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Report on Railway Sector Assessments (RSAs)

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This presentation

- 1. Status of RSA preparation
- 2. Insights about CAREC railways
- 3. Cross-border corridors and

market segments

Status of RSA preparation

RSA country visits and reports

Member Country	Visit conducted	Draft report prepared	Draft report submitted to country
Afghanistan		Q1 2020	Q1 2020
Azerbaijan	\checkmark	\checkmark	Q4 2019
PRC	\checkmark	\checkmark	Q4 2019
Georgia	\checkmark	\checkmark	\checkmark
Kazakhstan	\checkmark	\checkmark	Q4 2019
Kyrgyz Republic	\checkmark	\checkmark	\checkmark
Mongolia	\checkmark	\checkmark	Q4 2019
Pakistan		Q1 2020	Q1 2020
Tajikistan	\checkmark	\checkmark	Q4 2019
Turkmenistan		Q1 2020	Q1 2020
Uzbekistan	\checkmark	\checkmark	Q4 2019

Insights about CAREC railways

Railway networks of CAREC countries

There is a **considerable diversity** among the railway networks

- 1 is among world's largest networks with very high traffic—PRC
- 1 is very large with high traffic—Kazakhstan
- 1 is large but rundown with low freight traffic—Pakistan
- 2 are medium-sized with medium traffic levels, and were major trade routes during FSU—Uzbekistan and Turkmenistan
- 1 is fairly small with medium traffic levels, and has long been strategically important for trade and transit traffic—Mongolia
- 2 are small networks that were strategically important for transit traffic during FSU and can be in future—Georgia and Azerbaijan
- 2 are small as they were branch lines of large FSU railways, then taken over after collapse of FSU—Kyrgyz Republic and Tajikistan
- 1 is very small representing a first stage in national railway development—Afghanistan

Railway network sizes and traffic levels

Member Country	Lines worked (km)	Staff size (000)	Freight turnover (ton-km 000)
PRC	67,278	1,842	2,146
Kazakhstan	16,040	130	206
Pakistan	7,791	73	5
Uzbekistan	4,642	64	23
Turkmenistan	3,840	18	13
Azerbaijan	2,132	20	5
Mongolia	1,814	15	14
Georgia	1,285	12	3
Tajikistan	620	5	<0.2
Kyrgyz Republic	424	5	<1
Source: UIC, data is Afghanistan	mainly f <u>or</u> 2017 75	<0.2	

Institutional roles among CAREC railways

Most countries still adhere to a **traditional allocation of sector roles**

- In 10 countries, railway operators are fully govt owned, either as a JSC or SOE (8), or a govt department or authority (2)
- In Mongolia, the main railway is owned 50%/50% by govt/RZD
- In each country, railways are regulated by a higher level of government e.g. ministry for transport, railways or economy
- In 9 countries, all tariff changes must be approved by the govt
- 2 countries allow more flexibility on tariffs—they are fully deregulated in Georgia, transit traffic tariffs are deregulated in Kazakhstan
- Only two countries (PRC and Kazakhstan) have introduced private operators, in both cases the scale is small compared with the public operator



Institutional roles in railway sector 1/2

Member Country	Type of railway entity	Regulatory Oversight
Afghanistan	Govt railway authority	[Railway law to be prepared]
Azerbaijan	JSC owned by govt	Transport ministry
PRC	SOE	Agency in transport ministry
Georgia	JSC owned by govt	Economy ministry
Kazakhstan	JSC owned by govt wealth fund	Infra development ministry
Kyrgyz Republic	SOE	Transport ministry
Mongolia	Operator is JSC owned 50% by govt, 50% RZD	Transport ministry
Pakistan	Govt department	Railways ministry
Tajikistan	SOE	Transport ministry
Turkmenistan	State owned company	Ministry of Railways
Uzbekistan	JSC owned by govt	Council chaired by prime minister

Institutional roles in railway sector 2/2

Member Country	Freight tariff regulation	Private sector role
Afghanistan	[Railway law to be prepared]	None
Azerbaijan	International and transit tariffs based on annual CIS guidance	None
PRC	Only limited regulation by NDRC	One existing operator
Georgia	No regulation	None
Kazakhstan	Unregulated for transit, others approved by monopolies agency	Many privately owned wagons, small pilot of private operation
Kyrgyz Republic	Approved by transport ministry	None
Mongolia	Transport ministry	None
Pakistan	Cabinet approves changes	None
Tajikistan	Approved by govt monopolies agency	None
Turkmenistan	Cabinet approves changes	None
Uzbekistan	Approved by finance ministry	None

CAREC railway freight traffic, 2017

1,345 million tons

390 billion ton-km



Freight traffic trends—high traffic railways



Freight traffic trends—medium traffic railways





(billion ton-km)

Freight traffic trends—lower traffic railways



Some observations about traffic

- The freight market (all modes) has grown rapidly
- Traffic on modes other than railway (esp. road) has grown rapidly, while railway traffic has grown slowly (if at all) in most countries
- Railway's mode share has fallen greatly, now it's left mostly with low value, low growth bulk and semi-bulk
- Bulk and semi-bulk will not be enough for long term viability so railways must change to compete for freight types it has lost
- Containerization can be key for railway to compete for other freight types—the region has been slow to containerize but there are signs of new momentum

Market orientation and competitiveness

- **RSA visits included interviews** with shippers, freight forwarders, truck firms, representative associations
- Most said it's difficult to work with railways e.g. hard to contact, slow to respond, inflexible about prices/ arrangements, don't offer assured end-to-end service
- Road transport is commonly preferred for most domestic and short-to-medium distance cross-border freight, except for bulk and semi-bulk, dangerous goods and outsized project cargo
- Rail can be attractive for medium/long-distance freight (e.g. Eurasian routes, between Europe/PRC and Central Asia) if end-to-end service is efficient and reliable—so more coordination needed among railways

Customer views on rail competitiveness

If competitive	Traffic type	Explanation of competitiveness
Railway is	Coal, minerals	More efficient for bulk using
competitive	Bulk diesel, oil, gas	specialized handling equipment and
	Bulk chemicals	with railway siding
	Bulk legumes	
	Outsized project cargo	Difficult to transport by road
	Dangerous cargo	Safety and security advantages
Railway can be	Containerized freight	For longer distances with good black
competitive		train service. Also, if few backloads
	Non-time sensitive cargo	Rail represents "storage on wheels"
Railway is not	General goods/ consumer	Road is faster, quicker, easier to
competitive	products	organize, less costly
	Perishables	Road is faster, more reliable, more
		responsible about refrigeration
	Bulk oil, gas	If pipelines available, they are
		cheaper and more convenient
	High value cargo e.g.	Central Asian railways don't
	electronics	compensate for theft
	Far from railway line	Simpler to do whole trip by road

tions on financial performance

- Nearly all CAREC railways have serious financial problems
- Some railways borrowed so much they can't service their debts—govts bear a responsibility but the main explanation is poor railway financial management
- Many railways are **loss-making**—turnover is too low, and staffing levels and operating costs are too high
- Nearly all railways are **secretive** about financial information hiding their financial problems means they get worse
- A few railways seem to use International Financial Reporting Standards (IFRS) but most don't, so their financial reports aren't very useful and neglect key business sustainability items e.g. depreciation
- No railway has introduced an accounting system that can track the costs and profitability of each main business line—so management lacks information to tackle the key causes of lossmaking or to seize upon profitable opportunities



address financial performance

- Scale of railways debts and operating losses is large—even as a % of GDP or govt budget—so govts cannot ignore and will eventually decide they must be tackled
- In the past, railways were the only mode for many traffic types but today most traffic uses other modes—so railways are no longer "too big to fail"
- Unless railways stop being a financial burden, govts may eventually cut them back, sell them off or shut them down
- Railways should learn from the energy sector—it thought it was too big to fail but in the past two decades many govts restructured the sector and let the private sector take over...
- First steps on the path to prudent financial management are:
 - establish sound, current and transparent financial information based on IFRS
 - establish an accounting system that separately reports on costs and profitability of each of the main lines of business

Cross-border corridors and market segments

The main cross-border corridors



Cross-border freight market segments



- 1. PRC–Northern Europe/Russian Federation. Main block train route, traffic maturing. 80–90% of block trains use TSR via IMAR or Mongolia because simpler and RDZ offers low rates. Rest uses TITR which can grow fast if service level/reliability improved.
- 2. PRC–Central Asia/Southern Europe. Traffic to/from Central Asia is growing fast. Rail is preferred. To/from northern Central Asia may use TSR via north Kazakhstan, to/from further south may use TITR via east Kazakhstan and CTC or Volgadon. Build Kyrgyz link to shorten trip to/from Uzbekistan.
- **3. Central Asia–Northern Europe/Russian Federation.** Much traffic to/from Russian Fed. Most Central Asian traffic is via Kazakhstan but investments needed to avoid future bottlenecks, Caspian/Caucasus countries use North-South corridor, merit in Uzbekistan improving northwestern corridor.

Cross-border freight market segments



- 4. PRC–Afghanistan/Pakistan. Limited land traffic to/from Afghanistan, mainly by road. Rail route is complicated, missing links in Kyrgyz and Afghanistan/Pakistan.
- **5.** Central Asia–Afghanistan/Pakistan. Growing traffic to/from Afghanistan by road and rail to Afghan border then road, via Uzbekistan or Turkmenistan.
- 6. Central Asia–Southern Europe/Iran. Limited traffic but will grow as economies expand. TITR can be main route, also scope for block trains from Uzbekistan to/from Caspian via Turkmenistan. When Iran sanctions end, Bandar Abbas to be preferred ocean port of Uzbekistan, Turkmenistan, landlocked neighbors.
- 7. Within Central Asia. Expect significant railway traffic growth, esp. between Uzbekistan and neighbors, but there will be tough competition from road transport, esp. for shorter trips, so rail needs to improve competitiveness.

Thank you!

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