Corridor Performance Measurement and Monitoring

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On Euro-Asian Transport Links
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Asian Development Bank
Background

- Integrated Trade Facilitation
    - Corridors, Investments, and Technical Assistance
  - Corridor Performance Measurement Monitoring (CPMM)
    - CAREC Results Framework
- Border Crossing Point Improvement and Single Window Development (Regional Improvement in Border Services) Project
- National and Regional Joint Transport and Trade Facilitation Committees
Corridors

CENTRAL ASIA REGIONAL ECONOMIC COOPERATION
TRANSPORT CORRIDORS
Findings

I. Corridor Performance

- For road transport, travelling on Corridor 5 is fastest while travelling on Corridor 4 is the slowest.

- Transport time on Corridors 4 and 6 are volatile, making it hard to predict actual time of arrival.

- In terms of costs incurred in transit, corridor 5 is the least expensive while Corridor 6 is the most expensive.
## II. Border Crossing Activities

<table>
<thead>
<tr>
<th>TIME CONSUMING ACTIVITIES</th>
<th>ROAD TRANSPORT</th>
<th>RAIL TRANSPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Customs escort/convoy</td>
<td>1. Change of railways gauge</td>
<td></td>
</tr>
<tr>
<td>2. Waiting time in queue</td>
<td>2. Waiting time in queue</td>
<td></td>
</tr>
<tr>
<td>3. Loading/unloading</td>
<td>3. Railways security</td>
<td></td>
</tr>
</tbody>
</table>

Border crossing activities tend to reduce speed by half in most corridors.
### Findings

#### III. Costs and Overheads

<table>
<thead>
<tr>
<th>MOST COSTLY ACTIVITIES</th>
<th>ROAD TRANSPORT</th>
<th>RAIL TRANSPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Trans-shipment</td>
<td>1. Change of railways gauge</td>
<td></td>
</tr>
<tr>
<td>2. Loading and Unloading</td>
<td>2. Loading and Unloading</td>
<td></td>
</tr>
<tr>
<td>3. Customs Clearance</td>
<td>3. Trans-shipment</td>
<td></td>
</tr>
</tbody>
</table>

When transporting a 20-ton cargo over 500km, a significant part of transport cost is spent on border crossing activities.

Unofficial payments are common. The top five activities involving unofficial payments are police checkpoints, border security control, customs clearance, transport/GAI inspection and phytosanitary inspections.
Findings

Top Five Activities Involving Unofficial Payments

<table>
<thead>
<tr>
<th>Activity</th>
<th>Official Count</th>
<th>Unofficial Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police checkpoint</td>
<td>7,000</td>
<td></td>
</tr>
<tr>
<td>Border security</td>
<td>3,000</td>
<td>3,000</td>
</tr>
<tr>
<td>Customs clearance</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Transport/GAI inspection</td>
<td>1,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Phytosanitary</td>
<td>1,000</td>
<td>1,000</td>
</tr>
</tbody>
</table>
CPMM Methods

- UNESCAP Time Cost Distance (TCD) Method
  - Driver’s Form
  - TCD Template
- Time Release Study (summer 2011)
Institutional Arrangement

- Memoranda of Understanding with partner freight forwarders associations and road carrier associations
- ADB covers operational and capacity building costs
- Frequency of Collection
  - Average 30 TCDs/partner association/month
Partner Associations

- **14 Partner Associations**
  - Representing 8 of 10 CAREC countries
    - Afghanistan (1)
    - Azerbaijan (1)
    - Kazakhstan (2)
    - Kyrgyz Republic (2)
    - Mongolia (2)
    - People’s Republic of China (Xinjiang Uyghur and Inner Mongolia Autonomous Regions) (3)
    - Tajikistan (1)
    - Uzbekistan (2)
- Members of the CAREC Federation of Carrier and Forwarder Associations (CFCFA)
- Cooperation with International Road Union (IRU)
Analysis and Reporting

- Data and statistical analyses are performed by ADB
- Reports are posted on CAREC Institute and CFCFA websites ([http://www.carecingstitute.org](http://www.carecingstitute.org) and [http://cfcfa.net](http://cfcfa.net)); the annual report is presented at the Ministerial Conference
- Partner associations will be trained to perform national level data analysis
2010 Data

Number of observations by mode of transport

- Road, 2,971, 73%
- Rail, 771, 19%
- Multimodal, 320, 8%
- Domestic, 960, 24%
- Cross-border, 3,102, 76%
- Domestic, 960, 24%
- Road, 2,971, 73%
- Rail, 771, 19%
- Multimodal, 320, 8%
- Domestic, 960, 24%
- Cross-border, 3,102, 76%

Number of observations by scope of transport

- Consolidated goods, 5.7%
- Prepared Foodstuffs, 5.7%
- Textiles, 8.9%
- Minerals, 5.7%
- Metals, 5.7%
- Prepared Foodstuffs, 5.7%
- Textiles, 8.9%
- Minerals, 5.7%
- Metals, 5.7%
- Goods of Chemical or Allied Industries, 4.8%
- Others, 4.3%
- Machinery, Mechanical Appliances, 19.7%
- General merchandise, 17.9%
- Vegetable products, 11.2%
- Textiles, 8.9%
- Minerals, 5.7%
- Prepared Foodstuffs, 5.7%
- Textiles, 8.9%
- Minerals, 5.7%
- Goods of Chemical or Allied Industries, 4.8%
- Others, 4.3%
- Machinery, Mechanical Appliances, 19.7%
- General merchandise, 17.9%
- Vegetable products, 11.2%
Road Transport Costs

Cost of cargo transported by road
(US$ per 20 tons/500km)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Transport Cost (US$ per 20 tons/500km)</th>
<th>Activities Cost (US$ per 20 tons/500km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$438.8</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>$572.4</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>$277.8</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>$34.3</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>$427.9</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>$1173.1</td>
<td></td>
</tr>
</tbody>
</table>

Cost of road activities
(US$ per 500 km)

- Transshipment: $403.1
- Loading/unloading: $215.0
- Customs clearance: $121.0
- Visa/immigration: $91.2
- Vehicle registration: $65.3
- Other activities: $59.4
- Border security/control: $36.7
- Transport/GA inspection: $23.7
- Escort/convoy: $22.0
- Health/ quarantine: $21.8
- Phytosanitary: $19.3
- Police checkpoint/stop: $19.2
- Repair/tire replacement: $15.0
- Weight/standard inspection: $14.9
- Meets: $14.3
- Veterinary inspection: $14.3
- Detour: $12.0
- Rest/overnight stay: $10.2
- Waiting/queue: $9.7
- Environment/ecology: $4.8
### Unofficial Payments in Road Transport

<table>
<thead>
<tr>
<th>Activity</th>
<th>Official</th>
<th></th>
<th>Unofficial</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stops</td>
<td>Count</td>
<td>Percent</td>
<td>Count</td>
</tr>
<tr>
<td>Environment/ecology checkpoint</td>
<td>295</td>
<td>94</td>
<td>31.9%</td>
<td>201</td>
</tr>
<tr>
<td>Transport/GAI inspection</td>
<td>2,998</td>
<td>1,134</td>
<td>37.8%</td>
<td>1,864</td>
</tr>
<tr>
<td>Police checkpoint / stop</td>
<td>11,202</td>
<td>4,483</td>
<td>40.0%</td>
<td>6,719</td>
</tr>
<tr>
<td>Border security / control</td>
<td>4,899</td>
<td>2,031</td>
<td>41.5%</td>
<td>2,868</td>
</tr>
<tr>
<td>Weight/standard inspection</td>
<td>2,343</td>
<td>990</td>
<td>42.3%</td>
<td>1,353</td>
</tr>
<tr>
<td>Phyto-sanitary</td>
<td>3,900</td>
<td>2,073</td>
<td>53.2%</td>
<td>1,827</td>
</tr>
<tr>
<td>Customs clearance</td>
<td>6,034</td>
<td>3,250</td>
<td>53.9%</td>
<td>2,784</td>
</tr>
<tr>
<td>Health / quarantine</td>
<td>3,311</td>
<td>1,853</td>
<td>56.0%</td>
<td>1,458</td>
</tr>
<tr>
<td>Vehicle registration</td>
<td>2,250</td>
<td>1,318</td>
<td>58.6%</td>
<td>932</td>
</tr>
<tr>
<td>Veterinary inspection</td>
<td>2,468</td>
<td>1,468</td>
<td>59.5%</td>
<td>1,000</td>
</tr>
<tr>
<td>Visa / immigration</td>
<td>765</td>
<td>570</td>
<td>74.5%</td>
<td>195</td>
</tr>
<tr>
<td>Repair / tire replacement</td>
<td>344</td>
<td>279</td>
<td>81.1%</td>
<td>65</td>
</tr>
<tr>
<td>Escort / convoy</td>
<td>51</td>
<td>45</td>
<td>88.2%</td>
<td>6</td>
</tr>
<tr>
<td>Loading / unloading</td>
<td>3,716</td>
<td>3,435</td>
<td>92.4%</td>
<td>281</td>
</tr>
<tr>
<td>Detour</td>
<td>67</td>
<td>65</td>
<td>97.0%</td>
<td>2</td>
</tr>
<tr>
<td>Waiting/ queue</td>
<td>4,415</td>
<td>4,386</td>
<td>99.3%</td>
<td>29</td>
</tr>
<tr>
<td>Trans-shipment</td>
<td>56</td>
<td>56</td>
<td>100.0%</td>
<td>0</td>
</tr>
</tbody>
</table>
Border Crossing Points

- BCPs are major bottlenecks
- Border Crossing Point and Single Window Development (Regional Improvement in Border Services – RIBS – Project)
- A regional loan is being formulated to improve border crossing points and help facilitate regional connectivity of single windows
Concluding Remarks

- Trade facilitation initiatives such as BCP infrastructure improvement, Customs Modernization, single window facilities can reduce delay and cost significantly along corridors
  - Singapore reduced turn around time from 3-4 days to 15 minutes; from 24 forms to 1 form once they introduced automated system
  - Average processing time at AZE BCPs were reduced from 4 days to 3 hours; forms from 40 pages to 2 pages after they adopted their single window
- Rich data from CPMM allows CAREC to conduct detailed analysis
Recommendations

• Improve INFRASTRUCTURE and rolling stock/vehicles

• Improve OPERATIONS at Border Crossing Points by minimizing or eliminating regulatory barriers and burdensome procedures

• Use TECHNOLOGY to make more predictable freight arrival times
Thank you/Спасибо

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