



# CAREC Corridor Performance Measurement and Monitoring

## Data Quality Control and Validation

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**CAREC Corridor Performance Measurement and Monitoring  
Methodology Workshop**  
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# Topics

1. Data Collection
2. Quality Control
3. Contributions from CPMM Partners
4. Upcoming Changes to CPMM
5. Questions & Answers



# Data Collection

1. Specific routes through designated BCP
  - Linked to CAREC corridors
  - Linked to key trade corridors
  - Link to new trade routes (e.g. Kashi-KGZ-UZB via Osh)
2. Avoid double counting of border control activities conducted in parallel
  - If border control activities of several agencies are conducted simultaneously in parallel processes, please contact Max or me for proper recording procedure



# Quality Control

1. Engage reliable carrier members familiar with routes and BCPs
2. Assign data collection to experienced drivers with deep knowledge of the BCPs
3. Conduct thorough driver training with periodic refresh
4. Pair headhaul moves with return moves (e.g. UZB–TKY, TKY-UZB) to concentrate data collection within small number of trained drivers
5. Self-check prior to submission to ADB CPMM Consultant
  - Review credibility of cargo weight, speed without delay, rate per km and wait time (e.g. 480 hours waiting time)
  - Check variability of these metrics from previous months, long-term trends and seasonality, as well as known disruptions
  - Bad data entry is a frequent cause of errors (e.g. extra digit)
  - But some surprising numbers reflect actual situation (e.g. long wait at Kazbegi-Verkhniy Lars during winter)
6. Promptly consult ADB CPMM Consultant if unsure how to handle an activity not covered by the CPMM Manual



# Example of Errors

Please select mode of transport by checking the tick-boxes. Press the

ROAD  RAIL  WATER

STOP		STOP 3					STOP 4					STOP 5					STOP 6					STOP 7				
Place of stop	Name of city:	Yierkeshitan					Irkeshtan					Dostyk					Dustlyk					Tashkent				
	Name of country:	PRCX					KGZ					KGZ					UZB					UZB				
	CAREC Corridor	1c					1c					1c					1c					1c				
	Mode of transport	Road					Road					Road					Road					Road				
	Distance from previous stop (km)	250					7					283					3					400				
	Duration of travel (hr:min)	4 hrs 24 mins					hrs 10 mins					5 hrs 45 mins					hrs 5 mins					8 hrs 34 mins				
	Transport Rate	\$340.00					\$9.52					\$384.88					\$4.08					\$544.00				
Stop Category	BCP					BCP					BCP					BCP					Inland Depot					
Reason for stop	No					No					No					Yes					Yes					
	Intermediate Stop					Intermediate Stop					Intermediate Stop					Border Management					Final Destination					
ROAD Activities		Total Cost	Duration			Official Cost	Total Cost	Duration			Official Cost	Total Cost	Duration			Official Cost	Total Cost	Duration			Official Cost	Total Cost				
Description of stop			hrs	mins			hrs	mins			hrs	mins			hrs	mins			hrs	mins						
Border Security / Control			10		\$0.00	\$0.00	10		\$0.00	\$0.00	10		\$0.00	\$0.00	10		\$0.00	\$0.00	10							
Customs Controls			1	40	\$0.00	\$0.00	1	45	\$0.00	\$0.00	2	10	\$0.00	\$0.00	1	50	\$0.00	\$0.00	3	45	\$330.00	\$330.00				
Commercial Inspection																										
Health / Quarantine																										
Phytosanitary																										
Veterinary Inspection																										
Visa / Immigration			10		\$0.00	\$0.00	10		\$0.00	\$0.00	10		\$0.00	\$0.00	10		\$0.00	\$0.00								
Transit Conformity																										
GAI/Traffic Inspection																										
Police Checkpoint / Stop																										
Transport Inspection																										
Weight/Standard Inspection																										
Vehicle Registration																										
Emergency Repair																										
Escort / Convoy																										
Loading / Unloading																										
Road / Bridge Toll		\$900.00																								
Waiting / Queue			24		\$0.00	\$0.00	32		\$0.00	\$0.00	18		\$0.00	\$0.00												
Other Activities																										
Activity 1																										
Activity 1 (Specify here.)																										
Activity 2																										
Activity 2 (Specify here.)																										
<b>TOTAL</b>		900	25	60	0	0	33	65	0	0	20	30	0	0	1	70	0	0	3	45	330	330				
Description of actions taken (e.g. procedures, formalities applicable to the section of the route).		ay toll ar.																								

# Example of Errors

STOP	STOP 1 (ORIGIN)	STOP 2	STOP 3	STOP 4
Place of stop	Urumqi	Horgos	Altynkol	Almaty
Name of city:	PRCX	PRCX	KAZ	KAZ
Name of country:	1a	1b	1b	1b
CAREC Corridor	Rail	Rail	Rail	Rail
Mode of transport	0	667	15	336
Distance from previous stop (km)	0	5 hrs 53 mins	hrs 33 mins	4 hrs 42 mins
Duration of travel (hr:min)	\$0.00	\$953.81	\$463.60	\$480.48
Transport Rate	Inland Depot	BCP	BCP	Inland Depot
Stop Category	No	Yes	Yes	No
BCP?	Place of Departure	Border Management	Border Management	Final Destination
Reason for stop				

RAIL Activities		Duration			Official Cost		Total Cost		Duration			Official Cost		Total Cost		Duration			Official Cost		Total Cost	
Description of stop		hrs	mins	mins	\$	\$	hrs	mins	mins	\$	\$	hrs	mins	mins	\$	\$	hrs	mins	mins	\$	\$	
Material Handling	Load Cargoes	3	20		\$58.40	\$58.40																
	Unload Cargoes																	3	20		\$0.00	\$0.00
	Fix Cargo Shift																					
	Remove Excess Cargo																					
	Transload at Gauge Change Point											3	10		\$300.00	\$300.00						
Transport	Pick-up and Delivery																					
	Replace/Repair Inoperable Wagon																					
	Emergency Repair																					
	Train Classification	3			\$0.00	\$0.00																
Documents	Document Errors																					
	Reissue Transit Documents																					
Inspection	Customs Inspection	1	10		\$59.25	\$59.25	2	55		\$0.00	\$0.00	2			\$125.00	\$125.00	2	10		\$0.00	\$0.00	
	Technical Inspection																					
	Commercial Inspection		40		\$37.00	\$37.00																
	Sanitary/Phyto-sanitary Control																					
Waiting/Queues	Materials Transfer											2	40		\$0.00	\$0.00						
	Faulty handling equipment																					
	No wagons available											70	40		\$0.00	\$0.00						
	Restriction on entry																					
	Marshalling	17	20		\$0.00	\$0.00	120	20		\$0.00	\$0.00											
Other Activities	Waiting for priority trains to pass																					
	For Other Reasons																					
	Activity 1																					
	Activity 1 (Specify here.)																					
Activity 2																						
Activity 2 (Specify here.)																						
<b>TOTAL</b>	24	90		154.65	154.65	122	75		0	0	77	90		425	425	5	30		0	0		



# Other Example of Errors

1. Spelling errors
2. Definition errors (not following definition in CPMM manual)
3. Recording errors (bad driver or coordinator input, like recording just the road cost but not the rail cost of a road/rail multimodal move)
4. Classification errors (e.g. classifying delicate fresh fruit as non-perishable)
5. Failure to use proper names of rail stations (e.g. Wuxi instead of Urumqi West)
6. Using obsolete names of locations (e.g. Lugavoya Station instead of Turksib Station)



# Contributions from CPMM Partners

1. Work closely with ADB CPMM Consultant
  - Request advice on proper data entry for new situations
2. Explain major TCD data variations
  - Market dynamics
  - Infrastructure condition
  - Closure of nearby BCP
  - Government policy change
  - Border control process
  - Weather
  - Traffic volume
3. Share insights on data collected and secular changes that will impact future TFIs
4. Provide advice on CPMM improvements



# Example of CPMM Partner Contribution

1. XULA's Explanation of July Urumqi-Horgos-Almaty TCD data
  - Sharp reduction in empty KAZ trucks arriving Horgos, leading to capacity shortage for Urumqi-Almaty route.
  - Freight rate doubled from previous months. Cargo waiting time jumped.
2. XULA's Explanation of July Kashgar-Irkeshtam-Tashkent TCD data
  - Surge in traffic led to increase in freight rates and congestion at BCPs
  - TIR trucks can run all the way to Tashkent
  - PRC trucks with C-Permits can go to Tashkent with a stop at Osh for Customs control transfer
  - Frequent pesky checks when foreign trucks transit through KGZ

# Work closely with CPMM Consultants on Upcoming Changes to Data Collection

1. Reconfiguration of routes and BCPs
2. Focus on border management activities
3. Separation of activity time for rail operations (e.g. gauge change, waiting for flat wagons) from border management activity time
4. Restate per 500 km metrics to per km metrics
5. How to properly record road/water, rail/water multimodal moves involving seaports (e.g. should customs control activities be recorded under the road or water part of TCD).



# Questions & Answers

# Thank you!

# Спасибо!

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