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# Development of Trade Logistics in CAREC

Issues and Opportunities

23 April 2008

Baku, Azerbaijan



Mr. Max <u>EE</u>, International Trade Institute of Singapore (ITIS)





## Introduction

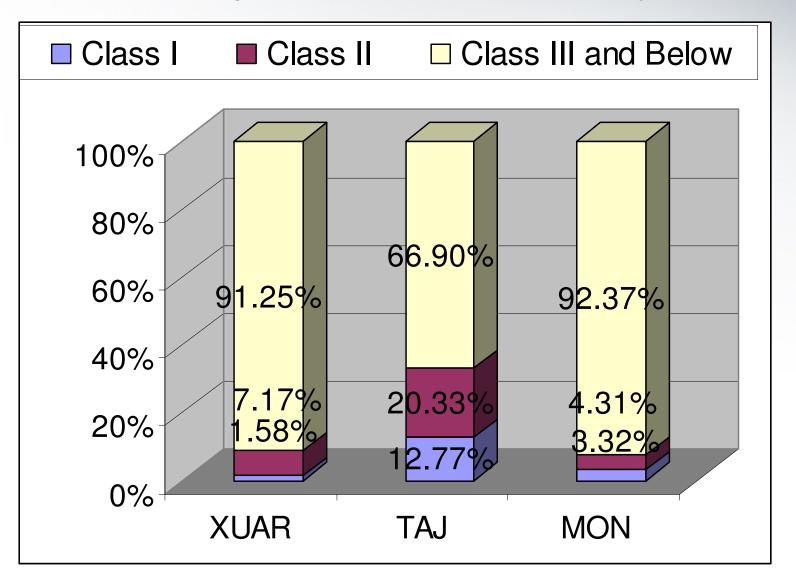


- This presentation is a *summary* of ADB Technical Analysis done from 2005 to 2008.
  - TA6347 REG: Transport Sector Strategy
  - TA6203 REG: Xinjiang (XUAR), PRC
  - TA6058 REG : Mongolia (MON)
  - TA6299 REG : Tajikistan (TAJ)
  - TA6299 REG: Kyrgyzstan (KYG)
- The presentation will focus on the common key issues on transportation/logistics, and the proposed action plans.

# **Common Key Issues**

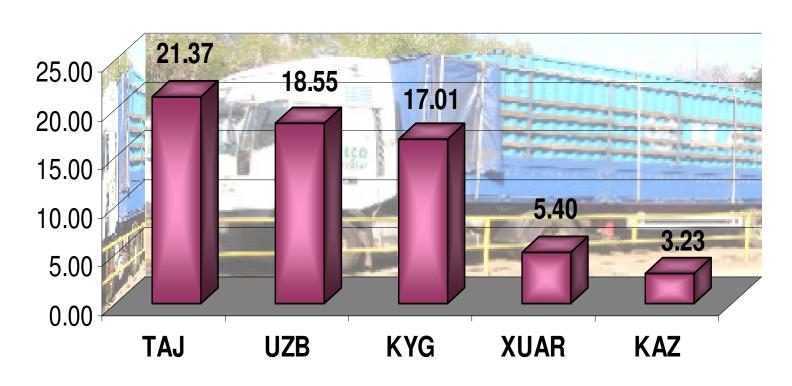
Category	Issues
	P1. Weak Physical Infrastructure
Physical Infrastructure	P2. Enclaves and Criss-Cross of Borders
	P3. Incompatible Railway Gauges
	P4. Cumbersome Border Regulations
Institutions / Policies	P5. Border Post Problems
	P6. Non-Implementation of Agreements
	P7. Official and Unofficial Facilitation
Process / Operations	P8. Overcapacity of Service Providers with Outdated Equipment
	P9. Unorganized and Fragmented Small Enterprises
	P10. Low Productivity
	P11. Financial Constraints viz-a-viz High Capital Requirements
	P12. Shortage of Professionals and Know-How
	P13. Lack of ICT Applications
	P14. Lack of Regulations on Freight Forwarding and Insurance Liabilities

A. Low Transport Infrastructure Quality



## B. Low Road Density

#### Road Density (km/100km<sup>2</sup>)



Source : Various ADB Reports, Ministries of Transport and Communications of CARs

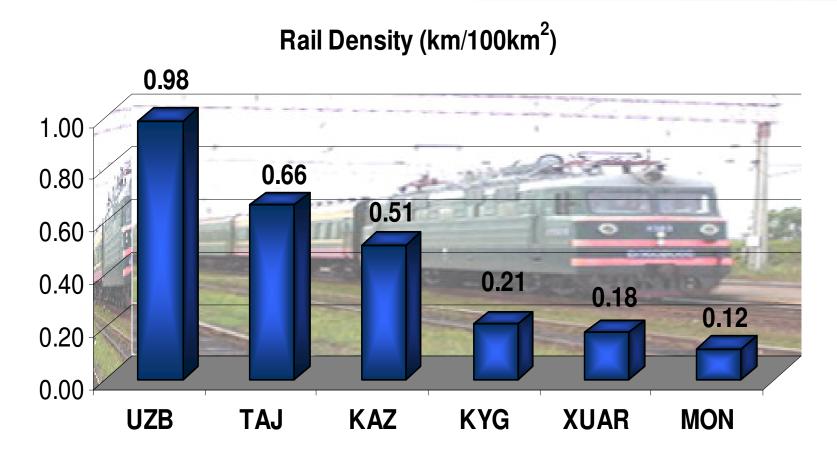
#### C. Poor Road Condition





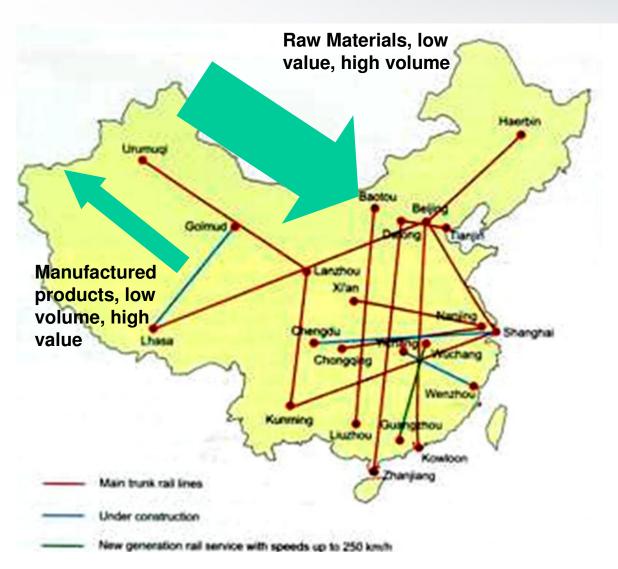
Road Conditions at Tsagaan-Nuur (MON)

## D. Low Rail Density



Source: Various ADB Reports, Ministries of Transport and Communications of CARs

## E. Imbalanced Rail Demand and Supply



In XUAR, demand imbalance creates long waiting time for eastbound cargoes.

### F. Railway Related Issues



KYG does not have sufficient rolling stocks of rail cars and depends on UZB and KAZ for supply and maintenance.

Locomotives in TAJ and MON are old and needs replacement.

### G. Lack of Logistics Facilities



Storage Facility at **Korgas** - Will they be enough to handle increasing volume of cargoes?

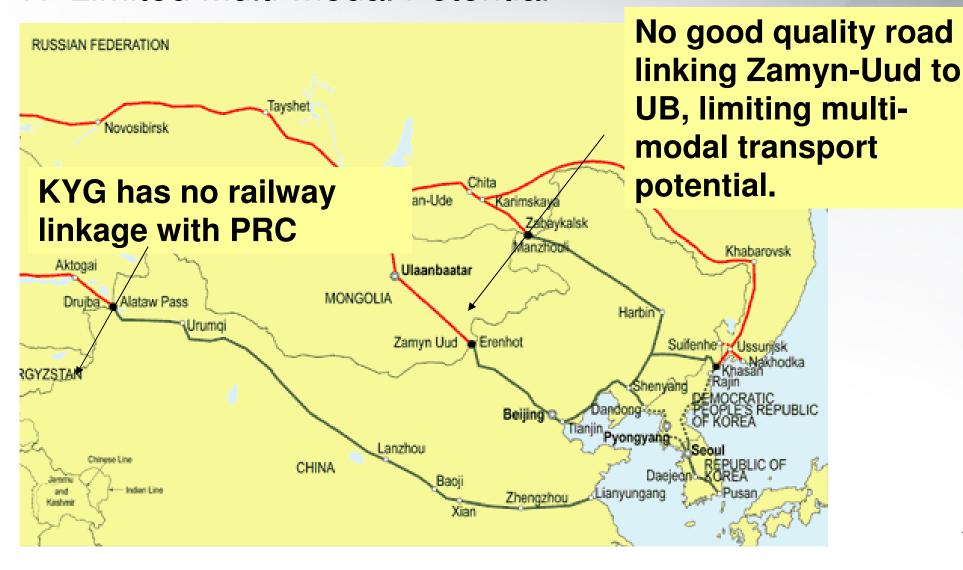
## G. Lack of Logistics Facilities



Lack of container terminal in Zamyn-Uud (Mongolia). Will they hamper the development of ZU status as a Special **Economic** Zone?

- G. Lack of Logistics Facilities (Other Examples)
- 1. After privatization, freight terminals no longer serve their original purpose (KYG).
- 2. Shortage of cold rooms and specialized cold storage facilities in Mongolia (MON). Also lacks comprehensive trucking terminal in UB.
- 3. No wholesale centre in Tajikistan (TAJ) for efficient supply chain and distribution channel.
- 4. Aktau (KAZ) is the gateway to the west. Multi-modal facilities can be further enhanced. Lack of financing is hindering further development of the city.

#### H. Limited Multi-Modal Potential



## P2. Enclaves and Criss-Cross of Border

Border crossing for this railway passes through three points from KYG, TAJ and UZB.



## P2. Enclaves and Criss-Cross of Border

Rail from Aktobe to Uralsk enters Russian Federation at Zhaisan



Road from Shymkent to Almaty crosses the northern of Bishkek.

# P3. Incompatible Rail Gauges





# **The Trans-Loading Process**



**Example : Dostyk Pass (PRC, KAZ)** 

PRC -> KAZ

The goods are typically unloaded from the PRC wagons and loaded onto the Kazakh wagons.

#### KAZ -> PRC

For shipments entering Mt. Ala from Druzba, the wheels on the wagons are changed.

# **The Trans-Loading Process**



Trans-Loading of Rail Wagons at Alashankou, XUAR

# P4. Cumbersome Border Regulations



- 1. MON: Meat exports are not allowed via train to Xingang in PRC, due to PRC's inspection standards.
- 2. XUAR: Customs documents are very different from KAZ standards and frequently cause unnecessary delays.
- 3. TAJ: Needs to cross Uzbekistan to reach export markets but TAJ drivers frequently encounter full cargo inspection.
- 4. KYG: Chinese trucks can travel to Bishkek and Osh, but KYG trucks can only go till Topo (104 km from Torugart) and Symkana (5km from Ishkertam).

## Internal Customs Documentation

**Example: Internal Customs Issues (KAZ, TAJ)** 

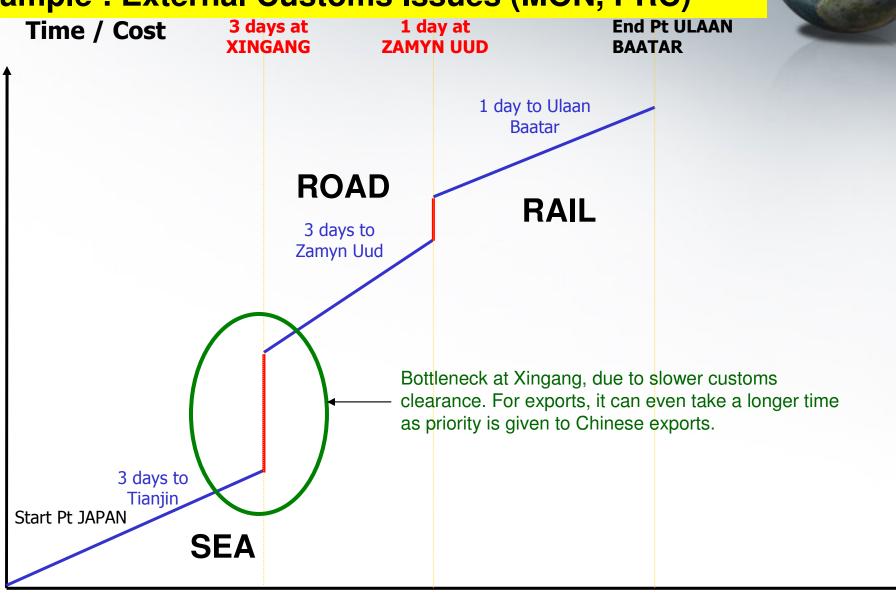
Days					
Nature of Export Procedures (2006)	TAJ	AFG	UZB	KYR	KAZ
Documents preparation	50	44	18	51	30
Inland transportation and handling	7	15	8	6	29
Customs clearance and technical control	10	2	8	6	23
Ports and terminal handling	5	5	10	3	11
Totals:	72	66	44	66	93
Nature of Import Procedures (2006)					
Documents preparation	30	49	69	56	34
Customs clearance and technical control	9	9	25	8	16
Ports and terminal handling	5	5	4	4	4
Inland transportation and handling	••	25	41	10	33
Totals:	44	88	139	78	87

Source : World Bank, 2006

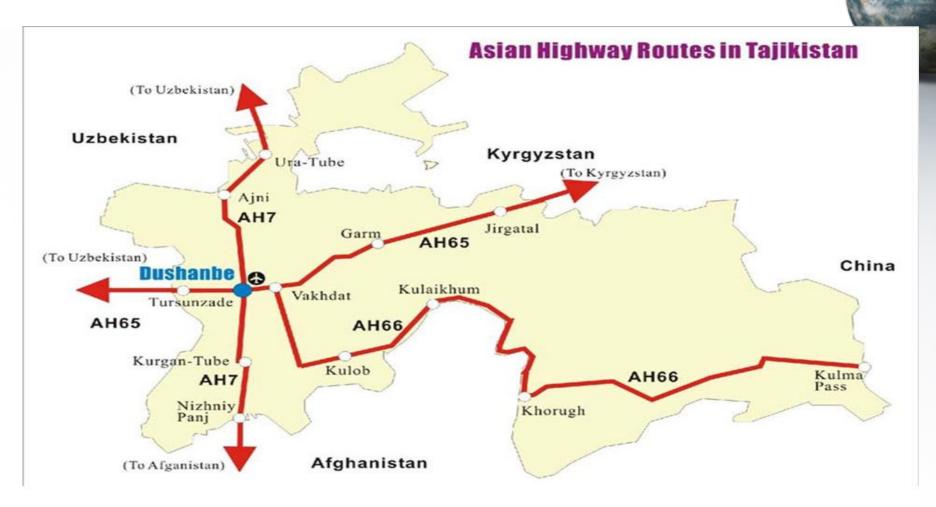
# It takes many days to export a TEU from Tajikistan or Kazakhstan!

## **Time-Cost Distance Profile (Jap to Mon)**





# Visa Requirements



Traders from Pamir Region needs to travel to Dushanbe for visa application, and then back to Khorog and to Kulma Pass. This trip can cause delay up till ten days.

## **Escort Services**

- 1. Escort services are used without standard nor clear requirement guidelines.
- 2. This practice is limited in PRC, but common in CARs.
- 3. Also adds unnecessary delays, as trucks need to wait for other trucks to make up the minimal number for a convoy, before the entire fleet can leave.

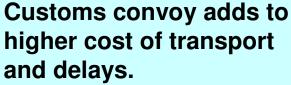
#### **Example: Mandatory Escort Services (TAJ)**

According to the law in Tajikistan (decree number 342), all incoming transport vehicles are required to be escorted from the border to the destination. Escort services are provided by two organizations, namely the *Customs* and the *State Motor Vehicle Inspectorate*. The former provides escort services for high value items, where the fee is <u>US\$65 per hour</u>. The latter provides escort services for DG (Dangerous Goods), bulky and heavy products and the fee is <u>US\$12 per</u> hour.

## **Escort Services**

#### **Example: Mandatory Escort Services (UZB)**





It takes one day for air freight to fly from Frankfurt to Tashkent.

However it takes one week to move the cargo by road from Tashkent to Andijan due to required customs convoy.

## P5. Border Post Problems



#### Causes

- Different Languages
- Distance between Customs
- Different Operating Hours
- No exchange of Data
- Closure of Border Points at Certain Times of the Year

Effect

More Delays!



Trucks Queuing at KYG border for weighing inspection

## P6. Non Implementation of Agreements

**Example: UZB** 

UZB has many bilateral and multi-lateral agreements with neighbouring countries.

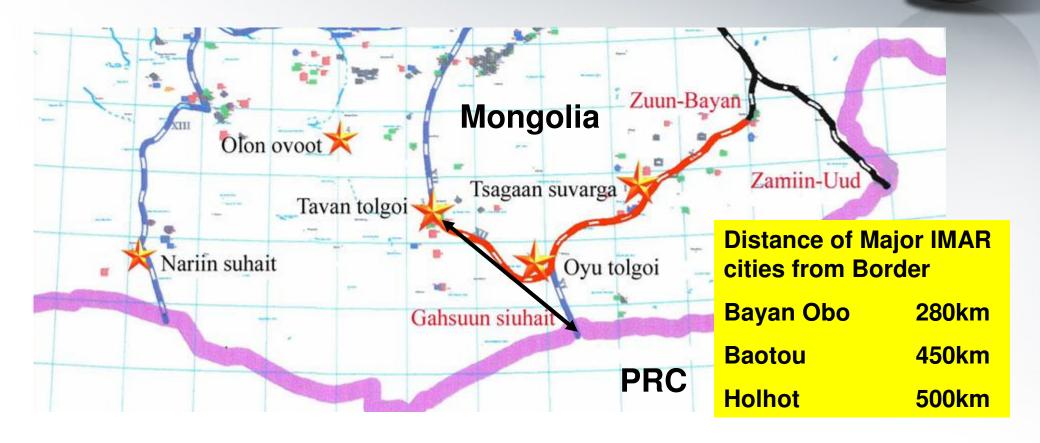
Not all are implemented effectively.

#### Causes:

- 1. Unscheduled and Unannounced Closure of Border
- 2. Obstructionist policy for Tajik road transporters to cross border to reach Turkmenistan and EU.

## P6. Non Implementation of Agreements

**Example: PRC and MON** 



Tavan Tolgoi is 260km away from border. PRC and MON has a bilateral road agreement of equal access.

While PRC drivers can drive directly into Tavan Tolgoi, Mongolian drivers are not allowed to drive more than 100km into Chinese soil.

# P7. Official and Unofficial Facilitation

- 1. Very common and persistent problems in Central Asia.
- 2. Waiting time at border is long. If drivers prepare to pay bribes, can pass through with no inspection or delay.

#### **Example: Weight Control and Certification**

Weighing Bridges used by different border points along transit routes are not standardized. Thus the results can be different, often showing excess weight compared to cargo document. Thus drivers are fined for overload.

This is usually a form of abuse by traffic authorities and result in a form of unofficial payment.

# Cost to Export/Import a TEU



П	ς	¢
U	J	Ψ

Nature of Export Procedures (2006)	TAJ	AFG	UZB	KYR	KAZ
Documents preparation	1,500	450	120	10	200
Inland transportation and handling	2,000	1,500	1,700	1,280	2,000
Customs clearance and technical control	700	450	530	10	200
Ports and terminal handling	100	100	200	120	380
Totals:	4,300	2,500	2,550	1,420	2,780
Nature of Import Procedures (2006)					
Documents preparation	1,000	250	120	10	100
Customs clearance and technical control	700	150	150	10	200
Ports and terminal handling	100	200	200	120	380
Inland transportation and handling	1,750	1,500	3,500	1,550	2,200
Totals:	3,550	2,100	3,970	1,690	2,880

Source: World Bank, 2006

# P8. Overcapacity of Service Providers

- 1. Road transportation was generally deregulated in most CARs, resulting in a large number of new entrants.
- 2. Most road operators are using old model of trucks running with low fuel efficiency.
- 3. However, destructive competition drives prices down leaving little or no profits for re-investment into new vehicles.

# P9. Unorganized and Fragmented Small Enterprises



Freight Agents Advertisements in Urumqi, PRC

## P10. Low Productivity



(Below)

Loading of cargoes at Korgas, PRC.



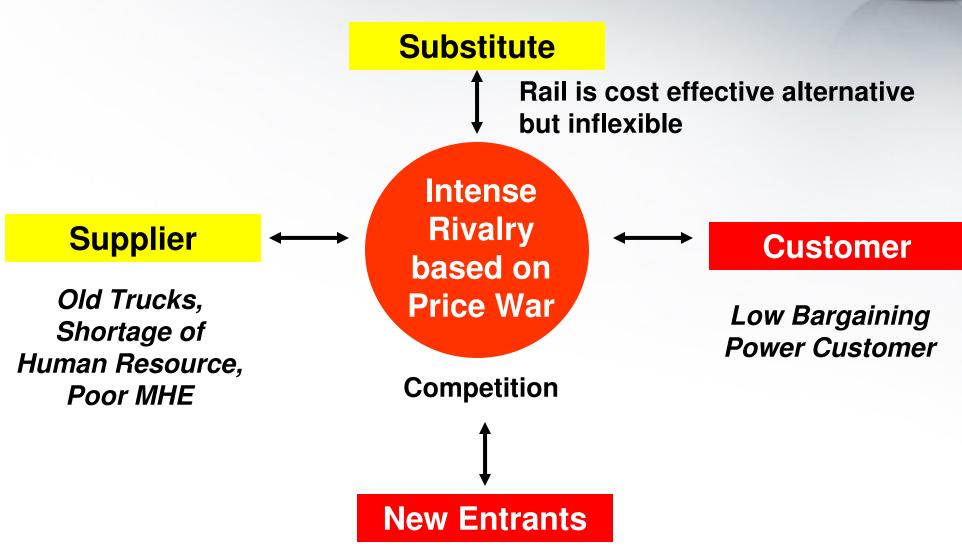


(Above)

Loading of cargoes at Al Farabi, Almaty, KAZ.

# **Analysis using Porter's Five Models**

#### **Road Transport Industry**



33

## P11. Lack of Financial Services

- 1. PRC: No Chinese banks in KAZ or KYG, thus hindering payment processing and no access to trade facilities.
- 2. TAJ: High VAT (25%) and lack of mortgage facilities dissuades re-investment into new trucks.
- 3. MON: High cost on I.T. (\$500 for the purchase of networking equipment, \$50 for monthly broadband access, and an average of \$650 per user license.) Interest rate is 2.5% per month!
- 4. MON: Letters of credit (LC) are not used due to risk with Mongolian banks; Mongolia has no foreign exchange administration; PRC yuan is used as currency of settlement on imports.
- 5. UZB: Restrictive F/X regime and high duties on imported vehicles

# P12. Shortage of Professionals

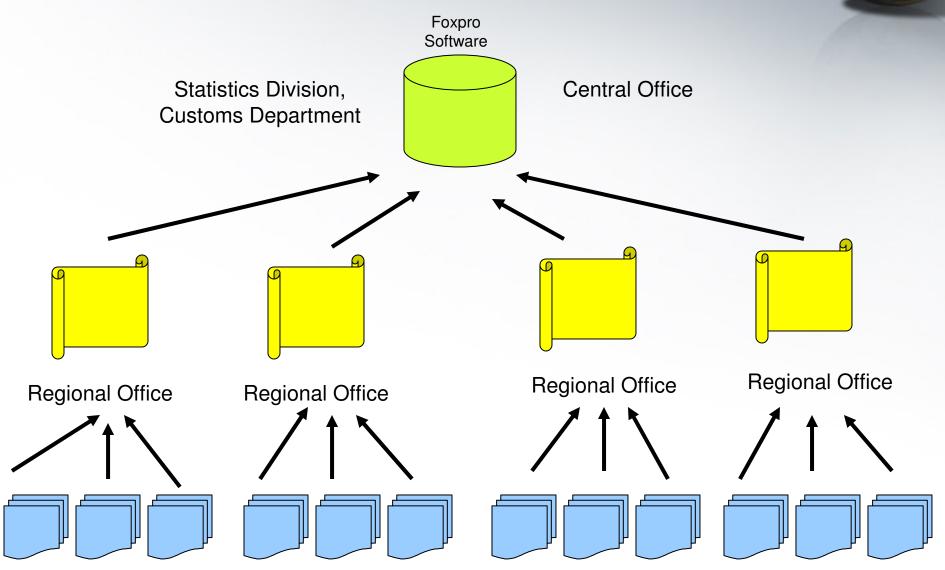
- 1. Generally, industry needs logistics professionals.
- 2. Shortage of talents is evident in most CARs
  - XUAR has only one university that offers specialized course in transport and logistics
  - In UZB, MNCs must import professionals
  - TAJ Managers are sent overseas to Almaty for training.
- 3. Other related Human Resource Problem:
  - No national study on demand and supply
  - Little career planning for advancement
  - Little continuous training and executive education

# P13. Lack of ICT Applications

**Example: Tajikistan's Customs Systems** 

**Border Posts** 

**Border Posts** 



**Border Posts** 

**Border Posts** 

### P13. Lack of ICT Applications



- 1. Data transmitted through phone lines, radio modems and diskettes.
- 2. Customs officers who need to monitor, analyze or compile data needs to visit the Regional Offices for sighting of physical documents and verify the data with the Central Office.
- 3. Most computers in customs offices are old and outdated.
- 4. Inconsistent data elements when filling forms cause rejections at border posts, aggravating delays.
- 5. Customs systems not linked to private sector (e.g. customs brokers), who uses Russian software.

# P14. Lack of Regulations on Freight Forwarding and Insurance Liabilities



- Freight Forwarders in TAJ do not need to apply for a license to operate.
- Under IATA and FIATA, a freight forwarder's exposure is protected by international regulation on the maximum financial limit should cargo be damaged or lost during transit. However, there is no such limit in TAJ. The freight forwarder has unlimited risk.

# P14. Lack of Regulations on Freight Forwarding and Insurance Liabilities



- PRC also recognize the problems of limited regulation on freight forwarding industry.
- Subsequently on 1st May 2005, the National Quality Administration announced the completion of the "Classification and Standards for the Logistics Industry" – a national document that provides technical specifications for benchmarking and classification of the performance of logistics enterprises.



### Recommendations

- 1. XUAR, PRC
- 2. Mongolia
- 3. Tajikistan
- 4. Kyrgyzstan



# Common Recommendations I Physical Transport Networks



- Identification of a local transport networks
- Recommend new roads to be constructed or upgraded
- Recommend double track or electrification of rail ways where needed
- Propose logistics centres, cargo terminals and multi-modal hubs along key nodes in the supply chain

# Common Recommendations II Institutional Policies



- Development of a National Transport Plan
- Suggest an Overall Coordination Committee
- Discuss agreements or customs procedures having conflict
- Standardize documentation requirements
- Harmonize operating hours
- Gradual liberalization in Financial Service Sectors
- Reform the transport and logistics industry

# Common Recommendations III Operational Capabilities



- Increase sector attractiveness and foreign talents into the industry
- Training curriculum in Transport/Logistics
- Greater use of I.T. in workflow
- Effective use of mechanization in processes
- Adoption of X-ray equipment, scanning technologies at border posts.
- Adopt modern risk management techniques to make inspection more productive at border posts.

## **Private-Public Partnerships**



#### **Public**

**Private** 

'Hard'
(physical infrastructure)

Roads,

Rails

**Ports** 

**Free Trade Zones** 

Logistics Centres

Multi-modal Centres

Cargo Terminals

Container Terminals

'Soft'

(policies and initiatives)

Single Electronic Window

**Industry Incentives** 

**Financial Services** 

**Land Use Reforms** 

Training and Development
New Logistical Services
ICT Applications

#### **Total Investment**

Table 1: Summary of Investments and Technical Assistant Projects by Mode

Amount	Investment Projects			Technical Assistance Projects		
Value (\$ million)	New	Ongoing	Total	New	Ongoing	Total
Roads	5,736.4	9,550.0	15,286.4	7.8	0.0	7.8
Rail	11,947.5	2,553.0	14,500.5	6.3	0.0	6.3
Aviation	569.2	372.5	941.7	14.0	0.5	14.5
Maritime	417.0	0.0	417	2.0	0.0	2.0
Logistics	195.0	100.0	295.0	1.8	0.7	2.6
Trade Facilitation	500.0	0.0	500.0	26.6	0.0	26.6
Regional	0.0	0.0	0.0	4.3	2.5	6.8
Total	19,365.1	12,575.5	31,940.6	62.8	3.7	66.6
Number of Projects						
Road	23	17	40	11	0	11
Rail	23	4	27	10	0	10
Aviation	6	1	7	3	1	4
Maritime	2	0	2	2	0	2
Logistics	3	1	4	3	1	4
Trade Facilitation	1	0	1	18	0	18
Regional	0	0	0	4	2	6
Total	58	23	81	51	4	55

### **Public - Roads**

1	100		١
0			1
			4

	Projects	Country	US\$ (millions)	Time
1	Rehabilitate 2,200km of Western Europe to Western China Road	KAZ	\$7,500	2010
2	Construct 500km Beineu - Shalkar Road	KAZ	\$625	2013
	XUAR Regional Road Improvement	PRC	\$535	2012
4	Osh - Sary Tash- Irkestham Phase 1	KYG	\$170	2011
5	Osh - Batken - Isfana Road	KYG	\$135	2013
6	Western Region Road Rehabilitation	MON	\$200	2013
	UB to Altanbulag Road Rehabilitation	MON	\$121	2012
8	Dushanbe - Kyrgyz Border Road Rehabilitaiton II and III	TAJ	\$60	2012
9	Construct Kuylab to Khalaikum	TAJ	\$60	2015
10	Dusti-Nizhni Pianj (and to Kurgan Tube)	TAJ	\$60	2010
11	Regional Infrastructure	UZB	\$174	2012

### Public - Rail



	Projects	Country	US\$ (millions)	Time
1	Jinhe-Yining-Khorgas Railway	PRC	\$728	2009
2	Double Track Urumqi-Ala Shankou	PRC	\$348	2013
3	Electrification: Urumqi-Ala Shankou 697	PRC	\$697	2013
4	Construction of Beineu-Jezkazgan Railway (988 km)	KAZ	\$2,300	2011
5	Construction of 270 km Khorgos-Zhetygen Railroad	KAZ	\$540	2011
6	China-Kyrgyz-Uzbekistan Railroad	KYG	\$1,400	2014
7	Modernization of the Mongolia Railway	MON	\$188	2012

### Xinjiang Master-Plan Korgas as a New Gateway





Korgas will have new logistics complex and export processing zone. It will become a new multi-modal and integrated transport gateway to the west.

### **Public - Ports**



	Projects	Country	US\$ (millions)	Time
1	Xinjiang Airport Development	PRC	\$373	2015
2	Reconstruction of Shymkent, Semei and Kokchetau Airports	KAZ	\$182	2011
3	Construction of new airport at Ulaanbataar	MON	\$280	2015
4	Expansion of Aktau Port	KAZ	\$2,300	2011

#### **Public – Free Trade Zones**

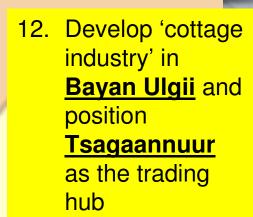


Projects	Country	US\$ (millions)	Time
1 Establishement of Altanbulag Free	MON	\$373	2015
2 Improvement of Tsagaannur Free Trade Zone	MON	\$80	2011
3 Establishement of Zamyn Uud Free Trade Zone	MON	\$25	2009
4 Development Plan for Tsagaanur Free Trade Zone	MON	\$0	2009

#### Regional Transport (West)





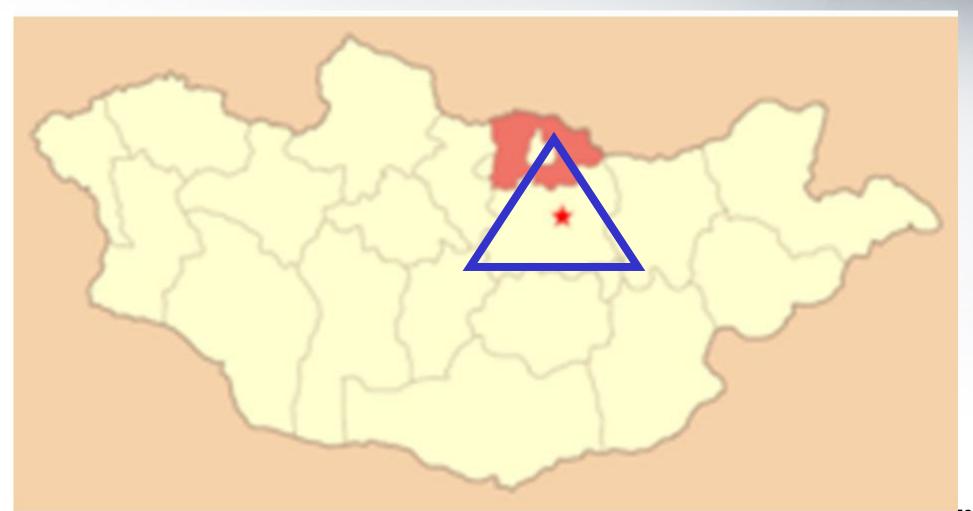


The western region of Mongolia is one of the most under-developed. *Harsh weather, long distance from the other economic centres, poor infrastructure* create many constraints to economic growth. Policies should be directed to stimulating the local industry, especially livestock and husbandry, as well as facilitating an <u>alternative transit</u> <u>route</u> between PRC and Russia.

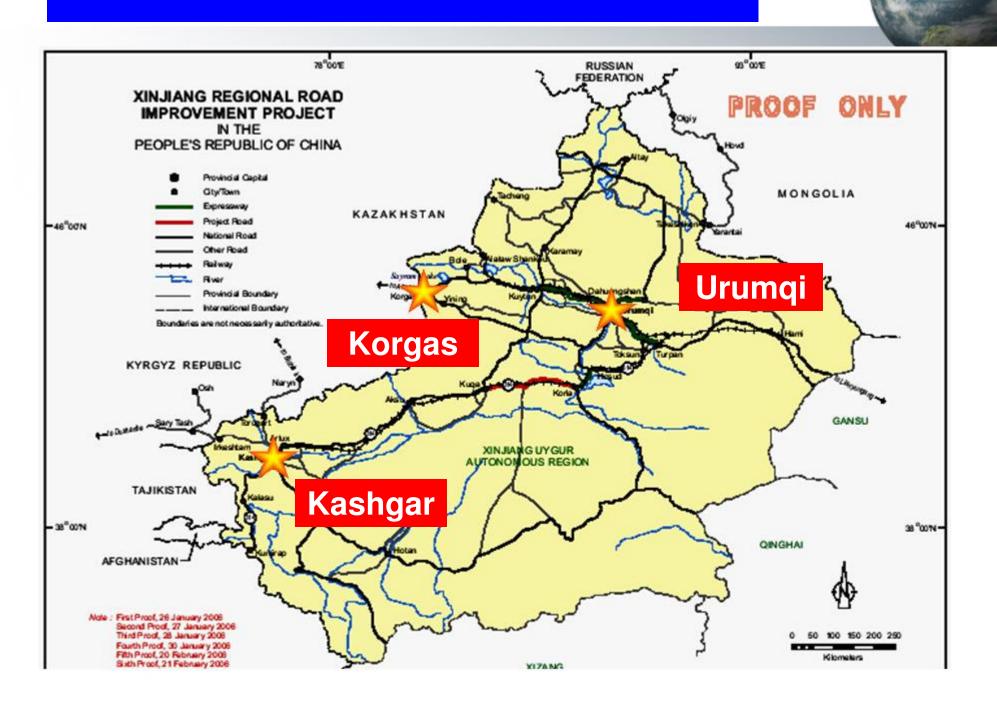
# **Regional Transport (North)**



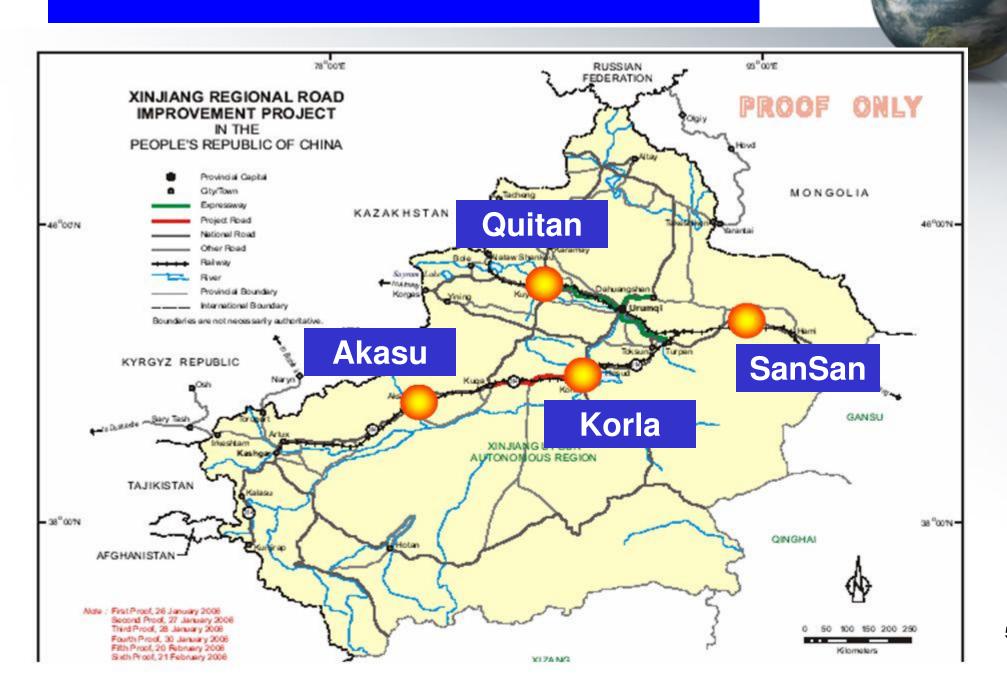




# **Public – Logistics Centre**



# **Public – Logistics Centre**



# **Public – Logistics Centre**



An integrated free trade zone, where Chinese and Kazakhs can enter without visa. The integrated complex will contain retail, entertainment, commercial services and logistics parks.

**CAREC Transport Corridor 1** IP 32: Electrification of 392 km IP 45: Construction of 500 RUSSIAN FEDERATION Makat-Kandagash Section km Beineu-Shalkar road IP 41: Rehabilitaion of 238 km of Kairak Astana-Karaganda road Orenburg IP 38: Electrification of 521 km Aktogai-Mointy Zhaisan IP 35: Electrifictation of Aktobe 558 km Dostyk-Aktogai ASTANA Kandagash IP 20: New Road from Jinhe To Ala Shankou IP 28/ Double Track Urumqi-Ala Shankou IP 24: Electrification: Urumqi-Ala Shankou Karaganda KAZAKHSTAN MONGOLIA IP 40: Rehabilitation of Western Europe Western China Corridor TA 11: Logistics Development and Capacity Building in Xinjiang 1a IP 25: Electrification: Anxi-Urumqi Railway Administration border Mointy Kyzyl-Orda IP 28: Khorgas Global IP 37: Construction of 270 km Logistics Center IP 38; Reconstruction Khorgos-Zhetygen Railroad of Shymkent, Semei and Kokchetau airports Ala Shankou IP 43: Rehabilitation of 301 km Dosty Almaty-Khorgos road Khorgos 1b **Huochena** Lianyungang Taraz Lugovaya Chaldovar uman **UZBEKISTAN** IP.27: Xinjiang Airport Development IP 53 Vyrgyz ATC Capacity Enhancement IP 56: Equipment Purchase for Wagon Balykchy 10 KYRGYZ REPUBLIC Repair/Maintenance Facility IP 21: Guo Zhi Go and Qin Shui He Sections Lianyungang-Khorgas Expressway IP 22: Jinhe-Yining-Khorgas Railway TASHKENT ( IP 19: Xiniiang Regional Road Improvement IP 26: Double Track and Torugart Electrification: Turpan-Kashi PEOPLE'S REPUBLIC Chuarwulu/Ghanko XINJIANG UYGUR IP 54: Electrification of the Bishkek-Balykchy Rakroad OF CHINA TAJIKISTAN **AUTONOMOUS REGION** IP 55: Track Rehabilitation Kashi

IP 46: Bishkek-Torugart

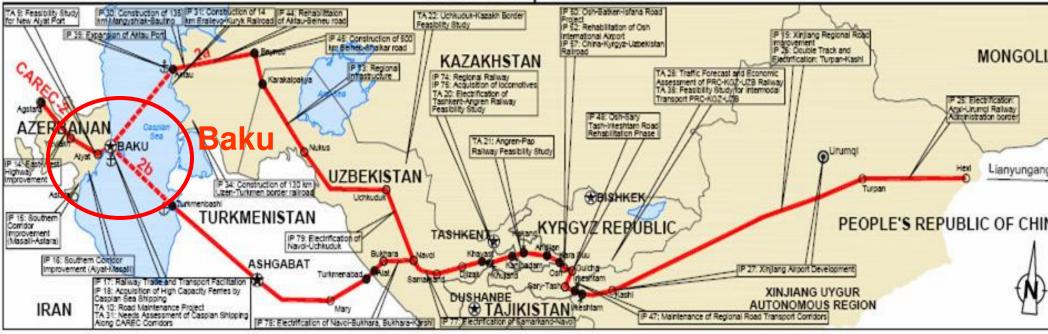
IP 80: New Almaty-Issyk Kul Road

**DUSHANBE** 

Project, Chaldovar-Balykohy

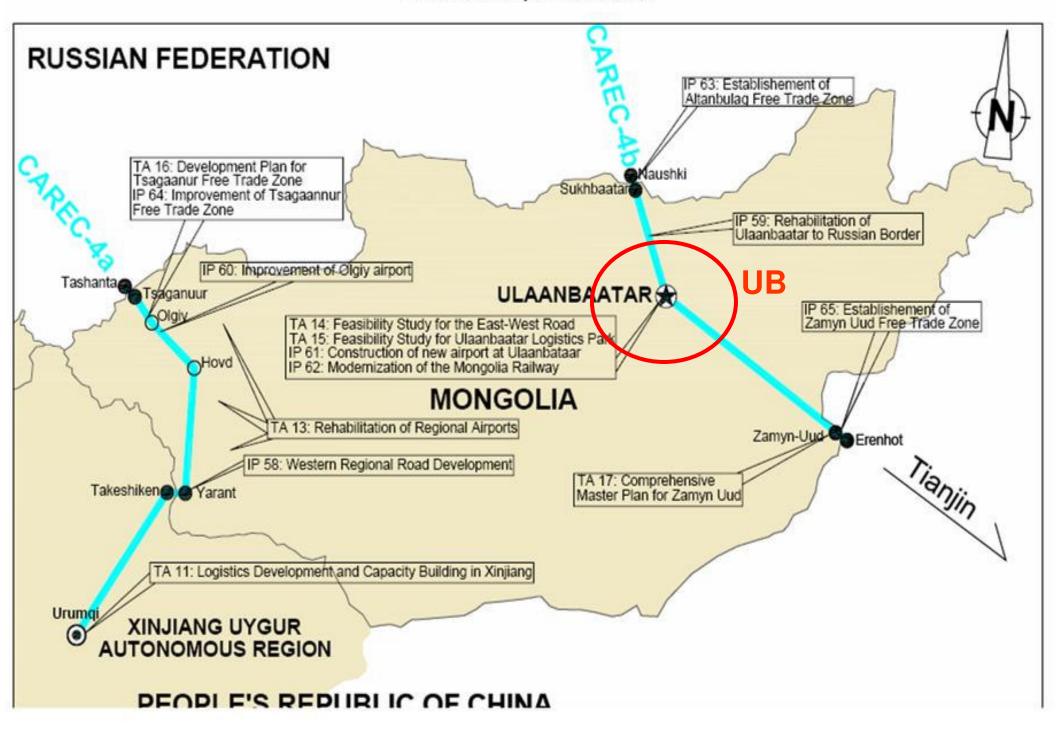






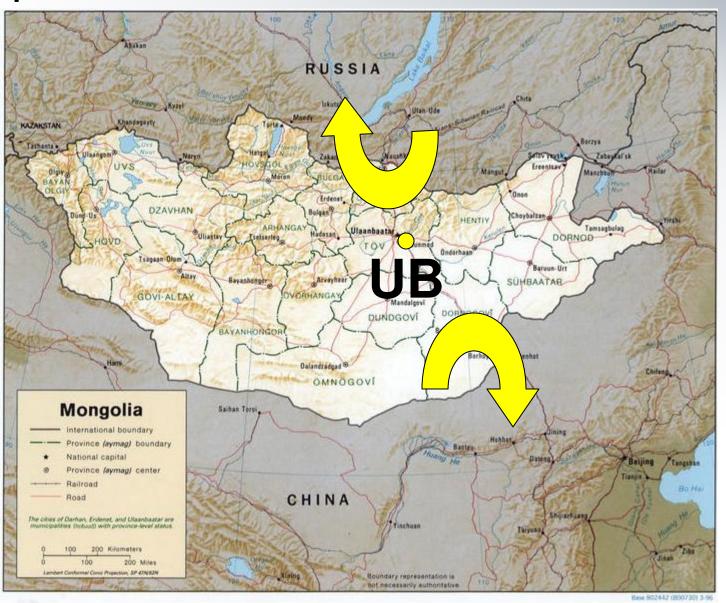
CAREC Transport Corridor 3 P 38: Reconstruction of Shymkent, Semei and Kokchetau ASTANA \*\* btsovsk IP 53: Kyrgyz ATC Capacity Enhancement IP 54: Electrification of the Bishkek-Balykchy Railroad Semey P 55: Track Rehabilitation Project, Chaldovar-Balykchy
P 56: Equipment Purchase for Wagon Repair/Maintenance Facility KAZAKHSTAN Semey **DShar** 52: Rehabilitation of Osh International Airport IP 57: China-Kyrgyz-Uzbekistan Railroad P 49: Reconstruction of the Kazakh Border-Talas-Suusamyr Road Phase II Aktogay IP 80: New Almaty-Issyk Kul Road IP/74: Regional Railway 17 75: Acquisition of locomotive TA 20: Electrification of Tashkent-Angren Railway IP 33: Electrification of 558 Feasibility Study km Almaty-Aktogay Section P 42: Rehabilitation of 104 UZBEKISTAN km Almaty-Rapchagay road Taraz Lagovaya BISHKEK IP 77: Electrification of Samarkand-Navo TURKMENISTAN KYRGYZ REPUBLIC Saryaga P 78: Electrification of Navoi-Bukhara, Bukhara-Karsh Syrdarvinskava TA 21: Angren-Pap ASHKENT Bukhara. Railway Feasibility Study TA 19: Transport Sector Díjzak Master Plan (All Modes) Osh Guicha **ASHGABAT** Samarkand Karamyko Sary-Tash 30 Mary P 51: CAREC Regional Road Tursunza Sary-Tash-Tajik border) P 1: Bala Murghab-Qaisar JAJIKISTAN XINJIANG UYGUR Sarakhsa emmez **AUTONOMOUS REGION** P 66: Dushanbe-Kyrgyz Border Road Rehabilitation Phase II IP 67: Dushanbe-Kyrgyz Border Road Rehabilitation Phase III P 2: Bala Murghab-Leman Arababad slam Qala TA 5: Termez-Mazar-i-Sharif Rail Feasibility Study **3b** IP 72: Dushanbe-Tursunzade P 68: Shagon-Zigar Road Rehabilitation Phase III) **AFGHANISTAN** P 9: Naibabad-Hairatan KABUL P 69: Construction of Kulyab-Khalaikum Road

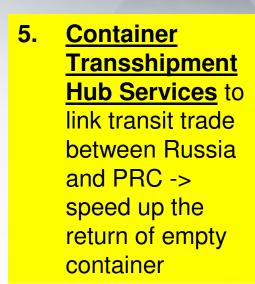
#### **CAREC Transport Corridor 4**



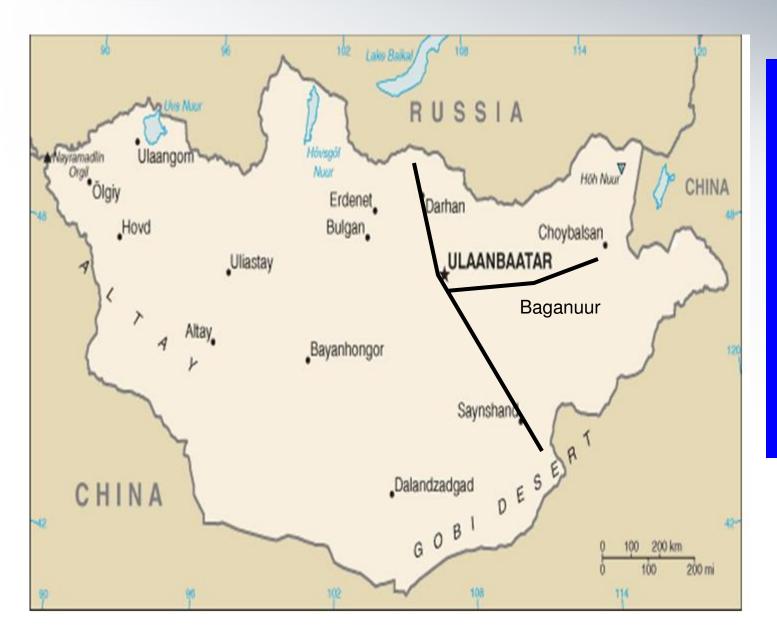
#### **Regional Transport (Overall)**







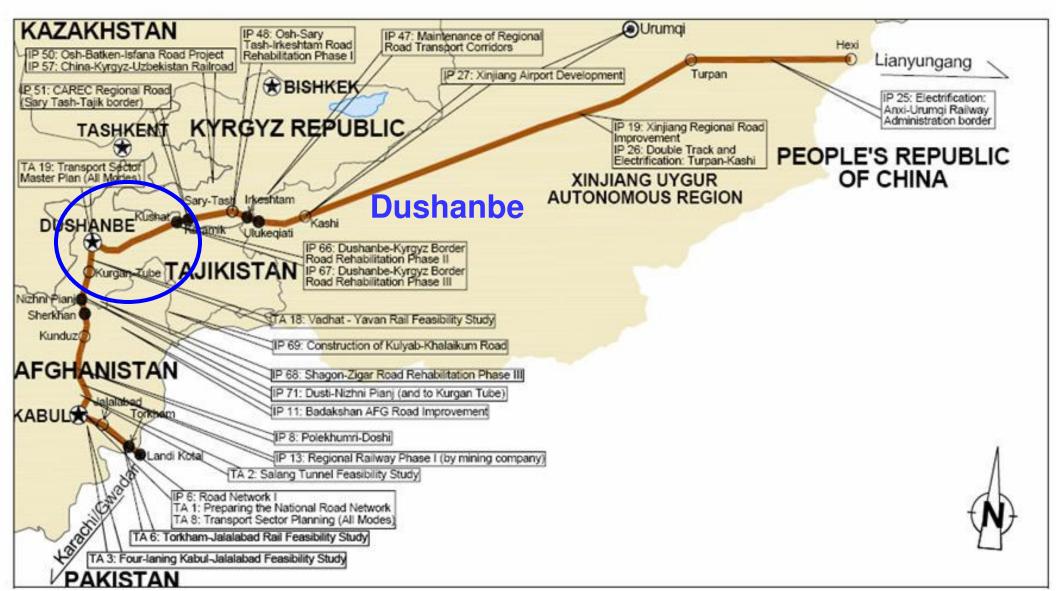
# Domestic Transport (Rail – North-South)



- 14. Explore feasibility of double stack trains to increase current rail capacity.
- 15. Explore feasibility of UB-Baganuur double tracks or test pilot of double stack trains



#### CAREC Transport Corridor 5





# Strategic Architecture for XUAR



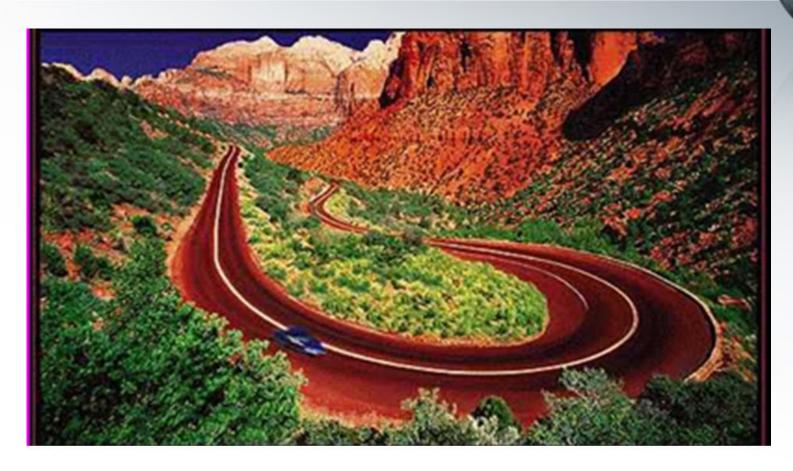
	National Level Initiatives (NLI)	District Level Private Enterprises Initiatives (DLI) Initiatives (PEI)
Policy	1. Adoption of TIR	3. Developing the Logistics Industry
Tolicy	2. Customs Cooperation	
Infrastructure		4. Development & Implementation of Strategic Masterplan for Logistics Centres
		5. Upgrading of Border Posts & Modernizing of Distribution & Warehouse Facilities
Operations	6. Test-bed Market Pricing (for Rail)	9. Constructing an Inland Container Terminal
	7. Promote Containerization	10. Strengthen PRC-CAR Dispute Settlement Channels
	8. Establish Dedicated Inland Container Services to Horgos	11. Establish Logistics Information Exchange
		12. Develop Value-added Industries
HRD	13. Public Awareness	s Campaigns 16. Institutional Alliances
		14. Manpower Conversion Program
		15. Industrial Attachments

#### Summary



- Technical Assistance has been done in XUAR, IMAR, MON, TAJ and KYG. Two teams are working concurrently in KAZ and UZB.
- Analysis shows common issues in physical infrastructure, institutional polices and operational capabilities causing cross border trade friction and inefficiency.
- There is no magic pill. An integrated solution is needed for an overall improvement.

# Will We see a New, Modern and Successful Silk Road?



"Regional Cooperation is not an option but a necessity for Central Asia."

Mr. Tadao Chino, former ADB President