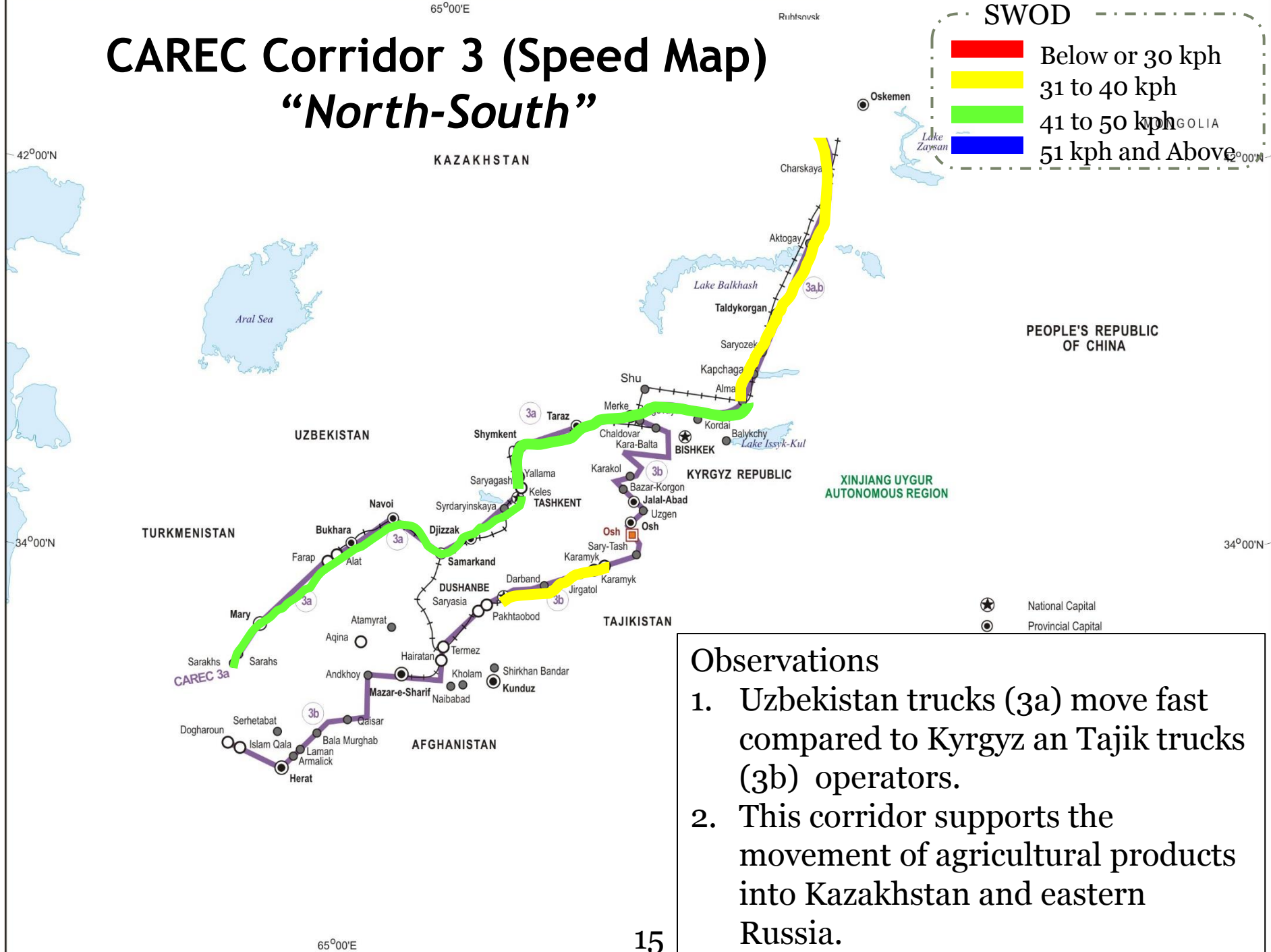
**Observations**

1. Truck move fast in UZB section.
2. Speed slows down in western regions of TAJ, due to mountainous terrain and under-developed infrastructure.

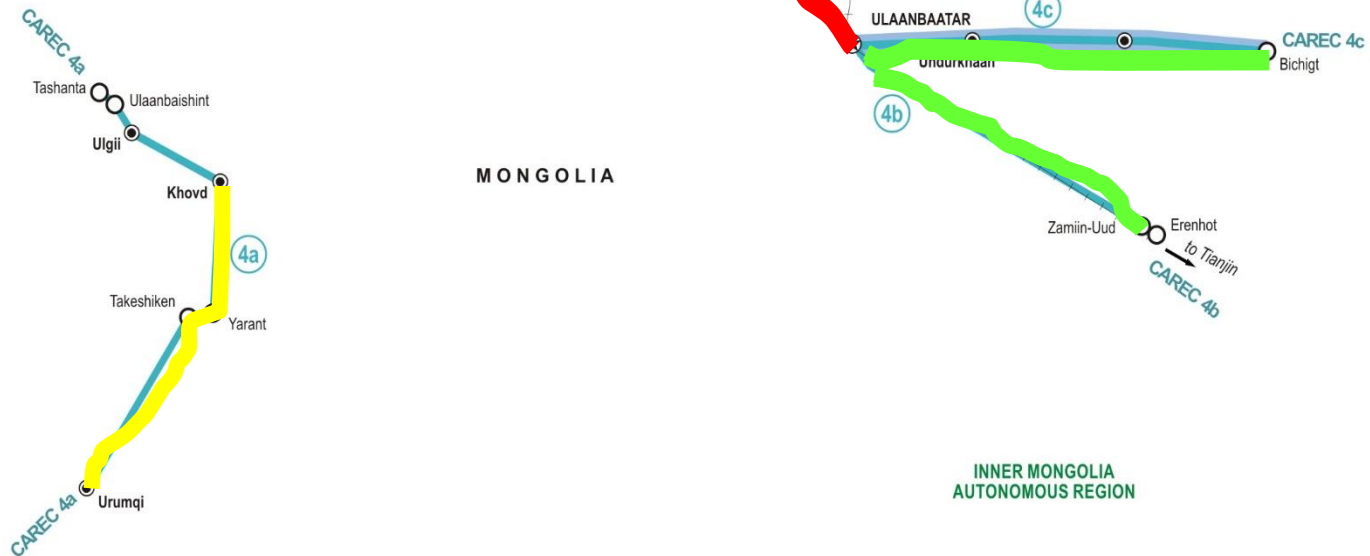
- ★ National Capital
  - ⊙ Provincial Capital
  - City/Town
  - ▣ Proposed CAREC Logistics Centres
  - CAREC Corridor 2
  - Corridor Extension
  - - - - Railway
- Boundaries are not necessarily authoritative.

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# CAREC Corridor 3 (Speed Map) “North-South”



# CAREC Corridor 4 (Speed “Trans-Mongolian Corridor”



## Observations

1. In 2016, all three sub-corridors 4a, 4b and 4c were covered.
2. Along 4a, shipment of coal from Mongolia to China were studied.
3. 4b continued to be the most active corridor.

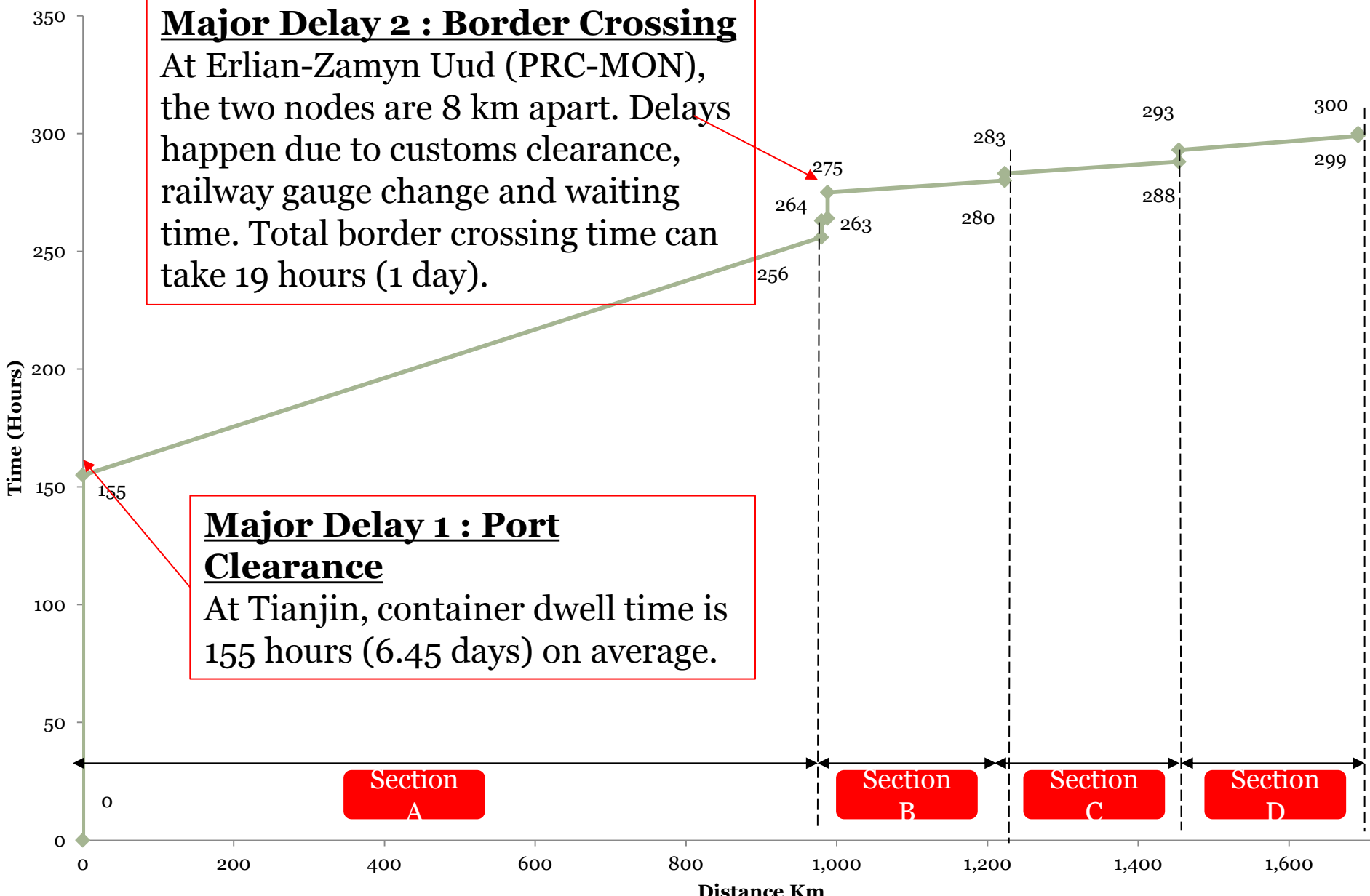
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# Rail Movement from Tianjin to Ulaan Baatar

**Major Delay 2 : Border Crossing**  
At Erlian-Zamyn Uud (PRC-MON), the two nodes are 8 km apart. Delays happen due to customs clearance, railway gauge change and waiting time. Total border crossing time can take 19 hours (1 day).

**Major Delay 1 : Port Clearance**  
At Tianjin, container dwell time is 155 hours (6.45 days) on average.



# CAREC Corridor 5 (Speed Map)

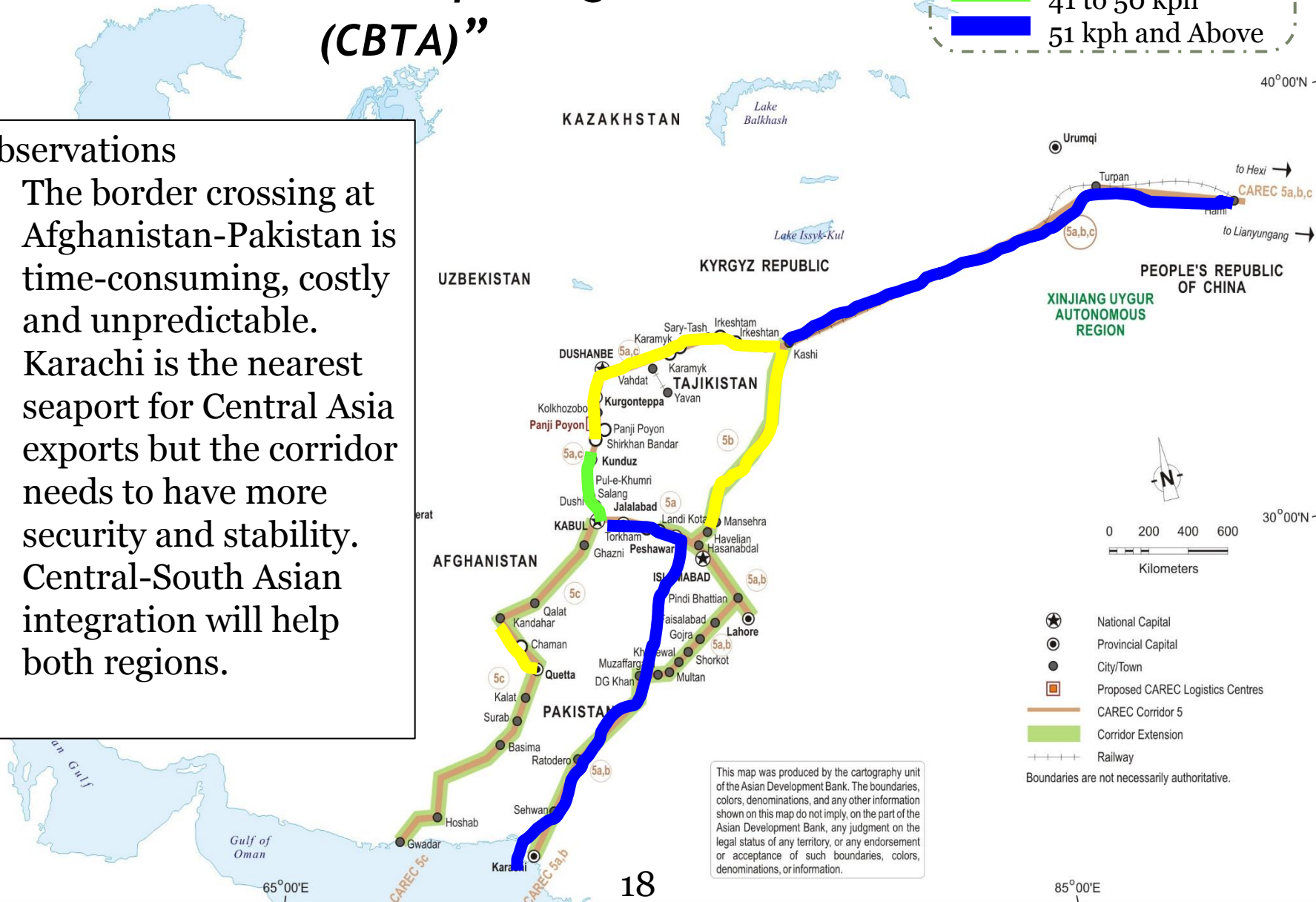
## “Cross Border Transport Agreement (CBTA)”

SWOD

- Below or 30 kph
- 31 to 40 kph
- 41 to 50 kph
- 51 kph and Above

### Observations

1. The border crossing at Afghanistan-Pakistan is time-consuming, costly and unpredictable.
2. Karachi is the nearest seaport for Central Asia exports but the corridor needs to have more security and stability.
3. Central-South Asian integration will help both regions.



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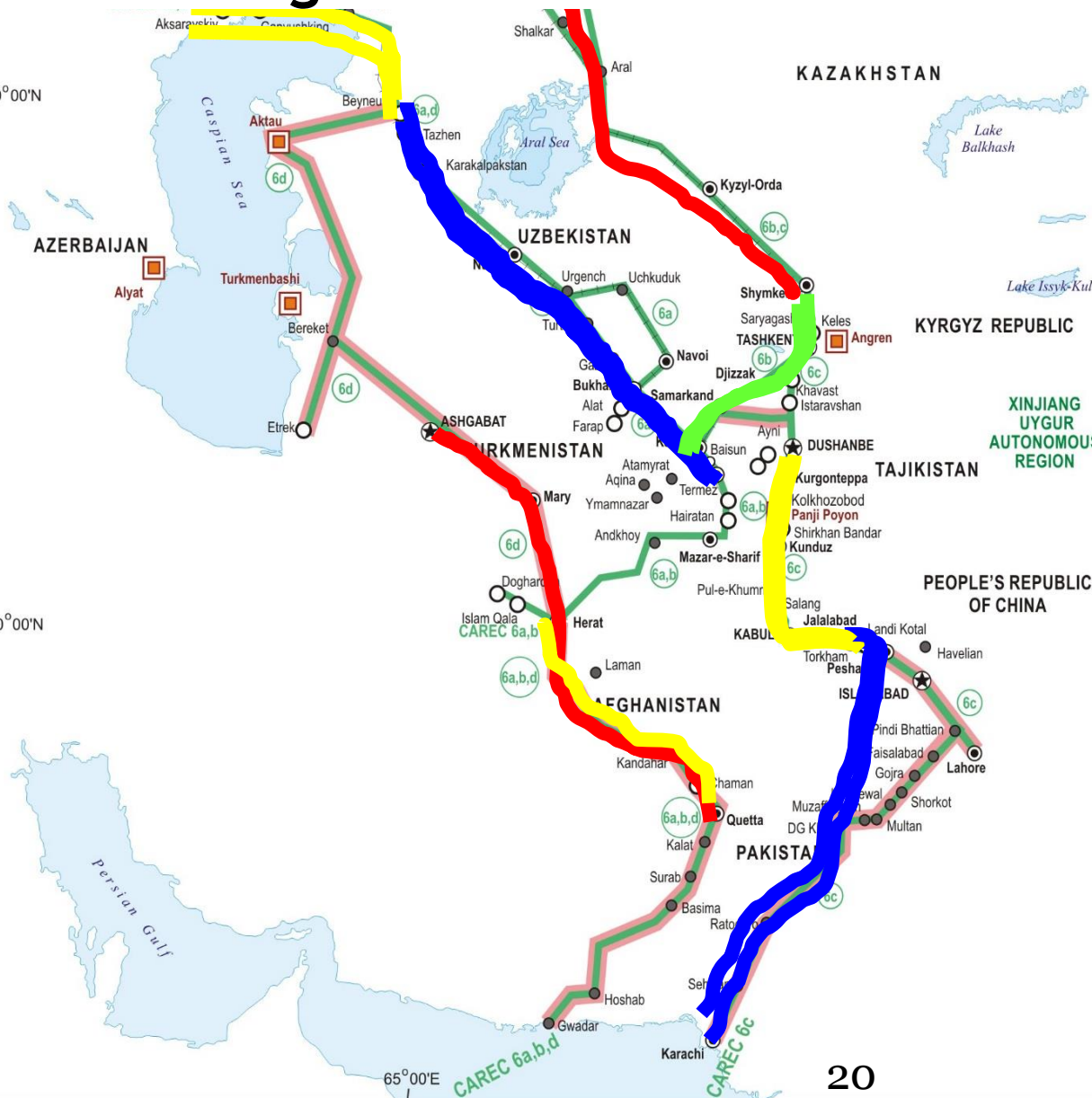
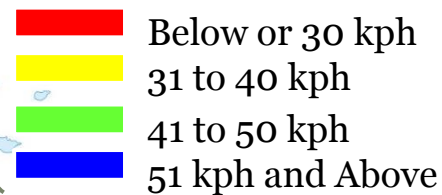
# China Exports to Tajikistan : 3 Options

Comparisons	Route A (Karamyk)	Route B (Batken)	Route C (Kulma)
Distance (km)	869	1,298	1,410
Number of Days	3 days	4 days	4 days
Total Cost	\$5,200	\$5,300	\$3,500
Cost per 500 km	\$2,992	\$2,042	\$1,241

# CAREC Corridor 6 (Speed Map)

## “Linking Central and South Asia”

SWOD



### Observations

1. Uzbek operators actively shipped goods from and to Russia.
2. New samples along 6d were included. The study focused on the movement of fruits and vegetables from Pakistan (Quetta) to Ashgabat (Turkmenistan), crossing Afghanistan sing road-rail.

denominations, or information.

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- ❖ There are still several impediments to the free flow of goods across border in Central Asia.
- ❖ Road and rail face different sets of constraints.
- ❖ Within the core Central Asia Republics, challenges are smaller. However, developments such as the Eurasian Economic Union can result in new regulations and constraints.
- ❖ Central Asia and South Asia inter-regional trade needs to overcome barriers in transport, transit and trade facilitation. Despite the challenges, this is important due to access to seaports.

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- ❖ The last revision was 2013.
- ❖ So far new associations have joined and new transit developments and routes have emerged.
- ❖ There may be a need to revise the template and the methodology.
- ❖ CPMM is so far transport dominated. Can CPMM be extended to study entire value chain? Can CPMM be revised to study trade related procedures that can help to increase exports?
- ❖ Please give us your views.



# THANK YOU!

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