



CAREC CPMM

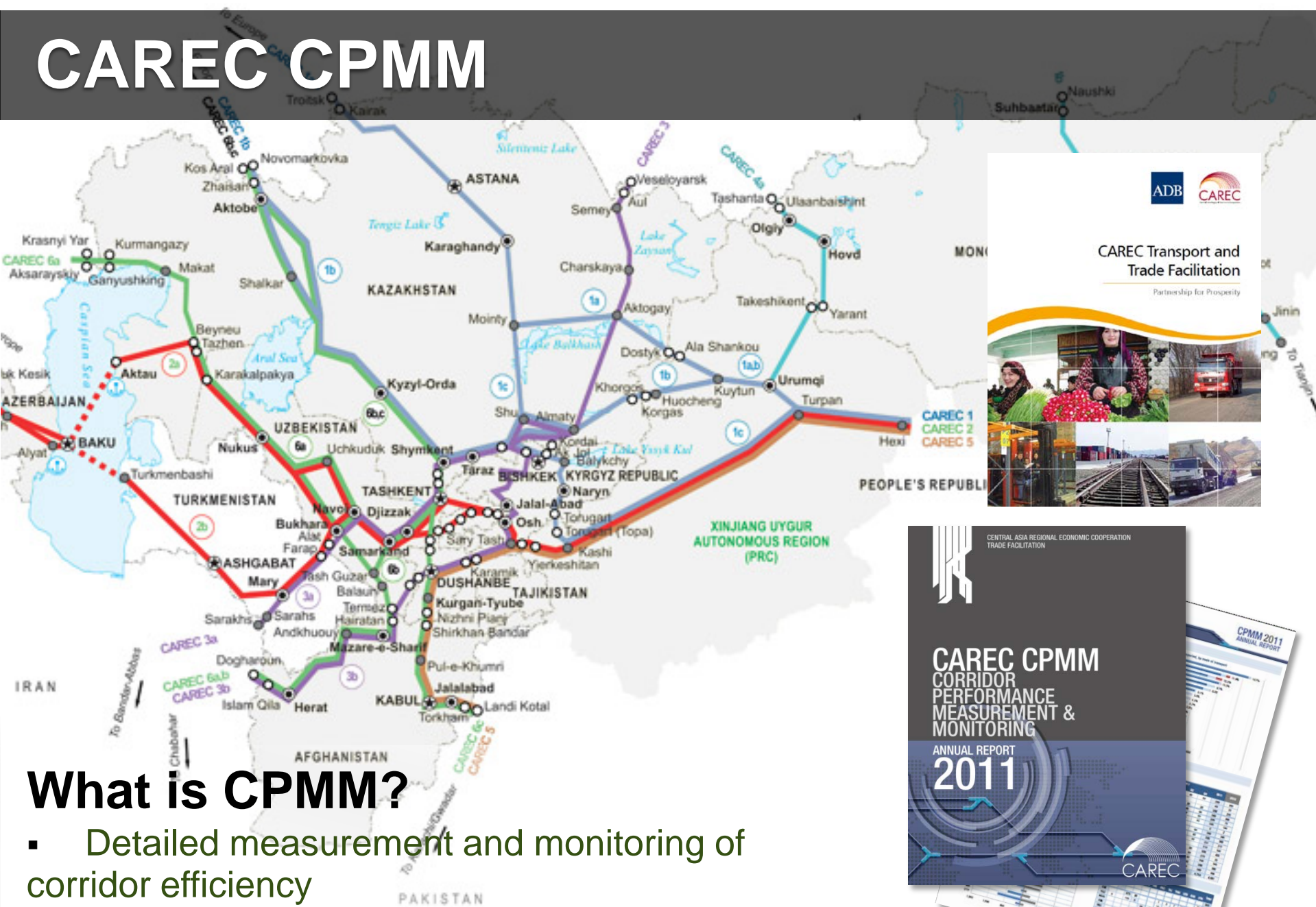
Corridor Performance Measurement and Monitoring

INTEGRATED TRADE FACILITATION IN CAREC: USING CPMM TO SHED LIGHT ON OBSTACLES TO TRADE

An Overview of CPMM, with emphasis on CAREC Corridor 2

**Integrated Trade Facilitation 'at the border' and 'behind
the border': Reforms and Implementation
11 April 2013, Batumi, Georgia**

CAREC CPMM



CAREC Transport and Trade Facilitation
Partnership for Prosperity



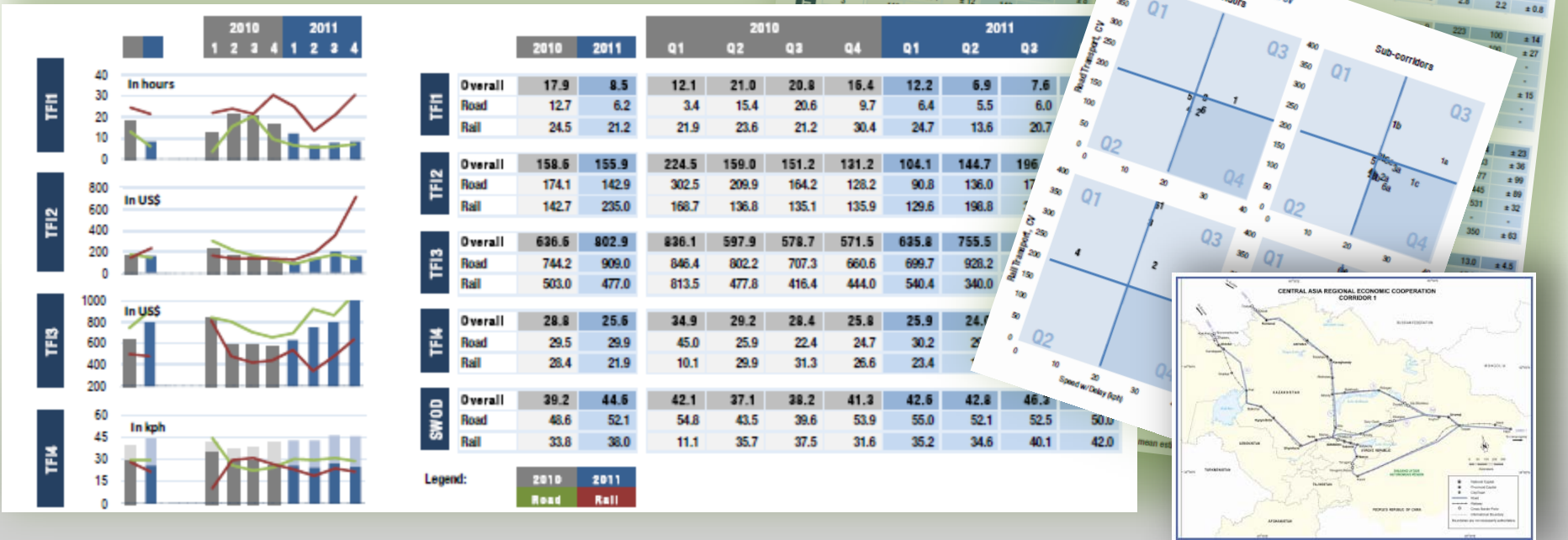
What is CPMM?

- Detailed measurement and monitoring of corridor efficiency
- Identify bottlenecks, Improve predictability

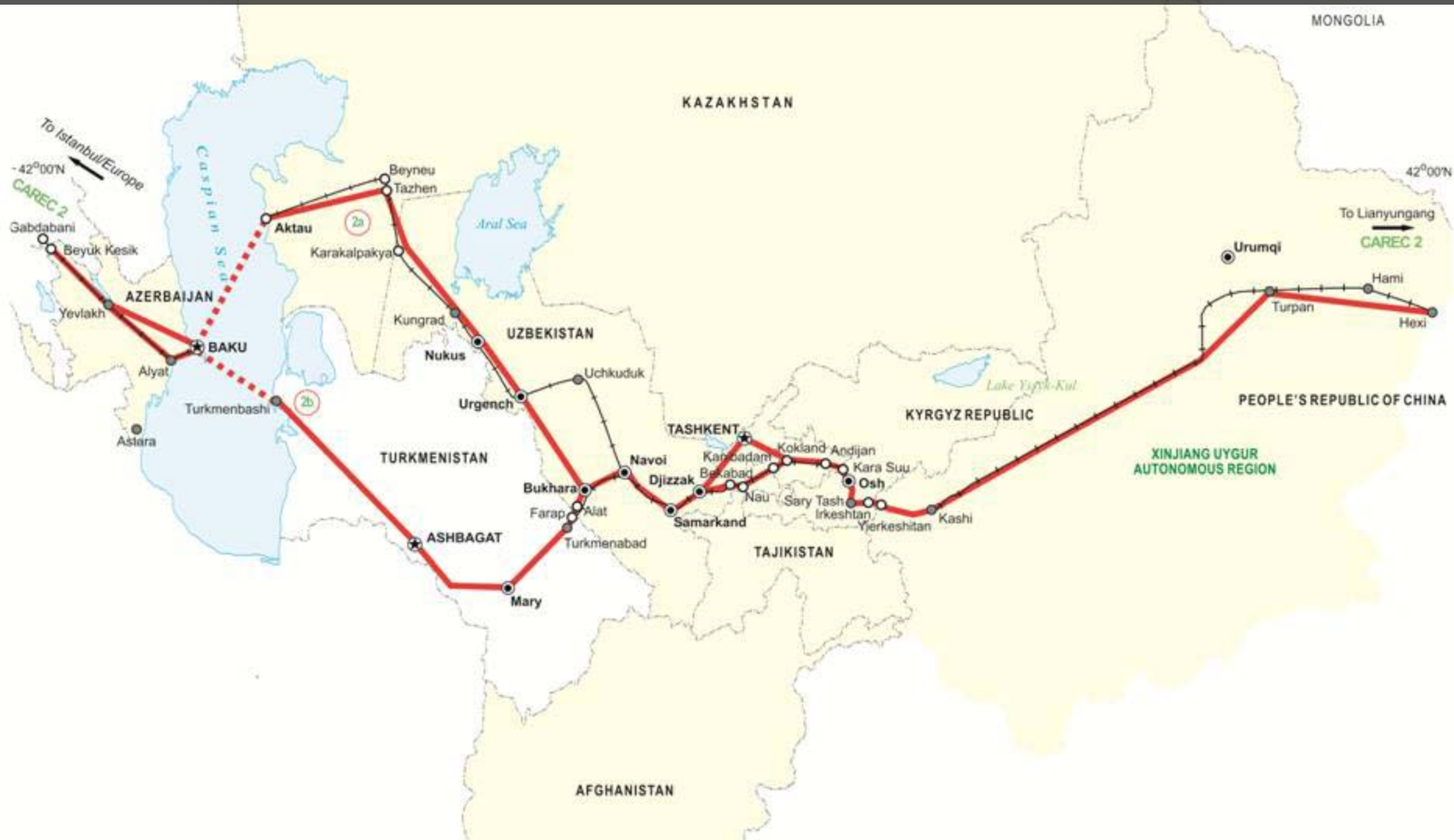
Detailed corridor data

CPMM also measures and provides

- statistics, data trends, trade facilitation indicators
- for corridors, sub-corridors and key BCPs
- for road and rail transport

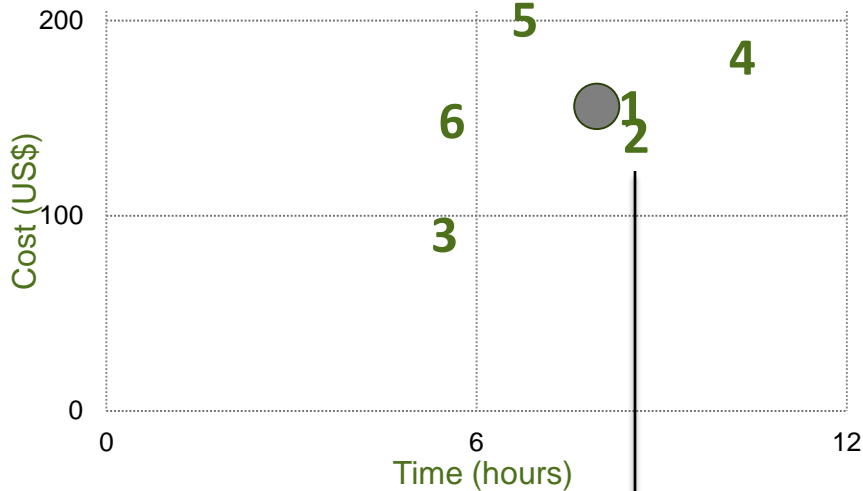


Focus: Corridor 2

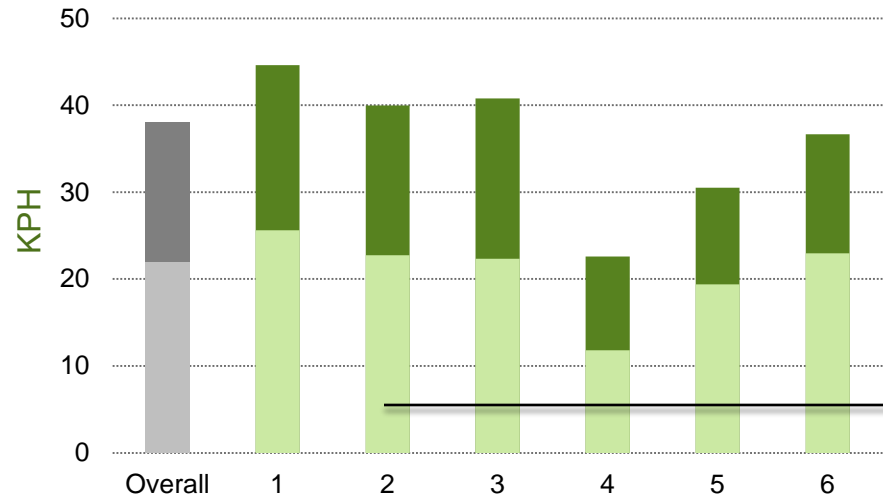


Comparison with other Corridors

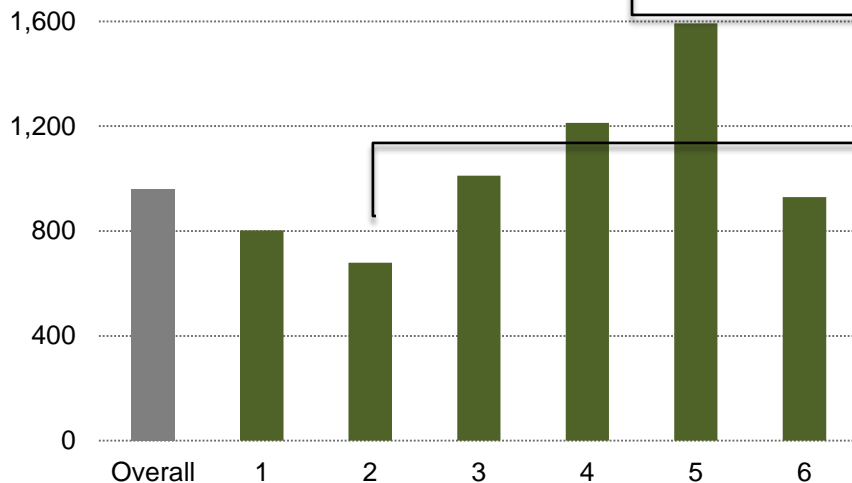
Time (TFI1) and Cost (TFI2) spent at border crossing, 2011



Speed Indicators (TFI4), 2011



TFI3 Cost Incurred to travel a corridor section, per 500km



Compared to other corridors, Corridor 2 suffers longer delays but less cost when crossing borders.

Not only at borders, Corridor 2 registered lowest cost during transit along corridor sections.

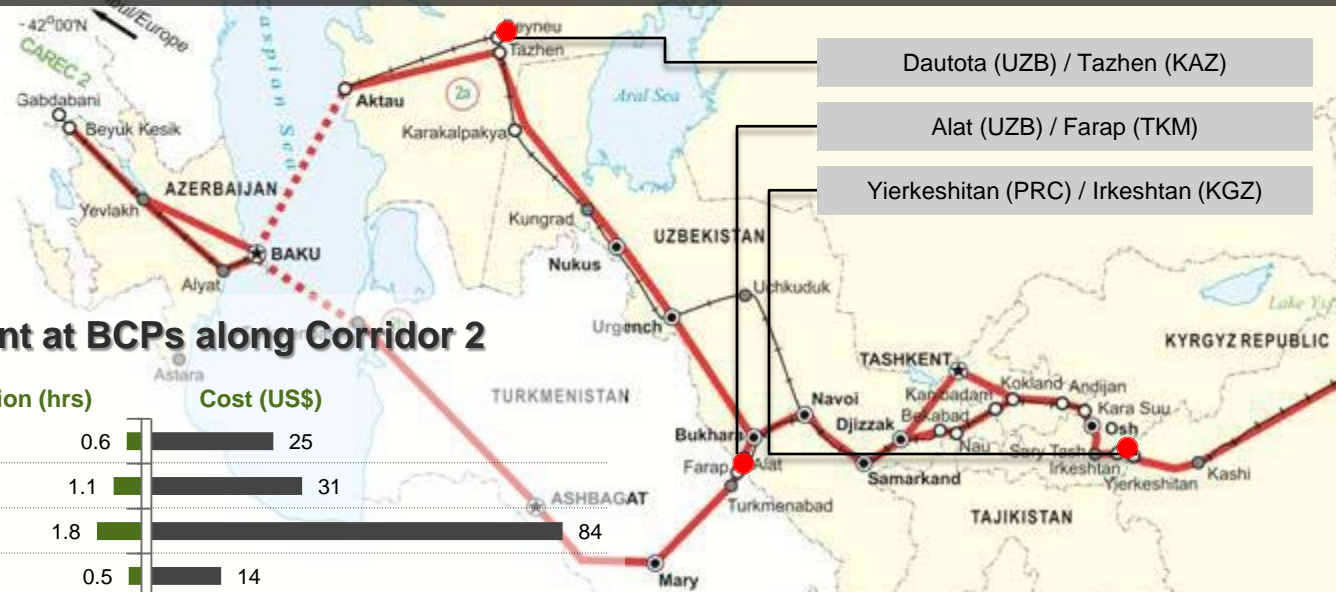
In terms of speed, Corridor 2 experienced faster SWD and SWOD, higher than the overall average, compared to other corridors.

Trade Facilitation Indicators (TFIs)

| | | Overall | | Road | | Rail | |
|-------------|---|---------|-------|------|--------|------|--------|
| Indicator | | 2010 | 2011 | 2010 | 2011 | 2010 | 2011 |
| TFI1 | Time to Clear a Border Crossing Point, in hours | 8.7 | 7.9↓ | 6.3 | 6.2↓ | 22.1 | 22.3-- |
| TFI2 | Cost Incurred at Border Crossing Clearance, in US\$ | 186 | 156↓ | 192 | 148↓ | 160 | 223↑ |
| TFI3 | Cost Incurred to Travel a Corridor Section, in US\$, per 500km per 20 ton | 712 | 959↑ | 758 | 1,055↑ | 571 | 503↓ |
| TFI4 | Speed to Travel on CAREC Corridors, in kph (SWD) | 23.5 | 21.9↓ | 24.4 | 24.5-- | 22.3 | 17.7↓ |
| SWOD | Speed without Delay, in kph | 35.2 | 38.0↑ | 41.0 | 43.0↑ | 27.2 | 30.1↑ |

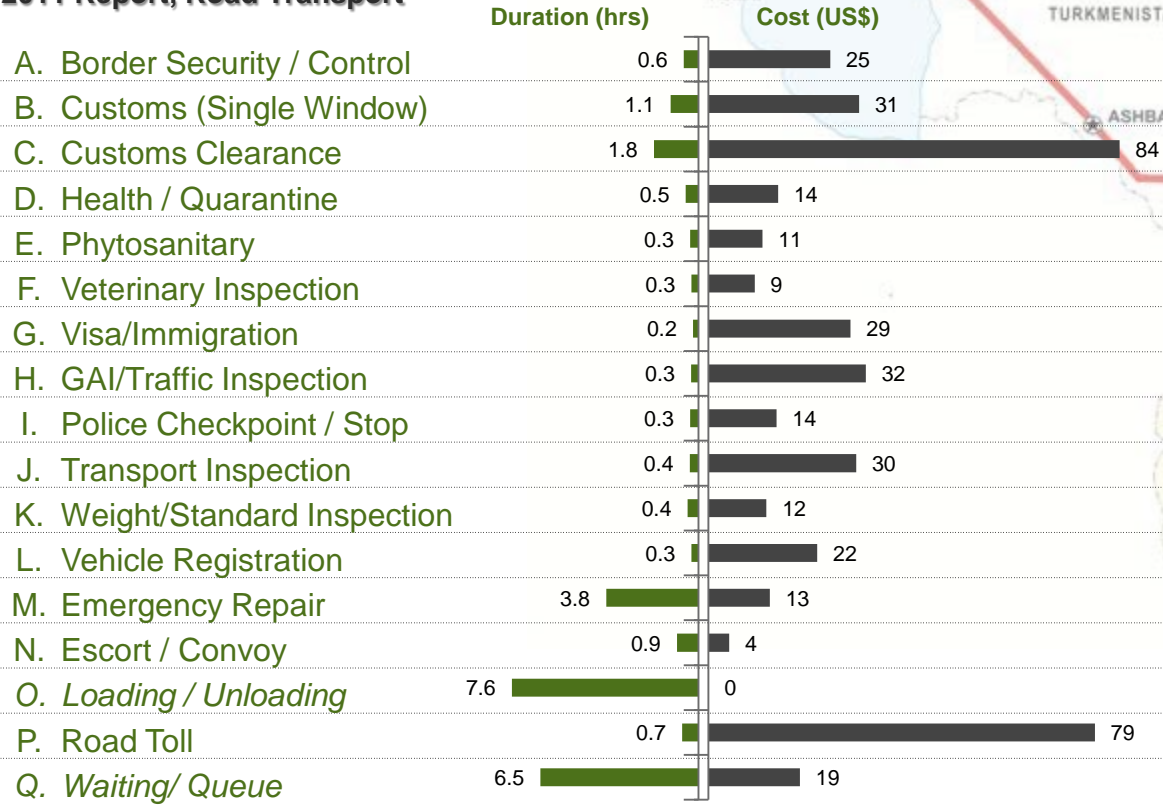
| Corridor 2 | | | | | | | |
|-------------|---|------|--------|-------|--------|-------|--------|
| | | 2010 | 2011 | 2010 | 2011 | 2010 | 2011 |
| TFI1 | Time to Clear a Border Crossing Point, in hours | 6.5 | 8.6↑ | 6.5 | 8.6↑ | 2.0 | 5.0↑ |
| TFI2 | Cost Incurred at Border Crossing Clearance, in US\$ | 216 | 142↓ | 215.9 | 141.7↓ | 213.6 | - |
| TFI3 | Cost Incurred to Travel a Corridor Section, in US\$, per 500km per 20 ton | 607 | 679↑ | 595.3 | 679.3↑ | 906.7 | 664.7↓ |
| TFI4 | Speed to Travel on CAREC Corridor 2, in kph (SWD) | 26.1 | 22.7↓ | 25.5 | 22.5↓ | 31.3 | 24.9↓ |
| SWOD | Speed without Delay, in kph | 40.4 | 40.0-- | 40.9 | 40.4-- | 35.4 | 36.1-- |

Border Crossing Delays and Cost



- Dautota (UZB) / Tazhen (KAZ)
- Alat (UZB) / Farap (TKM)
- Yierkeshitan (PRC) / Irkeshtan (KGZ)

Average Duration and Cost spent at BCPs along Corridor 2
2011 Report, Road Transport

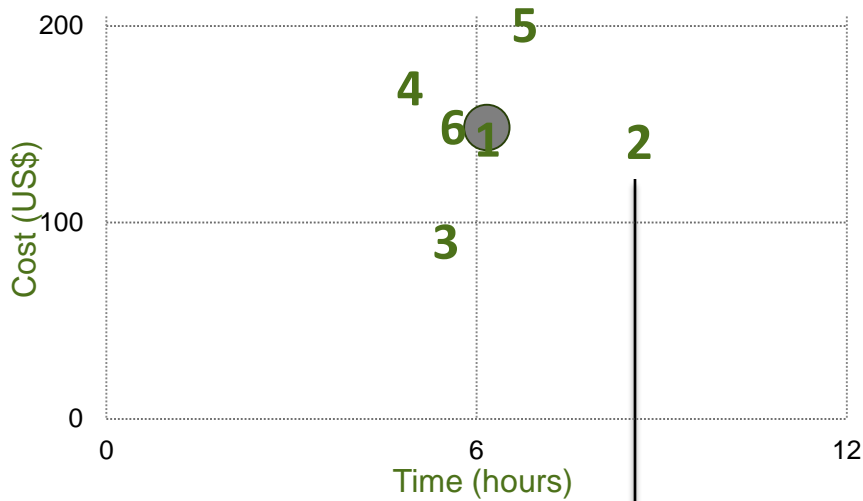


Among all activities, *waiting in queues and loading/unloading* are very time-consuming, and are frequently experienced during shipments, specifically in these BCP pairs:

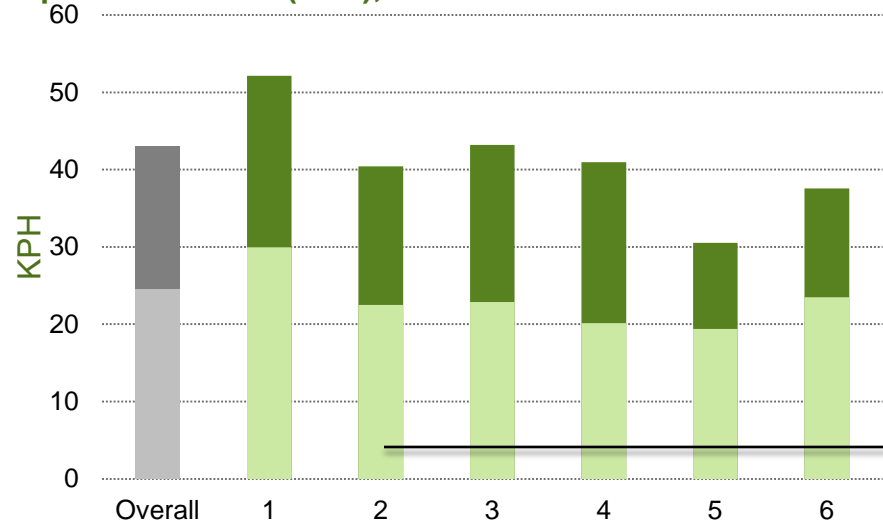
- (1) Yierkeshitan (PRC) / Irkeshtan (KGZ)
- (2) Dautota (UZB) / Tazhen (KAZ)
- (3) Alat (UZB) / Farap (TKM)

Road Transport

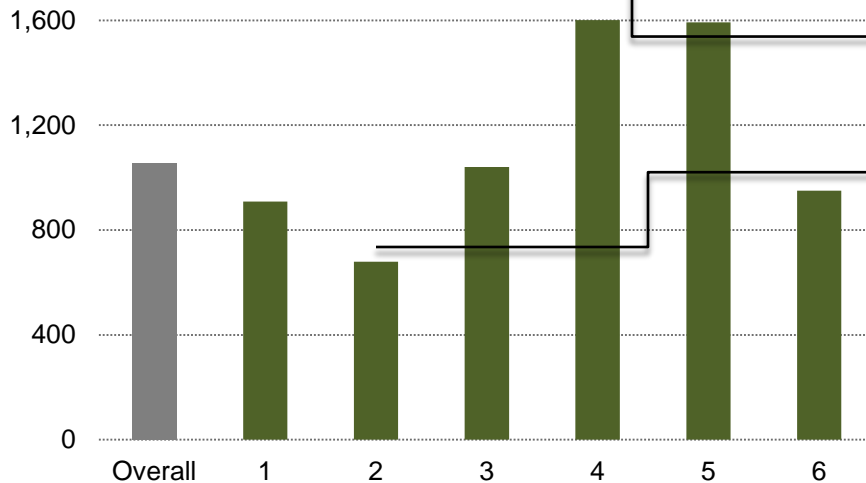
Time (TFI1) and Cost (TFI2) spent at border crossing, 2011



Speed Indicators (TFI4), 2011



TFI3 Cost Incurred to travel a corridor section, per 500km



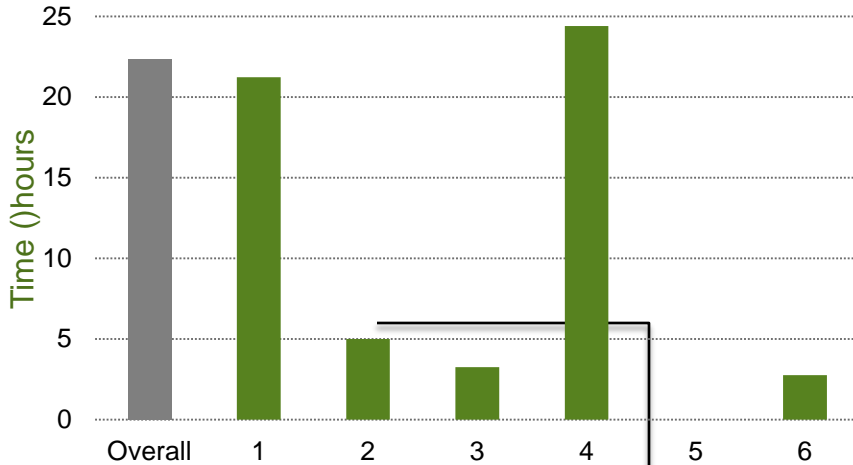
In road transport alone, Corridor 2 suffers the longest delays and only below average cost during border crossing.

However, transit cost remained the lowest.

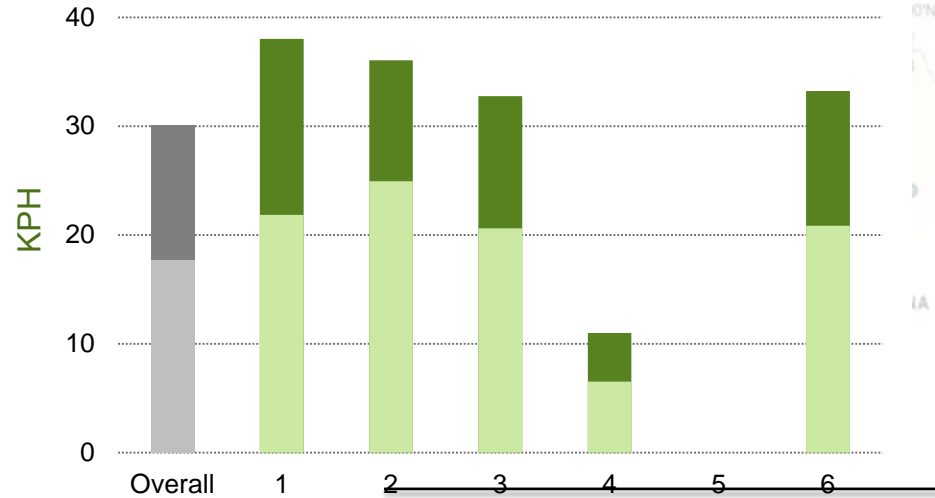
Corridor 2 speeds registered below average in both SWD and SWOD.

Rail Transport

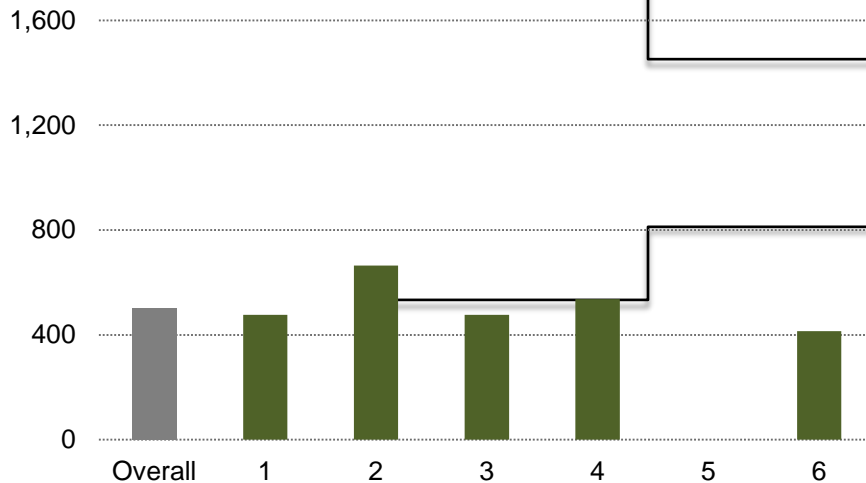
Time (TFI1) spent at border crossing, 2011



Speed Indicators (TFI4), 2011



TFI3 Cost Incurred to travel a corridor section, per 500km



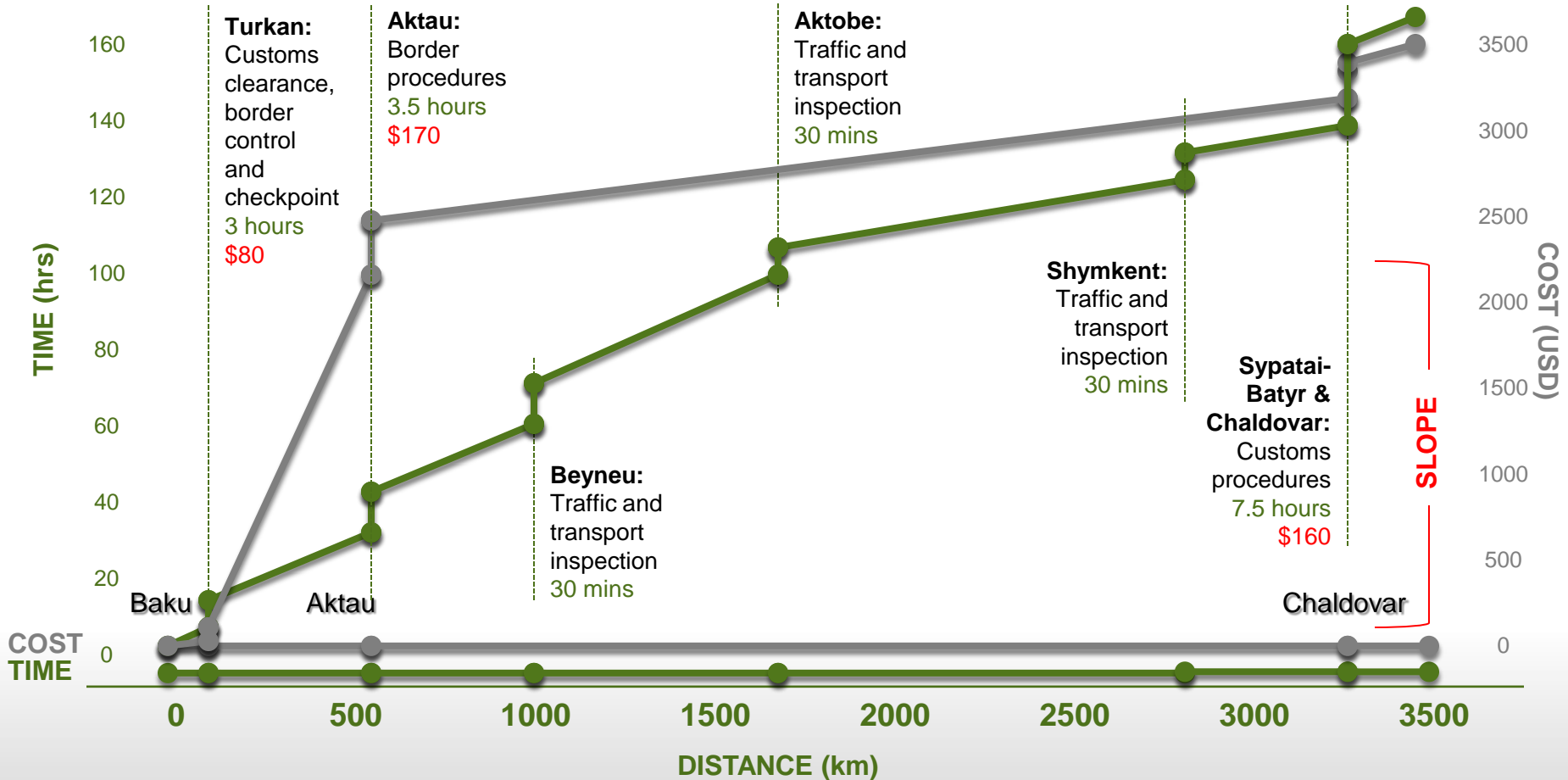
Due to insufficient data, no rail border crossing cost was recorded for Corridor 2. However, delay duration is way below average compared to other corridors.

But cost incurred during transit are the highest for rail transport.

In terms of speed, Corridor 2 fared better than other corridors.

Time/Cost-Distance (TCD) Methodology

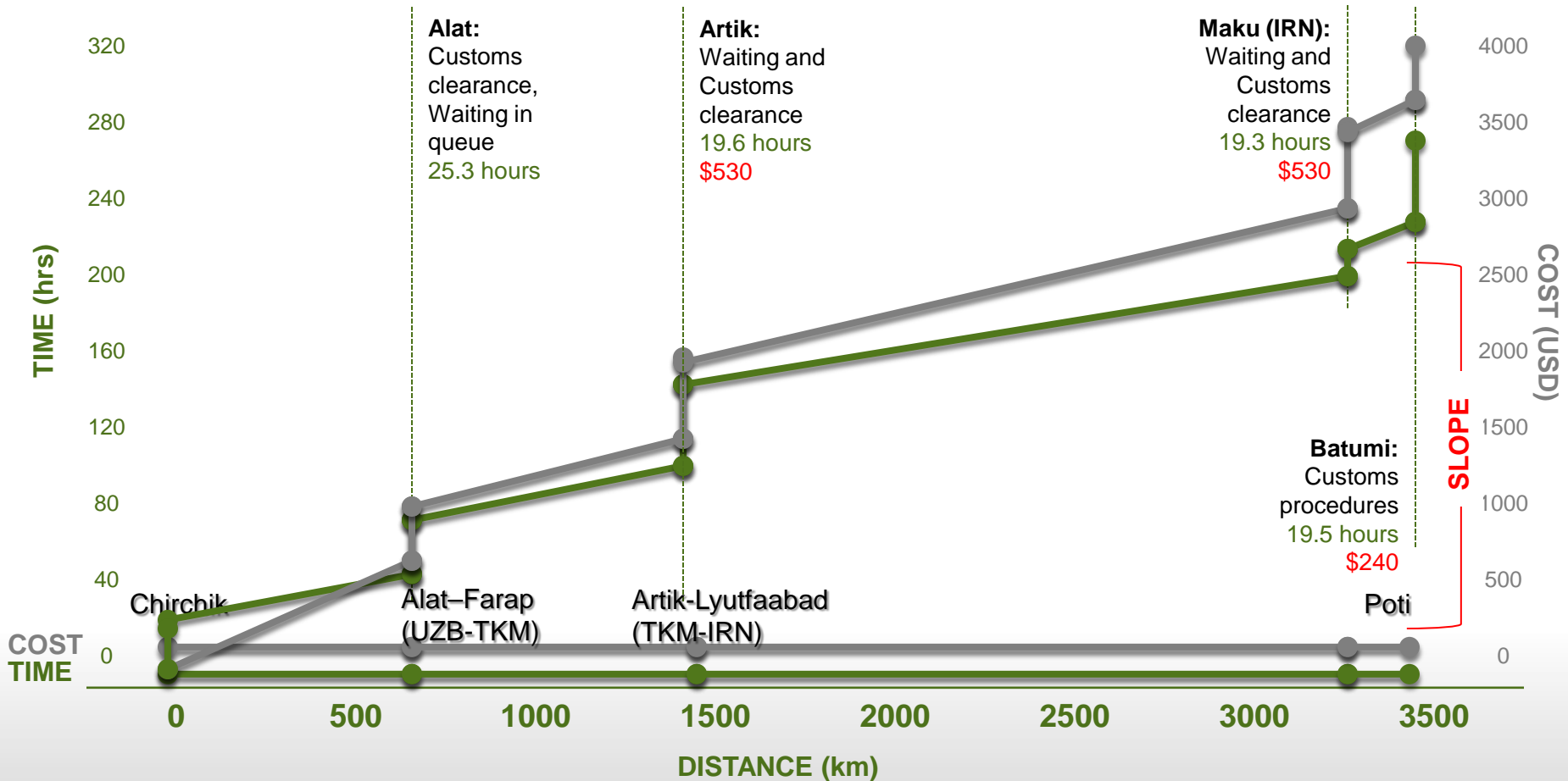
TCD from Baku (AZE) – Bishkek (KGZ)



These TCD samples are collected on a monthly basis from selected CFCFA member associations since 2009

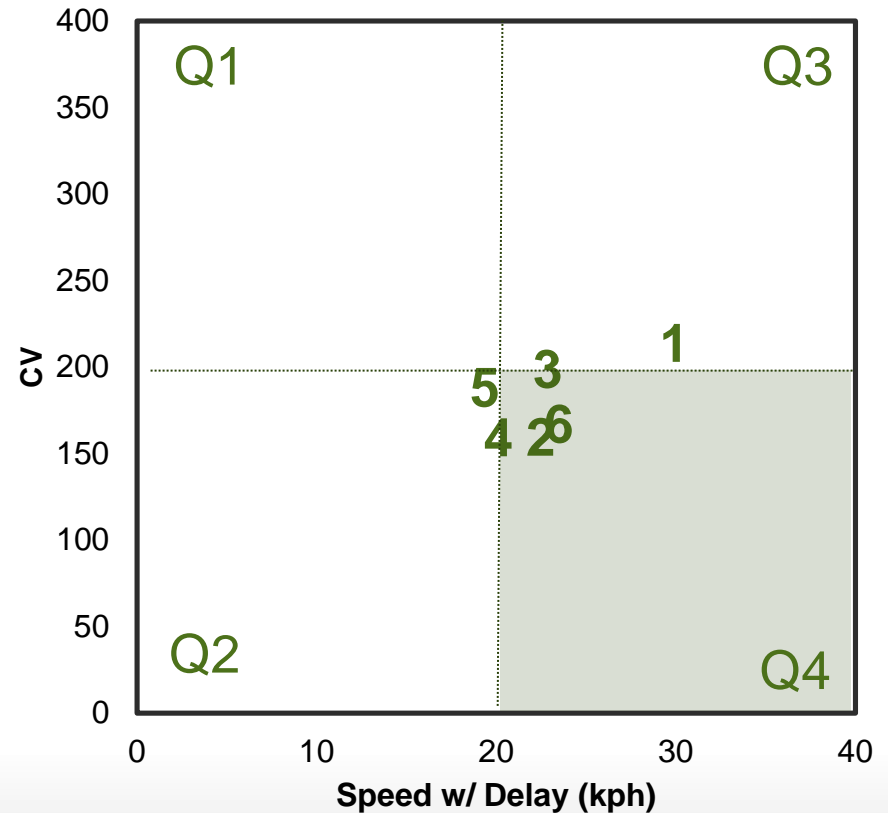
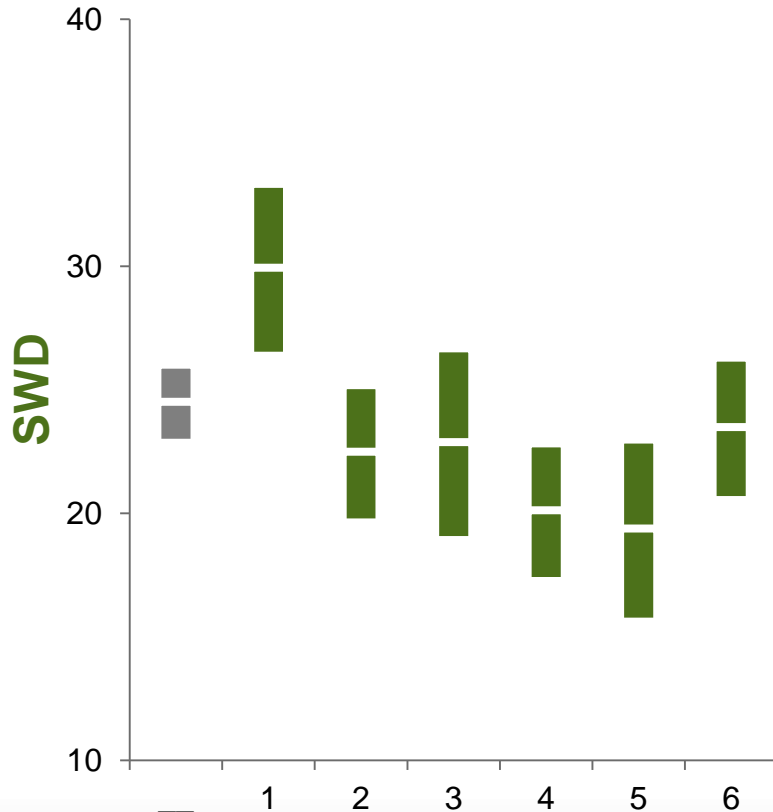
Time/Cost-Distance (TCD) Methodology

TCD from Chirchik (UZB) – Poti (GEO)



These TCD samples are collected on a monthly basis from selected CFCFA member associations since 2009

Variation in Sample



The Coefficient of Variation (CV) measures the uncertainty in the speed estimates, and lower values are preferred which means delivery time is consistent.

The quadrants provide the relative efficiency of corridors in terms of SWD.

Policy Implications

Statistical analyses of CPMM data provide a wide array of informative insights on the trends and comparison of trade dynamics within the region.

These data also inform project development and design:

- RIBS
- SPS
- Economic corridor development

CPMM Database

Statistical Analysis

Trade-related policies

Policy Implications

CPMM has developed an extensive database on CAREC trade along CAREC corridors and key routes

CPMM data have supported analysis of:

- Impact of Customs Union
- Significance of TIR
- Comparison of border crossing delays between perishable and non-perishable commodities

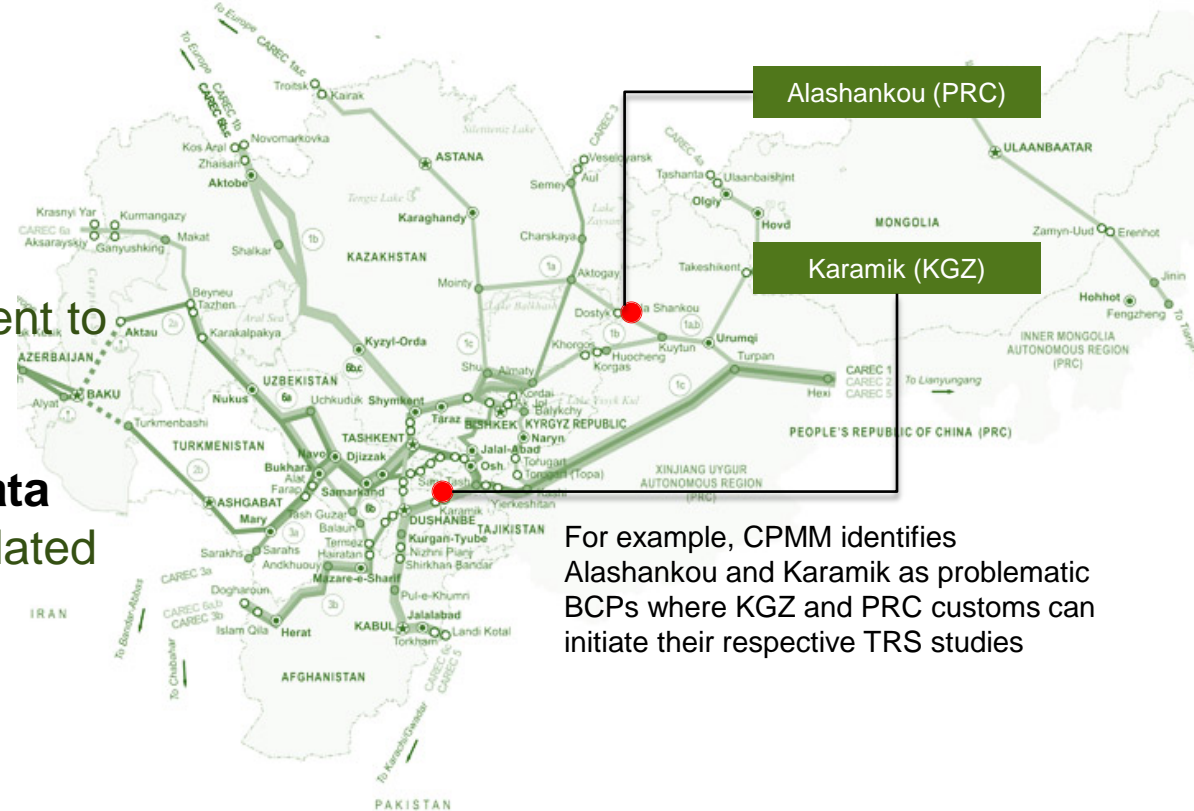
CPMM revalidation with TRS

CPMM

- pinpoints and identifies impediments at BCPs
- This information is not sufficient to induce procedural and policy changes at the borders
- CPMM serves as **primary data source** to guide other trade-related studies

TRS

- Time Release Studies (TRS) measure the average time taken to release cargoes for each step/intervention in a border procedure
- However, initial stages of TRS require sufficient knowledge on location and scope of study which CPMM can supply to efficiently utilize funds and resources





Thank You!

Mr. Jeff Procak

Regional Cooperation Specialist
Asian Development Bank

CAREC Corridor Performance Measurement and Monitoring