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CENTRAL ASIA REGIONAL ECONOMIC COOPERATION: Harmonization and Simplification of Transport Agreements, Cross Border Documents and Transport Regulations

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PREFACE

The views expressed in this publication are those of the contributors, and not necessarily of the ADB.

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TABLE OF CONTENTS

ABBREVIATIONS

EXECUTIVE SUMMARY

1. INTRODUCTION	10
1.1 CAREC TSCC position at present.....	10
1.2 World experience in transport and development	10
1.3 CAREC countries as a geographic hub	12
1.4 Implementation of CAREC transport policy and its results.....	13
1.5 Road, rail and intermodal transport.....	15
2. ROAD TRANSPORT	16
2.1 Regional agreements and international conventions.....	16
2.1.1 Bilateral and multilateral agreements	16
2.1.2 International transport conventions.....	18
2.1.3 Legal implementation	21
2.2 Entry fees, transit fees, road user and other charges.....	21
2.2.1 Present principles and practice.....	21
2.2.2 Issues to resolve	22
2.2.3 Potential solutions.....	22
2.3 Vehicle dimensions and weights.....	25
2.3.1 General.....	25
2.3.2 Reference standards	25
2.3.3 Enforcement.....	25
2.4 Vehicle emissions	26
2.4.1 Reference standards	26
2.4.2 The current situation in CAREC countries	27
2.5 Road transport services	28
3. RAIL TRANSPORT	30
3.1 Summary network characteristics.....	30
3.1.1 Extent and capacity	30
3.1.2 Operational structures	31
3.1.3 Freight forwarding.....	31
3.2 Rail border crossings	32
3.3 Tariffs.....	34
3.4 Regional block train operations.....	35
3.5 Private investment.....	35
3.6 Safety and the environment.....	37
4. CONCLUSIONS AND RECOMMENDATIONS	38
5. ANNEXES	41
5.1 Annex - Main Regional Road and Rail Routes	41
5.1.1 Asian Highway Route Map.....	41
5.1.2 Trans-Asian Rail Network	42
5.1.3 CSATTF Corridors.....	43
5.2 Annex – Regional Multilateral and Bilateral Transport Agreements	44
5.2.1 Multilateral Agreements.....	44
5.2.2 Bilateral Agreements.....	45

5.3 Annex – Fees for Cross Border Road Transport..... 46
5.4 Annex – International Conventions Relating to Transport 47
5.5 Annex - Vehicle Weights and Dimensions – Comparative Summary..... 48
5.6 Annex – Emission Standards..... 49
 5.6.1 Euro Standards49
 5.6.2 FSU Standards50
5.7 Annex - Comparative Costs of Intercontinental Rail and Sea Transport..... 51



ABBREVIATIONS

AADT	:	Average Annual Daily Traffic
ABBAT	:	International Association of Road Haulers of Tajikistan
ADB	:	Asian Development Bank
ADR	:	Agreement on the International Transport of Dangerous Goods by Road
AETR	:	European Agreement Concerning the Work of Crews of Vehicles Engaged in International Road Traffic
AGTC	:	European Agreement on Important International Combined Transport Lines and Related Installations
AIRCUZ	:	International Association of Road Haulers of Uzbekistan
ATP	:	Agreement on the International Transport of Perishable Foodstuffs
AFG	:	Afghanistan
APEC	:	Asia-Pacific Economic Cooperation
BOT	:	Build-Operate-Transfer
BUSD	:	Billion United States Dollar
CACO	:	Central Asian Cooperation Organization
CAR	:	Central Asian Region
CAREC	:	Central Asia Regional Economic Cooperation
CIS	:	Commonwealth of Independent States
CSJD	:	Central Council of Railways of the CIS and Baltics
CMR	:	Contract for the International Carriage of Goods by Road
CNG	:	Compressed Natural Gas
CVR	:	Contract for the International Carriage of Passengers and Luggage by Road
CPI	:	Corruption Perception Index of Transparency International
CSJD	:	Central Council of Railways of the CIS and Baltics
EBRD	:	European Bank for Reconstruction and Development
EC	:	European Commission
ECMT	:	European Conference of Ministers of Transport (CEMT in French)
ECO	:	Economic Cooperation Organization
e.g.	:	for example
et seq.	:	and following
ETT	:	Uniform Transit Tariff
EU	:	European Union
Eur.Com.	:	Eurasian Economic Community (known as the Union of Five till 2000)
EURO n	:	Category of a truck's environmental standard (n=0,1,2,3,4,5,...)
FIATA	:	International Federation of Freight Forwarders
FSU	:	Former Soviet Union (includes Mongolia whereas the CIS does not)
GAI	:	State Traffic Inspectorate (Traffic Police in CIS countries)
GDP	:	Gross Domestic Product
GNP	:	Gross National Product
ICC	:	Interstate Commerce Commission
IDB	:	Islamic Development Bank
IMF	:	International Monetary Fund
IFI	:	International Financial Institutions
KAZ	:	Republic of Kazakhstan
KGZ	:	Kyrgyz Republic
KTZ	:	Kazak Temir Zhollari (Kazak Railways)
MOF	:	Ministry of Finance
MOFA	:	Ministry of Foreign Affairs
MON	:	Republic of Mongolia
MOR	:	Ministry of Railways, People's Republic of China
MOT	:	Ministry responsible for Road Transport (the exact acronym varies from country to country)
MTT	:	International Railway Transit Tariff
MUSD	:	Million United States Dollar

n.a.	:	not applicable
OSJD	:	Organisation for Railway Cooperation of CIS railways
PPP	:	Private-Public-Partnership
PRC	:	People's Republic of China
rev.	:	revised, or revision
RUC	:	Road User Charges
RUS	:	Russia
SCO	:	Shanghai Cooperation Organization
SME	:	Small and Medium Enterprises
SOM	:	Senior Officials Meeting
SMGS	:	Agreement on International Rail Cargo Transportation
FSU	:	Former Soviet Union
TA	:	Technical Assistance
TACIS	:	Technical Assistance to the CIS
TAJ	:	Republic of Tajikistan
TEU	:	Transport Equivalent Units (a TEU = a standard 20 foot container)
TKM	:	Turkmenistan
TOR	:	Terms of Reference
TRACECA	:	Transport Corridor Europe Caucasus Asia
TSCC	:	CAREC's Transport Sector Coordinating Committee
UN ECE	:	United Nations Economic Commission for Europe
UN ESCAP	:	United Nations Economic Committee for the Asia Pacific Region
UNCTAD	:	United Nations Conference on Trade and Development
USD	:	United States Dollar
UTY	:	Uzbek Railways
UZB	:	Republic of Uzbekistan
WB	:	World Bank
3PL	:	3rd Party Logistics

EXECUTIVE SUMMARY

Introduction

Since 1997, the ADB has been promoting regional cooperation through the Central Asia Regional Economic Cooperation (CAREC) program, of which the PRC, Azerbaijan, and the four Central Asian countries of Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan are participating. The CAREC program's objectives are to increase trade and integration with large markets, reduce costs of transport and facilitate transit, improve supplies of energy, and tackle negative externalities¹. ADB's Regional Cooperation Strategy and Program (RCSP) for CAREC countries (2005-2007) identifies transport as a priority area for ADB assistance.

The CAREC Regional Transport Sector Roadmap lays emphasis on harmonization and simplification of cross-border transport procedures, documentation and regulations among the countries to create a level playing field for transport operators and promote efficiency and better services. Previous TSCC meetings have prepared specific recommendations on harmonizing and simplifying cross-border transport procedures and documentation in CAREC countries. These were approved at their government's Senior Officials' Meeting held in Manila in April 2005. The recommendations foresee that a Phase One will focus on the regulations concerning (i) vehicle emission requirements; (ii) axle load control; (iii) tariffs, road user charges, and transit fees; (iv) traffic safety; and (v) provision of transport services.

The objective of this report is to identify divergences between CAREC country's transport regulations dealing with these five issues, and to suggest steps towards harmonization. Inevitably, this objective raises questions concerning the present agreements by which any transport and its regulation takes place

Road Transport

Bilateral and multilateral agreements

Reliance on bilateral agreements and unilateral implementation has led to an excessively fragmented regulatory environment. It is recommended that the TSCC agrees and confirms that multilateral road transport agreements are the primary international engagements between governments for regional cooperation and harmonization of regulation. Consensus on this would then allow a review of the present portfolio of agreements, and decisions on their roles in coordinated regional transport development. Superfluous agreements should be rescinded. Many agreements lie dormant or are only partially implemented. The limited road transport access between the Peoples Republic of China and all other CAREC countries is the most conspicuous restraint on road transport in the CAREC region. It is recommended that this situation and the status of the relevant agreements be a matter of particular TSCC attention.

International Conventions

All of the international conventions on transport are key instruments in promoting road safety, facilitating traffic flows, and coordinating technical standards. To achieve the desired effects in terms of public benefit, it is not sufficient to sign the conventions. They require enforcement capabilities that are at least partially beyond the present means of CAREC countries. If it is agreed that road safety is the highest priority then the Convention on Road Traffic provides excellent practical guidelines. Eventually all of the conventions should be considered and applied but only as and when the enforcement capacity and minimum necessary regional economic development allows. Multiple parallel steps are recommended, which could be quickly taken:

- Agree to a regionally coordinated program to accede to the conventions.
- Define the technical assistance (and its provider) that might be needed or useful for accession and application.
- Define any investment needed to support enforcement, and the source of that investment.
- Review domestic legislation for conformity with the Convention on Road Traffic.

¹ In the case of transport these negative externalities are principally accidents and environmental pollution

Tariffs for road use

This is a controversial issue. The present fee system is chaotic, has engendered regional animosity, and requires radical revision. Some precepts are proposed, to assist delegates in finding a consensus position within CAREC:

- Confirm that right of entry and transit is free, but that payments may be levied for road use up to an agreed maximum.
- Agree that any administrative fees will be included in road user charges.
- Consolidate other charges (customs convoy, ecological, etc) into road use charges.
- Do not link road transport fees with regional issues unrelated to road transport.

If these precepts can be accepted then the CAREC TSCC should adopt a single scale of weight bands (or lengths) and rates for road use charges, as maximum allowable charges. Discounts could be allowed, but no supplements over the maximums allowed. A fully equitable basis for regional transport would be non-discriminatory, meaning that road use charges would be the same for all users, national and international, applied by tolls or vignette or other system. This requires a radical change of policy by CAREC countries, both in respect to internal and to external traffic. Drivers frequently complain that whatever the official charges, they are required to make multiple illicit payments to authorities once they are outside of their home country. These can double the official tariffs. While fully recognizing that the problem is not going to be easy to resolve, it is recommended that the TSCC considers it a priority.

Weights and Dimensions of Vehicles

The region falls under the influence of three similar regulatory regimes (EU, CIS, PRC). The similarities derive from the fact that all are based on the European standards. These three regimes have small but significant differences. In the near term, as traffic across the PRC border is limited, it is recommended that the CIS standard be confirmed as the ruling CAREC standard. To enforce this standard the "Cholpon Ata" agreement on weight certification should be applied. Once regional traffic with PRC increases it is recommended to shift entirely to the European standards without derogations.

Vehicle emissions

The EURO standards provide the only obvious strategy for regional harmonization. Geographically the CAREC regional corridors are widely dispersed, they pass through varied socio-economic zones, and only occasionally cross large urban agglomerations. In fact it is, quite rightly, urban vehicle emissions that are the focus of most attention in CAREC countries at present. The ability within CAREC countries to maintain vehicles and to enforce the highest world standards is uncertain. The most developed areas would not have difficulty in doing this, but many other areas would find it impossible. Hence the impacts on rural poor of any rapid changes to regulations either regionally or nationally require particular attention.

This is a complex problem that requires carefully planned solutions and regional consensus, and possibly a twin track approach. As a first step it is recommended that EURO standards are confirmed as the long term CAREC strategy to reduce vehicle emissions. In the immediate future existing GOST standards, provided they can be enforced with technically reliable equipment, should persist in the CIS (and for PRC cross-border traffic at present low levels). Subject to cost-benefit analysis, to poverty impact assessment and to verification of ability to enforce EURO 2, then apply it to major urban access for regional traffic, within three years. Outside of urban areas the GOST standards could still be allowed. As and when economic conditions allow then the EURO standards are recommended for application across the whole region, up to EURO 5. The Cholpon Ata agreement on weights and dimensions could serve as a model, to develop a similar regional agreement for mutual recognition of certification of emission controls.

Road transport services

Road transport services are improving in the region, where economic growth allows. It is recommended that market dynamics be the prime determinant of needs. The actions suggested are therefore to review and release any restraints on this dynamism. Regulation of quality of services is recommended, but not subsidies or quotas.

Rail transport

Rail network, capacity, and operations

Capacity constraints have appeared on the network. Whether these are due to infrastructure, operational restrictions, or administrative controls is not absolutely clear from the depth of investigation of this report. Some fairly evident remedies to problems and improvements are suggested. Certainly information flows between the different operating zones (PRC and CIS) should be improved. It is recommended that the technical compatibility of wagon tracking systems used by MOR and CSJD be studied, and an interface developed. As a litmus test for other issues, operational results on transit and cross border routes should be compared with best practice worldwide (e.g. ton.km produced / assets deployed). If present use of assets does not compare well, then clearly either investment or modification of operational procedures are due.

Rail border crossings

Passengers are subject to excessive delays at border crossings. Freight transfers at transshipment points are slow. Delays at freight border crossings without transshipment (FSU internal borders) might be attenuated, but the seriousness and origin of these latter delays (technical or administrative control) is not clear from the information collected during the preparation of this report. It is recommended that the CAREC railway operators monitor passenger and freight delays at border crossings, in collaboration with control officials (customs, border guards). Any delays should then be quantified and the causes identified for remedial action. Private participation in border crossing improvement should be allowed (e.g. customs brokers).

Railways tariffs

The OSJD and its ETT/MTT mechanisms are providing regional mechanisms for discussion of tariffs. The cost basis and the ability of these systems to adapt to new markets are in question. Tariff or "marketing" mechanisms between the ETT/MTT and PRC MOR systems are not well developed. As the existing systems are so entrenched TSCC delegates should firstly decide to what degree tariff discussions should form a part of CAREC, and on the interface between any CAREC discussions and the existing mechanisms. There is a need for tariff policy dialogue for regional traffic between the OSJD and PRC MOR. Again, it is recommended that CAREC decides firstly on the modalities of this dialogue. Some of the main objections to ETT/MTT, its relatively high tariffs, are being countered by the adoption of new rates for new rail products (e.g. block trains) and privatization of services. It is recommended to do all possible to encourage this market evolution, and to verify that it meets no artificial restraints.

Private investment in railways

The movement towards privatization and attraction of private investment is already underway and showing positive results. It is recommended to encourage a regional dimension to this ongoing process. Within CAREC the TSCC should identify regional operations or infrastructure that would benefit from private services or investment on a cross border basis. Any regional restrictions on private participation in these activities or in investment should be lifted.

Rail safety and the environment

The safety and environmental record up until now is good, but the advancing age and lack of investment in some safety related equipment is a cause for concern. Rail operators are well aware of this and investment in safety has not stopped. It is recommended that railway operators monitor and report on regional rail transport safety and environmental protection assets for the next TSCC. A long range plan for maintenance and improvement of standards could then be developed for regional implementation.

1. INTRODUCTION

1.1 CAREC TSCC position at present

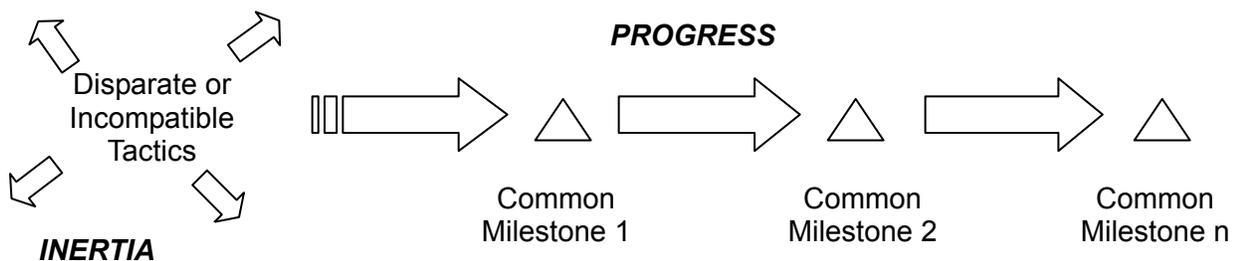
1. Since 1997, the ADB has been promoting regional cooperation through the Central Asia Regional Economic Cooperation (CAREC) program, of which the PRC, Azerbaijan, and the four Central Asian countries of Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan are participating. The CAREC program's objectives are to increase trade and integration with large markets, reduce costs of transport and facilitate transit, improve supplies of energy, and tackle negative externalities². ADB's Regional Cooperation Strategy and Program (RCSP) for CAREC countries (2005-2007) identifies transport as a priority area for ADB assistance.

2. The CAREC Regional Transport Sector Roadmap lays emphasis on harmonization and simplification of cross-border transport procedures, documentation and regulations among the countries to create a level playing field for transport operators and promote efficiency and better services. Previous TSCC meetings have prepared specific recommendations on harmonizing and simplifying cross-border transport procedures and documentation in CAREC countries. These were approved at their government's Senior Officials' Meeting held in Manila in April 2005. The recommendations foresee that a Phase One will focus on the regulations concerning (i) vehicle emission requirements; (ii) axle load control; (iii) tariffs, road user charges, and transit fees; (iv) traffic safety; and (v) provision of transport services.

3. This report was first prepared as a Discussion Paper for a meeting of the TSCC held in Bishkek on 12th-13th October 2005. Some changes were made following comments after the meeting, and it was issued as the present report. The objective of the document is to identify divergences between CAREC country's transport regulations dealing with these five issues listed in the previous paragraph, and to suggest steps towards harmonization. Inevitably, this objective raises questions concerning the present agreements by which any transport and its regulation takes place.

4. Adjacent to and overlapping the CAREC countries is another ADB sub-regional initiative, the CSATTF³. The lines on the maps that form the proposed corridors for the whole region are quite well defined and inter-link. The regulatory regimes that control traffic in these corridors are less well synchronized.

5. The regional harmonization of regulation foreseen by the CAREC Road Map cannot be achieved in one step right across the region. The intermediate milestones need to be defined. There are in fact already many opportunities for harmonization of the CAREC position on any number of technical issues. The strategy could, for example, be to agree on specific identical regulatory milestones, applicable to CAREC regional traffic at a certain date. This report suggests milestones for the topics that it addresses. It also proposes actions and timelines to reach these milestones.



1.2 World experience in transport and development

6. "Via est Vita"⁴ said the ancient Romans. They had had every opportunity to learn this from their predecessors. In fact, throughout time and place, great civilizations have established, or even been established on, the best logistic systems that the technology of the time allowed. For example, Darius of Persia, the Indian Maurya dynasty, and the Chinese Han dynasty, had all developed far reaching transport networks in the several centuries preceding the rise of the Roman Empire.

² In the case of transport these negative externalities are principally accidents and environmental pollution

³ Central and South Asia Transport and Trade Forum involving Pakistan, Afghanistan, Tajikistan and Uzbekistan.

⁴ Meaning: road, or conduit, or way, is life

7. Central Asia has its own rich history of commercial and cultural exchanges. For centuries Roman gold was exchanged along the Silk Route for Chinese silk, on a simple weight for weight basis. The route was a braided network of links, between ancient centers of population. The less well-known "Fur Route" linked Central Asia to the north, all in all making it a major transport hub of world trade at that time. This commercial pre-eminence endured invasion, political and religious changes until the development of the direct sea routes from Arabia, and then from Europe to India and China. Whereupon the Central Asia region entered into a long period of relative economic stagnation. There is still traffic along the old routes, but conditions for transport are arduous, and their status in world trade has declined. Given the established advantages of other routes, there is now little possibility of the Central Asian region integrating with the world trade system on the same terms as coastal regions, without substantial internal effort and change.

8. The CAR is rich in natural resources, but possession of natural resources is not in itself a sufficient asset to ensure wealth. According to research by the IMF, resource rich countries have grown slower over time than resource poor countries, and land-locked countries grow slower than those that are not. On the other hand there is a marked relationship between open trade, and convergence of incomes between rich and poor countries. This happens faster in liberalized economies⁵.

9. In the present epoch, the most developed economies of the world have made efforts to ensure freedom of trade, and to open up transport markets. For the purposes of this report, some reflections upon recent EU and USA experience may be interesting.

10. The EU single market has been constructed on four basic principals⁶: the free movement of goods, services, people and capital. To support these principals, the EU has abolished frontier controls for people and goods crossing from one EU country to another. Efficient transport systems are essential for keeping Europe's economy competitive and its single market running smoothly. But transport is also an economic sector in its own right, providing about 10 % of the EU's overall wealth measured in terms of gross domestic product (GDP). It is an industry worth about EUR 1 trillion per year, and giving work to more than 10 million EU citizens.

11. One of the first actions that the nascent EU took was to harmonize transit documents for freight crossing internal EU frontiers, reducing the previous sheaf of paper to a single form, before abolishing checks altogether. Then authorization was given for trucks from one country to pick up and deliver loads in another, sometimes in complex logistic matrices. Fears that the influx of foreign haulers would sharply increase their penetration of any particular domestic haulage market were proven exaggerated⁷.

12. Extending beyond the EU member countries, the European Conference of Ministers of Transport (ECMT) is an intergovernmental organization established in 1953. It is a forum in which Ministers responsible for transport can co-operate on policy. That policy is implemented by the national governments and by operators associations such as the IRU⁸. The ECMT comprises at 1st May 2004 the Ministers of the 25 European Union member states (except Cyprus) plus Albania, Azerbaijan, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, FYROM (Former Yugoslav Republic of Macedonia), Georgia, Iceland, Liechtenstein, Moldova, Norway, Romania, Russian Federation, Serbia & Montenegro, Switzerland, Turkey and Ukraine.

13. The EU experience of transport harmonization is particularly relevant to CAREC for several reasons. The EU is contiguous to CAREC and surface transport between the two blocks is quite possible. Indeed such transport is developing today. The backgrounds are also somewhat similar, in that the EU, as does CAREC, comprises countries with quite different, and sometimes very different, languages, cultures, and former transport regulatory regimes.

⁵ Trade, Income Disparity and Poverty, WTO 1999

⁶ et seq.: Europe at a Crossroads, The Need for Sustainable Transport, EU publication 2003

⁷ A survey of foreign-registered vehicles returning from the UK in January 2000 found that only 2.6% of them had made cabotage trips while in the UK. On this basis, it was estimated that cabotage represented only 0.06% of the domestic road freight market (measured in ton.kms), up from 0.05% in 1997. Paper by Professor Alan McKinnon, Logistics Research Centre, School of Management, Heriot-Watt University, Edinburgh

⁸ The International Roads Union is the international umbrella organization of national associations of road transporters. It is an NGO though some of its members in the former socialist countries are governmental. It has lobbying and educational objectives, but also has a quasi-regulatory role in administering the TIR system.

14. Specifically with relevance to this report the EU has relatively well defined regulations for:

- vehicle emissions (EURO 1 to EURO 5)
- weights and dimensions of vehicles (EC96/53)
- tariffs, road user charges, and transit fees (non-discriminatory)
- provision of transport services (regulated by quality, e.g. EC96/26 but not by quotas)

15. These themes are developed further within this report, sometimes by borrowing heavily on EU experience. The implementation of the EU regulatory regime, in full, is legally obligatory for members of the EU. Members of the broader-based ECMT find it advantageous to adopt the harmonized EU regulations, without it actually being obligatory for them. As the EU expanded from its original six members, the newly joining countries were sometimes given (limited) time to adapt to the existing EU regulatory regime. The implementation of this harmonized regulatory regime has allowed, or quite possibly promoted, the approximate doubling of international road freight transport in the EU between the years 1990 and 2001⁹. Ninety percent of this international traffic is between the EU member states as a group. The growth of transport exceeded the growth of GDP over the same period by a factor of more than 1.5.

16. The US experience in transport regulation, being distant from CAREC, is less relevant, but brief mention may be made to illustrate the point that successful regulatory reform is not just a European phenomena. In the US road and rail transport was regulated by the Interstate Commerce Commission (ICC), starting from as early as 1887 when railways were considered a monopoly. A long period of decline set in, and by 1960 one third of the US rail industry was bankrupt or close to failure. The trucking industry was likewise controlled by federal and state rules that had led to much inefficiency.

17. Deregulation by a number of acts in the 1970s and onwards opened up the transport market, brought cost savings and increased levels of service by all modes. By 1988 railroad rates had fallen from 4.2 cents per ton-mile in the 1970s to 2.6 cents, even as the railroad industry itself had become more profitable. Between 1977 and 1982, rates for road shipments fell about 25%. Improved flexibility enabled business to schedule deliveries on a timelier basis thus reducing inventory costs. It was estimated that the outlays necessary to maintain inventories had plummeted by more than \$100 billion.

18. It must be emphasised in conclusion that deregulation in the sense used here applies to the market place, quotas, internal or external border crossings, and how services are controlled (for example tariffs and obligatory service provisions). At the same time as the marketplace became more efficient, safety and environmental regulations were much strengthened both in the US and the EU. The transport industries have been able to cope with these stricter controls for several reasons. Principally, the uniform regulatory and competitive environment in which they operate has led to highly efficient management and sufficient profit to invest in improved equipment. The industries themselves participate with governments in the formulation of the regulations. Regulations must lead to defined public benefit, be implementable by the industry, and enforceable by the authorities nominated to do so, otherwise they are counter-productive.

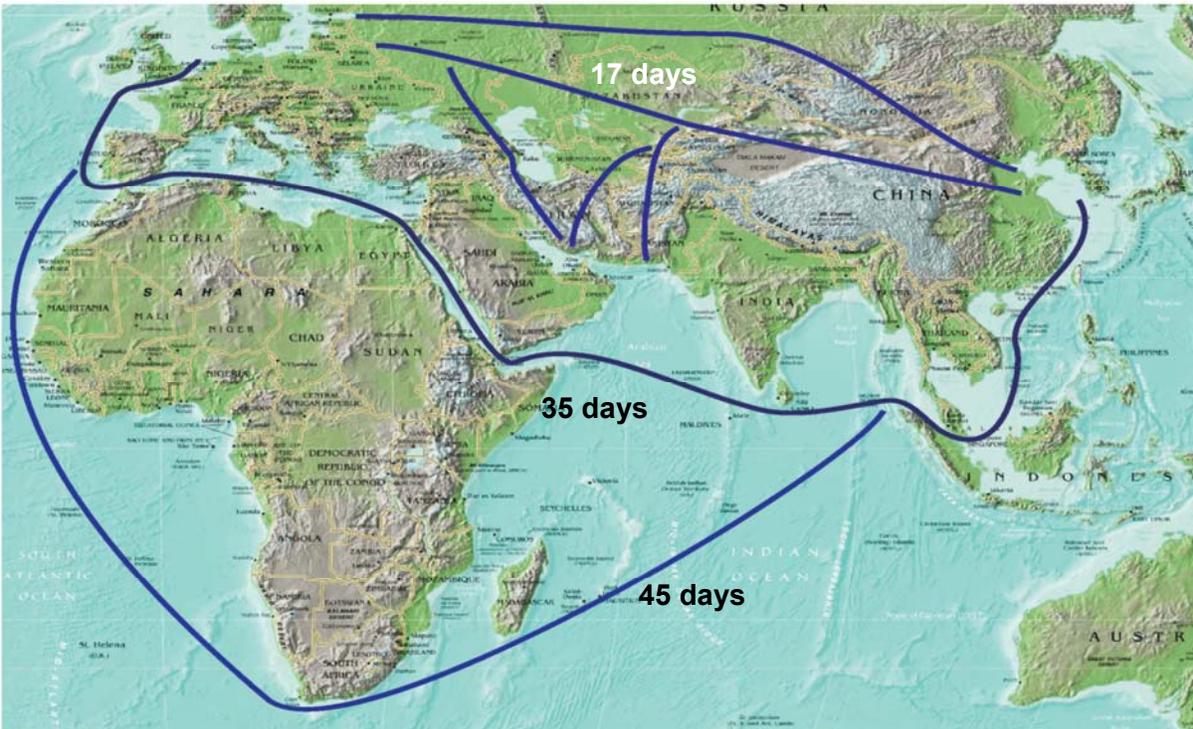
19. In contrast to the EU and USA, the CAR has small and fragmented transport markets. It really would defy international experience if the Central Asian transport markets were to eventually develop successfully, each in isolation.

1.3 CAREC countries as a geographic hub

20. In lying between Europe and the PRC the CAREC countries can either separate or they can connect two of the world's most powerful economic blocks. The challenge they face today is to make the CAREC countries an easy place to move in, not a place to go around unless you really have no option. At present most traffic is between neighboring countries, or near-neighboring countries.

21. An overview of the Eurasia transport routes is shown hereafter.

⁹ Measured in tonne.km. Source: Eurostat – Trends in Road Freight Transport 1990 to 2001.



22. The road and rail infrastructure by which the land routes are served is shown in 5.1 Annex - Main Regional Road and Rail Routes. These same routes also serve the intra-regional trade. The later is at least as important for CAREC countries economic development as the inter-regional (or intercontinental) trade. Although the land routes are faster than sea routes, they are more costly, and less reliable (in the sense of being less predictable). Modern freight logistics places emphasis on all three attributes (cost, speed, predictability), but except for very high value goods, cost and predictability are the most important. If the predictability of time of arrival of a consignment is low, then large stocks must be held by consignees, and any advantage of speed evaporates. Cost differences for container transport are illustrated in 5.7 Annex - Comparative Costs of Intercontinental Rail and Sea Transport.

23. The former Soviet Union (FSU) developed a transport system with Moscow as its hub. This infrastructure extending well to the north, east and west of CAREC most certainly still exists, linking CAREC directly to important trading partners as well as to Russian deep sea ports and to Europe. The common regulatory standards and operating practices of the FSU also still exert a strong influence. Widespread knowledge of the Russian language is an additional common denominator in all of CAREC except the PRC.

24. To the south, the political state of affairs in Afghanistan has long thwarted development of trade and transport in that direction. The turbulent situation there has much changed for the better in recent years. The ADB Central and Southern Asia Trade and Transport Facilitation (CSATTF) Initiative is developing the new opportunity thus presented, by means of substantial investment and technical assistance (see 5.1.3 CSATTF Corridors).

25. The transport infrastructure to serve CAREC inter-regional and intra-regional trade may not be fully developed, but it does already exist, and it needs to be exploited to its fullest capacity. In fact the infrastructure is better developed than the regulatory regimes that control the traffic using it. Hence in response to the challenge facing the CAREC countries, establishment of a transport regulatory zone that allows the same freedom of movement as the EU, the US, and the sea-lanes, is a reasonable, necessary, and achievable response. Many lessons have been learnt in establishing the regulatory regime in the EU. It appears logical to converge with that regime in the CAREC countries.

1.4 Implementation of CAREC transport policy and its results

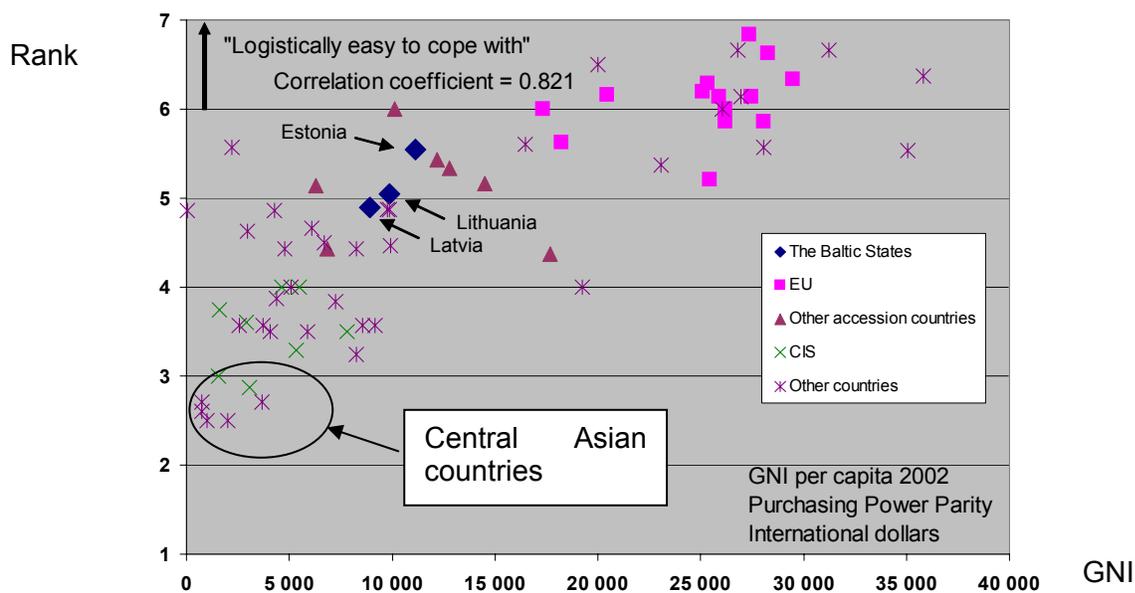
26. World experience of transport regulation displays failures as well as successes. One of the most serious failures of road transport policy across European countries has been in enforcement of rules. This

situation has still not been fully resolved but governments and operators are making efforts to rectify it, including greater self-enforcement by the transport profession¹⁰.

27. In the less robust and less established legal environment of Central Asia, serious questions may also be asked concerning the public benefits that the cross border regulatory regimes presently achieve. Cross border procedures are very time-consuming, but in spite of the controls carried out on vehicles, their loads, and their drivers the countries involved have poor traffic safety records, pollution from vehicles is high and road pavements suffer from overloading. Likewise the area is still considered major a channel of illicit trade.

28. The CAR may carry so called “captive” traffic, that cannot be diverted elsewhere, but it does not act as a magnet for clients. A survey was conducted in 2003 among international freight forwarders in order to illustrate how “easy” or “difficult” individual countries are perceived to be from a logistical point of view¹¹. The concept of “logistics friendliness” was adopted referring to the ease or difficulty of arranging international freight operations to or from a particular country. The following graphic illustrates the results.

The Ranking of Countries in the Logistics Friendliness Survey 2003



29. According to the survey Central Asian countries rank low in both logistic friendliness and Gross National Income per capita. They were found to have opaque regulations and practices, which add to the cost of transport, reduce speed, and make it unpredictable. A high level of corruption was perceived. This is a strong indication that the less perceived corruption there is in a country, the easier it is to trade and arrange the logistical practicalities with that country.

30. Unofficial fees along a transport route are often collected not only at the border, but they also appear during transit within the country. Traffic police can be an impediment as international trucks are defenseless against predatory enforcement¹². Border control and customs procedures are often cited as a major hindrance to cross border traffic movement, particularly road traffic. Customs processes are however beyond the authority of the TSCC.

31. The lesson to be learnt from world and from CAR experience may be that the establishment of a regulatory regime that has well founded good intentions, but is beyond the capacities of governments to enforce, is counter-productive. The result is a lack of respect for the law by both authorities and operators, and the sector remains effectively unregulated.

¹⁰ Jack Short, Secretary General of the ECMT at the IRU congress Bucharest 2002

¹¹ Inter-regional Trade and Transport Facilitation in Europe and Central Asia South Asia Region and East and Pacific Region, WB, 2004

¹² Source: preceding and interviews with a cross section of Kyrgyz road haulers 2004

1.5 Road, rail and intermodal transport

32. Transport from sea ports to the CAR and to Xinjiang, from either the East or the West, involves some of the longest land distances in the world. This favors rail transport, and in the FSU CAREC countries an estimated 89 per cent of the total export volume and 81 per cent of all imports is carried by rail, excluding pipelines and transport by air¹³. The largest category of freight transport is petroleum products, comprising approximately 60% of total tons loaded. This may change as pipelines are constructed and local economies evolve.

Trade by volume and mode to main trading partners or regions in 2003, Million tons; excluding transport by pipeline and by air

Million tons	AZE		KAZ		KGZ		TAJ		UZB		All five	
	Exp.	Imp.										
Russia	1.2	0.2	3.6	5.7	0.2	0.7	0.2	0.7	0.7	1.6	5.9	8.9
Other CIS	0.0	0.4	0.8	1.5	0.1	0.6	0.1	0.7	0.6	0.9	1.7	4.1
China	0.0	0.5	2.6	1.1	0.1	0.1	0.0	0.0	0.1	0.3	2.8	2.1
Other S & E Asia	0.0	0.4	2.2	0.6	0.2	0.3	0.1	0.2	1.1	0.3	3.6	1.8
MENA + Iran	0.0	0.1	0.7	0.2	0.1	0.1	0.1	0.1	0.2	0.2	1.0	0.6
SE Europe & Turkey	1.4	0.7	0.7	0.5	0.1	0.1	0.4	0.1	0.3	0.4	2.9	1.7
W Europe	0.0	0.6	5.1	3.5	0.2	0.1	0.3	0.2	1.0	0.4	6.6	5.0
Rest of the World	3.2	0.3	3.1	1.7	0.3	0.1	0.2	0.5	0.8	0.3	7.7	2.9
Rail and road total	5.9	3.1	18.8	14.8	1.2	2.2	1.4	2.6	4.9	4.5	32.2	27.2
<i>Of which by rail</i>	<i>95 %</i>	<i>72 %</i>	<i>88 %</i>	<i>81 %</i>	<i>86 %</i>	<i>84 %</i>	<i>92 %</i>	<i>87 %</i>	<i>89 %</i>	<i>82 %</i>	<i>89 %</i>	<i>81 %</i>

33. Road transport is mostly used for relatively local distribution, although for high value goods road transport is often preferred at any distance. A large share of trade value (as against tonnage) is transported by road. There are various route and load specific circumstances defining the road/rail break even distance for any particular transport operation. Commonly, it lies somewhere between 700km and 2000 km.

34. The cost of sea and river transportation is lower than rail and road transportation. Where sea and river transport are available they are usually the cheapest option. Sea and river transport also have relatively low environmental impacts, while rail impacts are higher, and road transport is the worst environmental offender.

35. Intermodal transport was slow to develop in the region, for various reasons:

- a lack of equipment to handle ISO containers outside of a limited number of major terminals;
- the rail tariff system sets a high price on containers;
- limited demand patterns for regular two-way movement of full containers;
- the border crossings which interfere with the organization of fast container movement; and
- regulations and working practices following those of the individual modes.

36. Containers generally carry cross border or long distance transit goods of a relatively high value. As such they have been subject to higher tariffs in an attempt to cross-subsidize local traffic. Payment must be made for the transport of empty containers, whereas empty wagons return free of charge. Commercial practices, and the fact that much of the CAR's exports are commodities, have also negated the advantages of containerization. For example cotton, a major Central Asian export crop, is often warehoused at or near Baltic and North Sea ports while it is traded. Its transport from producer to end user is thus discontinuous, and there is reduced handling advantage to containerizing it.

37. Essentially, the transport customer is interested in the end result for their own commercial operations, and is not interested in the transport mode as such. Transport operators can improve their competitiveness by making best use of different modes for any single client requirements. Accordingly, the current trend in world freight transport is to establish "seamless" services, in which any modal changes have

¹³ Inter-regional Trade and Transport Facilitation in Europe and Central Asia South Asia Region and East and Pacific Region, WB, June 2005

minimum technical, administrative and commercial impact on the overall operation¹⁴. This extends to 3rd Party Logistics (3PL) where the transport operator also provides the client with stock control, warehousing and other services.

2. ROAD TRANSPORT

2.1 Regional agreements and international conventions

2.1.1 Bilateral and multilateral agreements

38. All of the region's cross-border and transit road transport is conducted under bilateral agreements, and unilateral decisions on their implementation. The multilateral agreements act mostly as framework statements. Their implementation mechanisms have never been effective. A list of the agreements is shown in 5.2 Annex – Regional Multilateral and Bilateral Transport Agreements¹⁵. Agreements are typically developed at MOT level with communications being assisted by the MOFA. They are signed at intergovernmental level, and maintained in operation by regular contacts between MOT officials.

39. During the preparation of this report support was expressed for the bilateral arrangements as working mechanisms. Although their limitations were recognized, they are relatively easy to manage at Ministerial officials' level. On the other hand the multilateral forums have to bring together a number of representatives from several countries. The meetings are more cumbersome to organize, the number of interests to be satisfied is larger, and dissent on any issue slows down the whole proceedings. A longer time would be required to achieve results if these became the principal mechanisms for reaching working agreements.

40. Of the various multilateral initiatives, the EU TRACECA program is the best financed. It maintains a secretariat in Baku and a network of representatives including every country. There are quite frequent assemblies of representatives for projects and decisions on programming, and ostensibly, decisions to manage the transport system. It initiated a multilateral basic agreement on transport, signed at Head of State level in 1998. It has conducted numerous technical assistance projects, parallel to and in direct support of that basic agreement. The TRACECA program certainly has had a very positive effect in technical know-how transfer, familiarization with international norms and practices, and in stimulating dialogue between representatives of the program's member countries. However, even though well financed, it has not had a remarkable effect in establishing agreements that provide working rules for government officials and transport operators.

41. Under the auspices of an UNCTAD initiative for land-locked countries there have been six trilateral meetings between Russia, Mongolia and the PRC. These have not led to any concrete agreements.

42. The CIS remains a forum of contact between its member countries. The only general CIS transport sector agreement is the Transport Union between Belarus, Kazakhstan, Kyrgyzstan, and Russia. This agreement contains some progressive components. Article 1 states as its objective a more effective implementation of transport and a reduction in its cost. Article 2 k) seeks to establish a permit free transport environment. Article 2 o) seeks to establish conditions as favorable¹⁶ for all adherents as for any one (non-discriminatory). Article 3 envisages implementation by steps, and Article 4 establishes a "further-Integration Committee"¹⁷ which would under Article 5 appoint working groups for specific actions. Disagreements with Belarus have apparently prevented ratification, so that the Union now lies dormant and almost forgotten.

43. The CIS has also generated the Minsk Agreement of 1999 (MA99) on weights and dimensions of vehicles (discussed further in Section 2.3 Vehicle dimensions and weights). This multilateral agreement, dealing with a purely technical subject has had some effect at national level, but less so in creating a uniform regional regulatory environment for operators.

¹⁴ There are many examples of this, such as the growth of international freight forwarding companies, and the extension of marine shipping companies into ownership of railway systems and other transport assets.

¹⁵ The list is based on information recently gathered for this and previous reports, and is believed to be comprehensive.

¹⁶ "не хуже" or "no worse"

¹⁷ The appointed head of this committee was Mr. Isingarín, a senior FSU and Kazak political figure

44. The bilateral agreements between CIS countries are generally similar. The core objectives of the agreements are to open up routes for cross border and transit traffic. They specify whether a permit system is established. The bilateral agreements that involve non-CIS countries are all based on permit systems, whereby each country accords the other an equal number of permits to cross the border. If demand exceeds this number, then additional permits are created by mutual agreement, or the additional border crossing operations are made for payment. The bilateral agreements generally deal with technical issues such as vehicle emissions and vehicle weights and dimensions, by allowing each country to impose its own national standards. They almost never refer to specific multilateral agreements, such as MA99, or to the international conventions. This leaves open a serious gap or ambiguity in regulatory implementation. Typically the bilateral agreements do mention road safety, the environment and other such public interests, but these are not prominent features.

45. Dissemination to operators is through the national associations of road haulers, which are themselves sometimes quasi-governmental agencies or at least very closely associated with the MOT. Public dissemination (in newspapers, trade journals, etc) is not common, but specialized trade journals in this sector are rare¹⁸. Language differences aggravate problems of communications between the PRC and CAR, particularly at operator level. The internet is now widely accessible in CAREC, and is an obvious medium for full diffusion of information.

46. The situation between the PRC and other countries is unique in that traffic does not proceed far beyond the borders with the neighbor involved. There are some scheduled bus services from Almaty to Urumqi, and Bishkek to Kashgar. There are designated freight routes to Kashgar and Urumqi but these are little used. More typically goods are transshipped very close to the borders on either side, for onward travel by a national carrier. There are, exceptionally, two specific agreements for mining projects in Mongolia, and one in Kyrgyzstan where PRC vehicles penetrate as far as the mines. Transit¹⁹ is not allowed on both the PRC and FSU CAREC sides. The restrictions on the FSU – PRC road borders are the most conspicuous limitation on transport operations anywhere within the CAREC region and were not foreseen in the initial agreements that opened the borders. According to all accounts by operators and inspection of border crossing facilities by consultants, transshipment of goods is more common than through transport. The reasons for low traffic beyond the borders are not clear, and neither is the position of the TSCC as a group on this issue. There have been many previous discussions between the parties involved, at Ministerial level. Possibly it can now only be resolved at a higher political level.

47. A defect of all agreements is that they do not make any special provision for visa issue. The need to obtain visas was often mentioned as a handicap to cross-border traffic in all directions, including the EU (Shengen visas).

48. The CAREC Senior Officials' Meeting held in Manila in April 2005 confirmed a serious intent to harmonize regulation. The only possible vectors for harmonization are multilateral agreements, but CAREC countries have been reluctant to fully embrace such agreements as working instruments. Most of the multilateral framework agreements signed up until the present must be acknowledged as cul-de-sacs, or be re-examined and activated. The need for more framework agreements is questionable. The implementation of existing agreements is overdue. The alternative to multilateralism is a fragmented regulatory regime. Transport corridors might then be created physically, but be denied traffic because of the regulatory chaos.

¹⁸ Kazato, the Union of International Road Carriers publishes a quarterly journal

¹⁹ Transit in this context means crossing the territory of another country to reach a third country, or a port of export to a third country

Issues and opportunities – Bilateral and Multilateral Agreements

Reliance on bilateral agreements and unilateral implementation has led to an excessively fragmented regulatory environment.

Milestone 1: Confirm that multilateral road transport agreements are the primary international engagements between governments for regional cooperation.

Milestone 2: Review the present portfolio of agreements; decide their roles in coordinated regional transport development, while favoring multilateralism. Rescind superfluous agreements.

Milestone 3: Apply agreements, and regularly review their effectiveness in satisfying commercial demand for their signatories.

Milestone 4: Negotiate new agreements or make amendments to existing ones in response to technical development and commercial prospects in the region.

Timelines for actions and results - Bilateral and Multilateral Agreements

Milestone	Actions	2005	2006				2007				
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
1	Confirmation of multilateralism		▲								
2	Review present agreement portfolio		—————								
	Designate applicable agreements				▲						
	Rescind superfluous agreements			—————							
3	Apply designated agreements			—————							
	Review success of application (regularly)				▲		▲		▲		
4	New agreements and amendments				▲	- - - - -					

▲: TSCC Meetings ▲ : Start or end result date subject to confirmation

49. Assuming that multilateralism will be endorsed in principle at the first TSCC meeting in 2006, then the TSCC country delegates should prepare to designate those agreements that they consider important for CAREC, at the second TSCC meeting in 2006. The status of these agreements relative to others (including bilateral agreements) should also be defined at that meeting. Thereafter the resulting framework of agreements should be implemented, according to an agreed timetable and enforcement mechanisms, and their effectiveness reviewed at each subsequent TSFF meeting.

50. The delegates for the second TSCC meeting in 2006 should inform themselves on actual transshipment or through transport practices at PRC CAREC border crossings. They should then consider whether the agreements for this cross border traffic are fully achieving the objectives of their signatories, and those of CAREC. The results of this investigation should be discussed at the TSCC meeting.

51. If new agreements or amendments to existing agreements are found to be necessary, these should be inserted and cross referenced with the existing framework of multilateral engagements. In this respect, facilitation of the issuance of visas for drivers is an issue that should be considered. Also, an agreement that provides certification of vehicles emission standards, equivalent to the Cholpon Ata agreement, should be considered (see following Section 2.3 Vehicle dimensions and weights and Section 2.4 Vehicle emissions).

52. Where enforcement of an agreement involves multiple government agencies within a country (as is frequently the case), the TSCC should act as the lead interface agency for enforcement, or define whatever alternative mechanisms are to apply in their country.

2.1.2 International transport conventions

53. The international transport conventions are legal and normative instruments to promote road safety, facilitate traffic flows, and coordinate technical standards. The principal conventions are listed in 5.4 Annex – International Conventions Relating to Transport. Evidently, the CAREC countries have very different degrees of adherence to the principal conventions. This is not in itself an accurate indicator of the compatibility of their transport regimes with cross border traffic facilitation. Countries can freely adhere to these conventions independently of what their neighbors do. However the utility of the conventions as

regulatory tools is enhanced by the geographic breadth of their application. As a forum concerned with transport there is an obvious interest for CAREC to accept as a group these international agreements on common standards.

54. The international conventions are sometimes prescriptive, while others do little more than record normative practice in each signatory state. Where they are prescriptive, they often impose rules that might be highly effective, but require training and a very well developed enforcement capacity to achieve anything useful. These would include:

- AETR (driver work hours): This can be enforced by work sheets, manually filled in (simple, but a weak control mechanism), tachographs (currently the imposed method in the EU), electronic devices (proposed to become the EU imposed method as soon as technical standards can be agreed). Although this is not an easy issue to address, driver fatigue remains a major cause of road accidents in CAREC countries. Transport of international tourists will certainly be impeded if present standards are not improved. The CIS countries and probably the PRC do already have rules on drivers working hours dating from the SU epoch, but these have fallen into disuse.
- ADR (dangerous goods²⁰): This requires considerable training to apply. Cross-border transport of dangerous goods in the CAREC region by road is rare (most dangerous goods travel by rail) and the absence of the ADR is neither hindering trade to any considerable extent, nor posing a safety problem at present.
- ATP (perishable goods): Trade in perishable goods is one of the sub-sectors that has declined since the demise of the FSU. Moreover, the poorer sectors of the CAREC population, who are often working in agriculture or are shopping for low-priced foodstuffs, are notable losers in this decline. The ATP is a complicated convention to apply, and probably beyond the resources of the less-wealthy CAREC regions at present. If the ATP is adopted in a patchwork rather than in a regionally coordinated manner, it is quite possible that it will become a hindrance to trade and poverty alleviation. There is no identifiable link between the absence of the ATP, and the regional decline in transport and trade of foodstuffs. Perishable foodstuffs are particularly sensitive to unpredictable transit times. This unpredictability is a strong disincentive to their regional trade and transport.
- TIR (transit²¹): This has long been a key instrument in facilitating international transit traffic elsewhere in the world. All CAREC countries except the PRC are signatories to the convention and apply it. The PRC is taking steps to adhere, but no timetable has yet been set for this. There have been reports that customs officials in the CAR do not apply the TIR system as they should (for example, breaking of seals for re-inspections, imposing convoys etc). During the country visits for this report it was stated that such practices had ceased. These are customs matters not directly under the authority of the MOT and the TSCC representatives. However, as the principal government organ for transport development, the MOT certainly has a responsibility to see that their governments do meet their international transport sector obligations, and do correctly apply the TIR. The TRACECA program helped establish the TIR system in the CIS CAR region and has already provided extensive TA in its application. The PRC (customs agency) may require further training. The program plans to provide TA in both the ADR and the ATP within the next two years. The management has stated willingness to adapt this program to suit eventual ADB investment interest, if there is sufficient such interest expressed by the program's partner states and the ADB itself.

55. Adhering to the relevant international conventions and applying them is the most effective way of addressing road safety within a regional transport context. In particular the Convention on Road Traffic (08/11/1968) stipulates a broad range of very practical road safety measures. The Convention on Road

²⁰ In CIS countries GOST 19433-74, and GOST 19433-88 were and probably still are applicable. ADR requirements change constantly, according to technological requirements (the "Orange Book"). The GOST standards could not keep pace with this within CAREC.

²¹ Occasionally there is confusion because the TIR convention is thought applicable to simple cross border traffic. In fact it is only applicable to transit traffic. This would however include multi-modal traffic, for example CAR goods transiting the PRC by road to or from ports.

Signs and Signals (08/11/1968) harmonizes the disposition of signaling, as an accompanying measure to the Convention on Road Traffic. All FSU CAREC countries have adhered to the Convention on Road Traffic, but do not apply it in full. For example, public education in road safety is not very evident in the media, few countries insist on seat belt use, and the safety of pedestrians seems of little concern to many drivers, and to the traffic police who are supposed to be controlling them. Given the complexity of some of the conventions, a coordinated regional strategy, targeting affordable rather than token benefits, appears the most realistic and achievable. The interests of the less rapidly developing zones in the region need to be taken into account, before seeking to apply well-intentioned rules that would in fact block their economic development.

56. Continuing international assistance with training in application and enforcement, and possibly the provision of enforcement equipment, would accelerate the process. Familiarization and training should include transport ministry officials, enforcement agencies such as traffic police as well as customs, academics, and the private sector. Generally CAREC countries legislative systems allow that international agreements, once duly ratified, take precedence over pre-existing national legislation. In principal this simplifies harmonization of national legislations, but in practice there may be many grey areas where it is not clear if the international obligation is applicable or not (or indeed obligatory rather than advisory). This accentuates the need for care, study and regional coordination when adhering to these conventions.

57. There are other regulatory instruments that have no legal status beyond the jurisdiction that developed them, but have considerable influence on road transport regulation. These include EC Directives concerning international transport that are obligatory within the EU, and at the same time have taken on a normative status outside the EU. Certain of the international conventions, the EC Directives, and EU member states national legislations are intertwined (for example the CMR, the AETR, the ADR). These instruments embody a wealth of experience around which many countries are formulating their national regulatory frameworks, including CAREC member states. For the purposes of this report the following additional instruments are notable and are considered in more detail in the specific sections on these subjects:

- EC 96/53 on weights and dimensions of vehicles; and
- EURO 1,2,3,4, 5 concerning vehicle emission controls.

58. Issues that have not been designated as a priority in previous TSCC meetings, but which merit consideration, at least for long term regional transport planning are:

- third party insurance using the Green Card system or an equivalent;
- operator licensing as imposed by EC 96/26; and
- the CVR²² which defines passenger transport civil (or contract) liability in a manner equivalent to the CMR for freight.

Issues and opportunities – International Conventions

- All of the international conventions on transport are key instruments in promoting road safety, facilitating traffic flows, and coordinating technical standards.
- To achieve the desired effects in terms of public benefit, it is not sufficient to sign the conventions. They require enforcement capabilities that are at least partially beyond the present means of CAREC states.

Milestone 1: Multiple parallel steps in the immediate future:

- Agree a regionally coordinated program to accede to the conventions.
- Define the TA and the TA provider needed for accession and application.
- Define any investment needed to support enforcement, and the source of that investment.
- Review domestic legislation for conformity with the Convention on Road Traffic.

Milestone 2: Revise domestic legislation to conform to best road safety practice in the Convention on Road Traffic.

Milestone 3: Adhere to all of the conventions, and apply as and when the enforcement capacity and minimum necessary regional economic development allows.

²² The CVR has not been widely adopted, mainly because the EU member states cannot yet agree on a common position on operator liability to cross border passenger transport. The CVR remains the only international standard that could be considered by CAREC in this domain.

Timelines for actions and results - International Conventions										
Milestone	Actions	2005	2006				2007			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Agree a coordinated accession program		▲							
	Define the TA and provider		▲							
	Define investment & sources		▲							
	Review legislation	—————								
2	Revise domestic legislation to conform to Convention on Road Traffic				▲					
4	Progressive adherence and application, with regular review points		- - - - -				▲	▲	▲	
▲: TSCC Meetings ▲ : Start or end result date subject to confirmation										

If it is assumed that a coordinated accession program to International Conventions is adopted at the first TSCC meeting in 2006 then TSCC delegates should prepare their planned schedules of accession to International Conventions for the second TSCC meeting in 2006. No order of priority for accession is proposed in this report, as the needs of CAREC countries are not identical. Likewise 5.4 Annex – International Conventions Relating to Transport is not limitative and other conventions may be proposed.

59. If technical assistance is considered necessary to accede to and to enforce a convention, then this should also be defined in outline at the first TSCC meeting in 2006. Delegates should identify possible impacts of their plans on cross border traffic²³.

60. Delegates should review their national legislation, regulations, and practices to verify that they do in fact conform with the conventions to which they are adherents, or shortly expect to become adherents. A suitable focus of this review would be the Convention on Road Traffic, as all CAREC members (except the PRC) are signatories, and it is a convention with a strong road safety component.

2.1.3 Legal implementation

61. The CAREC countries implement agreements mostly by way of legislative ratification, followed by governmental resolutions, decrees and orders. These constitute a mass of legal instruments that it was not possible to investigate in full depth during preparation of this report.

62. However, it is of particular interest that the PRC has recently promulgated orders for the regulation of international road transport²⁴. The whole of this document is relevant to such transport. The following brief remarks are made:

- Routes (origin/destinations) are to be agreed between the relevant states (Article 17).
- The Order allows international road transport within PRC territory by foreign trucks (Article 19 onwards).
- The Order imposes PRC weights and dimensions of vehicles, unless an agreement with the other country in which the vehicle is registered, foresees otherwise (Article 21).
- There is no mention of vehicle emission controls.
- Overall the Order is a commendable expression of acceptance of international road transport, and it liberally regulates entry of foreign trucks into the PRC.

2.2 Entry fees, transit fees, road user and other charges

2.2.1 Present principles and practice

63. Just as the CAREC region has developed a complex web of transport agreements, so the accompanying payment systems are equally intricate. It has been difficult to collect consistent information

²³ Examples would be the imposition of tachographs, or any other specialist equipment, or certification requirements such as for the ATP

²⁴ Order of the Ministry of Communications No. 3, 2005 - The Regulations for administration of International Road Transport, which have been deliberated and adopted at the 7th executive meeting of MOC on April 6, 2005 are hereby promulgated and shall come into force as of June 1, 2005.

concerning them. A summary of the various fee scales declared is shown in 5.3 Annex – Fees for Cross Border Road Transport.

64. The CIS agreements allow free transit for CIS registered vehicles between CIS countries. The permit systems grant free entry where they apply, and on presentation of a permit. The non-permit bilateral agreements also allow free entry²⁵ in principle. They do not exempt from tolls and fuel taxes.

65. The essential principle of all of the fee systems is that they are claimed not to be a payment for right of entry or right of transit. These *rights* are granted by the agreement. The fees are justified as *road user charges* destined for the Road Fund. In all cases though, the fees are paid to customs authorities and absorbed firstly within general government revenues. The eventual allocation of these payments to the Road Funds is not well assured²⁶. Other specific charges are sometimes made for customs conveying, ecological taxes, etc). It has been said that these are levied by different entities for their different purposes. This would not however prevent their consolidation into one simple charge for the user.

66. The various fees levied at borders are unilaterally established. It was sometimes stated that this was done in consultation with other countries, and at other times in response to other countries. “Response” in this context may indicate a lack of consultation or an absence of agreement after consultation, and imposition of fees on a tit-for-tat basis. There was no evidence anywhere of the fees having been agreed between two or more states amicably or in writing.

2.2.2 Issues to resolve

67. Fees are a very contentious issue. There is a serious lack of consensus between Uzbekistan and Kazakhstan, Kyrgyzstan and Tajikistan on different issues related to fees. At present Kazakhstan is insisting on the implementation of a permit system between Kazakhstan and Uzbekistan, while Uzbekistan is refusing. The counter-argument is that Uzbek fees are excessive. At present Kazakh trucks can cross the border into Uzbekistan, upon payment of the standard fee. Uzbek trucks can transit Kazakhstan but cannot engage in cross border trade because there is no agreement on permits.

68. Azerbaijan, Tajikistan, Uzbekistan and Kazakhstan impose road user fees on an axle weight basis. The fee scales are all different in format and cost. They do not correspond with the CIS agreement on weights and dimensions (MA99 see 2.3 Vehicle dimensions and weights) except in Kazakhstan (where the fee only applies to vehicles exceeding MA99 maximum limits). A unified scale of charges would simplify the present confusion²⁷ and reduce the zone of contention. Axle loadings should not be allowed to exceed the maximums, because of the severe damage that they cause to pavements. Basing fees on axle loadings is however a complicated and impractical process.

69. Neighboring states object to the level of the Uzbek fee. Tajikistan regrets the absence of a transport agreement with Uzbekistan. The imposition of custom convoy fees in Uzbekistan has led to related fees being introduced, only for Uzbek vehicles, in Tajikistan.

70. Issues unrelated to the transport sector impact on its operations. These would include trade policies, border demarcations, water usage, and energy. Certain issues that were contentious in the past were not raised during the preparation of this report. These would include fees for crossing oblast boundaries in Kazakhstan, and ecological fees. Fuel taxes and insurance were not raised as an issue in any country during the country visits. Kazakhstan, Tajikistan, and Kyrgyzstan all stated that there were no contentious issues between them.

2.2.3 Potential solutions

71. The CAREC Senior Officials’ Meeting held in Manila in April 2005 has included tariffs, road user charges, and transit fees in the list of subjects to address within CAREC. However, during the visits to CAREC countries there was a certain resignation in face of the status quo, and lack of confidence in

²⁵ To quote Article 11 both of the Uzbek-Kyrgyz and the Tajik-Kyrgyz agreements simply as typical examples and without any particular selectivity: “освобождаются от платежей и сборов” = exempt from payments and fees. The conditions of applicability of this exemption are fairly broad.

²⁶ More than one ADB technical assistance report has lamented the weakness of the Road Fund financing mechanisms in the CIS CAR.

²⁷ e.g. <=3.5tons <=12tons <=25tons <=40tons, or length based, and a single ton.km charge within each of those bands.

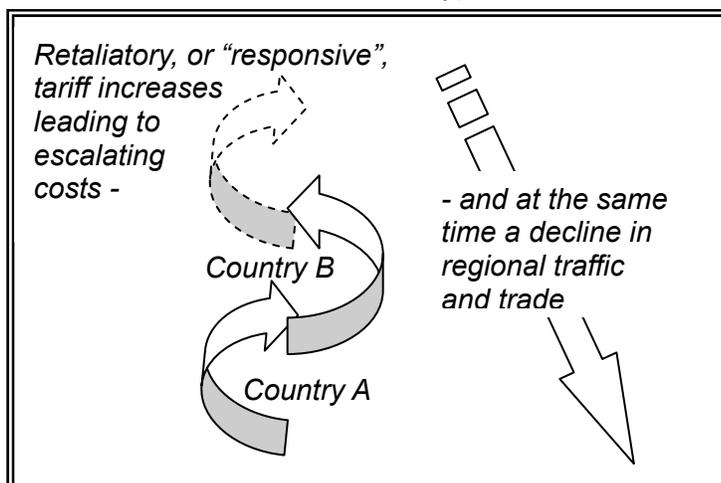
multilateral processes such as CAREC to resolve the specific differences, at least in the short term. There was high interest from all sides in multilateralism in general as the eventual solution.

72. Fee disharmony such as is found between the CAR is being resolved in Europe within the ECMT. Ministers agreed in 1999 that the response to perceived unfair charges should not be to further complicate the taxation of international haulage. It should instead be to simplify taxation, preferring territorial²⁸ taxes (paid by all haulers) to nationality based taxes.

73. Progressive adoption of a simple structure of three main categories of taxation is foreseen:

- a territorially based charge in the form of a km charge, tolls or the Eurovignette, differentiated according to environmental costs;
- nationality based annual vehicle taxes (without complementary transit charges); and
- fuel excise tax (without rebates that discriminate on the basis of nationality).

74. Retaliatory charges are by definition discriminatory²⁹ and should not be deployed in any circumstances. Miscellaneous charges to cover costs related to border controls, local customs inspection costs, policing costs, parking at borders etc., although not necessarily discriminatory, should be minimized due to their complexity. These costs would be better covered through an element of a generalized territorial charge. At the most, a small, single entry charge (applicable to all haulers regardless of nationality) would be preferable to a multiplicity of charges. The alternative is a proliferation of charges.



75. These provisions were confirmed at a meeting of the ECMT in Moscow in May 2005. It was decided that discriminatory charges in road transport were to be phased out³⁰. This implies that no fee for use of infrastructure should be charged which is not charged equally to all of the infrastructure's users, without consideration of nationality.

76. It may be noted in passing that the ECMT and practically all progressive road management authorities, supported by development agencies such as the ADB and the WB, favor "user-pays" principals for the collection of adequate funds to maintain and to develop road infrastructure. The justification for the imposition of a payment for road use, in principle, is not in question. Targeting only a section of road users, such as foreign registered vehicles, to cross-subsidize domestic road users, or in pursuit of protectionist trade ends is counter-productive. It leads to a cycle of charge and counter-charge that stifles trade and the transport market. All of the CAR countries have problems in establishing Road Funds that adequately finance road maintenance. The solution to this problem will not be found in cross-border and transit taxes.

77. Tolls are rare in all CAREC countries except the PRC. Tolls are however the road user charging method that best corresponds to territorial usage. The ADB has financed the construction of several tolled expressways in the PRC and has developed a Toll Diversion Manual to calculate appropriate charges on these projects.

²⁸ Territorial based charges in this sense means that the charge is to use infrastructure with a certain zone or territory, such as a toll.

²⁹ Discriminatory in this sense means a charge that is levied on a foreign vehicle but is not levied on a domestic vehicle. In this sense normal toll charges for use of a road section, tunnel or bridge are not discriminatory if they apply equally to vehicles of all origins.

³⁰ Conclusions and Recommendations CEMT/CM(2005)5. The position was reiterated in Financial and Fiscal Aspects of Road Transport 4th June 2005

Issues and opportunities – Tariffs for Road Use

The present fee system is chaotic, has engendered regional animosity, and requires radical revision.

Milestone 1:

- Confirm that right of entry and transit is free, but that payments may be levied for road use up to an agreed maximum scale.
- Agree that any administrative fees will be included in road user charges.
- Consolidate other charges (customs convoy, ecological, etc) into the road user fee.
- Do not link road charges with regional issues unrelated to road transport.

Milestone 2: Agree and adopt a single scale of weight bands (or lengths) and rates for road use charges, as maximum allowable charges. Allow discounts but no supplements.

Milestone 3: Adopt non-discriminatory road charges for all users, national and international, by tolls or vignette or other equitable system.

Timelines for actions and results - Tariffs for Road Use										
Milestone	Actions	2005	2006				2007			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Confirmation of free right of entry, with payment for road use		▲							
	Agree to consolidate all charges		▲							
	Agree to decouple charges from other issues		▲							
2	Agree and adopt a single scale and rates, with regular control points		▲	—————▲	—————▲	—————▲			
4	Adopt non-discriminatory charging								▲.....	
▲: TSCC Meetings ▲: Start or end result date subject to confirmation										

78. Assuming that delegates will confirm at the first TSCC meeting in 2006 that the right of free entry with payment for road use is the preferred model then at the second TSCC meeting in 2006 then delegates should further agree that all charges can be consolidated into a single one only related to road usage.

79. Then it should in principle be possible for delegates to agree to a common scale of charges (for example <=3.5tons <=12tons <=25tons <=40tons, or length based, and a single ton. km charge within each of those bands). However, given the contentious nature of this issue, the timelines in this report foresee a slower, two stage establishment of a common scale of charges. In the absence of data and analytical models necessary to calculate an optimum charge, and given the present arbitrary but entrenched systems, it is suggested that delegates (and the authorities that they represent) firstly consider a maximum scale of charges of \$0 (for vehicles of 0 tons up to 3.5tons) up to a commonly agreed maximum (for vehicles of between 25tons and 40tons). All due consideration should be given to distances usually covered, the maintenance load imposed by different terrains, and social aspects. Marketing aspects should also be considered, and lower charges would be imposed by countries who wished to attract traffic for the trade and social benefits that it brings.

80. The eventual objective should be for countries to impose a purely non-discriminatory charge, based on user-pays principles. This would involve the acceptance of tolls for road use, which principle has been rejected up until now throughout CAREC countries, except in the PRC where tolling is well established. The "Implementation Schedule of the Regional Transport Sector Roadmap (Endorsed Version) 4th TSCC Meeting 12-13 October 2005, Bishkek" foresees an Action "Improvement of Sector Funding and Management", including a study and agreement on an action plan to be conducted between 1Q 2006 and 3Q 2006 inclusive. This action could be designed to provide analytic support to the establishment of a harmonized scale of charges based on user-pays.

2.3 Vehicle dimensions and weights

2.3.1 General

81. The TSCC and SOM nominated axle loadings as a specific topic for initial consideration within CAREC. The most contentious issue is how loadings affect entry fee scales. This has been considered in the previous section. There is also a technical aspect to the topic. In fact axle loading specifications usually form part of the overall regulations for vehicle weights and dimensions, so this report reviews these broader issues at the same time, rather than just axle loading in isolation.

2.3.2 Reference standards

82. Superficially, the regulatory situation throughout CAREC is well defined. The EU standards (EC 96/53) have been used as a reference standard by the "Minsk Agreement 1999" (MA99) between CIS countries, and have also been used by the PRC in developing their national standards (GB 1589 - 2004). Thus the two sets of CAREC standards (MA99 and GB 1589-2004) both derive from a common source document, even though the PRC is not a signatory to MA99, and none of the CIS countries acknowledge GB 1589-2004.

83. It is noted that the EC 96/53 standards apply only to traffic between the EU member states. Within the member states each country can allow different standards for its domestic traffic (though in practice there is very little variation nationally). The important fact is that regional traffic within the EU need only consider one standard, not a different one at every border crossed.

84. Differences have crept into the adaptations of the EC standards by GB 1589 and by MA99. These are highlighted in 5.5 Annex - Vehicle Weights and Dimensions – Comparative Summary. The consequences of these differences will be significant if they are allowed to persist:

- The lower maximum axle loading imposed by MA99 (10 tons instead of 11.5 tons) is a hindrance to full exploitation of a modernized regional fleet.
- Kazakhstan, a major transit country for all CAREC, has a specific variation within MA99 limiting the maximum load of typical semi-trailer vehicles to 38 tonnes (as against 40 tonnes everywhere else in the Eurasian corridor).
- The PRC GB 1589 – 2004 imposes a narrower overall vehicle width limitation. As vehicles are normally built to maximum widths and cannot be adapted, this would be a serious problem for international cross border traffic.

2.3.3 Enforcement

85. Irregular enforcement of standards may be at least as problematic as variations in the standards themselves. In the EU and in the PRC it is simply not permitted to exceed the regulated weights. In most of the CAREC countries an overload penalty is paid but the vehicle is allowed to continue its journey. Without this payment option there would possibly be less temptation by operators and by enforcers to abuse the system, by payment and acceptance of bribes, or by predatory controls.

86. The application status of MA99, like all multilateral agreements in the region, is unclear, or at best, partial. It has not been ratified by all countries. It is not used as the reference scale for overweight charges except in Kazakhstan. It has been seen in Section 2.2 Entry fees, transit fees, road user and other charges that fees based on vehicle weights have no common basis in spite of the existence of a clear agreement.

87. There are many anecdotal reports of weighbridges being inaccurate. According to information provided during investigations for this report, weight certificates are issued at border crossings. If these are then unjustifiably contested at a later control, a serious weakness of enforcement is evident, and corruption takes over from control.

88. Another multilateral agreement was reached between CIS countries in April 2004 in Cholpon Ata (see 5.2.1 Annex–Multilateral Agreements). This foresees mutual recognition of weight certification of vehicles between the signatories. The weigh-stations themselves would be subject to regional registration. No reweighing would be allowed except under very limited circumstances. This excellent agreement would be invaluable if implemented, but it was barely mentioned during the country visits.

89. In the absence of any obvious reasons for differences, application of a common standard of weights and dimensions of vehicles for regional transport within CAREC should be quite possible in the immediate future.

This would not oblige countries to change domestic standards if different. It would only oblige them to accept the regional standards for regional traffic. The regional weight certification system is a commendable regional initiative and should not require a period of dormancy before application.

Issues and opportunities – Weights and Dimensions of Vehicles

The region falls under the influence of three similar regulatory regimes. These regimes have small but significant differences.

Milestone 1: Immediately and in parallel:

- Confirm MA99 as the ruling standard for CAREC FSU.
- Apply the Cholpon Ata agreement on weights and dimensions certification.

Milestone 2: When PRC opens its borders further, adoption of EC96/53 as the regional standard.

Timelines for actions and results - Weights and Dimensions of Vehicles										
Milestone	Actions	2005	2006				2007			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Confirm MA99 and "Cholpon Ata" for CAREC FSU		▲							
	Apply the agreements, with regular review points			—▲—	—▲—	—▲—	—▲—	—▲—	—▲—	—▲—
2	Adopt EC96/53						▲	—▲—	—▲—	—▲—
▲: TSCC Meetings ▲: Start or end result date subject to confirmation										

90. Assuming that TSCC CIS delegates will confirm the validity of MA99 and “Cholpon Ata” at the first TSCC meeting in 2006 then both agreements should be implemented, and rendered effective by the time of the second TSCC meeting in 2006. Implementation in this sense includes the establishment of formats for certificates, the regional accreditation of weigh-stations to issue them, and the issuance of instructions to police, customs authorities and others to respect them. Implementation review and control mechanisms should include cross border driver surveys.

91. It is suggested that Mongolia accedes both to MA99 and the Cholpon Ata agreement at or by the time of the second TSCC meeting in 2006.

92. The adoption of EC96/53 (in place of MA99 and GB 1589-2004 for cross border regulation of traffic) is somewhat less urgent and more flexible than the preceding. However, its adoption should not raise serious technical objections, so a target date of 2H 2007 is proposed.

2.4 Vehicle emissions

2.4.1 Reference standards

93. The only widely applicable benchmarks for vehicle emission limitations are the EURO standards. One set of these standards applies to cars and light trucks, while another set applies to heavy duty diesel truck and bus engines. A brief summary is given in 5.6.1 Annex–Euro Standards.

94. The currently applicable standards in Europe are the EURO 3 series, though EURO 4 will already be applicable by October 2005 and EURO 5 in October 2008. Implementation has been accompanied by tax and other incentives, to encourage operators to renew their fleets. New vehicle manufacture and registrations are required to comply with the highest regulatory standards of the day by way of type approvals. Vehicles registered in a certain category are required to be maintained in that category at annual inspections, or taken out of use, depending sometimes on the particular technical criteria.

95. The accumulated body of EURO Directives is voluminous. Both the standards and their methods of application are complicated. Relatively sophisticated equipment is required to maintain vehicles in compliant condition, and to periodically test them. The Directives sometimes state requirements several years in advance that are subject to the technology being available. A worldwide type approval methodology is foreseen but does not yet exist. The many intricacies of these technical issues are not further developed in

this report. Just as for the multiple environmental impacts that motivate these stringent controls, they are subjects for very careful study and consideration rather than quick decision.

96. The reduction of vehicle emissions under the EURO standards also requires changes to the composition of fuel (reduction of sulfur).

2.4.2 The current situation in CAREC countries

97. In all CAREC countries the development and application of vehicle emission standards is not solely a matter for the MOT. Urban pollution is the major problem, so city governments are deeply involved. Also, the Ministries responsible for environmental protection play a prominent role. Enforcement is likewise multi-agency, with traffic police, and environmental agencies participating in various aspects. The ADB and the World Bank have both carried out projects to promote, in particular, cleaner urban air in PRC, Mongolia, Azerbaijan, and Kazakhstan.

98. The PRC has a phased program to apply vehicle emission standards equivalent to EURO 5 by the year 2010. This phased program also includes changes to fuel composition. A notable focus, but not the only one, is to improve air quality in Beijing for the Olympic Games to be held in 2008. During the investigations for this report, different opinions were expressed on how widely EURO 5 would in reality be applied in the PRC by the year 2010. It was however clear that intensive effort are being made to reduce vehicle emissions, and that the national strategy is based on the EURO standards

99. For CAREC CIS countries, all persons met during the investigations for this report referred to national initiatives, generally oriented to improvement of urban environments. The EURO standards were frequently cited everywhere. As the MOT do not have a very significant role in emission controls, few of the MOT respondents met were able to provide technical details. Local environmental experts state that there are two principal GOST standards that are still applied in the CIS: GOST 17.2.2.03-87 for gasoline engines and GOST 21393—75 for diesel (see extracts in 5.6.2 FSU Standards). The last two digits of each standard indicate their advanced ages (1987 and 1975), but they are still referred to in modern Russian Federation texts³¹. The different formats, units, and methods of measurement of these and EURO standards make comparisons difficult, except to say that EURO standards are more complex and control a wider spectrum of emissions.

100. Older SU trucks and buses are still very common in the FSU. They are obviously highly polluting. Many are also mechanically unsafe. The prevalence of these old vehicles is diminishing as development of the transport sector in the different countries and zones permits. However, the poorer agricultural areas are often totally dependent on these older vehicles for their transport needs. A visible minority of urban poor are also dependent on these vehicles for their livelihoods.

101. As the lower EURO standard vehicles become obsolete in the EU they are sold abroad and many find their way to the CIS. These and Russian vehicles comprise the common range of vehicles used in CIS countries. New EURO standard trucks are available but rare.



102. Russia itself is progressively adopting EURO 2 standards for the manufacture of vehicles, with full adoption planned for 2005. Thereafter EURO 3 will be implemented at a date to be determined. Hence it is quite possible to procure vehicles of EURO 2 standard in the CIS CAREC countries, and as the older vehicles are slowly scrapped, only EURO 2 compliant or better will be available.

103. The much greater difficulty would be in maintaining vehicles to compliant standard, procuring and controlling the equipment to test them, and training people for these purposes. It was not possible during the preparation of this report to inspect vehicle emission control facilities. However, judging by many of the commercial vehicles that can be seen on CIS CAREC roads, present control methods are very pliable. The

³¹ e.g. GOCT P 51709-2001 Vehicles Safety Requirements for Technical Condition and Methods of Checking, and GOST 23478-91

image in the accompanying photo is not uncommon. Mutual recognition of certificates of control along the lines of the “Cholpon Ata” agreement on weight certification would facilitate transport operations.

104. The abundance of natural gas in the CAR opens the door to technical solutions that might not be viable elsewhere³². Delivery vehicles and buses in large CAR cities often use compressed natural gas (CNG) fuel. The possibility of wider use is interesting. It would however require CNG fuel station development, among other considerable investments, and the commercial viability of this technology for regional (inter-urban) transport remains completely unproven.

Issues and opportunities – Vehicle Emissions

The EURO standards provide the only obvious strategy for regional harmonization. Geographically the CAREC regional corridors are widely dispersed, pass through widely varied socio-economic zones, and only occasionally cross large urban agglomerations. Urban vehicle emissions are the focus of most attention. The ability within CAREC countries to maintain vehicles and to enforce the highest world standards is very uncertain. The impacts on rural poor of any rapid changes to regulations either regionally or nationally require particular attention.

Milestone 1: (immediately) confirm that EURO standards are the long term CAREC strategy. Allow existing GOST standards if they can be correctly enforced until...

Milestone 2: (within 3 years) Apply EURO 2 to major urban access for regional traffic, subject to cost-benefit analysis, to poverty impact assessment and to verification of ability to enforce. Allow GOST standards elsewhere until....

Milestone 3: progressively extend geographically, and strengthen controls to EURO 5.

Timelines for actions and results - Vehicle Emissions										
Milestone	Actions	2005	2006				2007			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Confirmation of EURO standards		▲							
	Allow existing standards			■						
2	Apply EURO 2			▲		▲		▲		
3	Progressively extend and strengthen							●●●●●	▶	

▲: TSCC Meetings ▲: Start or end result date subject to confirmation

105. Because the regulation of vehicle emissions in the CAREC countries involves multiple agencies, the TSCC should accept a regional coordination role, rather than one of leadership. Coordination in this context means facilitating exchanges of information between the ministries, municipalities, technical and enforcement agencies involved across the region.

106. The first required step for regional harmonization has already tacitly been taken. This has been the wide use by CAREC participants of the EURO standards as reference works, to update regulations locally, where they have done so, and to formulate national long term strategies. At the same time older standards remain valid in much of the region. Consequently, the TSCC delegates should confirm the status of the EURO standards as technical reference or target standards at the next TSCC meeting. They should inform themselves thoroughly of the steps being taken by their governments (local and national) to move towards these target standards, and report at each TSCC meeting the implications of these steps for regional transport. The TSCC as a group should alert and advise their governments on the regional transport implications of changes to existing regulations, preferably in the consultative phase before any changes are enacted and enforced.

2.5 Road transport services

107. The volume of traffic between CAREC countries are relatively low compared to the traffic between two European countries, Canada-US or many other neighboring countries. The physical capacity to

³² see <http://www.adb.org/vehicle-emissions/General/inuse-conversions-1.asp>

transport by road is not lacking. Where there is strong economic growth such as in the PRC and Kazakhstan general services to facilitate road transport are developing fast. In other areas within CAREC the development of support services is much slower. For example, groupage or consolidation services are available Almaty–Moscow, and a number of agencies in Almaty offer modern high-quality trucks and loading equipment.

108. One of the difficulties confronting CAREC operators is that of finding return loads. This means that operators may, typically, deliver a load in Iran or in Europe, then they either have a long wait to find a return load, or have to return empty. Fees for daily presence in the other country discourage waiting. Sometimes they choose to return empty as the border crossings are then quicker. All of these options add heavily to the cost of trucking operations. Sometimes the sense was conveyed that foreign trucks should return home empty after importing a load, as exports were the legitimate business of carriers where they originated. Such a notion of “fairness” in division of freight traffic revenues would weigh heavily on the overall efficiency of the CAREC countries road freight transport industry. More high-value goods for which road transport is competitive enter the CAR than leave. These goods comprise the primary haul on which the carrier makes most of its profit. Higher value goods generally allow a higher profit margin. The consignees for these goods prefer to give their business to a local firm with whom they probably have a long-standing business relationship rather than to a CAR company who might be equally well equipped and competent, but lacks market recognition. Promoting one-way only haulage works against CAR carriers as they only have the lower-value export goods from their home market.

109. In regions that are more economically developed than most of CAREC countries, freight forwarders and similar brokerage services play a greater role in matching supply with demand. Also economies of scale in road transport have led to consolidation of operators, and the creation of logistics firms offering many add-on and guaranteed services. This consolidation and extension of services strengthens a firm’s networks of commercial contacts. The development of services has been market-led and has occurred as regulations, for example favoring rail transport, or allocating freight transport quotas, have been rescinded. In their place licensing of road transport operators on the basis of their corporate viability and proofs of professional competence has been found more effective³³.

110. The trucking industry in CAREC is fragmented. In areas where economies remain depressed then consolidation is difficult, as many operators have no alternative employment and cannot leave the sector. Under these conditions it is not easy for any operators to accumulate sufficient capital to develop their business. Until quite recently it was difficult to find SME and micro-credit in the region, for such a business as freight or passenger transport. This is no longer the case. Commercial loans and leasing are widely available on presentation of a good business plan and the necessary guarantees.

111. Both Kazakhstan and Uzbekistan have international road haulage associations (Kazato and Aircuz) that are able to provide IRU accredited international road haulage operator certificates. These certificates prove a sufficient level of competence to run an international trucking business. Logistics training is also available, though no certificates accredited in the west are believed to be available in CAREC. No ISO certificated trucking firms were identified during the preparation of this report (though there are ISO certificated freight forwarders). All respondents were interested in further training programs.

112. No CAREC countries subsidize their road transport industries, at least not in any direct way. There does appear to be a significant element of state shareholding of transport enterprises in the PRC and in Uzbekistan. State held road transport firms in Europe had a poor record, and few if any survive today. State intervention ostensibly to directly improve transport services may be counter-productive.

³³ For example operator licensing as imposed by EC 96/26

Issues and opportunities – Road Transport Services

Services are improving where economic growth allows.

Milestone 1: Review national:

- Regulatory provisions that might be hindering consolidation of road transport operations and support services throughout CAREC.
- Licensing regimes for quality assurance rather than quantitative access to the market.

Milestone 2: Coordinate road transport service licensing regimes on a regional basis.

Timelines for actions and results - Road Transport Services										
Milestone	Actions	2005	2006				2007			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Review regulatory provisions for regional consolidation			■	■	▲				
	Review licensing regimes for quality not quantitative market access			■	■	▲				
2	Coordinate licensing regimes regionally					■	■	■	■	■
▲: TSCC Meetings ▲: Start or end result date subject to confirmation										

113. The TSCC delegates should report at the second TSCC meeting in 2006 on any national regulations that might hinder the development of regional road transport operations (for freight carrier operations, freight forwarding, freight consolidation and groupage services, break-down recovery services, vehicle maintenance centers, backhaul brokerage etc.) on the basis of contracts, partnerships, and international consolidated ownership of enterprises. They should report on steps that have been taken to lift such hindrances, or explain why national interests require the continuation of any present restrictions. This review should include the licensing regimes for any services related to road freight transport.

3. RAIL TRANSPORT

3.1 Summary network characteristics

3.1.1 Extent and capacity

114. The CAREC railway network straddles two operating regimes. The FSU railways have a wider track gauge and are part of the OSJD umbrella organization. The PRC, Iran and western Europe networks have standard gauge track. Trans-shipment of freight takes place at Zamyn Uud, Dostik, and Saraks (Turkmen/Iranian border) as wagons cannot cross from one system to the other³⁴.

115. Widespread extension and reinforcement of the network is being carried out in the PRC. In the CIS CAREC countries extensions are generally to divert traffic to national networks, where at present there are multiple border crossings (e.g. both sides of the Turkmen – Uzbek border). In general the CIS CAREC railway network has spare capacity. Problems were stated to exist at the following locations:

- Sections of the PRC network to Russia and Mongolia
- Through Mongolia (Zamyn Uud–Ulaanbaatar–Russian Border)
- Zamyn Uud (PRC/Mongolia border crossing and trans-shipment point)
- Dostik (PRC/Kazak border crossing and trans-shipment point)
- Termez (and Heirat on the Uzbek/Afghan border)
- Sarakhs (Turkmenistan/Iran border crossing and trans-shipment point)
- Trans-Caspian link (Baku–Poti–Batumi)

³⁴ The technology does exist to allow wagons to circulate on both gauges and is exploited for passenger wagons. This would not be commercially viable at present for freight.

3.1.2 Operational structures

116. Within the OSJD there is a Central Council of Railways of the CIS and Baltics (CSJD). The operating capacity and rules of this organization match those of the EU in terms of ability to handle all freight types. Several respondents emphasized the predominant capacity and role of the railways in the transport of bulk and dangerous goods.

117. The CSJD railways have inherited the advantage of common operating standards, both for infrastructure and rolling stock. This provides a very high level of technical inter-operability (compared for example to Europe). The standards themselves are robust, so that main-line freight trains operate with up to 60 wagons, resulting in a maximum trainload of about 2500 tons of freight. Continued membership of the CSJD sustains these benefits. Commonly cited disadvantages of the CSJD system are a lack of commercial influence in operations³⁵, and a lack of modern technology such as telecommunications and computerized data processing. Electronic filing is now taking over from paper. This will speed up processing and reduce the opportunity for fraud and corruption, by reducing person to person contacts. Complaints were heard that delivery of services from the railways sometimes requires illicit payment, for example to obtain tickets, and to have wagons made available. Also CSJD operating procedures have been criticized by outside consultants for losing too much time in too frequent re-marshalling of wagons, and too many changes of locomotives³⁶, even within national borders. This introduces randomness into the times of passage of any particular wagon, unless it is part of a block train.

118. The railway systems use different waybills³⁷. If goods cross from one zone to another, there must be two waybills. The freight liability regimes for each waybill are different. SMGS waybills are not so widely accepted by banks handling international commerce. This is an inconvenience on operations, but should not severely handicap development of regional trade. Any inefficiency could be alleviated by greater computerization and the development of an interface to reformulate waybills automatically.

119. A new wagon tracking system is being installed (ASU 3) throughout the CSJD. This much improves information flows both to the railway companies, managements and to their clients. The system is not yet fully and evenly installed across the region. It is still dependent on the quality and frequency of manually input data. It was claimed that it will much assist small businesses in their logistics planning, by reducing the uncertainty over times of arrivals.

120. There is a remarkable gap in wagon tracking information flow between the PRC rail network, and the CSJD network. When a container leaves a PRC port bound for Dostik, the Kazak side has no further information on its progress until it reaches Dostik (or vice versa for traffic in the opposite direction).

121. There were said to be regular tri-lateral contacts between Russia, Mongolia and the PRC to agree on railway operational issues. These seem to address local procedural rather than developmental issues. The Mongolian railways are a joint venture between Russian and Mongolian owners so coordination with Russian network is well assured.

122. A number of countries in Central Asia and the Caucasus have acceded to the AGTC, namely Belarus, Georgia, Kazakhstan, Poland, and Russian Federation. The European Agreement on Important International Combined Transport Lines and Related Installations (AGTC) formalizes the transport network for multimodal transport and ensures conformity and application of internationally approved standards on agreed railway routes within the territory of its member countries.

3.1.3 Freight forwarding

123. There are many freight forwarders in the region. Most of them focus on railway transport. They also operate in other modes, but relatively little long-distance road transport. Some of the forwarders have grown into large companies, have transport operational assets, and provide full logistics services. Practically all of them have international links with other forwarding firms, and are affiliated with FIATA, the international freight forwarding organization. A few firms have ISO 9012 certification. The forwarders are a dynamic influence on rail operators and on customs services.

³⁵ This criticism is often heard concerning any state-run enterprise, East or West.

³⁶ Locomotives and their crews operate on a hub and spoke system, limiting their range of operation

³⁷ SMGS on OSJD and CIM elsewhere, though Iran now accepts SMGS and eastern Europe has long experience of both systems for transit

true would not in itself impose a restriction on regional trade, nor on development of intercontinental transit. Delays occur when special goods, for example dangerous goods or military consignments are mixed in with other wagons. The train must then be broken up.

128. The transfer of operational responsibility for a train at border crossings requires technical controls, of for example, two minutes per wagon. If the train comprises 60 wagons then two hours are lost at this point. Ideally this should be simultaneous with the administrative controls. A possible delay at borders arises from avoidance of wagon rental (demeurage) payments when wagons pass from one railway operator to another. This would be an incentive to transship to domestic wagons after border crossings. The problem was cited as anecdotal. The issue of delays at border crossings merits further objective investigation on site. This should be conducted jointly, by railway operators, customs officials, border guards and users such as freight forwarders or large freight consignees from neighboring states.

129. Electronic processing of data is progressing and should eventually reduce normal processing times, as well as eliminate some of the human errors on paper systems that lead to delays. It may be remarked that there is less opportunity for illegal diversion of freight from destination on the rail system, and evasion of duties. Likewise there are fewer opportunities at rail border crossings for negotiation between anybody accompanying the freight and authorities controlling passage.

130. The KAZ–RUS–KAZ east–west transit for northern Kazakhstan was cited as problematic. Russian customs should not do inspections on this routing, but apparently they do.

Issues and opportunities – Rail Border Crossings

Passengers are subject to excessive delays at border crossings. Freight transfers at transshipment points are slow. Delays at freight border crossings without transshipment (FSU internal borders) might be attenuated, but their severity and origin (technical or administrative control) is not clear.

Milestone 1:

- Monitor passenger and freight delays at border crossings.
- Quantify and identify the cause of these delays.

Milestone 2:

- Develop remedial measures for administrative and technical delays identified.
- Automate (computerize) as far as possible all administrative and technical control processes.
- Propose investment for infrastructure improvements.
- Invite private participation (e.g. customs brokers, information service providers).

Timelines for actions and results - Rail Border Crossings

Milestone	Actions	2005	2006				2007			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Monitor delays at borders			—		▲				
	Identify and quantify causes			—		▲				
2	Develop and implement remedial measures					—	▲			
	Propose investment					—	▲			
	Automate and computerise					—		—	▲	
	Invite private participation					—	▲			
▲: TSCC Meetings		▲ : Start or end result date subject to confirmation								

131. By the second TSCC meeting in 2006 delegates should measure and report on typical delay times (wagons, containers, loose or bulk goods, passengers) at border crossings. At the same time the causes and durations of these delays should be identified. Remedial measures should be suggested, discussed and agreed. If these involve closer inter-agency collaboration, such as with customs officers then these could be proposed for resolution within other CAREC Coordinating Committees.

132. The automation and computerization of border crossing procedures should be an integral part of any remedial measures suggested, particularly where these reduce errors and opportunities for corrupt practice. If investment is required to accelerate border crossings, this should be considered at the TSCC meeting in 2007, following due and detailed consideration of problems, and elimination of any delays due to inefficient working practices. Investment opportunities, if required, should first be offered for private participation (for example customs brokers, data base service providers, control organizations).

3.3 Tariffs

133. The present systems are deeply entrenched. In the FSU domestic tariffs are controlled by anti-monopolies commissions. Transit tariffs are set within the OSJD organization twice yearly, following an agreement reached in 1992. This leads to the so-called Uniform Transit Tariff/International Railway Transit Tariff (ETT/MTT) scale of tariffs based on commodity and distance within each national railway company. There are also route allocation mechanisms within this system.

134. The ETT/MTT system has been criticized on a number of points. It is somewhat like a cartel. The costing methodology and tariff scales originated in the days of the FSU. Freight originating in or traveling to destinations outside of the CIS pays more for transit than internal CIS transit traffic, and both scales are more than the domestic rates. The rates are set in Swiss francs which have progressively increased rates in local currencies or USD. The ETT/MTT scales allow discounts up to 50%, which compensate somewhat for the lack of clear costing and permit some commercial influence.

135. Costs are high when compared to maritime rates, but lower than road rates (see 5.7 Annex - Comparative Costs of Intercontinental Rail and Sea Transport). Along with the unpredictability of the service, this limits competition against the sea-lanes and discourages intercontinental transport by rail.

136. Tajik and Kyrgyz railways are unique in the CAREC countries in that they carry very little internal freight traffic. Nearly all of their freight either originates or terminates outside of their systems. Their costs of rail transport are therefore very dependent on rates set by others. Tajik railways carry some transit freight (UZB-TAJ-UZB in the Ferghana Valley). The volume of this traffic is diminishing slightly year-by-year. This again may be because of the influence of the Swiss franc on local rates.

137. Respondents questioned during the preparation of this report expressed no urgent wish to abandon the existing tariff discussion mechanisms. TRACECA³⁸ and ECO have proposed alternatives. The railways are always open to proposals, but so far, there have been none that attract sufficient interest to abandon the present negotiation system. Those who criticize the ETT/MTT system principally complain that rates are too high. As there are certainly heavy cross subsidies of local passenger and freight traffic by transit revenues this criticism is valid.

138. CSJD railways sell passenger tickets going to or from anywhere on the CSJD system. At the end of each month the balance of accounts is worked out (tickets sold against services provided), and compensatory monetary transfers take place, at least in theory.

139. Payments for freight services are not reconciled in this way. Freight services are bought by freight forwarders from the national railway operators and sold to consignees in the form of "code". The consignment note carries the code numbers which are checked at regular intervals during transport of the goods. For regional transport the freight forwarders act as brokers and between themselves assemble the national codes necessary for a consignment to complete a journey. Even though one national railway company cannot sell the freight services of another one, as they can sell passenger tickets, no restraint on regional traffic due to this system is apparent. On the contrary, the system is simple and it works.

140. The market is highly competitive and discounts for high volume customers are normal. The profit margins on these transactions are reported to be thin. National railways are reported to be slow in responding to new opportunities by the freight forwarders. Where privatized services are emerging, the MTT system is being eroded by the proportion of services coming from outside the system.

³⁸ Detailed alternative freight costing calculation mechanisms were proposed.

system, as long as they conform with the technical requirements. Russian railways also allow private wagon ownership.

147. Freight terminals have been privatized in Kazakhstan. Where these have been taken over by freight forwarders they have become logistics centers with warehousing and intermodal operations. KTZ has set up a specialist company KazTransService (KTS) for container traffic. This will be privatized next year.

148. Private wagon ownership will be encouraged by Uzbek Temir Yollari (UTY), under a law which is currently in draft form. UTY has for some years been in a joint venture for inter-modal operations.

149. The later stages of privatisation in both Kazakhstan and Uzbekistan foresee, generally, four operating divisions, freight, passenger, traction and infrastructure. The track and related infrastructure of the principal routes will remain under state ownership. Many private firms are being created to support a diversity of railway operations (wagon maintenance, track maintenance, terminals etc).

150. Private investment in the Mongolian rail sector is to be encouraged under a law which is currently a draft. It will allow private investment in rolling stock, but not in the track.

151. Container operations are to varying degrees being transferred to separated corporate entities within CAREC countries. Generally respondents declared openness to private investment, but some expressed doubts that the capital required would be forthcoming from the private sector. Railways were not thought to be profitable enough to attract private capital.

152. Kazakh freight forwarders felt that many of the problems faced by the railways, and by their customers, would be solved by privatization, competition, and the additional flexibility that these processes allowed and encouraged. This applies equally or even more so to regional operations. Where capital markets are reasonably free, and judicial systems reliable, then partnerships of whatever form between private companies are formed more easily than in the public sector. This bypasses the somewhat more restricted views of national railway companies trying to operate as strategic public services.

153. Regional services that could possibly benefit from private sector attention might include:

- logistics services;
- information services;
- customs brokerage services;
- block-train operations;
- transshipment services; and
- regional maintenance and parts manufacturing.

154. Linking investment in railways to mining and to tourism ventures was also mentioned as a possible avenue to attract private investment.

Issues and opportunities – Private Investment in Railways

The movement towards privatization and attraction of private investment is already underway and showing positive results.

Milestone 1: Within CAREC countries identify regional operations or infrastructure that could benefit from private services or investment.

Milestone 2: Remove any restrictions on regional private participation in these activities or in investment.

Timelines for actions and results - Private Investment in Railways										
Milestone	Actions	2005	2006				2007			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Identify regional opportunities				▲					
2	Lift any restrictions on their privatisation					▲				
		▲: TSCC Meetings		▲: Start or end result date subject to confirmation						

155. The TSCC delegates should present any opportunities for private investment in railways on a regional basis at the second TSCC meeting in 2006. At the same occasion progress in lifting any restrictions on private investment in national railway operations should be presented. The potential field for private

investment need not be subject to limitations. For example, rolling stock, technical, commercial and management services, new lines, etc. could all be considered, especially where regional economies of scale can be realized, or cross border rail operations made more useful to clients.

156. Progress on lifting of any restrictions on private investment should be reported at the following TSCC meeting in 2007.

3.6 Safety and the environment

157. Safety and environmental hazards of rail transport are not particular issues at present. The railway operating procedures, from the safety aspect, have not been called into question, neither by the CAREC railway's operating record nor by outside consultants.

158. Rolling stock is regularly inspected and is not dispatched if it does not meet standards. Some of the border crossing delays arise because there is a transfer of responsibility for rolling stock at these points, and checks are carried out.

159. Speed restrictions are imposed if track use has exceeded quantitative thresholds without renewal. Most of the CAREC networks' maximum operating speeds are low compared to state-of-the-art railway potential.

160. Some investment in new inspection equipment was mentioned during the study. It was also remarked that there has been a long period of under-investment in the CIS railways. Consequently many of the systems on which safety is dependent such as signaling, telecoms, and alarm circuitry are now obsolete.

161. Just as the safety record has up until now not given cause for alarm, there is also no record of negative environmental impacts from rail transport. This is in spite of the fact that a high proportion of rail freight³⁹ traffic is potentially dangerous.

162. Although safeties of persons and of the environment are not issues at present, there are increasing risks of future problems in certain areas due to a lack of investment.

Issues and opportunities – Rail Safety and the Environment

The safety and environmental record up until now is good, but the advancing age and lack of investment in some safety related equipment is a cause for concern.

Milestone 1: Monitor and report on regional rail transport safety and environmental protection assets for the next TSCC.

Milestone 2: Prepare a long range safety and environmental investment plan, for implementation.

Timelines for actions and results - Rail Safety and the Environment										
Milestone	Actions	2005	2006				2007			
		Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1	Monitor and report on safety and environmental protection assets									
2	Prepare safety and environmental protection investment plan - implement									

163. Delegates should report on any safety and environmental problems or potential dangers, of a short or long term nature, at the second TSCC meeting in 2006 . The focus should be on the regional rather than the national aspects of these issues.

164. A CAREC regional safety and environmental protection investment plan should be prepared for regional coordination and possible participation by the ADB or other investors at the subsequent TSCC meeting. Implementation should then follow.

³⁹ Typically 60% or more of tonnage carried by CIS railways is petroleum products

4. CONCLUSIONS AND RECOMMENDATIONS

	CONCLUSIONS	RECOMMENDATIONS	PRECONDITIONS TO IMPLEMENT
ROAD			
1	At present only bilateral agreements are effective. They have resulted in a fragmented regional transport regime. Several international initiatives promote regional transport on a multilateral basis.	1.1 Accept multilateralism as the preferred and superior mechanism to reach and to implement transport agreements 1.2 Agree on the technical, administrative and geographic scope of the forums that are dealing with regional transport (e.g. CAREC, TRACECA, ECMT, SCO)	Human resources, and budgets to maintain working contact between countries on a multilateral basis
2	Enforcement of regulations is weak. Diffusion of information on regulations is narrow.	2.1 – Focus on enforcement as much as on regulatory principles 2.2 - Strengthen enforcement capacity, by among other means, including principal enforcement agencies in CAREC TSCC (e.g. traffic police) 2.3 - Do not try to implement regulations before the enforcement capacity is in place 2.4 – Establish internet-based information diffusion mechanisms	Know-how transfer Motivated (e.g. well trained, well equipped, well paid) enforcement agencies.
3	Tariffs, road user charges, and transit fees: Uneven tariffs are charged across the region. An indisputable “fair” level of road user charge would be complicated, if not impossible, to establish.	Charge only non-discretionary infrastructure user fees Make no discriminatory ⁴⁰ charge for reciprocal cross-border traffic	Recommendations 1 and 2 Decouple the discussions on tariffs from non-related issues
4	Vehicle weights and dimensions: the EU standards are already the accepted reference standards. Load fee scales where applied do not refer to MA99 (except in Kazakhstan)	Fully implement MA99 in the immediate future Enforce by means of the “Cholpon Ata” agreement Adopt EC96/53 eventually as the regional standard	Recommendations 1 and 2

⁴⁰ Discriminatory in this sense means a charge that is levied on a foreign vehicle but is not levied on a domestic vehicle. In this sense normal toll charges for use of a road section, tunnel or bridge are not discriminatory.

	CONCLUSIONS	RECOMMENDATIONS	PRECONDITIONS TO IMPLEMENT
5	Vehicle emission standards: the EURO system is already the accepted strategy for emission standards. It is enormously expensive to implement in full.	5.1 Formally confirm that eventual compliance with the EURO standards is the regional strategy 5.2 Formulate a phased and coordinated regional implementation plan Milestone 1 = EURO 2 5.3 Do not impose impossible standards on weak regional economies 5.4 Enforce by means of a regional certification agreement modeled on the "Cholpon Ata"	Recommendations 1 and 2 Cost-benefit and implementation TA Investment in control equipment (public or private sector) Investment in new vehicles, at least for regional transport (private sector)
6	Traffic safety: The International Conventions are the normative vectors of road safety in international road transport	Sign and implement the international conventions prioritizing implementation of the Convention on Road Traffic and the Convention on Road Signs and Signals	Recommendations 1 and 2 Investment in control equipment (public or private sector) Investment in new vehicles, at least for regional transport (private sector)
7	Transport services: Service levels in some respects are low. Regulatory issues are not directly to blame. Conditions vary widely across the region. Supply and demand would be better matched by open markets than by market allocations	Regulate the market by quality, not quotas, to encourage competition	Recommendations 1 and 2
8	Other issues raised:- <ul style="list-style-type: none"> • Access to the PRC: the existing framework of agreements appears to allow access to the PRC for foreign trucks. Truck operators felt that commercial demand could not be fully satisfied under present arrangements. • Visas for drivers: As well as 	8.1 That the PRC and its CAREC partners activate the agreements and legal framework allowing cross border traffic. 8.2 That the CAREC countries allow special visa issue at border crossings for drivers of commercial vehicles.	None

	CONCLUSIONS	RECOMMENDATIONS	PRECONDITIONS TO IMPLEMENT
	CAREC countries, Turkmenistan and the EU (Shengen) were cited as problematic	8.3 That the issue of Shengen visa be raised by the CAREC international operators associations in the IRU forum	
RAIL			
9	Strongly entrenched multilateral traditions and institutions exist. All respondents expressed satisfaction with these institutions insofar as they concern technical standards. Privatization of operations is introducing commercial dynamism to operations, and investment	<p>9.1 Continue to work within the existing multilateral institutions for maintenance of technical standards</p> <p>9.2 Stimulate further commercialization of operations, and competition between routes</p> <p>9.3 Monitor safety and environmental protection standards, identify any emerging weaknesses, and report results at the next TSCC</p>	None
10	Capacity problems: Where reported, these require deeper analysis than this report can provide. It is not evident whether they are due to inadequate infrastructure or its usage	Monitor by comparison to world best practice. Propose private or Public-Private-Partnership (PPP) solutions at the next TSCC	None
11	Border crossings: Rail passengers crossing borders are subject to delay. There are contradictory reports on whether there is, or is, not excessive delay to freight at (FSU rail) border crossings.	Monitor the actual delays at rail border crossings. This should be an objective joint exercise by rail operators, customs, and users (e.g. freight forwarders, customs brokers). Report results at the next TSCC	None
12	Tariff arrangements: The present MTT and ETT mechanisms were acceptable to all, but not the results (high tariff levels).	As privatization and new products develop, abandon the MTT in favor of (competition) market based tariffs.	None

5. ANNEXES

5.1 Annex - Main Regional Road and Rail Routes

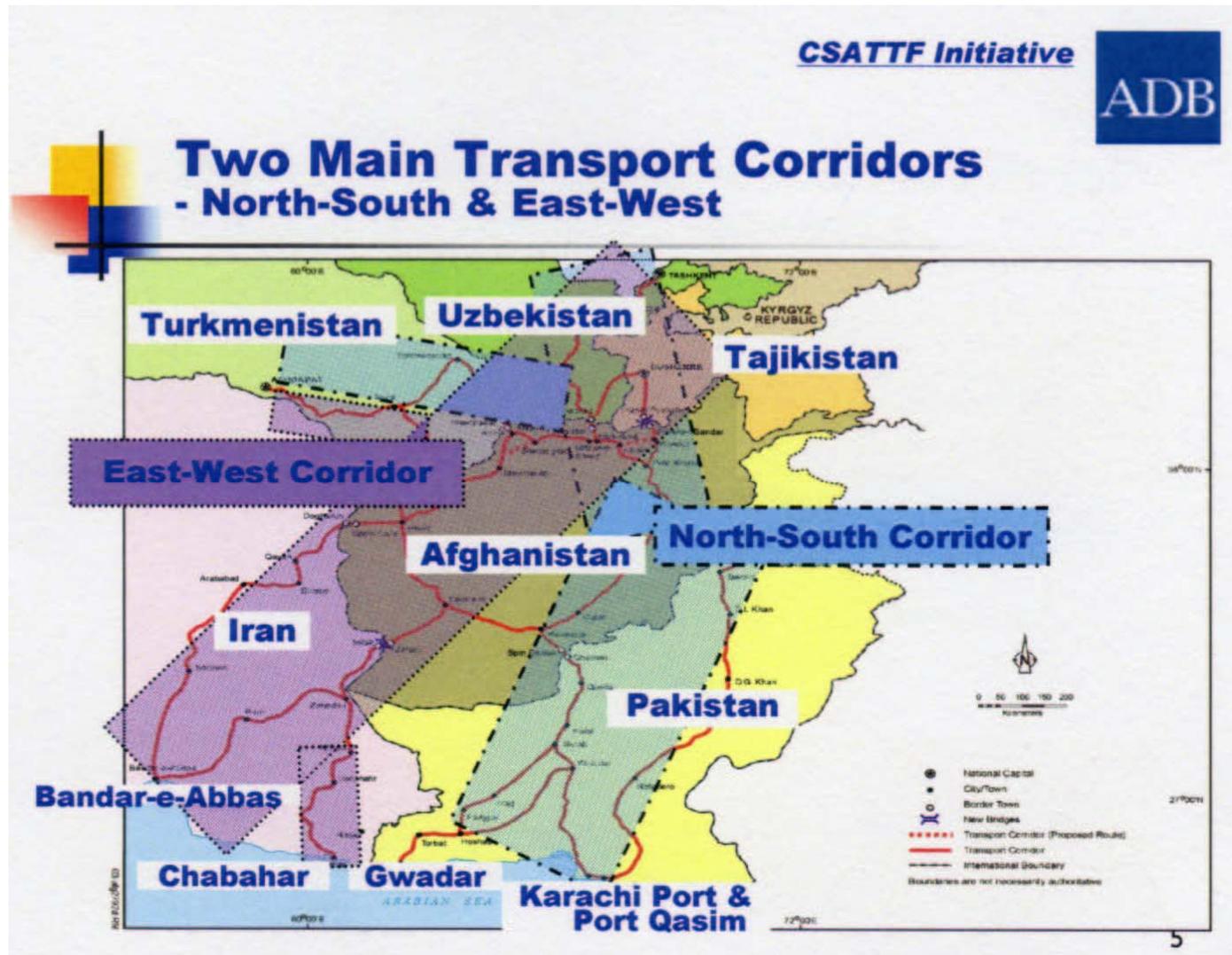
5.1.1 Asian Highway Route Map



5.1.2 Trans-Asian Rail Network



5.1.3 CSATTF Corridors



5.2 Annex – Regional Multilateral and Bilateral Transport Agreements

5.2.1 Multilateral Agreements

Agreements identified during this study are:

	23/04/92 transport relations ^h	09/03/95 entry and transit 24/11/98 ^a	05/04/96 transport policy	09/10/97 general relations	19/02/98 Ferghana - Kashgar	09/09/98 TRACECA	22/1/98 ^b 22/1/98 ^c	04/06/99 MA99	12/09/00 North - South	16/04/04 ^f Cholpon Ata	2005 transit draft
AZE				X	X ^d	X		X		-	
KAZ	X	X	X	X		X	X	X		X	
KGZ	X	X	X	X	X	X	X	X	x ^g	X	
MON											X
PRC		X			X			X			X
TAJ	X			X		X	X	X	x	X	
UZB	X		X	X	X	X		X		-	
Afghanistan						x					
Belarus				X			X	X		X	
Pakistan		X				x					
Russia				X			X	X	X	X	X
Turkmenistan	X			X		x					

a) A completely revised version of the 1995 agreement

b) Establishes a Customs Union

c) Establishes a Transport Union (one source states that this agreement is not effective because of Belarus conditions of application, while another source states that Kazakhstan has not ratified the agreement, possibly because of the Belarus conditions—also a different sources state different dates for this agreement; 24/11/98)

d) Azerbaijan stated its adherence to this agreement during the study, but the agreement originated as tripartite (KGZ–PRC–UZB), and is still referred to as such elsewhere.

e) The TRACECA Agreement also includes Afghanistan, Armenia, Bulgaria, Georgia, Iran, Moldova, Romania, Turkey, Ukraine and other countries are discussing adherence

f) Concerns establishment of a common weight certification system

g) KGZ has expressed interest in joining this agreement that so far concerns Tajikistan, Russia, India, Iran, and Oman

h) Among other liberties, exempts vehicles from general taxes

5.2.2 Bilateral Agreements

	AZE	KAZ	KGZ	MON	PRC	TAJ	UZB
AZE		16/09/1996					27/05/96
KAZ	16/09/96 permit system		26/10/93 permit system 25/12/03 non-permit 15/11/1999 ⁴¹	22/10/93 permit system	26/09/92 permit system	30/07/92 non-permit	12/07/95 27/03/98 both of uncertain validity
KGZ	23/02/1993 permit system no traffic	26/10/93 permit system 25/12/03 non-permit 15/11/1999 ⁴²		1/3/94	4/6/1994 permit system	6/5/1998 non-permit 12/7/96	4/9/96 25/12/03 non-permit
MON		22/10/93	01/03/04		20/6/91 permit system ⁴³		
PRC		20/9/92 permit system 42 routes foreseen as far as Urumqi	4/6/1994 permit system 21 routes foreseen as far as Urumqi	20/6/91 permit system 8 routes foreseen	no fees are charged	13/08/99 permit system routing as far as Kashgar	13/12/93 permit system (possibly no traffic)
TAJ	Under consideration by the Azeri side	30/07/1992 non-permit	6/5/1998 non-permit 12/07/1996		13/08/99 permit system routing as far as Kashgar		No agreement. A draft is under consideration by the Uzb side
UZB	27/05/96 permit system	12/07/95 27/03/98 both of uncertain validity	4/9/96 25/12/03 non-permit				
Afghanistan						27/04/2005 and humanitarian aid transit	
Russia	?	23/09/92	16/04/02	27/02/96	?	11/07/2001 non-permit	?

⁴¹ ADB sponsored agreement for the Akzhol-Chu border (Korday) border crossing

⁴² ADB sponsored agreement for the Akzhol-Chu border (Korday) border crossing

⁴³ PRC vehicles allowed up to 70km from border, MON vehicles not allowed beyond the border. PRC penetration without permits is stated to occur.

5.3 Annex – Fees for Cross Border Road Transport

AZE	<p>\$100 - \$150 for entry depending on permit status \$100 for exit An additional scale of fees based on total weight or number of passengers, and time of stay, is imposed: Additional weight penalties are imposed (commencing at a lower limit than MA99) Note: very little traffic arises from vehicles registered in CAREC</p>
KAZ	<p>Entry fee \$68 (exempt if a permit is held) There are vehicle overweight and over-dimension charges, if vehicles exceed MA99 limits Fees are also payable by domestic traffic leaving Kazakhstan.</p>
KGZ	<p>\$50 for entry without permit from countries where a permit system applies. \$250 for entry from countries with no permit system (non-CIS). Tajikistan is exempt from the above but not from tolls. Tolls are imposed at the tunnel on the Bishkek – Osh road. These are 5-10 times higher for foreign vehicles than for domestic.</p>
MON	<p>Entry and exit fees, and infrastructure usage fees are applied.</p>
PRC	<p>No entry fees with permit, and no entry without a permit. No overweight fees (overweight is illegal). Toll-ways are common, and tolls (would be) levied on a non-discriminatory basis.</p>
TAJ	<p>A scale of fees based on weight or number of passengers is imposed: Non-CIS trucks \$100 to \$200 CIS trucks \$50 to \$150 except Uzbekistan, for which there is a flat rate \$130 except when empty A 200euro fee is imposed for special customs attention to excise goods on vehicles from Uzbekistan There is a \$90 fee for transit (not in addition to the weight-based fees) Kyrgyzstan is exempt from all fees.</p>
UZB	<p>Entry fees: \$300 for Kyrgyz and Kazak vehicles, \$130 for Tajik vehicles, \$400 for non-CIS vehicles. There is no fee for Kyrgyz vehicles transiting from Kyrgyzstan to other parts of Kyrgyzstan through Uzbek territory. There is a scale of fees for any axle loads exceeding 8 tonnes These fees are subject to a 50% discount for transport of humanitarian freight There is a customs convoy fee of 50euro (up to 200km) and 120 euro (beyond 200km).</p>

Obligatory third party insurance fees are comparatively low (\$15+/-).

There are charges for overstaying a maximum allowed time (for example 8 days in the case of Uzbekistan).

Ecological taxes are also low or inexistent. Little information was collected and it is not clear to what they pay for.

Kazakh fees are expressed in a scale equivalent to monthly minimum wages, currently about \$6.80

5.4 Annex – International Conventions Relating to Transport



UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE - TRANSPORT DIVISION

Accession Status to International Agreements and Conventions

International Agreements and Conventions	ECE Ref.	Azerbaijan	Kazakhstan	Kyrgyzstan	Tajikistan	Uzbekistan	Mongolia	PRC
Convention on Road Traffic (08/11/1968)*	8	X	X	X	X	X	X	
Convention on Road Signs and Signals (08/11/1968)*	10		X	X	X	X	X	
Convention on the Contract for the International Carriage of Goods by Road - CMR (19/05/1956)*	24	X	X	X	X	X	X	
Customs Convention on the Temporary Importation of Commercial Road Vehicles (18/05/1956)*	41	X		X		X		
Convention on taxation of road vehicles used in international road transport 14/12/1956						X		
Customs regime for pool containers (21/1/1994)						X		
Customs Convention on the International Transport of Goods Under Cover of TIR Carnets (14/11/1975)*	39	X	X	X	X	X	X	
International Convention on the Harmonization of Frontier Controls of Goods (21/10/1982)*	48	X		X		X		
Customs Convention on Containers (02/12/1972)*	46	X		X		X		X
European Agreement concerning the Work of Crews of Vehicles engaged in International Road Traffic (AETR) (01/07/1970)	20	X	X			X		
Customs Convention on the Temporary Importation of Private Road Vehicles (04/06/1954)	37							
European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) (30/09/1957)	50	X	X					
Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be Used for such Carriage (ATP) (01/09/1970)	54	X	X			X		
European Agreement on Main International Traffic Arteries (AGR) (15/11/1975)	2	X	X					
European Agreement on Main International Railway Lines (AGC) (31/05/1985)	3		C					
European Agreement on Important International Combined Transport Lines and Related Installations (AGTC) (01/02/1991)	4		X					
Agreement concerning the Adoption of Uniform Prescriptions for Wheeled Vehicles (20/03/1958)		X						
Agreement Concerning Global Technical Regulations for Wheeled Vehicles (25/06/1998)		X						

Comments:

* - Conventions, recommended by UN ESCAP Resolution 48/11

X - Final sign, ratification, joining

C – at the stage of the Governmental procedures

Source ECE, March 2004, and consultants questions

5.5 Annex - Vehicle Weights and Dimensions – Comparative Summary

The following characteristic descriptions are short and indicative only. The full texts of the three documents compared include differences in the exact specification of each characteristic.

EC ref.#	Characteristic	Regulated weight in tonnes or length in metres		
		EC 96-35	MA99	GB1589
1.1	Maximum Lengths (metres)			
	vehicle	12	12	12
	trailer	12	12	13
	articulated vehicle	16.5	20	16.5
	road train	18.75	20	20
1.2	Maximum width (metres)			
	(a) all vehicles	2.55	2.55	2.5
	(b) conditioned vehicles (e.g. refrigerated)	2.6	2.6	2.55
1.3	Maximum height (metres)	4	4	4
1.5	sweep or turning circles - outer R / inner R	12.5 / 5.3	12.5 / 5.3	12.5 / 5.3
2	Maximum Weights (tonnes)			
2.1	Vehicles forming part of a combination			
2.1.1	2 axle trailer	18	18	18
2.1.2	3 axle trailer	24	24	25
2.2	Vehicle combinations	40	40 ^a	40
2.2.3	Road trains (2+2 axles)	36	36	35
	absolute maximum (different conditions)	44	44	49
2.3.1	2 axle vehicle	18	18	18
	3 axle vehicle	24	24	25
	Axle weights			
3.1	Single non-driving axle	10	10	10
3.4.1	Driving axle	11.5	10	11.5
	Tandem axles (d=longitudinal separation of axles)			
	d<1m	11	12 ^b	11.5
	1<=1.3	16	14	16
	1.3<=1.8	18	16	18
	1.8<=d	20	18	20

a) A specific clause in the MA99 agreement foresees a 38tonne maximum in Kazakhstan

b) In the case of the MA99, this sequence of limits is more complex than shown in the table, depending on wheel configuration.

5.6 Annex – Emission Standards

5.6.1 Euro Standards

The following table contains a summary of the emission standards and their implementation dates.

EU Emission Standards for HD Diesel Engines, g/kWh (smoke in m-1)							
Tier	Date & Category	Test Cycle	CO	HC	NOx	PM	Smoke
Euro I	1992, <85 kW		4.5	1.1	8	0.612	
	1992, >85 kW		4.5	1.1	8	0.36	
Euro II	1996.1	ECE R-49	4	1.1	7	0.25	
	1998.1		4	1.1	7	0.15	
Euro III	1999.10, EEVs only	ESC & ELR	1.5	0.25	2	0.02	0.15
	2000.1	ESC & ELR	2.1	0.66	5	0.1 0.13*	0.8
Euro IV	2005.1		1.5	0.46	3.5	0.02	0.5
Euro V	2008.1	ESC & ELR	1.5	0.46	2	0.02	0.5

* - for engines of less than 0.75 dm³ swept volume per cylinder and a rated power speed of more than 3000 min⁻¹

Changes in the engine test cycles have been introduced in the Euro III standard (year 2000). The old steady-state engine test cycle ECE R-49 was replaced by two cycles: a stationary cycle ESC (European Stationary Cycle) and a transient cycle ETC (European Transient Cycle). Smoke opacity is measured on the ELR (European Load Response) test.

For type approval according to the Euro IV (year 2005) limit values and for EEVs, the emissions have to be determined on both the ETC and the ESC/ELR tests.

Emission standards for diesel engines that are tested on the ETC test cycle, as well as for heavy-duty gas engines, are summarized hereafter.

Emission Standards for Diesel and Gas Engines, ETC Test, g/kWh							
Tier	Date & Category	Test Cycle	CO	NMHC	CH ₄ a	NOx	PM _b
Euro III	1999.10, EEVs only	ETC	3	0.4	0.65	2	0.02
	2000.1	ETC	5.45	0.78	1.6	5	0.16 0.21c
Euro IV	2005.1		4	0.55	1.1	3.5	0.03
Euro V	2008.1		4	0.55	1.1	2	0.03

a - for natural gas engines only
b - not applicable for gas fueled engines at the year 2000 and 2005 stages
c - for engines of less than 0.75 dm³ swept volume per cylinder and a rated power speed of more than 3000 min⁻¹

EU Member States will be allowed to use tax incentives in order to speed up the marketing of vehicles meeting the new standards. Such incentives have to comply with the following conditions:

- They apply to all new vehicles which comply in advance with the mandatory limit values set out by the Directive.
- They cease when the new limit values come into effect (i.e. in 2005 or 2008).
- For each type of vehicle they do not exceed the additional cost of the technical solutions introduced to ensure compliance with the limit values.

5.6.2 FSU Standards

Diesel engines GOCT 21393-75

Exhaust opacity should not exceed the norms specified in the table.

Mode of measurement of opacity	Opacity, % not to exceed
Free acceleration for automobiles with diesel engines:	
• without supercharging	40
• with supercharging	50
• at the maximal frequency of rotation	15

The above diesel standard controls only smoke opacity and is for mobile inspections.

Gasoline engines GOCT 17.2.2.03-87

The composition of carbon oxides and hydrocarbons in exhaust gases should be within the limits of the values established by the manufacturer, but not higher than given in the table.

Frequency of rotation	Carbon monoxide, as a percentage of volume	Hydrocarbons, in parts/million	
		Number of cylinders	
		<= 4	> 4
Nmin	1,5	1200	3000
Nmax	2,0	600	1000

A GOST17.2.02.06 applies to gas (cylinder) powered vehicles.

GOCT 37.001 234-81 and GOCT 17.2 01-84

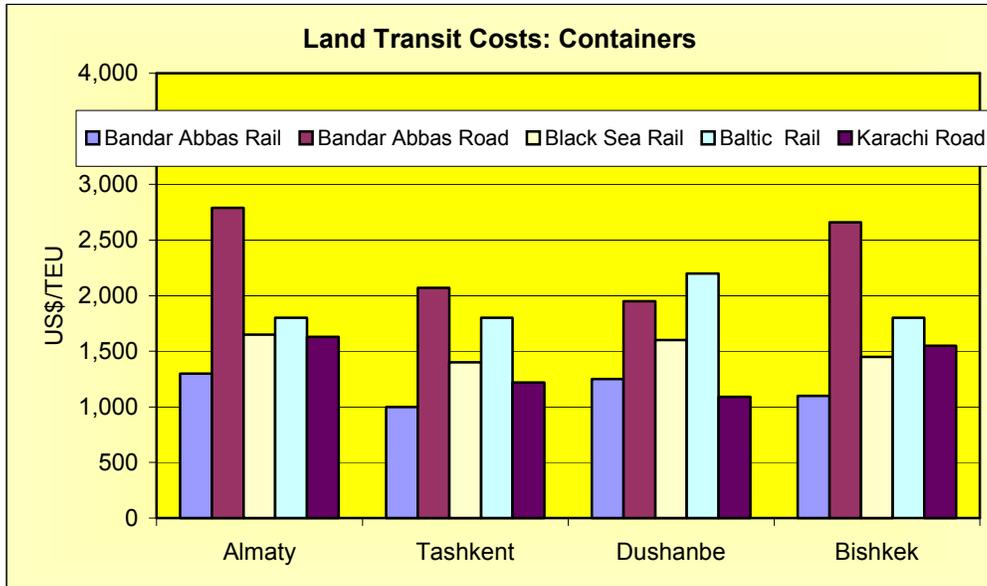
CO 9.5, HC 3.4, NOx 14.35 g per bhp-hr (ECE R 49 test mode)

Full load smoke, emission limits between 60% and 34% opacity varying with nominal air flow

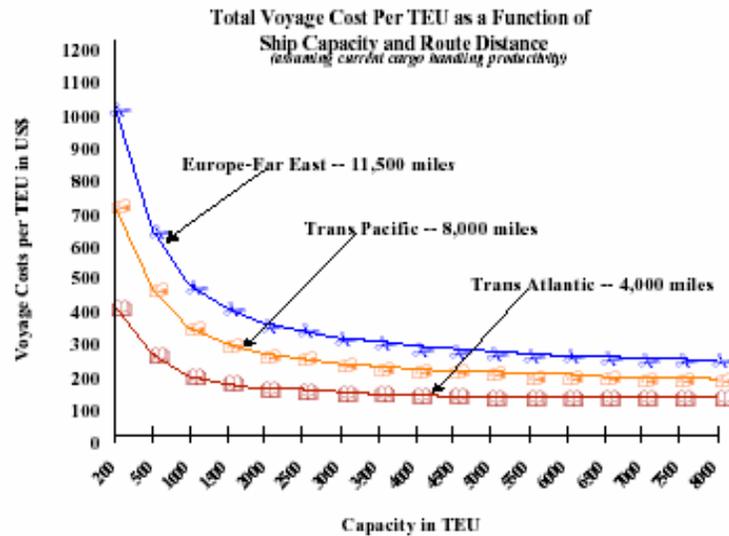
These standards are for bench testing of motors and are rarely referred to in the context of control of transport operations.

MONGOLIA has a different numbering system for standards and possibly different allowable limits: Vehicles with gasoline engine - The maximum limit of the toxic substances in emissions, and the measurement method /MNS 5013:2003/; - the maximum emission of soot and the measurement method /MNS 5014:2003.

5.7 Annex - Comparative Costs of Intercontinental Rail and Sea Transport



Source: Trade – Transport Costs: Central Asian Republics in 2004 - World Bank background paper



Source: K. Cullinane and M. Khanna, "Economies of Scale in Large Containerships," *Journal of Transport Economics and Policy*, Vol. 33, p. 201

Source: Marc Juhel, Port Development Toolkit, The World Bank; op.cit. Cullinane and Khanna