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Improvement of Transit Systems in Central Asia[1]

Sanaullah

UNCTAD Consultant

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Acronyms

ASYCUDA	Automated System of Customs Data management developed by UNCTAD
CACO	Central Asian Cooperation Organization: Uzbekistan, Kazakhstan, the Kyrgyz Republic and Tajikistan
CAF	Central Asian Forum: Uzbekistan, Kazakhstan, the Kyrgyz Republic and Tajikistan.
CIS	Commonwealth of Independent States
CMR	Convention on the contract for the international carriage by rail
CIM	Rules for international carriage of freight
EBRD	European Bank for Reconstruction and Development
ECE	Economic Commission for Europe of the UN
ECO	Economic Cooperation Organization Pakistan, Turkey, Iran, Azerbaijan, and Central Asian Republics
EEC	Eurasian Economic Community (former CIS Customs Union)
EU	European Union
IRU	International Road Transport Union
KAZATO	Union of International Road carriers of the Republic of Kazakhstan
OSJD	Organization for Railways Cooperation, comprises CIS countries
SMGS	Agreement on international goods transported by rail
SPECA	UN Special Program for the Economies of Central Asia
TACIS	EU's development program for CIS countries
TEU	Twenty feet equivalent unit, a measurement for unitized cargo
TIR	International convention for road transport in transit traffic; TIR carnets issues by IRU.
TRACECA	EU-funded Inter-Governmental Group Transport Corridor Europe Caucasus Asia.
UNCTAD	United Nations Conference for Trade and Development

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Introduction

This paper covers the policies of the landlocked countries towards development of efficient transport transit system to find out the critical physical and non-physical bottlenecks which still hinder efficient transit operations. Further, it evaluates the effectiveness of the current initiatives and programmes with an aim to suggesting proposals to overcome these bottlenecks. Also, the paper attempts to identify programmes and initiatives which still work well with national, sub-regional or international support measures.

Additionally, the paper reviews the programmes or instruments which are either not operational or have not worked well with the aim to propose measures which may be needed at national, sub-regional and international levels to improve these programmes or instruments.

While highlighting that, an efficient transit transport system has not emerged in the region despite national and international efforts, it indicates priority areas of action for development of an efficient transit transport at national, regional and international level.

The objective of this paper is to sensitize to the policy makers within the region, business community and international donor agencies that the development of the transit transport system in the region is fraught with complexities ranging from development of a suitable infrastructure to trade facilitation measures. The landlocked countries in Central Asia would remain vulnerable to underdevelopment unless their political and economic stability becomes a direct concern of their larger neighbours and more distant major powers.

Also, the paper attempts to place the primary responsibility on the states to sincerely launch a sustained process of reforms in the managerial, regulatory, procedural and institutional mechanism governing these countries' policies towards transit transport system in the region. These countries have to come up with a credible framework of cooperation and coordination to make full use of multiple transport corridors and trade routes now available in the region. They themselves will have to display their commitment for efficient development of transit transport by complete and unreserved adoption of the projects and programmes underway in the region. Since cross border barriers are often the result of policy decisions, the paper argues, the governments in the region can effectively remove, at least, the non-physical barriers restricting transit trade and transport without further delay.

The paper also highlights the role of donor agencies and their contributions under various regional and national programmes for providing assistance for development of an efficient transit transport arrangements. Also, it tries to highlight the shortcomings of the non-operative programmes/projects which need extra efforts for revival.

The paper concludes that considerable progress has been made to put in place a workable transit transport system to look after the immediate needs of the region. Nevertheless, the situation is far below the desired high point essential to unblock the restraints impeding prosperity and development in the region. The individual/national efforts, commendable may be, would only provide benefits within national boundaries. For regional benefits, the only viable option remains integration of national efforts from each participating country to produce "regional excellence" with regard to developing an efficient transit transport system acceptable to all concerned. The region's cultural, economic and political diversity make the path long and difficult. Nevertheless, the region has no option to procrastinate in this pursuit.

Regional arrangements – Transit agreements

Following the disintegration of the Soviet Union, several attempts were made to re-integrate the economies of the landlocked CARs to the Russian Federation plus CIS. Amid security apprehensions as well as usefulness of the traditional links, these states decided to use the Russian and CIS markets and the existing infrastructure to sustain themselves economically. As a sequence, various multi-states agreements were signed which, though never become fully operational, proved modestly helpful in tidying over the teething economic and financial problems.

After the initial difficult phase, realization was dawned that the status quo would not enable these states to deal with the world and the emerging global trading system. They needed to deal and depend on their transit neighbours to reach out to the world for trade. They adopted forward looking policies towards opening their economies to co-operate with the global economy. Cognizant of the need to follow regional approach in resolving their common problems, they soon demonstrated a high degree of commitment to establishing greater links with industrialized economies in Europe and Asia. Based on mutual benefits, they undertook special measures in this context and some important regional arrangements came into place. Some of these are:

CIS Economic Union

Nine CIS countries: Azerbaijan, Armenia, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan and Uzbekistan signed the CIS Economic Union Agreement. Ukraine joined the agreement as an Associate Member. Georgia and Turkmenistan did not sign it. The signatories agreed to undertake a variety of measures towards economic integration, including creation of the customs union, monetary union, free trade area for goods and services, and common market for capital and labour. It also committed the signatories to formulate and implement a uniform foreign economic policy. The parties have taken only very limited steps to fulfill their high sounding commitments.

Coal and Metal Association

Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Ukraine and Uzbekistan established the “Eurasian Association of Coal and Metal”. The primary purpose of the Association was to create favourable conditions for the development of coal and metal industries, including promotion of rational use of raw materials, coordination of scientific-technical and investment policies, and promotion of terms of supply and sale that are mutually beneficial to the parties involved in sale/purchase transactions. The Association aimed to takes into consideration interests of all member countries in a manner that would prevent unfair competition and creation of monopolies.

Common Economic Area

Uzbekistan, Kyrgyzstan and Kazakhstan, on April 30, 1994, agreed to establish Common Economic Area over the years 1994-2000. This framework agreement committed the signatories to undertake a variety of measures intended to promote economic integration, including creation of a free trade area for trade in goods and services, a common market for capital and labour, and mutual adoption of agreed policies regarding budgetary, accounting, pricing, customs and

currency matters. The Agreement specifically envisages cancellation of customs duties, gradual reduction of other import-inhibiting levies and restrictions, simplification of customs measures, harmonization of customs legislation, unification of customs documentation, and removal of tariff and non-tariff barriers to movement of goods, passengers and luggage. The Agreement also opens the possibilities for formulation of agreed policies and implementation of many other useful measures.

Labour Market Integration

On April 15, 1994, the Republic of Uzbekistan signed with other CIS countries an agreement entitled; the Agreement on Cooperation in the Sphere of Labour Migration and on the Protection of Worker Migratory Rights. In addition, the Central Asian Economic Area Agreement required Kyrgyzstan, Kazakhstan and Uzbekistan to create all necessary terms and conditions for free movement of labour. Bilateral agreements were signed between Uzbekistan and Kazakhstan on issues regulating migration, which defined a set of procedures and mechanisms for providing employment and social security of workers.

Free Trade Area Agreements

Uzbekistan, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan and Ukraine signed a number of bilateral free trade agreements. In addition, both the CIS Economic Union Agreement and the Central Asian Economic Area Agreement contained general provisions committing the parties to establish a free trade area.

Under the CIS Free Trade Area Agreement, the parties have agreed not to impose import or export duties, taxes, levies of equivalent effect, or quantitative restrictions on goods originating from the territory of one party and destined for the territory of the other party.

Economic Cooperation Organization (ECO)

In 1992, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan, joined the organization as new members. With their entry, the development of transport sectors, especially transit corridors including construction of missing road and rail rightly assumed an urgent dimension to accelerate integration of their economies with countries beyond ECO region through speedy development of transport and communications infrastructure.

The objectives for development of transport infrastructure in the region were set out in the Quetta Plan of Action, adopted by the ECO Council of Ministers in February 1993. These objectives were reinforced in the ECO's Long Term Perspectives (Istanbul Declaration), endorsed by the 2nd ECO Summit, in July, 1993. Following this, in October 1993 the ECO Ministers of Transport and Communications adopted the Almaty Outline Plan for the Development of the Transport Sector in the ECO Region. This Plan became the basis for the Programme of Action for the ECO Decade of Transport and Communications, which was adopted by the 2nd Ministerial meeting on Transport and Communications (Ashgabat, March 14, 1998). The Programme aims at developing the east-west, north-south rail and road network: expansion of the existing capacity and construction of missing links. In order to attain these objectives, the member states envisage a period of 10 years for implementation of the entire Plan.

Any over-optimism over the full implementation of ECO's transit transport arrangement as laid down in the Plan must be viewed with a note of caution as in ECO programmes the participating countries themselves are responsible for construction and up gradation of

infrastructure as well as for coordinating modality to promote development of transit trade and transit operations. The Organization has a limited facilitating role.

TRACECA

Launched in 1995, this programme aims to improve the trading links with Europe by financing road construction, technical assistance and research at local, national and regional level. Working with the European Bank for Reconstruction and Development (EBRD) and the World Bank, it has financed many national projects. TRACECA has helped in many ways to add roads and railways from Central Asia to the European Network towards Black Sea region which was previously provided by east-west maritime line. Many studies and programmes have been initiated to streamline and harmonize rules and regulations affecting transit trade and traffic in the region. TRACECA brought forth an alternative for European-Asia connection along with guaranteed funding, though limited.

China as a transit country

China, as early as 1994, showed keen interest to revive and revitalizing the traditional trade link through the Central Asia to Europe when it invited seven neighbouring countries to enter into agreement on international railway and passenger transportation. Bilateral and multi-lateral agreements were signed with Central Asian Countries including Kazakhstan, Kyrgyz Republic, Tajikistan and Uzbekistan. As a result, first international passage between Alatan Pass and Druzhba was opened. Adopting a gradual approach, more contacts such as land routes were opened. In April 1997, China, Uzbekistan and Kyrgyzstan agreed to reconstruct railways and road links connecting Ardijan-Osh-Kashgar. Same year, China and Kyrgyzstan also agreed to open the Irkashtan Pass. Apart from railway line, Kazakhstan is linked by road, though a cumbersome arrangement not allowing vehicles to move across borders beyond a certain limit.

UN Special Programme for Economies and Central Asia (SPECA)

Kazakhstan jointly with UNECE and UNESCAP is pursuing a special UN programme for economies of Central Asia (SPECA). Within the framework of SPECA, a Working Group has been established on Transport and Border Crossing Facilitation to revolve problems on the development of the international transit transportation in the region. It also aims at simplification of Customs procedures and accession of the SPECA member countries to international transport and customs conventions.

Central Asia Regional Economic Co-operation (CAREC)

In early 1997, ADB initiated its Central Asia Regional Economic Cooperation (CAREC) Program with China, Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan as members. The CAREC Program seeks to promote economic growth and raise living standards in the region by encouraging economic cooperation. The operational strategy of the Program is to finance infrastructure projects and improve the policy environment for promoting cross-border activities in the areas of energy, trade, and transportation. Azerbaijan and Mongolia have also recently become full participating countries in the CAREC Program.

Projects to be supported by the envisaged programme were to increase loans and technical assistance including:

- **Transport:** projects to continue support for rehabilitating key sections in the regional transport networks, and to explore future opportunities post-Afghan war.

- **Energy/Water:** projects to continue support for rationalizing the use of regional energy networks, and to explore initiatives in energy/water nexus as well as potentials in hydropower post-Afghan war.

- **Trade facilitation:** projects to continue support for freeing trade especially of non-tariff barriers through cooperation, which would complement ADB support in other areas such as transport.

Quadrilateral Transit Agreement between Pakistan, China, Kyrgyzstan and Kazakhstan to use Karakorum Highway

Although a demonstration caravan from Pakistan through China reached Almaty and Bishkek in 1995, due to some technical dispute regarding the allocation of road permits, this route remains non-functional beyond China.

Silk Road Area Development Programme

UNDP and UNESCAP initiated Silk Route Area Programme formally in the autumn of 2000. The project focused on reviving the traditional Silk Route connecting Asia with Europe. China, Kazakhstan, Uzbekistan, Kyrgyzstan and Tajikistan are its members. For the moment Turkmenistan is not participating in the project. The programme not only related to the development of the corridor but also looks after transport and border crossing facilitation. It aims at activating a specific transport corridor and to link the economic resources of this region to international markets.

ECO was initially involved in the conceptualization of this project. However, later UNDP adopted the programme and in collaboration with China and UNESCAP has been spearheading the programme. The programme enjoyed recognition and support of western countries. It holds some prospects for success in integrating Central Asian Transport corridors with global corridors. The core issue is the role of China in the project and continued funding for its second phase.

North-South Transport Corridor

India, Iran and Russia have established this corridor to restore the historical trade between South Asia and Europe. The corridor stretches from ports in India and cross the Arabian Sea towards the southern Iranian ports of Bandar Abbas and onward to CaspiaFrom there, it moves on to Moscow and onward to northern Europe. Iranian analysts believe that the delivery time can be reduced by 10 to 20 days and the cost of container by US$ 400 to US$ 500. Many regional countries like Kazakhstan, Kyrgyzstan, Uzbekistan and Azerbaijan are interested in the project.

UN bodies – specific mandate and role

The involvement of UNCTAD, in response to UNGA Resolution 53/171 of 15 December 1998 (transit environment in the landlocked states in Central Asia and their transit developing

neighbours) gave an impetus to major initiatives by donor agencies ranging from technical assistance to grants and projects. UNCTAD is presently helping ECO in carrying out a study for promotion of a multi-modal transport in the region, in collaboration with UNESCAP and IDB. UNESCAP is pursuing Asia Highway project which incorporates this region fully.

IDB, ADB, Kuwait Fund, World Bank financed workshops and development of infrastructure and thus highlighted the need to pay more attention to this marginalized region. Many of these have come up with long term strategies to integrate the region to international trading system. UNESCAP encouraged its members from this region to join international conventions to ensure harmonization/standardization of customs regulations, procedures and laws regarding the use of transport.

Current regional and national transit policies, projects and arrangements – an assessment

Overview:

Given the interest and commitment of the landlocked states and the active support of the international community as well as the UN bodies, an efficient transit transport system in the region should have come into existence by now: These states entered into a number of bilateral and regional arrangements as well as agreements and conventions to promote early development of smooth transit transport arrangements. The international community responded very positively to their enthusiasm and many initiatives were undertaken. The region looked well poised to establish linkages with global corridors. Their membership of regional organizations such as ESCAP, ECE and ECO helped them agree to accede to basic international conventions and agreements bringing about harmonization and standardization of their rules and regulations concerning transit transport. This process further facilitated the expanded use of alternative transit routes.

However, after a good start, the momentum towards taking concrete steps for placing a transit transport regime in place somewhat ebbed away. Regional policies were overshadowed by narrow national interests. Heavy investment was made by national governments in infrastructural programmes and projects which were not immediately needed and ironically some of them have remained non-functional. The rich crop of transit related transport agreements signed with neighbouring landlocked states achieved modest results.

The newly independent countries (excepting Turkmenistan and Kazakhstan) do not have unified rail and road infrastructure running from one corner to the other of the country without passing through the neighbouring country. This phenomenon (fragmentation) gave rise to expensive rentals for use of transit facilities both for domestic and external travel for passenger traffic as well as freight. Faced with this financial problem, the inter-state relations at the implementation level deteriorated. This, for instance, happened between Uzbekistan and Kazakhstan as well as between Kyrgyzstan and Uzbekistan. Due to security apprehensions, traffic along some road and rail links between certain countries was stalled. As a result the region continues to suffer from inadequate infrastructure, poor utilization of assets with weak managerial, procedural, regulatory and institutional systems.

Commendable efforts have been made to establish a functional Customs Union among the CIS countries. The results have been limited. Main outcomes could be summed up as under:

- Abolishment of mutual trade customs duties and taxes on the goods produced in the territories of Customs Union participating countries;

- Realization of switch to the principles of levying or collecting indirect taxes at the point of destination;
- Exemption of the transit goods tracking from/to the Customs Union country as well as transporting vehicles from payment of customs duties, taxes and fees for customs registration;
- 60% of common customs tariff is established up to now.

Further progress is thwarted by non-participation by all signatory countries (excepting Russia, Kazakhstan and Belarus) and the continued misgivings and rental seeking tendencies. Antiquated customs procedures and frequent physical examinations of goods, even covered by TIR, characterize the functionality of this arrangement.

For instance, there a number of agreements both within the framework of the Customs Union and bilateral relationship on export of oil through Russian pipelines. As yet, the tariffs for Kazakhstan exporters are two and a half times more than for Russian exporters. Russian railway tariffs are steadily increasing. There is a lack of coordinated and harmonized policy among the Customs Union countries on establishing duties and fees for passage of vehicles.

Similar negative developments mark the establishment of Eurasian Economic Community signed on October 10, 2000 by Kazakhstan, Russia, Tajikistan and Belarus to promote Customs Union and a Common Economic Area based on free market principles and application of harmonized legal, financial, monetary and taxation policies. Transition of this concept into concrete action is slow with no free movement of goods, services, capital in evidence across borders. Further direction, though uncertain, point to the following as strategic objectives for 2003-2005:

- Formation of the Customs Union and common customs territory;
- Implementation of coordinated and harmonized economic policy;
- Intensification and stirring up of interaction in substantial economic sector;
- Joint development of energy market;
- Formation of the Transport Union and implementation of the EurAsEc transit potential.

International Agreements on Transit Transport

Two international transit convention help facilitate the transit transport of landlocked counties: The Convention and Statute on Freedom of Transit, Barcelona (April 20, 1921), and the Convention on Transit Trade of Landlocked States New York (July 8, 1965).

There are about 55 international transport agreements and conventions under seven categories mainly within road, rail and inland waterway transport. Uzbekistan have ratified 12, Kazakhstan 8, Azerbaijan and Kyrgyz Republic 7, Tajikistan 4 and Turkmenistan six.

The 48th UNESCAP (April 1992) adopted a resolution recommending countries, if not done earlier, to accord accession to the Convention on Road Traffic 1968, Convention on Road Signs and Signals 1968, Customs Convention on the International Transport goods under cover of TIR Carnets 1975, Customs Convention on the Temporary Importation of Commercial Road Vehicles 1956, Customs Convention on Containers 1972, International Convention on the Harmonization of Frontier Control for International Carriage of Goods by Road, 1956).

Uzbekistan has acceded to all seven conventions, Kazakhstan, Kyrgyz Republic, Tajikistan and Turkmenistan each became party to 4 conventions, Azerbaijan to one and Iran to four.

Article V of the GATT 1994 agreement also refers to transit and requests the governments to permit transit through national territories.

ECO has adopted two transit related agreements: Transit Trade Agreement, 1995 and Transit Transport Framework Agreement 1998 (with eight annexures).

Nearly all landlocked countries have signed on bilateral level may transit trade and transport agreements between themselves or/and with more than one countries.

All the above aims at expedient transit transportation of trans-shipment across land, ports, and inland waterways through close cooperation between the transport authorities, customs, the law enforcing authorities and transport operators. "Arrangements* for regular review and monitoring of the implementation of transit agreements and for public and private sector dialogue and consultation must be established or re-inforced) – *UNCTAD/LDC/110 June 13, 2001".

TRACECA has played a positive role in modernizing and constructing roads, rail and ferrying terminals on national and regional level. The project offers good scope for funding and therefore needs to be pursued diligently. In fact, TRACECA has undertaken very useful projects in the field of harmonizing customs laws and regulations, improvement of ITC application and up gradation of facilities at border posts. Also, the project has undertaken studies to improve fundamental customs legislature to overcome hurdles in smooth transit transport operations. In the field of inter-country rail operation integration, TRACECA has undertaken the following commendable activities:

- A mandated schedule for inter-operatability on the technical format (rolling stock, operating system, rules, communications and signaling);
- Promotion of integration of national transport legislation;
- Border crossing improvement pilot projects in major corridors.

The funding position should be improved by sharing cost with other donor agencies and countries. Inter agency cooperation between TRACECA and ECO needs to be strengthened.

On the contrary, **SPECA**, despite its ambitious programme has not greatly succeeded in motivating countries, especially Uzbekistan, to implement its programme. From five CARs only

three countries (Kazakhstan, Kyrgyzstan and Tajikistan) regularly participate in the sessions of SPECA Working Group (PWG) on Transport and Border Crossing Facilitation. Recently, Azerbaijan joined this project. All participants of the project want to accelerate its implementation. However, none of them is making adequate efforts to follow up properly PWG recommendations. This is mainly due to lack of cooperation among the concerned ministries/administrations in each participating country.

The **Silk Road Area Development Programme** needs to be revamped, if not at all to be merged with SPECA. It has served its utility and to remain relevant it has to work within the broader framework of regional programmes of similar nature.

Under the **ECO** framework, the activities which need specific mention include setting up of Inter-ministerial committee for border crossing facilitation and promotion of international transport, agreement to draw up a Framework Agreement on cooperation in the field of air service, Railway Tariff policy on all ECO railway routes, harmonization of bilateral road permit prices and physical inspection of all border posts under UNDP sponsored consultancy to assess critical physical and non-physical bottlenecks in the smooth movement of passengers and cargo.

A MoU on the opening of international passenger traffic on Almaty-Tashkent-Turkmenabad-Tehran-Istanbul route has been signed, which provides for the operation of two regular trains: Almaty-Tehran and Tehran-Istanbul. These two trains would be connected to each other at Tehran station. The first train, i.e. Tehran-Istanbul, was launched on March 13, 2001, while the second one (Almaty-Tehran) had its successful pilot run on March 14-21, 2002. Its regular run would start as soon as the governments of Turkmenistan and Uzbekistan reduce high transit fee for passengers travelling on this route and Iran resolves travel safety related technical problems on Mashad-Tehran section.

Another positive step has been the signing of a Protocol on launching a Demonstration Block Container Train along the Almaty-Tashkent-Tehran-Istanbul route of Trans-Asian Railway. Very recently the railway administrations of the ECO member states were requested to consider applying a common tariff of US$ 0.2 per one (20-feet) container-kilometer on Druzhba–Almaty-Tashkent-Turkmenabad-Tehran- Istanbul-Kapikule route in order to make it more attractive for the customers. This tariff scale may appear two low in view of financial conditions of all railways but there is a general agreement that without this the route would not become operational. Tariffs could be amended upward as the infrastructure and productively expand in future due to higher speed and wider application of technology reducing other costs.

The Central Insurance Authorities in the member states are keen to develop common code of insurance of vehicles, passengers and cargo today, not tomorrow. They are considering a package in this regard.

ECO has some failures too. For instance, the two salient component of a potential transit transport and trade regime in the region namely Transit Trade Agreement signed and ratified by all member states and the transit regime contained in UNCTAD supported TTFA, adopted in 1998, has yet to become a functional reality. TIR Convention, though agreed to as part of TTFA, failed to become a norm in the region because of non-accession to this convention by Pakistan and Afghanistan. Its application, indeed, would have made the real difference despite its limited use in the region. The ECO Permanent Commission on Transport (PCTC) which was to ensure implementation of the follow up of the agreed measures for the expeditious development and monitoring of physical infrastructure in the ECO region, despite approval at the highest level, could not meet. The Visa Agreement to facilitate the travel of businessmen agreed long ago is not

being implemented. The visa fees despite claims and agreement in principle have not been reduced to facilitate movement of people within the ECO region. Even there is no attempt to reduce the waiting period or removing of conditions such as invitation/sponsorship references/letters necessary for issue of visas.

General drawbacks and remedial measures

To make SPECA, TRACECA and ECO play more effective role, continued dialogue needs to be promoted on regular basis between all national, international, regional, donors and UN bodies engaged in the transit transport and trade in the region. This would help strengthen the inter-operation ability of their fragmented overlapping programmes. All the current transport development plans and future priorities should correspond to UNESCAP's Asian Highway Project for effective results. In this case, regional transport projects, which mostly are part of this ambitious programme, would get better national funding and support.

In fact, due to lack of proper institutional and regulatory framework and training facilities these countries could not adjust to new imperatives of transit arrangements. The endemic culture of corruption, which further flourished after the independence, eroded the initial goodwill. As a result many good projects did not move beyond paper commitments. More rule-based and transparent system may mitigate this social evil. According to some estimates, unofficial costs for trucks between Kyrgyzstan and Siberia could be as high as US$ 1500. These costs not only relate to unofficial payments on the borders alone but all along the route.

Notwithstanding the difficulties mentioned above, all the landlocked countries remain strongly committed to establishing efficient transport national edifices and join them into a regional transit transport arrangement. In this context, they have individually undertaken infrastructural projects raising the number of transit transport options for the region which is a positive development.

Current status

Transit Transport:

Border facilities

Border facilities are in rudimentary condition at most of the border crossing points in the region with layers of barriers. In CIS, vehicles are used as facilities to carry out custom checks. Facilities for truck drivers or consignees are close to nil. Computers if available are not linked to central national data bank. Modernization of customs procedures along with computers would introduce transparency and thus reduce corruption. Another factor which makes it difficult for establishment of joint customs or transit facilities would be the level of political commitment for shifting infrastructure to "no-man land" or close to it at borders.

Presently, border posts are separated by a distance as long as 2 km. For instance, border posts are located one kilometer from each other at Turkmenistan and Iran Serakhs' border. Even on Azerbaijan and Iran border the situation was earlier the same. Recently, Iran shifted the customs post closer to the border. On Iran-Pakistan, border posts are almost adjacent.

The customs officials are not properly trained in transit transport operations or the rules of TIR conventions. Despite verbal claims, consignments under TIR cover are subjected to repeated customs inspections. Escort service lack facilities for customs officials and cost unnecessary expenditure to consignees. Lack of utility services for drivers and passengers including translations, photocopying and frequent unilaterly changes in repetitive controls are not exemptions but routine.

Although TRACECA and the ECO Heads of Customs are working to introduce one window operations as well as joint facilities for custom control, positive outcome is not possible in near future. There is too much mistrust and misgivings about neighbouring countries. Also, antiquated custom procedures have yet to be standardized and harmonized with international customs and WCO based conventions to allow effective operations. Unless the TRACECA Project for Simplification and Harmonization of Custom Documentations as well as the Development of Border Posts and Facilities will make reasonable progress when the participating countries start viewing entry points not in terms of security control but clearance points. Otherwise cross border facilities would continue to remain wanting and inefficient.

Under TRACECA and ADB, some positive movement has been seen on Almaty-Bishkek road towards harmonization of border crossing procedures. The operation of joint border customs processing would eliminate double inspections, strengthen cooperation among customs authorities, streamline examination of documents and may introduce better and standard method of identifying, analyzing, evaluating and monitoring the risks involved in custom clearance.

For efficiency in the customs, primary legislative needs to modernize in line with international convention based on multi-lateralism and WTO as well national commitments under various regional and international agreements. No doubt, some member states would need assistance in this regard. According to a TRACECA document, it has received the following specific requests from Kazakhstan, Kyrgyz Republic, Tajikistan and Uzbekistan in this regard:

Kazakhstan :

i. Customs enforcement: technology of the control process (how to maintain control with simplified systems) and techniques (technical and outright smuggling and origin fraud); identification of consignment and detection of unauthorized interference; check of authenticity of documents.
ii. Border control of Intellectual Property Rights
iii. Identification of goods and compensation products
iv. Cooperation with business community, brokers, transporters, organizations
v. Import price verification system

Kyrgyz Republic :

i. WTO customs rules
ii. Terms of bilateral/multilateral agreements
iii. Management of customs centralized functions; MIS
iv. Post-entry verification

Tajikistan :

i. Customs union conditions

ii. Enforcement techniques
iii. Automating customs control
iv. Accreditation
v. Post-entry audit
vi. IT interface with other customs administrations

Uzbekistan :

i. Training specialists for training academy
ii. Drug control (including training of inspector/dog trainer)
iii. Processing methodology and goods classification
iv. WTO valuation and the Harmonized System

Roads infrastructure

Basically the road system in Central Asian Republics is in place to cater for the existing load of traffic. For instance, most of the transit transport corridors in Kazakhstan are asphalt-concrete and black graveled. These include 1137 km (Uzbekistan border-shymkent-Taraz-Bishkek-Almaty-Korgas-Chinese border) 1976 out of 2048 km with additional 72 km gravel macadam (Uzbekistan border-Shymkent-Kyzylorda-Aktobe-Urlesk-Russian border), 1669 km (Almaty-Karaganda-Astana-Petropavlovsk), 1030 km with 307 gravel macadam and 83 dirt surface (Russian border-Atyrau-Aktau-Turkmenistan border), 1105 km (border-Pavlodar-semipalatinsk-Mailapskagai-Chinese border) and 879 km (Astana-Kostavai-Russian border. However, quality of roads is not up to international standards. Maintenance, logistic support and technical services such as fuel and communication facilities are not properly well spread along the popular routes. Under developed resting places for drivers of foreign origin is another factor affecting traffic. Due to fragmented transport market, some sections of the roads especially in Kazakhstan and Uzbekistan have suffered most due to heavy traffic and lack of money for maintenance and upgradation. This results in slowing of speed delays and subsequently high costs and unreliability of schedules.

Nevertheless, in Kazakhstan, which is comparatively in better shape, most of motor road sections have narrow width of traffic lane (around 7 m) that is standard of the 3rd category allowing one traffic lane in one direction. More than 60% of interested motor roads are unsatisfactory condition since roadway covering/pavement deterioration is in progress owing to appearance of cracks and potholes due to improper repair works during the last decade. Similar situation is observed with regards of both bridges and other technical facilities or constructions. The aforesaid will result in low speeds, concerns with regard to safety and increase of vehicles operational costs. Very bad conditions prevail at Almaty – Khorgos motor road section, the major part of Eastern Kazakhstan road network, particularly from Atyrau to Akyau with outlets to Turkmenistan and Uzbekistan borders.

The national program for road industry development in the Republic of Kazakhstan for 2001-2005 adopted by Presidential Decree No.730 dated 28.11.2001 has defined 6 main routes (road corridors) along which the current and the future transit transportation would primarily be carried out between the Central Asian countries, Russia and China:

1. Tashkent (Uzbekistan) – Shymkent – Taraz – Almaty – Korgas (China);
2. Tashkent (Uzbekistan) – Shymkent – Kyzyl Orda – Aktobe – Uralsk – Samara (Russia);

3. Almaty – Karaganda – Astana - Petropavlovsk;
4. Astrakhan (Russia) – Atyrau – Aktau – the borders of Turkmenistan;
5. Omsk (Russia) – Pavlodar – Semipalatinsk – Maikapchagai/Chinese borders;
6. Astana – Kostanai – Chelyabinsk (Russia) – Ekaterinburg (Russia).

Thirty eight bridges (4906 linear meters) from among 443 bridges including bridges across rivers of Talas, Assa, Badam, Ilek, Irgiz and Ural located along 6 routes are in emergency and pre-emergency condition and operate in special regime for passage of heavy and large dimension road vehicles exceeding allowable loads and dimensions.

Roads in Tajikistan, built often close to the basement of the mountain, quickly get eroded and remain in bad condition due to lack of funds. Construction of new modern roads/highway in Tajikistan, especially through the country's territory on East-West direction and bringing the existing ones to modern standard are the minimum requirement. Bridges over Pyandi river along Dustry-Nyzhny-Pejandj route as well as rehabilitation of some sections of Osh-Khorog Road. Tajik's links with Afghanistan are affected by minor missing links including destroyed bridges. ADB's Regional Transport sector study is paying particular attention to link up to Afghanistan.

In Kyrgyz Republic, Bishkek-Osh (650 km) needs to be rehabilitated. Work is underway with the help of ADB which currently focusing on preparing regional road and rail projects and accompanying policy reforms. ADB provided US$ 57 million for Almaty-Bishkek regional road. Other roads such as Bishkek-Naryn-Torugart Road (cost $ 15 million); Bishkek-Almaty road (245 km) and a stretch of 41 km at Bishkek-Kordai need urgent repair.

Railway

Railway border posts normally do not have adequate bogie changing facilities. There is no repair or maintenance for minor operational faults in the rolling stocks. Technical differences (traction, equipment, accounting system, signaling, and clearance documentation) are particularly complex and cumbersome at entry points. Double inspections (customs and immigration) at both sides of the border characterize the border cross movement. As compared to road traffic, unofficial payments far less.

The experience of the ECO Demonstration Container Train, regular from June 22, 2002, reveals that forwarders continue to face problems in obtaining containers and retrieval of empty containers from Central Asia. Such disadvantages can be overcome by promoting association of professional forwarders.

Another problem which came to surface was that since all countries along Almaty-Istanbul route do not apply the same tariff system, it was found difficult to offer to the forwarders a thorough tariff for different destinations. Payments, therefore, could not be made at a single point for the entire route, rather partial payments at different points by forwarders.

The movement of container train (composition of train, departure/destination place, number of containers, border crossing time) needs to be developed to satisfy customers about their cargo. In case of ECO, speed of the block container train especially from Turkmenabad to Serakhs (maximum 36 km per hour) needs to be improved.

Another problem relates to the composition of a standard container train in CIS (50 or more bogies). When such a train enters into Iranian territory, it has to be divided into two as the infrastructure can not take a train of more than 26 wagons from Serakhs to Tehran and 21 wagons

from Tehran to West. This raises costs for CIS transporters. As a result, huge pile up of containers can be seen at Serakhs Railway station (Iran). The signaling and differing traction power systems create further difficulties. Also, CIS railway wagons are mostly suitable for transportation of cargo to and from the CIS countries due to their technical specifications. However, the Iranian wagons are occasionally used up to the Sarakhs border point depending on the type of the cargo, the request of the owner of goods and in line with the railway facilities. To compensate for the shortcomings, measures are underway to buy Russian-made wagons. Iranian and European wagons are used for the transportation of goods to the European and Middle Eastern destinations. Occasionally the CIS-made wagons are used as well.

Such consignments as pipes, containers and packaged products are being transported up to the Sarakhs border point by Iranian wagons and from that point the CIS-made wagons are used to transfer the goods to the other side of the border. On Razi border point too transit cargos are being transported by the CIS-made spare wagons. European wagons too are used for carrying goods up to the Sarakhs border point. These ad hoc arrangements often lead to delays, raising costs.

Another general problem throughout the region is the week basement/embankment and the quality of tracks. Even where quality locomotives are available, desirable speed can not be achieved due to this factor. Maximum technical speed along single-track railway lines for transit traffic has been decreased from 80-100 km/h up to 45-50 km/h due to bad condition of the infrastructure. Inadequate electrification of rail track is another issue which needs to be given priority.

As a study, one may look at the Kazakhstan railway network included in international railway corridors, particularly important network sections like Druzhba- Aktogai, Mointy – Sayak – Aktogai and Makat - Beyneu - Mangyshlak. Bad condition of rail infrastructures resulting in low traffic capacity and increase of delivery period emerging as an impediment to the competitiveness of Kazakhstan routes with Trans-Siberian route. Basic problem concerns the traffic capacity of the system to handle different rail-gauges at Druzba/Alashankou rail stations (China). The main bottleneck is Alashankou reloading railway station (China), handling exclusively exports traffic and transit traffic of east ward. It does not refer to container traffic that is handled exclusively on Kazakhstan side at the newly constructed facilities.

Dwindling rail stock

Kazakhstan

Virtually, the rolling stock of Kazakhstan Railways has not been replaced or replenished for a long time. This has resulted in aging and further erosion of functionality that has increased the defective vehicles as see below:

Rolling stock for (1995-2001)

Type of rolling stock	Inventory rolling stock (thousands)				
	1995	1998	1999	2000	2001
Total of locomotives	3,04	2,29	2,16	1,96	1,91
Including:					
Steam-engines	0,20	0,09	0,09	0,05	0,05

Electric locomotives	0,65	0,63	0,63	0,62	0,62
Diesel locomotives	2,19	1,57	1,44	1,29	1,24
Total of freight cars	98,30	89,87	88,06	78,49	77,58
Including:					
Boxcars	18,70	16,61	14,76	15,02	13,25
Gondola cars	38,16	33,99	32,44	28,27	28,33
Flat cars	13,58	11,95	11,86	10,54	10,32
Tank-cars et cetera	27,86	27,32	29,00	24,66	25,68
Passenger/coach cars	2,35	2,23	2,09	2,08	2,08

Source: Kazakhstan Statistics Agency.

The above data demonstrates that today all types of Kazakhstan Railways rolling stock have a general trend towards decrease as locomotives and rail cars with expired lifetime are discarded.

Locomotive fleet and locomotive repair facilities.

Available locomotive fleet (as of beginning of 2002).

Figures	Number of units (thousands)			
	Total	Including:		
		Electric locomotives	Diesel locomotives	Steam-engines
Inventory fleet of locomotives	1,91	0,62	1,24	0,05
Accommodation of the fleet:				
At the disposal of depot/shed	1,64	0,45	1,14	0,05
Total				
Including:				
Operational	1,10	0,36	0,74	-
Non-operational	0,54	0,09	0,40	0,05
Defective	0,24	0,05	0,19	-
On lease	0,03	-	0,03	-
In stock (mothballing)	0,24	0,17	0,07	-

Characteristic of the railways locomotive fleet:

- Diesel locomotives dominate the inventory fleet;
- More than 40% of locomotives (predominantly diesel locomotives) are not used for freight transportation and their maintenance (except on lease) increases expenditure without earning profit;
- Non-operated fleet consists by half of locomotives being at various stages of repairing works and around 80% of them are diesel locomotives.

Qualitative characteristic of modern locomotive fleet:

Equipment	Car life in view of manufacturing plant depreciation rate of (years)	Inventory fleet (%)	Including: under service life (%)			
			Up to 15 years	Over 15 up to 20 years	Over 20 up to 25 years	Over 25 years
Total of	-	100	31	39	20	10

locomotives:						
Including:						
Electric locomotives	30	100	32	31	29	8
Diesel locomotives	18	100	32	44	17	7
Steam-engines	-	100	-	-	-	100

Note: Available steam engines have expired lifetime and are now subject to write off.

Approximately 70% of the locomotives have been operating for a long time (more than 15 years). 40% of the hauling units are in very bad condition i.e. factory overhauling, in 2000.

Available electric locomotives VL-60, which are used mainly for passenger traffic have virtually expired their serviceable lifetime. They need to be replaced as they would not acquire speed of 100 km/h. Their replacement is not a big problem as the availability of reserve VL-80 locomotive fleet and expected low growth rate of freight transportation in the near future. It is necessary to purchase new high-speed locomotives for arranging speedy traffic.

A very serious problem is the fleet of train locomotives that have expired their expected lifetime (up to 70%).

As per Kazak Railway experts, more favorable situation is with regard to shunting locomotives fleet. In spite of their age that exceeds specified lifetime, they are in rather good repair, thanks to assigned servicing system.

Development of locomotive repair facilities and its technical capacity to implement all types of repair works at required and requisite level is determinant for Kazakhstan railways taking into consideration the aging features of locomotive fleet. This industry has 18 locomotive repair depots and 40 maintenance centers/points for implementation of depot and running/routine repair works. Until recently, Kazakhstan railways' serious challenge was the lack of locomotives the complicated factory repair base was traditionally carried out at Russian and Ukrainian plants. In order to solve this issue in the recent years, the following plants were established:

- Plant for complete overhaul of main-line diesel locomotives at Shu railway station;
- Plant for complete overhaul of electric locomotives at Atbasar railway station;
- Plant for repair works of Czech diesel locomotives ChME-3 at Kushmurun railway station;
- Plant for complete overhaul of shunting diesel locomotives at Kazaly railway station;

The issue of repair quality is urgent for Kazakh railways in view of the deterioration of locomotive fleet. The most topical issue is the lack of qualified repair personnel especially at plants for depot overhaul of motive powers in light of necessity to develop and introduce new engineering processes. This industry branch still suffers difficulties with regard to supply of spare parts, accessories and component parts purchased and delivered from the CIS countries. This problem is partially solved by setting up or establishing new manufacturing works at repair factories.

Status of car fleet and car repair base

Now freight car fleet circulating within the Kazakhstan railway network exceeds a figure of 74 thousands cars/coaches per day. Utilization of cars/coaches in quantitative aspect is given in Table 4.

Availability, status and accommodation of freight car/coach yard (2001).

Figures	Daily average amount (thousands)
Available car fleet at disposal of the railways	74,75
Including:	
Running fleet	42,56
Including:	
Loaded cars	23,53
Empty cars	19,03
Inactive fleet	
Including:	
Reserve fleet	7,39
Disabled fleet	23,56
Special-purpose cars etc.	1,24

According to the cited data within currently operating car fleet there is a great deal of inactive fleet (40%) due to disabled cars, which is an index of unfavorable status. Average lifetime of these cars is amounting to 20 years in view of standard lifetime amounting to 15-32 years subject to car type. Age characteristic of freight car fleet by type is given in Table 5.

Accommodation of freight car fleet by lifetime.

	Standard car life (years)	Inventory fleet (%)	Including: by lifetime		
			Up to 15 years	Over 15 up to 25 years	Over 25 years
Total of freight car fleet	-	100	32	48	20
Including:					
Boxcars	32	100	13	46	41
Gondola cars	22	100	46	51	3
Flat wagons	32	100	17	46	37
Tank cars	32	100	35	31	34
Refrigerator car	?	100	34	64	2
The others	15	100	30	54	16

The data given in the Table demonstrate that available freight car fleet of Kazakhstan railways is sufficiently old i.e. a share of cars being operated more than 15 years is amounting to 70% while a share of specific cars (like flat wagons and boxcars) is amounting to 80-90%. High degree of wear is typical for the fleet (i.e. 80% is depreciated by half). One fourth of the fleet is depreciated over 90%. Most unfavorable situation is standing with gondola cars comprising half of running fleet. Their average age is amounting to 16,7 years at specified lifetime standard of 22 years. 85% of cars out of total amount of disabled cars needs most complicated repair types i.e. factory repair and complete overhaul.

The analysis of the car fleet utilization data shows that available freight cars are underutilized i.e. insufficiently by capacity and timing. In other words, there is a great deal of empty mileage, downward trend of dynamic load, an increase of car turnaround time. Partially it

is explained by low level of freight traffic and worsening of operational conditions (particularly by traffic speed-down).

Container fleet is also characterized by high degree of wear. Out of total 9, 8 thousand container cars 32% are with expired lifetime (over 15 years) and its share will increase up to 80% by 2005. Inventory fleet of serviceable/operable/usable containers will be reduced up to 1, 9 units.

In view of the above one may evaluate the current state of Kazakhstan railways car and container fleet as most unfavorable and demanding implementation of urgent measures. 12 repair depots, 16 maintenance depots, 81 service centers, 167 maintenance and control check stations are carrying out repair and maintenance of freight yard cars. Daily around 3, 0 thousand cars are in running repair/servicing; 1, 2 thousand cars in depot repair; 1, 1 thousand cars in overhaul repair; 0, 5 thousand cars in factory repair. The country has two car-repair plants and two car-repair depots for carrying out repair works of passenger cars within the railways network. Complete overhaul of containers is carried out at Almaty-II and Turkmenistan railway stations. For the time present container repair base is not recognized within certification system of Vessel Register and does not allow placing applicable stencilled legends on containers used for transportation abroad.

Locomotive fleet includes 57 diesel locomotives with the average age of 20 years; 21 of them were to be written off by January 2001. Power supply, signaling, and communication in railway transport have been operated for a long time without any reconstruction or repair works. Part of the equipment has become out of date. Lines of communication (cable and air), power lines, and substations 6-10/0, 4 kilovolt were constructed more than 25 years ago. Main supply line Bekabad-Kanibadam has been operating for more than 38 years, with an average working life up to 20 years. The existing main communication cable at the stations of Khoshadi and Kurgan-Tube was constructed in 1972 and has been operative for 28 years with an average working life up to 25 years.

Turkey

Rail Stock

- 479 diesel mainline locos,
- 78 electrical mainline locos,
- 89 shunting locos,
- 50 diesel railcars,
- 92 electrical railcars,
- 1031 passenger coaches,
- 16513 freight wagons.

50% of tractive stock and 20% of wagons are very old, completed their technical life.

Capacity/Production:

	Capacity	Production		
		2001	2002	2003 Prog.
Number of Passenger transported (Million passenger)	150	76	74	75

(Suburban)	(120)	(52)	(49)	(50)
Freight transport (Million tons)	25	14.6	13.9	13.5

Azerbaijan

The government claims that transport has been fairly developed since the time of former Soviet Union. The capacity of freight transport is up to 40 m tonn km. by rail more than 10 million tonn km. by road transport about 13, 0 million tonn km. by Caspian Marine Shipping nearly 1, 8 million tonn km. annually by pipeline transport.

The rolling stock is outdated. Private business has resolved the problems related to passenger transport through fresh investments. The upgradation of freight transport poses a big problem.

Kyrgyz Republic

The whole rail system has 219.2 km station track, 92.6 km of approach/branch lines with freight car fleet amounting to 2457 units and passenger car fleet to 471 units. The railway is a state monopoly and suffers from continuous shortage of funds for upgradation and maintenance of the rolling stock and tracks. As a result motor transportation has emerged as the major mode of freight traffic in Kyrgyz Republic. As of January 1, 2002, there were 264900 vehicles including 5547 freight vehicles, 189679 passenger cars, 55129 special cars and 14545 buses.

Port facilities and services

Reasonable port facilities with full services backed by modern technology and equipment are available in the transit neighbouring countries like China, Iran, Turkey and Pakistan beside the traditional ports in the Russian territory. The new trends in the shipping industry posed lots of demand for restructuring the port facilities in terms of infrastructure, machinery and technology. The upgradation process took note of the changes in shipping industry. Container slot capacity was developed with international standards of services. The governments mainly invested in substructure and franchised or leased its operations to private operators. And the private operators invested in port superstructure, including handling equipment and installations. The operating franchises sometimes participated in the overall management of some dedicated terminals. These ports no longer suffer lack of computer based technology to organize rapid transfer and temporary storage of containers.

Since 1996, upgrading and extension of container – handling capacities received top priority in all port development plans in the region. Information provided to UNESCAP, ECO. World Bank, ADB etc in various studies and proposals indicated completion of major infrastructure development plans in China, Iran, Turkey and Pakistan.

For instance, the 1990s witnessed a surge in port infrastructure construction in China. During the period of the 9th Five Year Port Development Plan (1996-2000), over 200 berths for containers, coal and petroleum were built in coastal ports to raise cargo handling capacity to over one billion tones per year. Notable developments at Shanghais port include upgradation of Wai Gaoqiuo container terminal (with 5 additional berths of 900 meters) and a $ 350 million dredging project to deepen the channel at the mouth of the Yangtze River by 7 to 8.5 meter with long term plan (by 2010) to a navigable depth of 12.5 m. At Hong Kong the construction of a new terminal 9 was with 1200 m quay-face and a throughput capacity of 1.85 million TEU was nearing completion.

In the Islamic Republic of Iran, Bandar Abbas and Bandar Khomeini ports have improved their operations through automation of container terminals, purchase of ship to shore post – panamax gantry cranes and other terminal equipments. Private participation in the overall management of these ports have enhanced the port productivity and made it competitive in pricing and efficiency. The Shahid Rajaee port is fully equipped with modern facilities such as gantry cranes, transtainers, reach stackers, top-lifts etc. It service 95% of import/export container traffic. The Khazar port complex has been built to play an important role in transit cargo to Central Asia under North-South corridors. The port is connected with other main ports of Shahid Rajaee and Imam Khomeni by rail. It has rail ro-ro and truck ro-ro berth for transit cargo multi-modal transportation standards North-South corridor would reduce 42 days to 25 days from access from South Asia to Europe.

In Pakistan, the Karachi port has undergone development phase and now plan to enhance the existing port container volume to exceed 300,000 TEU per year. The development will involve the provision of additional equipment including one container handling quay crane, four rubber-tyred gantries and one empty handler.

At the Karachi port, trans-shipment facilities for containers to other regional ports have been introduced. The charges are moderate. Modern new container terminal (KICT) with gantries and RTG (berths 28, 29, 30) one window operation for export/import facilities – under one roof. The Karachi port, with the assistance of the World Bank has formulated and launched a comprehensive Port Modernization Plan at a total cost of 5 million rupees including World Bank loan of $ 91.4 million which will take care of the traffic for the next 20 years. Berths 22-24 – on BOT basis – consortium of M/s APL & ICTSL landlord port concept – operation leased while retaining all regulator functions. (www.mesteel.com/countries/Pakistan/ports.htm).

With the installation of two new ship to shore container gantries, terminal capacity at the Port Muhammad Bin Qasim has been expanded to 360,000 TEU per year. Other development plans include widening and deepening of the channel to handle 270 m vessels and to provide for night navigation. The Port Qasim can berth ships with drafts between 11 to 11.5 meters. Qasim port facilities include a 1,400 m multi-purpose terminal divided in 7 berths of 200 m each. Berths 1-4 can accommodate vessels of up to 25000 DWT and berths 5-7 of up to 35,000 DWT.

These ports are well served by road and rail system, linked directly with National Highways and rail service. A reputed foreign firm is currently negotiating the setting up of a most advanced, modern container terminal at port Qasim with an investment of US$ 75 million.

In Turkey, (Istanbul) additional 80,000 m 2 container storage area as well as two berths 370 m in length and 15 m in depth were constructed in 1999. Seven ports earlier owned by the Turkish Maritime Administration were privatized through the transfer of operating were privatized through the transfer of operating rights model. Each port, either state or privately operated has been allowed to determine tariffs. However, private ports cannot apply tariffs higher than that of public ports. The Hay derpasa port has reefer facilities for refrigerated containers.

No doubt, the concerned countries do not have adequate funds to buy equipment such as quayside gantry cranes, container forklifts rubber-tired transtrainers. The ports have adequate covered and open transit storage area for general cargo and containers with effective security and fire fighting system. The facilities are competitive in rate and increasingly orient their services to the principles of market economy.

Transit neighbouring countries – critical infrastructure needs

In order to position themselves well to respond to the new challenges of the opening of Central Asia, three transit neighbouring countries namely Iran, Pakistan and Turkey have launched a number of projects to upgrade their railways, roads and port facilities. Of course, the development in these countries is still desired to be upgraded further. Iran, in particular, has been effectively connected with several countries (Afghanistan, Turkmenistan, Azerbaijan, Armenia, Turkey and Pakistan) by 15 border roads and three railway stations. The Mashad-Sarakh-Tezhen railway opened new trade routes between Iran and regions which under Soviet communism were hermetically sealed.

There are certain problems which need urgent remedial measures for effective use of the facilities in these transit countries. In this respect, particular attention is needed to be focused on expeditious construction of Bam-Zahedan-Chaman rail and road links and construction of Mashhad-Bafq rail line to shorten the route. Also, Afghanistan and Uzbekistan Termez-Mazar-i-Sharif need to be connected by rail as well to link Mazar-i-Sharif to Dushanbe and Turkmenistan if the bridge on river Pang (Amal) is constructed.

Another essential link to be created is from Turgandi to Heart linking Afghanistan to Ashgabat and further to Turkmanbashi (Caspian Sea with ferry links to Azerbaijan). This also fits into the priorities of the current Afghan Government's internal policies. The Afghan Government also wants to begin construction of the missing section of the Ring Road (Herat to Shiberghan). It also considers critical to initiate as soon as possible work on the central-Afghanistan roads connecting Kabul to Hazarajat, and Hazarajat to Herat and to Mazar-i-Sharif.

The existing rail link between Julfa and Ghazi Mahmood which has become non-operative due to Armenian occupation needs to be reinstituted. Turkey plans to build rail link Iran Van which is an expensive proposition and may not materialize for a few more years. It would be better if the Nakhicheban-Dogukapi rail link may be revived to connect Azerbaijan and the transit train coming from other Central Asian Republics through ferry boat links via Caspian Sea.

China, another coastal neighbour, which provides a transit route for access to Far East countries to Central Asia has upgraded the existing road links with Kazakhstan and carried out many infrastructural projects within its own territory. The Kazakhstan Druzhba rail link is currently the only strategic rail opening to CAR. Another link is likely to be started when China, Uzbekistan and Kazakhstan build their planned multimodal road-rail connection. The role of Russian Federation to serve as a bridge between the Central Asian Republics and the northern Europe is commendable, though delays and unofficial payments need to be curtailed.

Status of development regarding the Physical Infrastructure of East-West (including TRACECA) and North-South Transport Corridors

- Dushanbe-Kalak-Gharm-Jirgatal-Sarytash (1998-2000) is still under implementation.

- The implementation of border (with Uzbekistan) – Buston-Khudjant-Kanibadam-border (with Uzbekistan) (1998-2000) has been suspended due to lack of funds.

- With regard to Buhara-Konia-Urgench-Nukus-Khojeyli-Kungrad-Akjigit-Beyneu-Atyrau (1998-2002) road bridge over Amudarya on the Nukus-Khojeyli route was completed. Kungrad-Beyneu part of this road remains under construction.

- The Ashgabat-Dashoguz section of Ashgabat-Dashoguz-Konia (1998-2003) is under construction.

- Some sections such as Imam-Goli Lotfabad of Mashhad-Quchan-Bajigeran and Imam Goli-Lotfabad (1998-2004) have been completed and other sections are under implementation.

- Almaty-Karaganda-Astana is under implementation.

- The related studies about Astara (Azerbaijan) –Astara (Iran) – Rasht –Kazvin, 330 km (1998-2007) are under process and the construction work will start soon.

- The studies for biding of the consultancy services about railway tunnel under Bosphorus, 12.5 km. (2000-2007) are in final stages.

- Turkish Government has already carried out the required studies on Kars-Aktash (92,5 km) (1998-2000) and the bidding process will be initiated after positive response from the Treasury.

- To increase the capacity of national parts of Trans-Asian Railway construction of the following new links are in following stages:

    - Turkmenabad (Charjev) – Kerki-Kerkichi in Turkmenistan with a bridge over Amudarya in Kerki (1998-2002) under construction.

    - The construction of Guzar-Kumkurgan is underway.

    - The construction of Miyaneh-Tabrez, 200 km railway link is underway

    - Construction of double track on Mashhad-Tehran, 924 km (1998-2002) will be completed in early 2003.

    - The modernization of railway line on Tashkent-Bukhara-Tashkent-Bukhara (1998-2002) route is underway.

    - Tashkent-Bukhara (1998-2002) route is underway.

    - The development of Serakhs (Turkmenistan) station facilities is underway. At present, three bogies changing lines (for freight wagons) and one line for transshipment of containers from the train of one gauge to the train of another gauge are operational. A project to raise the cargo handling capacity up to 15 million tons/year (1998-2002) is underway.

Some of immediate steps needed for rehabilitation and reconstruction works at the following sections of other international corridors are:

Transport Corridor sections	Length (km)	Number of main tracks at block sections	Length of sections that need strengthening	
			Immediate	In nearest future
Northern Corridor	-	-	-	-
Druzhba-Beskol	181	one	181	-
Beskol-Aktogai	143	one	143	-
Saiak-Balkhash	205	one	205	-
Balkhash-Mointy	132	one	-	132
Kokshetau-Taincha	69	one	69	-
Taincha-Petropavlovsk	124	one	-	124
Total for the Corridor	854		598	256
Central Corridor	-	-	-	-
Druzhba-Beskol	181	one	181	-
Beskol-Aktogai	143	one	143	-
Sary-Ozek-Koskuduk	92	one	92	-
Koskuduk-Almaty I	108	one	108	-
Total for the Corridor	524		524	
The same except Druzhba-Aktogai section incorporated into the Northern Corridor	200		200	
Central Asian Corridor	-	-	-	-
Turkestan-Shieli	157	One-two	-	157
Shieli-Kyzylorda	128	0ne-two	128	-
Kyzylorda-Dzosaly	147	One-two	147	-
Dzosaly-Kazalinsk	174	One-two	174	-
Iaisan-Ilesk	95	One-two	95	-
Ilesk-Kazakhstan	146	one	146	117
Kazakhstan-Uralsk	117	one	-	-
Uralsk-Ozinki	130	one	130	
Total for the Corridor	1094		820	274
Western Corridor	-	-	-	-
Makat-Atyrau	124	one	124	-
Atyrau-Ganiushkino	243	one	243	-
Ganiusgkino-Aksaraiskaia	68	one	-	68
Makat-Kulsary	95	one	-	95
Beyneu-Sai Utes	178	one	-	178
Sai Utes-Shetpe	134	one	134	-
Shetpe-Mangyshlak	91	one	91	-

To increase the traffic capacity of the Trans-Asian Railway main line of East-West transport corridor, the following investments are essential:

(a) <u>In Turkey:</u> US$ two billion including:

i. Construction of Lake Van bypass railway line (237 km) and Railway tunnel under Bosphorus (12.5 km) = US$ 1.2 billion;

ii. Up gradation/reconstruction of Tatvan-Istanbul railway line and the main railway stations on this route = US$ 0.8 billion.

(b) In I.R. of Iran: US$ 200 million including:

i. Up gradation/reconstruction of Serakhs-Razi railway line (2015 km) = US$ 150 million;
ii. Development of Serakhs and Razi border stations' facilities = US$ 50 million.

New planned infrastructure projects – Rail, Road, inland waterways and ports

In collaboration with international and regional programmes and national priorities, the Central Asian States have continued to plan projects to build missing road, rail, and inland water connections to make full use of the multiple transit corridors transiting the region. Notable planned and under construction activities are as under:

In **Azerbaijan,** the Baku International Marine Port has worked out the investment project of renovating the ferry crossing and development of dry-cargo part of the port with a container terminal. Under the Project of Technical Assistance to be financed by TACIS, 1.5 mln. ECU is allocated for a feasibility study report of activities on renovation, 2.0 mln. ECU for repair and purchase of handling machinery for the Baku International Seaport and 0,7 mln. ECU for purchase of spare parts for ferries. EBRD has allocated a credit of US $ 30 mln., including US $ 18 mln. for the ferry terminal.

There is a planned renovation of the road, Baku–Alyat–Kazi-Magomed –Kursamir – Evlakh–Gazakh–border of Georgia. TACIS has allocated 1, 9 million. ECU to prepare a feasibility study report. EBRD will allocate s credit of US $ 30 million with a purpose to provide for full development of the transit flow of goods.

Within the framework of TRACECA, the construction of railway lines on Baku-Tablisi-Kars and Astara (Azerbaijan)-Astara (Iran)-Anzali-Resht-Kazvin routes is considered as a priority project to make TRACECA route more effective between Baku-Aktau ports. Under TRACECA corridor, 503 kilometer roads are under construction/ up gradation/rehabilitation in collaboration with Iran. The construction of Alyaty-Astara would commence in 2004 and be completed in 2005/2006.

It may be noted that the transport development problems in Azerbaijan are substantive. It appears that not a single road in the Republic meets the international standards. Full renovation and construction of new highways with appropriate service infrastructures would be required.

Kazakhstan pursues a strategic direction for transport infrastructure development which can be summed up as under:

- Development of a national transportation network which should be integrated with the international transportation system and provide Kazakhstan an outlet to Sea.

- Modernization of the existing railways and roads, inland waterways and sea ports, airports and air navigation infrastructure taking into account the development of a rational system of international transport and communications between Europe and Asia and between the Central Asian countries etc.

- Development of manufacturing and repair capabilities for railways rolling stock, (freight and passenger), road transport, (trucks and automobiles) by conversion and reorientation of the exiting production facilities;

- Development of national transport capability and integrated information system;

The railway development programme envisages three main activities:

- Modernization of the existing network and organization of multimodal transport;
- Establishment of repair works for railway rolling stock and equipment;
- Development of a network for rationalization of traffic flows.

Using direct foreign and national investments from companies, in the private sector, it has planned to develop a multimodal transport system and repair works. Direct investment inflow is now hampered by lack of reinvestment opportunities and projects. Technical assistance, which is provided to Kazakhstan by international organizations and banks, is expected to help overcome this problem in two or three years.

The situation in road transport dictates that rehabilitation of the existing roads of national significance, which are used for interregional and international traffic, must start first. The following roads: Tashkent - Almaty - Khorgos (Chinese border); Almaty - Akmola; Aralsk - Actiubinsk - Uralsk are expected to be rehabilitated first.

Large investments for road network reconstruction in Western Kazakhstan are planned in connection with the exploration of oil reserves as well as in relation to the necessity to restore the roads near the Caspian Sea, the water level of which continues to rise.

The reconstruction of Aktau port on the Caspian Sea, which connects the Republic with the rest of the world by waterway via a network of canals to Russia, is the primary objective of water transport development in Kazakhstan. The credit agreement for the port reconstruction worth US$ 54 million was reportedly signed with EBRD. An additional credit worth US$ 20 million for the reconstruction of the protective dam and breakwater is now being negotiated. It is planned to attract foreign investors to develop the fleet of "river - sea" type vessels on lease basis. The technical and economic feasibility study was prepared for the purchase of 10 such vessels by the year 2000.

The river network (4 thousand km in 1980) used to provide transportation for up to 11 million tons of various cargoes. Due to the considerable reduction of volume, the river fleet is now in a difficult situation. A programme of river fleet privatization is being implemented.

Structural reforms of civil aviation are now being carried out. A number of private companies have been established. Airports are now separated from the National Air Company "Kazakhstan Aue Joly"; A state company "Kazairo navigatsiya" has been established to provide air traffic control. The biggest airport, Almaty, planned to be renovated soon is going to be managed by "Lufthansa". There are similar offers for other airports. During the next ten years, the need in investment in the development of civil aviation is estimated at US$ 1.2 billion in foreign credits and direct investments.

Priority Road and Rail investments being pursued by the Kazakh Government in collaboration with international agencies may be tabulated as under:

Source (compiled of experts of JSC NII TK):

No	Name of Project Related transit Routes	Characteristic and work content	Approximate Project costs, USD mln.	Realization time (years)
1.	Rehabilitation of road corridor Almaty-Astana-Kokstetau-Petropavlovsk Route H 3	Section Shchuchinsk-Kokshetau-Petropavlovsk, 233 km	58	2001-2003
2.	Construction of bypass of Korday pass Routes H 1 and H 3	Construction of bypass of dangerous road section	50	2002-2004
3.	Rehabilitation of road corridor Khorgos – Almaty-Shymkent-Tashkent Route H 1	Section Almaty-Khorgos, 352 km	88	2003-2007
4.	Rehabilitation of road corridor Astrakhan-Atyrau-Aktau-Turkmenbashi (including section up to Uzbek border) Route H 4			
5.	Construction of road section Karabutak – Torgay (250-300 km), rehabilitation of section Torgay – Arkalyk (approx. 300 km) Alternative option of Potential Route H 6.		50-60	2005-2008
6.	Construction of road section Beineu – Shalkar (approx.500 km) Potential Route H 6 (direct access to Aktau port).		50-60	2005-2008

Railway (section)	Significance in railway network
I. New lines	
Railway Altynsarino-Khromtau (Krasnooktyabrsky Rudnik – Donskoye)	**1. Projects under construction**
	Improves the conditions of transit traffic in the East-West direction. Completes the formation of an integrated national railway network in West Kazakhstan, reduces transport distances between north/central and west regions, and provides the shortest route from these regions to Aktau port creating favourable conditions for Kazakhstan grain and metal export to Iran.
1.Railway Charskaya-Ust-Kamenogorsk	**2. Planned in the medium-term and long-term period**
	Optimizes the internal inter-regional and export transport communications, creates within the limits of Kazakhstan in combination with operating Aksu-Degelen shortest route from North to East Kazakhstan.
2.Railway Zhezkazgan-Kyzylorda	Optimizes inter-regional transport communications and lays the basis for transit traffic improvement: the shortest link between central and western regions of the Republic, ensures transport servicing of South Torgay oil fields, together with new Uzbek rail project in the future (access to Uchkuduk) would form new direct transit route Siberia – Central Asia.
1.Railway Arkalyk-Shubarkul	**3. Possible in the long-term.**
	Creates the shortest route between Central and West Kazakhstan, creates favourable conditions for the development of regional economy (mainly due to development of non-ferrous metal ore-deposits. Improves transit conditions between Central Asia and Ural.
2.Railway Saksaulskaya-Beineu	Reduces the distance for transit goods on TRACECA route (sub-option via Aktau), provides in combination with railway Zhezkazgan-Kyzylorda favourable conditions for export goods transportation via Aktau port (metals, crude oil, etc)

	for export goods transportation via Aktau port (metals, crude oil, etc).
3.Railway Pavlodar-Irtyshskoe	Reduces the distance for export goods from North Kazakhstan (in particular, Ekibastuz coal).
4.Kyzylorda-Uchkuduk	Forms new transit corridor Siberia-Central Asia.
5.Yeraliyevo-Bekdash	Land option of "North-South" corridor. The construction of railway creates new transit direction linking European countries, West Kazakhstan with Turkmenistan and further through Iranian railway network with Persian Gulf.
II Rehabilitation and modernization of existing network	
1.Section Aktogay-Druzhba and Druzhba station	Major section of the two main international railway corridors of the Republic (North and Central) providing the possibility of transit traffic in Eurasian communication export-import transport of Kazakhstan and transit between Russia/Central Asia and China.
2.Section Sayak-Mointy	Component of the main international railway corridor of the Republic (North corridor) providing Eurasian transit, goods transportation of export-import and transit between Russia and China as well as internal communication.

In **Kyrgyz Republic** a core issue in the transport strategy is the formation of North-South trunk-railway, towards Balykchy-Kara-Keche-Djalal-Abad direction with an outlet to China. Having connected together the existing dead-end rail and roads of the northern and southern industrial areas of Kyrgyzstan into a unified network, this trunk-railway is expected to ensure reliable interregional transport communication. The construction of trunk railways will require considerable funds and foreign investments. After implementation of the entire project of trunk-railroads, Kyrgyzstan will have the following two alternative outlets to the international network of railroads:

Torugart-Jalal-Abad-Andijan will link the Turkmenistan and the Caucasus with an outlet to Southern and Central Europe or to Iran and the Near East to the Persian Gulf ports.

Torugart-Balykchy-Bishkek-Lugovoye-Arys-Aktau will allow access via Caspian port Aktau to all basic directions from Asia to Europe and vice versa.

The government has already commenced the implementation of this project, starting with the construction of the first stage of the railway line Balykchy-Kochkor-Kara-Keche. Regarding the construction of Kyrgyz section of the Andizhan-Djalal-Abad-Torugart-Kashgar railway, negotiations are underway with the Chinese counter parts.

These days the emphasis has shifted from the railway mode of transport to the road-based transport system. 79 percent of the freights and more than 80 percent of passengers are now taken care by the road-based transport. Therefore, the government is attaching priority to the existing and alternative transport infrastructure. Top priority in this regard is given to the development of infrastructure that connects Kyrgyzstan with Kazakhstan, Uzbekistan, Tajikistan, and China.

Five highways of the Kyrgyz Republic are included in the ECO transport and communications Action Program for the decade 1998 - 2007. Four of them are included in the network of priority roads of the country and Kyrgyzstan takes measures on projection, construction, and reconstruction of these highways.

Bishkek - Osh highway is part of the regional Asian highway Irkeshtam - Sary-Tash –Osh - Bishkek - Kordai (Georgiyevka of the Republic of Kazakhstan), provides an outlet in the south to China and in the north to Kazakhstan. Bishkek - Naryni- Torugart is the second highway in terms of its importance and for ensuring transit across the territory of the country to the North - South direction from China ("Torugart" frontier point) and up to the inhabited locality Kordai in the Republic of Kazakhstan in the North. In 1998, at the expense of the grant of Islamic Development Bank the feasibility study of rehabilitation of this highway was developed.

Also at the expense of the grant of Islamic Development Bank, the country has launched the feasibility study of rehabilitation of Taraz-Talas-Susamyr road which is included in the ECO roads map. Kordai – Bishkek - Chaldovar highway is part of Almaty-Bishkek-Tashkent-Ashgabat international trunk-highway.

An international railway connection is also being planned to link Uzbekistan and Kazakhstan with China via Kyrgyzstan. The European Union is financing feasibility studies for two lines: One of these would proceed from Kyrgyzstan/Uzbekistan border at Jalal-Abad, through Kazarman and the Kyrgyzstan/Cina border post at Torugart, to connect with the recently constructed Korla-Kashi line through the Xinjiang Autonomous Region of China. The second line would provide a connection from the Kazakhstan/Kyrgyzstan border, through the Kyrgyzstan capital, Bishkek, to join the line to China via Torugart, at Kazarman. The total route length of these connections would be 535 km and construction of the single track line would have to proceed through mountainous terrain, imposing a cost initially estimated in the range of US$ 1.5-2.00 billion (i.e. US$ 2.8-3.7 million per kilometer).

According to a World Bank study, the development of a multi-modal south Kyrgyz Republic Transport Corridor would have "lower cost and greater development benefits". Many experts do not share this view as the costs because of the terrain could be huge.

In **Tajikistan,** road transport is the most popular mode for the movement of cargo and passengers to almost all regions within the country. The available stock does not comply with the commercial and technical world standards. Also, majority of the roads pass through mountain areas and due to the lack of ground, these roads are paved close to the mountain sides or along the mountain rivers. They, thus, remain permanently damaged by landslides, landslips, stone falls, floods and other natural disasters.

The recent annual maintenance control has confirmed that only 20 percent of all motor roads could be considered durable. Most of them have dangerous defects. Up to 30 percent of road, bridges and overpasses in Tajikistan do not meet the modern load capacity standards (average loading 30 tons).

Foreign investments are needed for improvement of the existing transport infrastructure in Tajikistan. Updated feasibility studies for projects Zigar-Hostav-Shkev and Shagon-Zigar, Kulyab-Kalay-Humb motor road are available. These projects will be implemented with loans from IDB, Kuwait Fund and other international co-financing institutions. ADB will provide US $ 20 mln. for the rehabilitation of motor road Dushanbe-Kurgan-Tube-Dangara-Kulyab, that makes 76 percent of the total cost of the project. ADB intends to provide Republic of Tajikistan with US $ 40,0 mln. loan for the realization of other projects.

Tajikistan has started the work on rehabilitation of Bishkek-Osh (680 km) main road by applying the credits of Asian Development Bank and Islamic Development Bank. The total amount of this credit is 250 million US dollars. Implementation period of this project (1997-2004) has been divided into three phases. The work on the second phase is under way. The works on this third phase will start this year. Feasibility study on the reconstruction of Osh-Sary-Tash-Irkeshtam road with 259 kilometers length was worked out within TRACECA programme in 2000.

Finalization of a loan of US$ 22 million from the Islamic Development Bank led to start of (in March 2000) construction of a highway link between Tajikistan and China. It is expected that the construction of the Murghab-Qulma highway through the mountainous terrain of the Badakshon autonomous region could be completed by the end of 2000 and the remainder of the project by early 2001. It is not know whether it is in progress or has been completed.

Tajikistan is also developing freight terminal network. It has already built such facilities in Dushanbe, Khudjand and Kurgan-Tyube province with trans-shipment capacity of 100-150 high capacity trucks per day.

Turkmenistan is one of the countries in the region with a good opportunity to transship cargo by vessels from Turkmenbashi to Russia and Europe. No development plans for improvement of this port on Caspian Sea or road/rail infrastructure are available.

In **Turkey**, ten major ports meet the current transit, domestic and international demand. The ports of Trabzon, Haydarpasa Izmir and Mersin have been extended to receive container traffic on a short term basis (with 12-13 meter depth). The capacity of existing public port is about 50 million tones a year. With private and semi-private port facilities, overall capacity is 200 million tones a year. This capacity will not meet the future demand. The new plans include the following:

Marmara region: Two new ports are underway: a new port on the sea of Marmara's north coast near Tekirday (capacity 700,000 TEU) and a new container terminal at Derince (capacity 1 million TEU-BOT basis).

Black Sea region: The realization of the Turkish-Georgian railway connection (the Kars-Tiflis project) will enable the integration of Turkish transport infrastructure with TRACECA routes. The landlocked CIS countries will then have easier access to the Black Sea and the Mediterranean via Turkey.

On the western Black Sea coast, a planned new port at Zonguldak-Filyos will add to the existing capacities of Trabzon, Hopa and Samsun. The project will create capacity of 9 million tonnes a year in the first three years of the investment period, rising to 25 million within ten year's time.

Aegean and Mediterranean region: Two new trans-shipment centres are planned on the Aegean and Mediterranean coasts. The main projects involved are outlined below:

- Extension of Izmir's port, included in the 1998 investment programme, is a short term activity in parallel with dredging work to introduce new container berths and increase container handling capacity from 375 to 875 000 TEU.
- The new Çandarli port project is necessary because physical restrictions limit the extension of Izmir. To create the required new capacity, a modern port is planned on

the northern Aegean coast to provide both container facilities and a trans-shipment centre. Preliminary studies have been completed.

- A container terminal project at Mersi`n, on the Mediterranean near Iskenderun, will help in meeting international demand. Mersin and Iskenderun have so far mainly served transit traffic for the Middle East. To meet the potential for international traffic not only for the Middle East but also for Central Asia, a new container port is needed. The facility is expected to serve as a trans-shipment centre, with the capacity of 1 million TEU, for Eastern Mediterranean traffic.

- The Iskenderun container terminal project involves expanding the existing port by with a 300 000 TEU capacity facility to receive cargo from the West Asia.

In the long term, the overall container capacity of Turkish ports will reach 7.6 million TEU a year, of which 5.8 million TEU will come from the projects mentioned above. At the same time, attention will be paid to the necessary road and rail facilities to meet the requirements of smoothly functioning combined transport.

During the current eight five-year plan (2000-2005) the Turkish authorities plan to construct 20,000 km of asphalt roads, 40,000 km of stabilized roads and 2,000 km of concrete village roads. By the end of the long-term ten-year plan (2000-2010) it is planned to construct 4,382 km of multilane state road. Some of the major ongoing and planned major projects in this regard are:

- Black Sea Coastal Road: 555 km dual carriageway road planned to be completed by 2003, to provide connections to Caucasus and Central Asia through the Caspian Sea.
- Ankara-Polatli-Sivrihisar State Road: 132 km multi-lane road to provide links to Mediterranean regions
- Antalya-Alanya Road: 134 km multi-lane road providing a connection to a tourist destination
- Gaziantep-Sanliurfa Motorway: 158 km multi-lane motorway to provide a connection to Middle Eastern countries.

In **Iran**, the following railway projects are under construction:

- Construction of Bafgh-Mashad railway (760 kilometers) aims to shorten Sarakhs-Bandar Abbas route from 2440 kilometers to 1620 kilometers.
- Construction of Qazvin-Anzali-Astara (225 kilometers) aim to create a new route for the North-South corridor and connection to the Azeri railways.
- Construction of Iraq-Kermanshah-Khosravi to connect networks of Central Asia to Europe through Iraq and Syria.
- Construction of Khoramshahr-Basreh to connect Iranian railway to Iraqi railway.

In the field of railway equipment, measures have been also taken such as the purchase of locomotives and train sets (special self-propelled trains for passengers) operating at the speed of 160 kilometers per hour. Furthermore, plans are underway for the manufacture of passenger and cargo wagons within the country.

In road sector, the following projects are planned or under construction:

- Zanjan-Tabriz (288 km), Kashan-Esfahan (185 km), Tehran-Chaloos (121 km), Bandar Abbas bypass (32 km), Mashad-Baghcheh (40 km) and Esfahan-western bypass (90 km).

In **Uzbekistan,** for development of infrastructure the government's strategy in the transport sector has been focusing on:

- developing a step-by-step approach to restructure institutions and reform sector policies to enable marked-based transport management and operations.
- establishing an appropriate policy, legal, and regulatory framework for the sector.
- providing adequate transport infrastructure and maintenance to support the transition to a market-based economy.
- developing domestic transportation routes that bypass neighbouring countries, maintaining Uzbekistan's role as a regional transportation hub and ensuring reliable access to alternative seaports in Europe and Asia via trans-national transport corridors.

Pakistan is planning to link its new port at Gwadar through up gradation of the existing railway line between Chaman and Mirjaveh to the Iran Pakistan border. The new port is being built as a future port for Afghanistan and the Central Asian Republics with the help of China. Through it, Pakistan will effectively link itself with Central Asia and provide the shortest route to these Republics, specially Uzbekistan, Tajikistan and Turkmenistan. Pakistan Railways has examined the feasibility of the railway link between Quetta and Taftan on the Iranian border. The survey team identified the following three options:

a) Gwadar/Turbat/Panjghor/Kharan connecting the main line near Nushki. This would eventually be linked to the Quetta/Chaman line and onward to the proposed Kandahar link.

b) Gwadar/Turbat/Panjghor connecting the Quetta/Taftan line at Dalbandin. There is a proposal that a branch line should head northwards into the Afghan province of Helmand from where it would be linked to the proposed rail network connecting the rest of the country.

In September 2000, the National Highway Authority of Pakistan invited bids to design, build, operate, maintain and transfer a bridge over the River Chenab on the N-70 highway at Shershah, Punjab in Pakistan's northeast. The bridge would be 3 km long and to be accessed by four-lane approach roads. Finally, in July 2000, work was started on the first phase of construction of the 650 km-long Makran Coastal Road. This road would connect Karachi with Gabd on the border between Pakistan and the Islamic Republic of Iran.

The first phase of 247 km, passing through the mountainous region between Liari (near Karachi) and Ormara, is expected to be completed in three years at a cost of about US$ 77 million. The second phase, from Ormara to Gabd will cost about US$ 135 million and will be constructed over a four-year period.

This new highway has been justified in terms of providing access to ports (such as Gwadar) and cities not linked to the national highway system, as well as boosting the prosperity of the region by ensuring an inflow of domestic and foreign investment. However, it has to be noted that the new route will compete directly with the existing rail link between Pakistan and the

Islamic Republic of Iran, which has thus far been denied funds necessary to upgrade it to the standard of an international rail link.

Afghanistan needs rail system to connect itself to Termez-Kushka-Dushanba rail line. This would provide a direct link for Afghanistan to the rail network passing through the CAR region and help promote trade and cultural links within the ECO region. The Central Asian Republics would also get through Afghanistan a cost effective access to international markets. With an efficient and well-operated rail system, the movement of large volumes of freight over long distances from the region will be fast and cost effective compared with the same volume moving by road. With the possibility of private investors operating freight trains, in the near future it is expected that this commercially oriented service would attract a substantial volume of business both from the domestic market and tonnage representing sea-borne trade. Therefore, the establishment of a railway system in Afghanistan needs to be seriously considered. An old proposal of the late 70's in this context may be re-examined. The short stretch of less than 150 km between Chaman and Kandahar may be considered as Phase I of this major project.

Due to the increased importance of the road corridor to Tajikistan and the expected interest in traffic following the road improvements, the construction of a 4-500 meter bridge across the river at Shirkhan Bandar, the upgrading of the important Herat-Chaghcharan-Bamian-Kabul link and the missing link on the national ring road, the Herat-Meymaneh-Shebergan Road are considered priority projects by the government. Project plans are under preparation to raise funds.

More than two decades of conflict combined with a prolonged lack of maintenance has resulted in severe damage to long sections of roads and critical structures such as runways, bridges, tunnels, and retaining walls in Afghanistan. Deterioration of air traffic control equipment and shortage of qualified operators has reduced the safety and availability of flights, Afghanistan's most practical means for long-range domestic as well as international travel.

The main road from Turkmenistan into Afghanistan from Atamurad is in very poor condition. On the Turkmenistan side, road works are underway with 30-40 kilometers still to be considered/paved. Estimates for this need to be worked out. Once the infrastructure on the Afghanistan territory is available again, the route Termez-Mazaar-i-Sharif (Afghanistan)-Heart-Qandahar-Karachi (Pakistan) will become a very attractive alternative for Uzbekistan, and potentially also for transit traffic through Kazakhstan and Russia.

The World Bank has recently approved a US$ 108 million credit to help remove key transport bottlenecks on an emergency basis, and also support the Government of Afghanistan's efforts to rehabilitate its highway and civil aviation programmes. The work is expected to improve physical access to goods, markets, and administrative and social recovery. The Bank also discussed an overall strategy to support Afghanistan's transition over the next two years from an emergency orientation to one focused on longer-term development.

The W.B. Emergency Transport Rehabilitation Project is designed to help the government meet emergency needs in the short term, while building its capacity to maintain programmes in the long term. It will remove key transport bottlenecks, such as collapsed bridges, eroded road sections, disintegrated pavements, damaged tunnels, and unsafe air traffic operation that are seriously hampering Afghanistan's recovery. An element of the project design is to facilitate the employment of local people in the various rehabilitation activities. The project will also provide equipment and technical assistance related to planning, maintenance, and supervision to help build the government's capacity for managing subsequent work.

In the area of land transport, the project will focus on rehabilitation of the Kabul to Pol-e-Khomri-Kunduz highway, including work on the Salang tunnel. The road from Kabul through the Salang pass to Pol-I Khumri covers a critical section of the highway that connects the city of Kabul and provinces to the south, with eight provinces to the north, and connects the country of Afghanistan to both Uzbekistan and Tajikistan. The project will also cover other main roads in the north such as the road to Faizabad from Kunduz. In aviation, the project will finance reconstruction of the runway at Kabul's international airport, provision of related equipment to support safe air travel, and upgrading of the water and sanitation system of the airport. It will also support mine clearance activities in all project coverage areas.

The Afghan Assistance Coordination Authority (AACA) will coordinate and facilitate procurement for the project, which will be implemented by the Ministry of Public Works and Ministry of Civil Aviation and Tourism.

TIR Convention (1975)

Many of the landlocked and developing countries in Central Asia have acceded to the TIR Convention. It offers advantages to customs administrations, national economies and the transport industry. It avoids the need (expensive in terms of manpower and facilities) for the physical inspection of goods in the countries of transit other than the checking of seals and the external condition of the vehicle or containers and processing the regional customs transit document. The use of a regional customs transit system could do away with temporary importation procedures for vehicles or the container; as such procedures could be included in that system. It abolishes the operation of national guarantees and national systems of documentation, since these are provided in a regionally recognized customs document and in a regional guarantee chain which ensures that all duties and taxes are covered at all times either by the transport operator or by a national guarantee organization. The advantages to commerce and to transport operators are quite clear: regional and international trade is facilitated by the fact that goods travel across national frontiers with minimum interference by customs administrations. By reducing delays in transit, the system promotes quicker turnaround times, enabling vehicles fleets to generate higher revenues.

Regional peculiarities impacting on the development of an efficient transit Transport System

Transnational disputes/enclaves

The region is not free from territorial disputes. This factor has inhibited the ability of the respective countries to effectively coordinate on transit transport issues. The Kyrgyz Republic has territory dispute with Tajikistan on South-western boundary in Isfara valley area: dispute over access to Sokh and other Uzbek enclaves in Kyrgyz Republic impede progress on boundary delimitation, disputes over provision of water and hydroelectric power to Kazakhstan: security threats from Islamic insurgents from Uzbekistan, Tajikistan and Afghanistan (These days subdued). Despite an agreement signed on September 4, 1996 providing for non-licensing, Uzbek (since January 1999) has allegedly suspended 34 regular passenger routes that connects Osh and Jalal areas of the Kyrgyz Republic with the neighbouring areas of Uzbekistan. Further, Uzbekistan has introduced special visa treatment for Kyrgyz citizens transiting Uzbekistan on routes connecting Osh and Jalal-Abad.

Because of the Armenian occupation, Azerbaijan cannot use its rail facility to reach Julfa. Travelers have to use Iranian land and airspace to reach this area.

Many border crossings between Tajikistan and Uzbekistan are closed. Transporters and forwarders prefer using Kazakh territory than using the CIS rail network. Turkmenistan has also closed border at Turkmenabad with Uzbekistan.

Kazakhs perceives security threat of militant Islam and terrorist from Tajikistan, Kazakhs has some border disputes with Uzbekistan. Tajikistan claims that Uzbekistan is abusing its territory to prevent progress in Tajikistan. In 1999 Turkmenistan became one of the first of CAR to introduce a visa regime for CIS citizens. Other countries are considering following the suit. Turkmenistan also not put into practice the licensing permit agreement signed with the Kyrgyz Republic (November 29, 1995). For Kyrgyz carriers have not applied for transit through the territory of Turkmenistan since July 7, 2000 when through a Presidential Decree (4746 Turkmenistan started charging for each freight vehicle from US$ 100 to 150.

New rail/road links to overcome fragmented transport market

The CIS countries were geared towards Moscow and the entire infrastructure including rail, road and airports were built to respond to national strategic security and economic imperatives. The traditional trading links of the six states were either directed to the capital and major cities of the former Soviet Union or further trans-shipment through those areas to Europe. Their independence significantly influenced, after the initial phase, the trade and transport patterns. Fragmented transport market in Central Asian republics underlined the need to build new links and expand the old especially in terms of road and rail connections to China and the Islamic Republic of Iran. The links with Iran, Turkey and Pakistan mirrored the resurgence of old cultural, historical and trading bonds. These three countries responded enthusiastically to embrace the “lost cousins”. Despite their own financial problems, they embarked upon upgrading the existing and creating new road, rail and air connections to provide these landlocked countries access to major Sea lanes. Within the East-West corridor, many new routes were explored to avoid the missing road and rail links. As a result, CAR came to have many transit transport options. The real opening in terms of rail links came with the construction of facilities at Serakhs in Turkmenistan and Serakhs on Iran border with gauge change from the CIS standard of 1,520 mm to Iranian and European standard of 1,435 m.

Transit Issues - railway sector

ECO started a demonstration container train between Almaty-Tashkent-Tehran-Istanbul on regular basis from June 22, 2002 to establish modern, speedy and reliable freight transportation with “railways without frontier”. The difficulties that the forwarders face in obtaining containers and the difficulties and lack of organization of returning empty containers were tremendous. Another issue is the lack of application of common tariff. As a result, forwarders find it difficult to make the payment at a single point for the whole journey instead of partial payments at different points.

Due to lack of smooth communications among the concerned railways, it is not easy to adhere to the schedule of coupling wagons from different countries on designated days or even departure places and the number of containers, border crossing times etc. Other issues include lack of flexibility in pricing and the speed of the container train, comparatively higher tariff, foreign currency payment settlements, inadequate bogie changing facilities at Sarakhs (Iran) and

not so efficient rail-ferry at Van. The railways take empty containers as a source of income unlike shipping lines. European companies are no longer willing to take their containers to the region due to non-secured speedy return. The traffic can increase if measures are taken to ensure:

- Reliable availability of containers and the rolling stock as well as early secured return of containers.

- Return freight for containers.
- Satisfactory tracking information by using modern technology (ACIS type)
- Up gradation of the infrastructure (step by step) to enhance speed.
- Through uninformed competitive rail tariffs with reliable insurance cover.
- Harmonizing technical specifications for future rail infrastructure development.
- Streamlining border procedures for the railways and border agencies to avoid delays and increase safety.

Separately container trains have been moving between Uzbekistan to Bandar Abbas under bilateral agreements. Immigration facilities remain cumbersome along the route.

The organization of passenger trains is expected to encounter more difficulties. ECO has not been able to run a scheduled passenger train on the same route as of the demonstration containers' train after a trial dry run in 2001. The factors which have hindered the start of the passenger train chiefly related to fading mutual trust on perceived security threats, exorbitant visa fees and complicated immigration procedures.

Transit issues - road sector

Apart from the poor road network with maintenance backlog, the land border crossings are too many. The transport fleet is also very old and in most cases unreliable. High transit fees coupled with unofficial payments not only at the border crossings but also en route by law enforcing agencies discourage volumes to grow. There are no transit fee for foreign vehicles in Iran, Turkey and Azerbaijan. However, all countries, through mutual agreement, apply road transport quotas, restricting number of transiting vehicles. Technical provisions related to vehicles, their misinterpretation due to language problems, different insurance schemes, lack of ancillary facilities for professional transport operators constitute other obstacles. The customs clearance remains a forbidding experience, fraught with idling time, multiple documents, aggressive and intrusive inspection of traveling documents. Considerable differences in normative legal base of permissible technical characteristics of tractor (total weight, axel load, overall dimensions) attract additional charges and duties.

Advance Cargo Information System (ACIS) developed under the auspices of UNCTAD could also offer potential benefits to all countries in the ECO region, in the monitoring and control over transits. This is a logistics system designed to improve transport efficiency by tracking equipment and cargo on all transport modes at interface points, such as ports and inland container depots, and provides information in advance of the arrival of cargo. ACIS offers both state and private transport operators' reliable, practical and real-time data on transport operations such as the exact whereabouts of goods and transport equipment and thus helps improve day-to-day management and decision-making. This sort of performance indicator information can be used remedy deficiencies and to make fuller use of existing infrastructure and equipment capacity.

Transport Industry – privatization drive

Forwarders, shippers and transport operators

The region also suffers from organized associations of forwarders, shippers and other transport operators due to unfavorable factors. As a result shippers, forwarders and carriers have not been able to escape from rent seeking behaviour of the border agencies. Neither they have been able to persuade the governments to publish information and explanation of customs rules and procedures in more transparent manner.

On the other hand, transport operators, despite low institutional and legal barriers find, it difficult to compete with the incumbents. Operators from Turkey and Iran have strong position in the market, especially in Tajikistan and Uzbekistan. Lack of any training facilities for people in transport business is the main cause for lack of professionalism and understanding of the international trade. They are easy preys to the pervasive corruption along trans-shipment routes in the region. National rail operating companies along with forwarders and other participants need to mobilize higher service standards to satisfy European customers in terms of efficiency, reliability, speed and costs.

Privatization and subsequent development of non-governmental sector could be highly effective in increasing productivity and transportation volumes. Also, it can lead to spurt in investments on transport related projects in partnership with state entities. In case of railways, non-governmental sector and foreign firms are disallowed. In road transport, restrictive public participation is in evidence. In service sector, some positive move has been made.

The transport industry in the region needs to be further developed through fair and market oriented competition. Lack of reforms has restricted the emergence of private owned companies. Notion of service provision is not well developed. There is a tendency to exploit the market. Railway remains state monopoly. Companies of forwarders have been established for instance in Kazakhstan, Uzbekistan and Azerbaijan etc. There is also no organized system to provide repair and maintenance facilities along popular transit routes. Decent but affordable motels/resting places with adequate communication facilities are close to nil. Since the road system in all of CARs pass through big cities/towns, there is a trend for local authorities to interfere in their movement on various pretext including environment and road damages.

In terms of road transport, the Kazakhstan Government feels that maximal liberalization in this sector has been attained. With the increase of market players, the quality of the service has not improved. Technical maintenance including manufacturing of parts and lubricants do not subscribe to quality and technical parameters. Price determines the use of these equipments making road transport operations risky and unsafe.

Harmonization of axel loads

Under ECO-UNCTAD TTFA (1998) technical requirements of road vehicles (Annex IV) with details such as maximum axel loads and laden weight as well as maximum dimension of vehicles were agreed by the ECO member states keeping in view the existing capacities and future expansion. ECO specifications were formulated to meet the technical requirements of Annex II to the Customs Convention of the International Transport of Goods under cover of TIR Carnet (1975). Similarly, minimum technical characteristics of Railway transport to be used by transit traffic were given in Annex III of the ECO-UNCT TTFA (1998). These were chiefly based on the Agreement on Organizational Aspects of the Combined Transport Services between Europe and Asia concluded in 1997 between Railways (OSZhD) which is compatible with the

European Agreement on Important International Combined Transport lines and related installations (AGTC) February 1991 (ECE/TRAS/88). Now five countries (Pakistan, Azerbaijan, Tajikistan and Kyrgyz Republic) have signed and ratified this agreement. Favourable responses are expected from Iran, Turkey and Kazakhstan.

A similar attempt of harmonization was made by CIS countries in 1999 (Minsk) when they signed an Agreement on vehicles weight and dimensions carrying out inter-state freight transportation. The Agreement has established a legal groundwork for harmonization of requirements to weight and dimension parameters of vehicles in CIS. All countries have adjusted their national legislations to this agreement. The disturbing issue is that majority of the roads in CIS are unable to take weight load allowed under the Agreement.

The weight and overall dimensions are checked on entry of vehicles. For instance, Kazakhstan vide a government decree (No.62 of January 19, 2002) have laid down the following limits.

- Maximum allowable total load of a truck- 40,0 tons
- Maximum safe load on a single axle- 10,0 tons
- Maximum safe load on dual axe- 16,0 tons
- Maximum safe load on three-throw axe- 22,5 tons
- Maximum height- 4, 0 m.
- Maximum width (overall) - 2, 55 m.
- Maximum width (for refrigerator transport vehicles) - 2, 6 m.
- Maximum length- 12,0 m. (for trucks, buses and trailers)
- Maximum length- 20,0 m. (for articulated transport vehicles and road trains (truck plus trailer)

In accordance with the said decree, if an entering vehicle has weight, load on axis or overall dimensions exceeding allowable parameters, it is taxed with a fine.

Tariffs for excess over allowable axial loads.

Excess of actual axial loads, %	Tariff for excess of allowable axial loads, US$ per 1 km
Up to 5,0% inclusive	0,06
From 5,0 up to 10,0% inclusive	0,07
More than 10,0%	1

1) Computation for excess of overall dimensions of a vehicle (with or without the freight) over allowable figures/parameters. Calculated for excess on height, width and length of vehicles and defined by multiplication of appropriate tariffs given in Table 3 by distance of transportation en route (in kilometers).

Tariffs for excess of allowable overall dimensions.

Vehicle overall dimensions, meters	Tariff for excess of allowable dimensions, US$
Height:	
More than 4 up to 4,5 inclusive	0,05
More than 4,5 up to 5 inclusive	0,1
More than 5	0,2
Width:	
More than 2,55 (2,6 for isometric truck bodies) up to 3	0,05

inclusive	
More than 3 up to 3,75 inclusive	0,1
More than 3,75	0,2
Length:	
Per each meter (including short) exceeding allowable length	0,02

Deployment of ICT applications

The region is aware of the potential of the computer-based new technology to overcome shortcomings such as delays, inefficiency, slow processing of manual procedural inspections, lack of monitoring of the movement of goods across borders, etc. Apart from individual efforts, TRACECA backed initiative to make coordinated ICT development of customs organizations to make information systematic, readily available across borders for faster processing, better enforcement of laws and regulations. ICT application will introduce transparency and, therefore, cover up the negative impacts of corruption. Also, it would help in assessing inter-operatability of systems (in Railway such as traction power supply and signaling system etc) and reliability of data. For this reasons, Eurasian, Customs Union and CIS customs agreements envisage data exchange agreements among the participating countries.

There are some exceptions such as use of SAFETIR, establishment of common automated information and national data exchange network of customs authorities in Kazakhstan and other countries. Kazakhstan has the following plans in the field of introduction of Information technologies:

- Introduction of "Transportation database and forecast" by Ministry of transportation and communication;
- Full-scale development of the Common automated information system of the Kazakhstan Customs authorities and integration into customs bodies' information area of participating countries of the Customs Union;
- Integration of public authorities' information environment:
    - Customs authorities of Kazakhstan;
    - Tax authorities of Kazakhstan;
    - Ministry of Finance bodies of Kazakhstan;
    - Banking system et cetera.

TRACECA has undertaken a good initiative for need-assessment for ICT development in all aspects of transit transport and trade. All concerned have to extend support to development of a comprehensive technology development plan taking into account existing national systems, facilities and needs. It needs to develop as a tool to enhance institutional capacity to make optimal use of limited resources, particularly at the entry points, for maximum administrative efficiency and effectiveness in all aspects of transit transport system.

Harmonization of Customs documents

Many customs documents are in vogue in the region due to application of several customs arrangements. Some countries ascribe to the idea of Customs Union, other to economic space and a few others to bilateral arrangements advocating soft cooperation among trade-related Ministries. The Customs Union (Belarus, Russia, Kazakhstan, Kyrgyzstan and Tajikistan) aims at abolishing customs duties and taxes on goods produced in the participating countries, realization of a switch to levying or collecting indirect taxes at the point of destination (somewhat close to EU system), exemption of customs duties, taxes and fees for custom registration currently

applicable to transit transport etc. Another similar arrangement namely the Eurasian Economic Community established in October 2000 by Kazakhstan, Russian Federation, Tajikistan and Belarus seeks to effect common fiscal, monetary, credit, currency and finance, trade and customs policies to ensure free movement of goods, services, capital and labour among the participating countries. The system thus proposed is still riddled with problems and national constraints and impediments. There is very little evidence that a beginning towards unification of legislative base and implementation of coordinated and harmonized economic, social, scientific and technological policies has been made.

Outside CIS, ECO has also come up with a system of a transport and trade friendly customs mechanism/documents. Under TTFA (1998) ECO member states have agreed to the use of TIR carnets for traffic in transit. Those who do not subscribe to TIR Convention (1975) were allowed to send goods to such countries or vice versa by using national goods declaration and consignment notes. None of these arrangements has been given full chance to overcome the transit system problems related to customs clearance etc. yet. In parallel, the majority of the member states are members of WCO and engaged in developing WCO/WTO based evaluation system. Also, the heads of customs have been meeting regularly to work out harmonization plan to remove hurdles in customs operation across borders in ECO sub-region.

The number of custom documents can easily be reduced through simplification, rationalization, standardization and transparent documentation. Replacement of paper based documents by electronic versions, related implementation of custom WTO rules, international conventions, withdrawal or discretionary powers for customs officials. Single window operations with introduction of appropriate ITC application can effectively improve the situation. Coordination mechanism between customs authorities supporting modernization and reform programmes based on WCO, multilateralism/WTO and the revised Kyoto Convention (not yet sufficiently ratified to be made operational) will effectively address, in a standard form, the common problems including evaluation, payment of duties and taxes self-assessment, risk management audio based control.

In addition, important work to this effect has been undertaken under EU TRACECA project on harmonization of border crossing procedures throughout the region (Azerbaijan, Kazakhstan, Kyrgyz Republic, Turkmenistan and Uzbekistan). The basic aim of the TRACECA project is to “simplify systems, reduce delays and facilitate trade in this landlocked region”.

Under TRACECA, both at operational and legal/regulatory levels, many useful ideas have been floated. These ideas, at first glance, appear too ambitious in the wake of overlapping conflicting inter-state procedures and attitudes. Nevertheless, the situation is changing for better. Gradually countries are coming together to exchange/share information, initiate standardization of documents and introduce computer based controls/inspection at border points.

There is a need to further promote TRACECA’s initiative through close coordination among inter state organizations operative in the region, especially by identifying areas of synergy in the existing regional harmonization and standardization drivers, (a) harmonization of commodity description and coding system; (b) WTO Customs Valuation Agreement; (c) WTO Rules of Origin Agreement; (d) adoption of standard and simplified procedures and practices under the revised Kyoto Convention; and (e) single-window and one-stop solutions to expedite customs transactions.

Focus should not be placed on custom documents per se but on the “whole set of operations required to facilitate transit by addressing corridor specific problems by promoting

coordination among different agencies at border posts and avoidance of overlapping inspections and arbitrary decisions.

International consignment note

SMGS (agreement on international railway freight communications) developed by OSJD with all CIS countries, China and Iran as members and CIM (developed under the convention concerning the international transport of goods by rail – COTIF) as consignment notes in the region. At border points separating neighbouring railway organizations which are signatory to either of the above agreement or convention, the way bill is retyped from one format to another. For instance, Islamic Republic of Iran, which is a party to both has accepted the responsibility to rewrite the one format into another on both ways from/to CIS from Turkey. It is being done at Tabriz Railway Station earlier manually and now mechanically.

The railway organizations that are members of COTIF work under a legal and technical conditions which are different from OSJD. Transport systems developed around these technical differences are not completely compatible. Apart from delays due to rearranging of transport documents, deficiency or damages to goods also create problems. Cognizant of the existing realities and the long time required to overcome the deficiency of one or the other system, many countries have become members of (Iran, Poland, and Bulgaria etc) to harmonize the existing procedures for easy operation of the two in parallel.

Also, there are attempts to draft a new transit document. The Russian Federation has been using GPBRT Bill of lading related to operation of container block trains between Germany and the Russia through Belarus and Poland. Faced with difficulties with SMGS on account of factors such as activities of private freight forwarding business, the Kazakhstan parliament is currently reviewing the draft of new Customs Code. According to the proposed legislature, Freight Customs Declaration (FCD) may be replaced by a simple application supported by transportation body. The document must contain data and information necessary for identification and release of the goods.

UNECE and OSJD want to use SMAGS as a consignment note which means it must have legal force as a national customs transit declaration. TRACECA is working on finalizing a convention including all of the proposed facilitation measures applicable to CIM consignment note under the common transit system. In line with this, ECO has been promoting the membership of Pakistan, Afghanistan and Turkey to OSJD. Need for a unified tariff could not be over-emphasized.

Technology

In today's business world speed, predictability and flexibility are critical factors. The application of computer-based technology can cut delays, dwelling time in delivery schedules, inventory costs, strengthen management systems, effective utilization of space at ports and ships, re-enforced monitoring system with regard to movement of goods and their storage etc. Their storage etc. Technology could be more useful where trans-shipments, in a multimodal, operations take place.

UNCTAD's programmes such as the automatic system for Customs Data (ASYCUDA) and the Advance Cargo Information System (ACIS) could improve transport efficiency. Soft

infrastructure (computer-based programmes), managerial procedures, regulatory applications could lead to effective utilization of existing assets. Establishment data base by using information and communication technologies that would assist in the development of complex proposal for financial and technical assistance from potential donors as it would allow for more precise definition of problems, deficiencies and needs.

In a big way, information technology can improve port productivity as well as transit trade and transport operations on land routes. The application of computer based tracking programmes are in rudimentary stage in the region. Iranian railway, airports, sea ports have introduced UNCTAD based programmes. Iran, Turkey, Pakistan and Kazakhstan are in fairly advanced stage with different systems.

Sub-regional Cooperation Agreements
Problems:

- Overlap
- Implementation of the Agreements
- Accession to Conventions on Transport

Bilateral Agreements and Permit Schemes
Bilateral Agreements on Road Transport

- Difficult to maintain the agreements with all concerned countries
- Quotas sometimes not sufficient
- Coordination between Ministries and Operators

Bilateral Agreements and Permit Schemes
ECMT Multilateral Permit Scheme

- Azerbaijan, Georgia, Russian Federation and Turkey member of ECMT
- CA countries not member
- Membership would simplify road transport

National Legislation
Issues: different national legislation in Central Asian countries:

- Different decrees for different countries
- High transit fees-prohibitive effect to neighbours
- Need for harmonized national legislation in CA

Road Transport Routes to EU

"Northern Route" transit time and waiting time:

- Average transit time is **10-13** days to Germany
- "Customs Convoy" in Russian Federation **3-4** days waiting
- Waiting time at Belarus border ranges between **4-7** days

Road Transport Routes to EU
"Northern route" transit fees and charges

- Russian "Customs Convoy" official charge $ 200 total costs **$ 1,500**
- Belarus imposed charges about **$ 300**

Road Transport Routes to EU
"Southern Route" transit time/waiting time

- Average transit time about **20 days**
- Visa for Turkmenistan **5 to 12 days** waiting time
- Ferry in Turkmenistan

Road Transport Routes to EU
"Southern Route" Transit fees and charges

- Turkmenistan different charges ranging from **US$ 650 to US$ 1,000**

Road Transport Routes to EU

Issues: disadvantage of "Southern Route"

- ~1000 km longer
- 7-10 days longer transport time
- ~$1000 more expensive

Road Transport Routes to EU

Issues: to improve the "Northern Route"

- Reduce waiting times at Russian and Belarus
- Borders (~50% of transport time)
- Reduce transit fees (~30% of costs)
- Alternative routes (TRACECA, PEC-III)

Railway Transport Routes for Central Asia

Container Transport Cost by Railway	
Istanbul-Novorossiysk-Almaty	$ 1,435-$ 2,000 (20)
Port in China-Almaty	$ 1,522 (20)

Railway Transport Routes for Central Asia

Issues: to improve rail transport

- Average speed is 230-360 km/day
- Block train speed~700 km/day
- Reduce transit time through commercial block trains

* Source: Transit Transport Issues of Land Locked and Transit Developing Countries: Central Asia – UNESCAP Case Study of Kazakhstan and Uzbekistan – March 2003.

Insurance – increasing private sector participation

There is an increasing participation of private sector in the insurance business. Nevertheless, experience is limited. The markets are small, both due to low income and lack of public awareness. The enterprises are often under-capitalized. The recent drive for privatization of insurance enterprises is causing new challenges and problems for the insurance industry. New regulatory framework with full transparency is still at formative stage. The regulatory authorities have to improve their monitoring and supervisory tasks, and ensure that with liberalization the principles and rules for establishment, national treatment, non-discrimination and transparency are governed by the proposed General Agreement on Trade in Services, if the Uruguay Round is concluded. Increased efficiency would require expansion of the markets.

In Kazakhstan as per December 2000 (on insurance activities) 34 insurance companies have been established. Four of them are operating with partial foreign investment. No subsidiaries of foreign Insurance Companies and any specialized re-insurance company exist in the country. All insurance companies are supervised by the National Bank which has introduced new requirements, raising capital thresh-hold for the establishment of an insurance company. The services related to transport include driver's life insurance not vehicle, civil liability (obligatory) and cargo insurance. All Kazakhs' trucks travelling to Europe i.e. beyond Belarus have to carry TIR carnet and buy a Green Card. Likewise, TIR trucks entering Kazakhstan, have to buy local insurance even if they carry Green Card. For Russia, civil liability cover is not applicable.

In Kazakhstan cargo Insurance is an optional insurance. It is considered as an expensive insurance and therefore it is not bought by carriers, who rather take the risk of loss or damage. The insurance premium depends on the volume and the type of transported goods, the route to be followed during transportation and other factors. The premium ranges between 0.15% up to 1.5% of the value of the goods. The premium is higher for goods that can be more easily damaged like

perishables or cotton than on mass industrial goods, such as e.g. steel. Also the premium is higher for trucks than it is for railways, given that the latter follow a specific route. In agreements concerning road transportation, the route of the trucks is clearly described. Goods will remain uncovered by the insurance if the trucks will follow other than the prescribed specific route. Cargo insurance is typically bought by the shipper and not by the hauler, and mostly for high value goods.

The Kazakh Insurance Company has to have counter-insurance by an internationally acknowledged underwriter. Also, in case of damages occurring in other CIS countries, the insurance company has to be registered in that country too by itself or in association with a local insurance company. As a rule, it is important that all insurance contracts clearly specify the place (country) of insurance and correspondingly the applied legislation. In addition, it should be clear that being insured at an improper place would almost surely result in invalidation of the insurance contract.

In Kyrgyz Republic, the parliament is presently considering a decree for an obligatory Insurance for Civil Responsibility for vehicle owners and to join the international insurance network and promotion of Green Card system. The Finance Ministry has already allowed establishment of insurance companies in private sector with or without foreign participation. These companies are permitted to reinsure in cooperation with foreign insurance companies such as Allianz (Germany) Zurich (Switzerland, AIG(US) Ingosstrakh (Russia), AON (UK) etc. Kyrgyz Republic does not have any insurance company with public share.

Insurance remain under state monopoly in Tajikistan, Uzbekistan and Turkmenistan etc.

Iran, being a member of UIC and OSJD follows the international tariff system. Any damage to goods and even delay in transportation of commodities is compensated on the basis of international regulations and transport contracts.

Transit costs

There are no transit fees for transport in Azerbaijan, Iran and Turkey. But other countries charge duties and fee for issuing transit permits. In Tajikistan a transit permit costs US$ 90, in Tajikistan and Kyrgyz Republic charge for customs registration is 0.50% of customs value of the goods. customs escort charges (Euro 200) in Kyrgyz Republic were abolished in May 2002 but for trucks from Kazakhstan, in response to a similar charge from this country. In Kazakhstan, preliminary registration costs US$ 30, customs broker US$ 30 to 50, electronic copy of FCD US$ 17 to 50 and charges for lack of products US$ 160. Other charges in Kazakhstan relate to Customs escort in Kazakhstan from US$ 27 up to 270 for a distance between up to 50 km to over 2000 km compulsory insurance of the civil law responsibility US$ 35 for payload capacity up to 2 tons and US$ 45 for payload more than 2 tons, toll bridges (US$ 25 from Aktuba river, US$ 3 for Irtysh river near semipilantirsk city and US$ 2 for Ili river) and fees for veterinary services and ecological duties (ranging from US$ 2 to 5). Kazakh's transit fee for a Kyrgyz vehicle is around US$ 1000 (Decree No. 62 of January 1992).

In Turkmenistan, US$ 100 to 150 are collected form each vehicle of foreign origin. Border formalities cost between US$ 650 to 1000 per truck (inclusive of all payments).

In Kyrgyz Republic, transit fee for a foreign vehicle (without a permit form) costs US$ 50 and US$ 250 for special permit for/to third state. The travel through the tunnels of the

Bishkek-Osh highway costs from US$ 5 (for car) to US$ 50 (for truck over 10 tons capacity) and ecological charges.

Uzbekistan prefers bilateral agreements as the basis for regulating entry/exit fees for vehicles of specific neighbouring countries. For Turkmenistan and Tajikistan, it has got separate legislations.

Tariffs determination

Railway tariffs are set according to MTT/ETT (International Transit Tariff scale) and apply to all CIS countries, the 3 Baltic States and Poland. Discounts are given on them depending on routes, type of client and type of commodity by national governments. This allows some commercial flexibility and an opportunity to subsidize certain routes or operators. The tariff is the same for transporting goods in either direction. (Overall costs could be different in either direction due to inter play of many factors). Also, it is the same in transporting containers, irrespective of the commodity carried. In setting the tariffs, two principles apply:

- From third country to third country, the tariff is high
- From third country to CIS and from CIS to CIS, the tariff is low.

For containers, the tariffs are higher when using railway containers. In that case, though the tariff for returning them back empty is nil. For private containers, the tariff is 85% of railway container tariff, but on the empty return 50% of the whole tariff has to be paid. In total, the tariff coefficient is 1.00 for railway containers and 1.35 for private containers.

KTZh claims that its transit tariffs (USD/km) are lower than the respective of other CIS networks and more specifically, the tariff for containers is by 25% lower than in Russia and by 40% lower than in Belarus, Turkmenistan and Uzbekistan. For general cargo, the tariffs are 10% lower than in Russia and 45% lower than on other networks. Nevertheless, transportation on the line to Druzhba is 2.5 to 5 times more expensive that on other KTZh lines (see below). The tariffs for oil are approximately the same in all CIS countries.

Kazakhstan has a special agreement with China to use alternatively each other's containers. This includes also the free return of containers. The Chinese railway containers are not sent to any other countries. If private (e.g. shipping lines) containers are used on the arrival from China they continue their journey to final destinations, typically in Uzbekistan (for Daewoo and Hyundai) and in Almaty. In Uzbekistan, they are loaded with cotton and travel to Bandar Abbas (Iran). Thereafter they return by ship to ports of origin in Korea (Pusan), Japan and China. Other containers after being unloaded in Uzbekistan or Almaty go empty to Zhezkazgan in Kazakhstan to load copper and return via Druzhba to their origin.

The tariff to Druzhba is more expensive than other routes for the following alleged additional charges:

- Reloading from wagon to wagon:
  - Bulk cargo in open wagon
  - Bulk in closed wagon
  - Palettes or cartons
  - Boxes in wagons
  - Liquid in tank wagons (not used)
  - Small containers 3 and 5 tons

    - Large containers on container wagons
    - Large size commodities at negotiated price
- Translating of documents
- Defrosting cargo
- Bogie change
- Declaration of the price of goods
- Customs fee
- Fixation of goods on new wagons after reloading
- Penalties for wagons staying longer than anticipated
- Waiting time of Chinese wagons for load/unloading
- Refrigeration power.

General conclusions emerging from a survey conducted by UNESCAP through a Questionnaire to be filled by government authorities are:

- Generally road freight rates highly between operators and depend too much on the type of cargo.
- Containers are transported at a lower rate than general cargo.
- Freight rates vary from 0.25 USD/km to 1.5 USD/km.
- Freight rates between Almaty and Tashkent or Almaty and Moscow or Almaty – Druzhba are on the average around 0.25-0.70 USD/km while freight rates between Almaty and Berlin or Almaty and Riga are on the average around 0.9–1.3 USD/km.
- Transport duration between Almaty - Tashkent is 2-3 days, between Almaty - Moscow can be as low as 4 days and as long as 10 days, between Almaty - Druzhba 1-2 days, between Almaty – Berlin as low as 10 days and as long as 20 days.

- Rail freight rates vary considerably between freight forwarders since they depend on the type of client for the railway and on the type of transport (container versus common wagon).
- Containers are transported at a lower rate than general cargo. The container rate for Berlin is about 2.5 times lower.
- Freight rates between Almaty and Tashkent or Almaty and Moscow are on the average around 0.45 USD/km while freight rates between Almaty and Berlin are on the average the double.
- The duration of transport between Almaty – Tashkent is 3-4 days, between Almaty – Moscow 11-16 days, between Almaty and Druzhba 2-3 days and between Almaty – Berlin 21-26 days.
- The composition of freight rates is as follows:
    - Transport costs: ~ 50 – 80%
    - Return of empty container: ~ 30 – 12 %
    - Road transport to/from terminal: ~ 15 – 20%
    - Terminal costs: ~ 2 - 3%
    - Customs costs: ~ 2%
    - Hidden costs: ~ 2 – 10%

There is little movement of containers across the Caspian Sea. Much of the present container traffic from Europe pass through the Northern corridor via Moscow, by rail or sometime by road.

National policies conducive to the development of an efficient transit transport system

Transit transport system has been and will continue to carry top priority for the Central Asian Republics due to their physical isolation and remoteness from the major sea lanes. With the dawn of independence, the futility of the existing infrastructure to meet the requirements of the modern economies came to forefront. It was soon realized that the countries would have to respond to the new challenges. They found themselves half prepared for effective nation building. The most important scope they saw was in developing friendly relations with neighbours and through their assistance use the existing and new transit routes by reducing their transportation costs to meet the challenges and opportunities unraveling by the new thrust towards globalization. They felt that struggling alone would not resolve their problems. The encouragement they receive from the world community made them to adopt regionalism as a state policy. The underlying idea was to make use of cost effective transport lanes available in this region so that the huge mineral resources could be transported to global markets to ensure uninterrupted economic prosperity and development.

The lack of resources and declining foreign investment and official development assistance inflows make it difficult for them to improve upon the existing infrastructure. Yet many of the countries have managed to get loans and technical assistance to refurbish their crumbling infrastructure. The costs of replacing or upgrading the depleting infrastructure including maintenance of rail and road tracks and rolling stock etc are formidable. More co-ordinated approach to use the existing infrastructure, where possible instead of opting for big projects with doubtful utility, should be adopted. This is the only way to meet the in infrastructures' needs to overcome the limited available resources, otherwise needs would continue to overtake the resources. Also, it is essential to determine the real cost involved in continued use of the present and the new routes.

Currently border crossings and the related formalities restrict the smooth transit movement of goods between different landlocked countries and their transit neighbours. Construction and refurbishment of border crossings and border infrastructure would improve the situation. It is critical that any measures to this effect should be undertaken in accordance with the specific situations, conditions and national priorities of the countries involved to avoid any future impediments in the integration of the transport networks.

It is encouraging to note that some countries have started using multimodal transport to transfer goods more efficiently to global markets with reduced costs. A systematic campaign has to be launched to introduce the multimodal transport system as a standard. In this context, new technology facilitating this mode of transport will have to be introduced and cost determined in a way that the member states could find it possible to introduce them.

The accession to international conventions costs money but perhaps it is the most effective vehicle through which the anarchy to be caused by the application of disharmonized national standards and regulations could be avoided. Simplification, standardization of regulations, harmonization of transit fees, relaxation of consular difficulties, facilitating customs clearances regional cooperation can be ensured through the application of regional and international laws. The benefits of regional cooperatives ties can improve tremendously if the

participating countries start owning the programmes and provide high political support to their implementation.

More specifically, there is a need to reassess the utility of some of the regional arrangements. The majority of the transit trade and transport agreements signed in the initial days regarding establishment of Custom Union, Economic Unified Space and other transit related agreements among CIS countries are not being implemented fully. Some of these are not realistic in the present situation and the modalities prescribed therein are at variance with internationally acceptable conventions and agreements on the subject. Therefore, there is need for close coordination to bring them into harmony with similar arrangements proposed by international commitment and regional entities such as ECO. This will provide for harmonization/standardization and minimum technical requirements for safe and efficient transit transport arrangements. It is in the interest of the participating countries to make the existing transit and border procedure compatible with the obligations contained in multimodal conventions and agreements.

The legal and regulatory framework in the road and air transport sectors, although greatly improved, has shortcomings with either gaps or overlaps in regulations and inadequate allocation of responsibilities for enforcement, which has made the development of the private sector more difficult than necessary, increased transport costs, and created opportunities for abuse by enforcement authorities. This in particular has a negative impact on transit trade.

Policy Recommendations

There is a renewed need for an efficient regional strategy to make full use of the current sub-regional organizational arrangements in Central Asia for removing physical and non-physical bottlenecks. Without disturbing the specific mandates of these organizations, lack of focused approach can be replaced by unity of purpose through closer institutionalized dialogue and cooperation with full involvement of the participating countries.

As rightly pointed out in various UNESCAP and UNCTAD documents, building infrastructure would not be enough to produce the desired results. ECO experience confirms that for better results, any investment in development of infrastructure must be matched by deep and sustained reforms in transport sector ensuring sufficient financing for maintenance/up gradation of physical infrastructure (on sustainable basis), improved institutional performance, implementation of already agreed commitments, targeting modernization through ICT applications and a partnership with the private sector in works and service delivery. So, a permanent dialogue between sub-regional organizations, donors, regulators and operators at multiple levels on sustainable basis is essential. This calls for adoption of regional programmes as top priority in national planning and development strategies in all participating counties.

The more effective use of the economic resources available in the region clearly recognizes the critical role of an efficient transit transport system in reducing the transportation costs for all Central Asian Republics. Despite their declining financial liquidity, these countries have modestly revamped their infrastructure to meet the new demands for efficiency, speed and professionalism warranted by globalization. Limited capacity building programmes have also been launched to prepare and strengthen the sections of government machinery having the key role in handling transit trade and transport operations. Regionalism approach, in principle, has been selected as a state policy to connect this marginalized and isolated region to global markets. The countries have also acceded to some of the important international conventions and

agreements on transit trade and transport. The results have been encouraging. Nevertheless, the region remains far away from having an efficient transit transport system. More is needed to be done sincerely and effectively.

On the global level, the international community must help quantify the social and economic costs and benefits of an efficient transit transport system in Central Asia, particularly from a prospective which transcends national frontiers in a way that the highly politicized participating governments in the region see the compelling reasons to support their "agreed commitments" through concrete actions. In parallel, the financial institutions, donors and international agencies need to consider special policy of financial and technical assistance to land-locked countries and their transit neighbouring countries to develop efficient transit transport system, particularly in view of the ever declining ODA and drying up to private money in security sensitive and investment risky areas such as Central Asia.

Annex-I

Transport infrastructure of ECO Member States

	Railways *total*	Highways *Total*	Waterways	Pipelines	Ports and harbors	Merchant marine (1,000 GRT or over)	Airports	Airports — with paved runways *Total*	Airports — with unpaved runways *total*
Afghanistan	24.6 km	21,000 km	1,200 km				45 (2000 est.)	10	35
	Descriptions								
	broad gauge: 9.6 km 1.524-m gauge from Gushgy (Turkmenistan) to Towraghondi; 15 km 1.524-m gauge from Termiz (Uzbekistan) to Kheyrabad transshipment point on south bank of Amu Darya	*Paved:* 2,793 km *unpaved:* 18,207 km (1998 est.)	chiefly Amu Darya, which handles vessels with DWT up to about 500 (2001)	petroleum products - Uzbekistan to Bagram and Turkmenistan to Shindand; natural gas 180 km	Kheyrabad, Shir Khan	-	-	*over 3,047 m:"*3 *2,438 to 3,047 m:"*4 *1,524 to 2,437 m:"*2 *under 914 m:"*1	*2,438 to 3,047 m:* 4 *1,524 to 2,437 m:* 15 *914 to 1,523 m:* 4 *under 914 m:* 12
Azerbaijan	2,125 km	24,981 km	None			56 ships totaling 253,882 GRT/313,252 DWT	52 (2000 est.)	9	43
	Descriptions								
	Common carrier service; does not include industrial lines *broad gauge:* 2,125 km 1.520-m gauge (1,278 km electrified) (1993)	*paved:* 23,057 km *unpaved:* 1,924 km (1998)		Crude oil 1,130 km; petroleum products 630 km; natural gas 1,240 km	Baku (Baki)	*Ships by type:* bulk 1, cargo 12, petroleum tanker 40, roll on/roll off 2, short-sea passenger 1 (2000 est.)		*2,438 to 3,047 m:* 5 *1,524 to 2,437 m:* 4 (2000 est.)	*1,524 to 2,437 m:* 7 *914 to 1,523 m:* 8 *under 914 m:* 28 (2000 est.)

Table-4 Transport infrastructure of ECO Member States (Continued)

	Railways *total*	Highways *total*	Waterways	Pipelines	Ports and harbors	Merchant marine (1,000 GRT or over)	Airports	Airports — with paved runways *Total*	Airports — with unpaved runways *total*
	5,600 km	140,200 km	904 km			152 ships totaling 4,097,977 GRT/7,131,688 DWT	317 (2000 est.)	117	200
	Descriptions								
Iran	*broad gauge:* 94 km 1.676-m gauge *standard gauge:* 5,506 km 1.435-m gauge (146 km electrified) Broad gauge track is employed at the borders with Azerbaijan and Turkmenistan which have broad-gauge rail systems (2001)	*Paved* 49,440 km (including 470 km of expressways) *unpaved:* 90,760 km (1998 est.)	The Shatt al Arab is usually navigable by maritime traffic for about 130 km; channel has been dredged to 3 m and is in use	crude oil 5,900 km; petroleum products 3,900 km; natural gas 4,550 km	Abadan, Ahvaz, Bandar 'Abbas, Bandar-e Anzali, Bushehr, Bandar-e Emam Khomeyni, Bandar-e Lengeh, Bandar-e Mahshahr, Bandar-e Torkaman, Chabahar (Bandar Beheshti), Jazireh-ye Khark, Jazireh-ye Lavan, Jazireh-ye Sirri, Khorramshah, Now Shahr	*ships by type:* bulk 49 cargo 38 chemical tanker 4 combination bulk 1 container 10 liquefied gas 1 multi-functional large-load carrier 6 petroleum tanker 32 refrigerated cargo 1 roll on/roll off 9 short-sea passenger 1		*over 3,047 m:* 38 *2,438 to 3,047 m:* 23 *1,524 to 2,437 m:* 25 *914 to 1,523 m:* 24 *under 914 m:* 7 (2000 est.)	*over 3,047 m:* 2 *2,438 to 3,047 m:* 3 *1,524 to 2,437 m:* 13 *914 to 1,523 m:* 122 *under 914 m:* 60 (2000 est.)
Kazakhstan	14,400 km	-	3,900 km				449 (2000 est.)	28	421
	Descriptions								

	common carrier service; does not include industrial lines *broad gauge* 14,400 km 1.520-m gauge (3,299 km electrified) (1997)	*paved:* 150,000 km (2000) *unpaved:* N.A	The Syrdariya (Syr Darya) and Ertis (Irtysh) rivers	crude oil 2,850 km; refined products 1,500 km; natural gas 3,480 km (1992)	Aqtau (Shevchenko), Atyrau (Gur'yev), Oskemen (Ust-Kamenogorsk), Pavlodar, Semey (Semipalatinsk)			*over 3,047 m:* 6 *2,438 to 3,047 m:* 14 *1,524 to 2,437 m:* 5 *under 914 m:* 3 (2000 est.)	*over 3,047 m:* 11 *2,438 to 3,047 m:* 18 *1,524 to 2,437 m:* 45 *914 to 1,523 m:* 101 *under 914 m:* 246 (2000 est.)

Table-4 Transport infrastructure of ECO Member States (Continued)

	Railways *total*	Highways *total*	Waterways	Pipelines	Ports and harbors	Merchant marine (1,000 GRT or over)	Airports	Airports — with paved runways *Total*	Airports — with unpaved runways *total*
Kyrgyzstan	370 km	18,500 km	600 km (1990)					4	46
	Descriptions								
	Common carrier service; does not include industrial lines *broad gauge:* 370 km 1.520-m gauge (1990)	140 km of expressways *paved:* 16,854 *unpaved:* 1,646 km (1996)		natural gas 200 km	Balykchy (Ysyk-Kol or Rybach'ye		50 (2000 est.)	*over 3,047 m:* 1 *2,438 to 3,047 m:* 1 *1,524 to 2,437 m:* 1 *914 to 1,523 m:* 1 (2000 est.)	*2,438 to 3,047 m:* 3 *1,524 to 2,437 m:* 5 *914 to 1,523 m:* 6 *under 914 m:* 32 (2000 est.)
Pakistan	8,163 km	247,811 km	None			17 ships totaling 240,605 GRT/367,040 DWT	117 (2000 est.)	82	35
	Descriptions								
	*broad gauge:*7,718 km 1.676-m gauge (293 km electrified; 1,037 km double track) *narrow gauge:* 445 km 1.000-m gauge (1996 est.) (2000)	*paved:* 141,252 km (including 339 km of expressways) *unpaved:* 106,559 km (1998)		crude oil 250 km; petroleum products 885 km; natural gas 4,044 km (1987)	Karachi, Port Muhammad bin Qasim	*ships by type:* cargo 13, container 3, petroleum tanker 1 (2000 est.)		*over 3,047 m:* 12 *2,438 to 3,047 m:* 21 *1,524 to 2,437 m:* 32 *914 to 1,523 m:* 14 *under 914 m:* 3 (2000 est.)	*1,524 to 2,437 m:* 7 *914 to 1,523 m:* 11 *under 914 m:* 17 (2000 est.)

Tajikistan	480 km	29,900 km	None		None	-	53 (2000 est.)	2	51
	Descriptions								
	Common carrier service; does not include industrial lines (1990)	*paved:* 21,400 km *unpaved:* 8,500 km (1990)		natural gas 400 km (1992)				*1,524 to 2,437 m:* 1 *under 914 m:* 1 (2000 est.)	*over 3,047 m:* 1 *1,524 to 2,437 m:* 2 *914 to 1,523 m:* 12 *under 914 m:* 36 (2000 est.)

Table-4 Transport infrastructure of ECO Member States (Continued)

	Railways *total*	Highways *total*	Waterways	Pipelines	Ports and harbors	Merchant marine (1,000 GRT or over)	Airports	Airports — with paved runways *Total*	Airports — with unpaved runways *total*
	8,607 km	382,059 km	1,200 km (approximate)			548 ships totaling 5,617,302 GRT/9,088,451 DWT	121 (2000 est.)	86	35
	Descriptions								
Turkey	*standard gauge:* 8,607 km 1.435-m gauge (1,524 km electrified) (1999)	*paved:* 106,976 km (including 1,726 km of expressways) *unpaved:* 275,083 km (1999 est.)		crude oil 1,738 km; petroleum products 2,321 km; natural gas 708 km	Gemlik, Hopa, Iskenderun, Istanbul, Izmir, Kocaeli (Izmit), Icel (Mersin), Samsun, Trabzon	*ships by type:* bulk 140 cargo 242 chemical tanker 41 combination bulk 5, combination ore/oil 6 container 21, liquefied gas 6, passenger/cargo 1, petroleum tanker 43 refrigerated cargo 3 roll on/roll off 25 short-sea passenger 10 specialized tanker 5 (2000 est.)		*over 3,047 m:* 16 *2,438 to 3,047 m:* 29 *1,524 to 2,437 m:* 19 *914 to 1,523 m:* 16 *under 914 m:* 6 (2000 est.)	*1,524 to 2,437 m:* 1 *914 to 1,523 m:* 8 *under 914 m:* 26 (2000 est.)

Turkmenistan	2,187 km	22,000 km				1 ship totaling 6,459 GRT/8,865 DWT	76 (2000 est.)	13	63
	Descriptions								
	broad gauge: 2,187 km 1.520-m gauge (1996 est.)	*paved:* 18,000 km *unpaved:* 4,000 km (1996)	Amu Darya inland waterway	crude oil 250 km natural gas 4,400 km	Turkmenbashi	*ships by type:* container 1		*2,438 to 3,047 m:* 9 *1,524 to 2,437 m:* 4 (2000 est.)	*2,438 to 3,047 m:* 7 *1,524 to 2,437 m:* 5 *914 to 1,523 m:* 10 *under 914 m:* 41 (2000 est.)

Table-4 Transport infrastructure of ECO Member States (Continued)

	Railways *total*	Highways *total*	Waterways	Pipelines	Ports and harbors	Merchant marine (1,000 GRT or over)	Airports	Airports — with paved runways *total*	Airports — with unpaved runways *total*
Uzbekistan	3,380 km	81,600 km	1,100 km (1990)			-	267 (2000 est.)	10	257
	Descriptions								
	common carrier service; does not include industrial lines *broad gauge:* 3,380 km 1.520-m gauge (300 km electrified) (1993)	*paved:* 71,237 km *unpaved:* 10,363 km (1996)	-	crude oil 250 km; petroleum products 40 km; natural gas 810 km (1992)	Termiz (Amu Darya river)	-	-	*over 3,047 m:* 3 *2,438 to 3,047 m:* 5 *under 914 m:* 2 (2000 est.)	*over 3,047 m:* 3 *2,438 to 3,047 m:* 8 *1,524 to 2,437 m:* 11 *914 to 1,523 m:* 13 *under 914 m:* 222

Note:
Paved: these roads are said to be hard-surfaced, and include, in addition to conventionally paved roads, some that are surfaced with gravel or other coarse aggregate, making them trafficable in all weather.
Unpaved: these roads are made of unstabilized earth and are difficult to negotiate in wet weather.
Source: World factbook 2001.

Annex-II

International Border Crossing Points of ECO Countries

	International Border Crossing Points	
Afghanistan	(1) Pakistan	
	(2) Iran	
	(3) Tajikistan	
	(4) Uzbekistan	
	(5) Turkmenistan	
Azerbaijan	(1) Georgia	Kazakh, Balkan
	(2) Russia	Cuba
	(3) Iran	Astara, Kanlihk, Kyahlvae, Julfa
	(4) Turkey	Cedorek
Iran	(1) Afghanistan	Dogharoun
	(2) Armenia	Nordouwz
	(3) Azerbaijan	Astara, Bilehsavar, Jolfa
	(4) Iraq	Khosravi
	(5) Pakistan	Mirjaveh
	(6) Turkey	Bazargan, Sero
	(7) Turkmenistan	Bajgiran, Sarakhs, Lotfabad, Pol
Kazakhstan	(1) Kyrgyzstan	Georgevka, Merke, Kemin
	(2) Turkmenistan	Bekdash
	(3) Uzbekistan	Stephoe, Kopaya, Akjibit
	(4) Russia	Pogodaevo, Troizk, Chistoe, Karapoga, Zelezinka, Lokot, Kotyaevka, Ozernoe, Tashanta
	(5) China	Khorgos, Maikapchagai, Bakhty, Druzhba
Kyrgyzstan	(1) Kazakhstan	Georgievka, Chaldovar, Kegan
	(2) Uzbekistan	Osh, Karasu, Kizibl-Kiya
	(3) Tajikistan	Isfand, Sari-Tash, Karamik
	(4) China	Torugart, Irkeshtam
	International Border Crossing Points	
Pakistan	(1) Afghanistan	Torkham, Chamman
	(2) China	Khunjerab
	(3) India	Wagha
	(4) Iran	Taftan
Tajikistan	(1) Kyrgyzstan	Sulokta, Murgab, Dzhirgital
	(2) Uzbekistan	Tursan-Zabe, Penjikent, Ura-Tube, Bekabad, Bulok, Kanibadam
	(3) Afghanistan	Ishkashim, Aivadzh
	(4) China	Kulma Pass
Turkey	(1) Iran	Gurbulak, Esendere
	(2) Georgia	Sarp, Turkgozu, Aktas
	(3) Azerbaijan	Dilucu
	(4) Iraq	Habur

	(5) Syria	Yayladag, Cilvegozu, Oncupinar, Cobanbeyli, Akcakale
	(6) Bulgaria	Kapikule, Aziziye
	(7) Armenia	Dogukapi (closed)
	(8) Greece	
Turkmenistan	(1) Kazakhstan	Bekdash
	(2) Uzbekistan	Kunya-urgench, Mangit, Togta, Tezen- bazar, Takhiatash, Farap, Gazojak, Kelif, Tallymerjen
	(3) Iran	Gandan, Artyk, Gudriolum, Saragt
	(4) Afghanistan	Gushgy
Uzbekistan	(1) Kazakhstan	Chernyavka, Kugayaz, Oqzts
	(2) Kyrgyzstan	Khodzhaabad, Aim, Fergana
	(3) Tajikistan	Khavast, Taylak, Uzun, Bekhabad, Kirovo, Pungan
	(4) Turkmenistan	Khodzeili, Tokhitash, Mangit, Gurlen, Kshahkupir, Alat Khzarasp, Tarimardzhan, Bordir
	(5) Afghanistan	Khairaton

Source: UNESCAP, Transport, Communications, Tourism and Infrastructure Development (TCTID) Division.

Annex-III

Transport Volume in the ECO Region

	1999		2000		2001	
	Export	No. of Trucks	Export	No. of Trucks	Exports	No. of Trucks
Afghanistan	…	…	…	…	…	…
Azerbaijan	727,513	40,417	733,156	40,740	526,079	29,227
Iran	…	…	1,820,068	101,115	1,130,833	62,724
Kazakhstan	562,890	31,272	834,131	46,341	315,436	17,524
Kyrgyzstan	1,581,961	87,887	1,185,687	65,872	1,145,281	63,627
Pakistan	68,312	3,795	78,098	4,339	144,459	8,026
Tajikistan	2,942	163	13,643	758	3,298	183
Turkey	493,109	27,395	560,325	31,129	…	…
Turkmenistan	…	…	…	…	…	…
Uzbekistan	162,591	9,033	272,015	15,112	258,069	14,337
Total ECO	**3,599,318**	**199,962**	**5,497,123**	**305,406**	**3,523,455**	**195,648**
Other Countries	35,019,492	1,945,527	16,295,204	905,289	13,353,651	741,870
General Total	38,618,810	2,145,489	21,792,327	1,210,695	16,877,106	937,518

Annex-IV

Existing visa fee structure for Nationals of ECO Member States

Name of country / For member states	**Islamic Republic of Pakistan**					
	Single entry	***Double entry***	***Multiple entry)***			
Afghanistan	Gratis	Gratis	Gratis			
Tajikistan, Turkmenistan, Uzbekistan, Kazakhstan, Kyrgyzstan and Azerbaijan	US$10	US$40	US$40			
Islamic Republic of Iran	Rls150,000 (Rs.940)	Rls320,000 (Rs.2000)	Rls320,000 (Rs.2000)			
Republic of Turkey	Rs.283	Rs.566	Rs.498			

Turkmenistan (In US$ dollars)										
	10 days single	***20 days single***	***1 month***		***3 months***		***6months***		***1 year***	
Islamic Republic of Pakistan	20	30	Single 40	Multiple 60	Single 100	Multiple 140	Single 190	Multiple 260	Single 370	Multiple 500
Islamic Republic of Iran	20	30	40	60	100	140	190	260	370	500
Republic of Turkey	16	24	32	48	80	112	152	208	296	400
Afghanistan	20	40	60	60	140	140	260	260	500	500
Republic of Uzbekistan	40	50	60	60	140	140	260	260	500	500

Republic of Tajikistan (In US$)									
	7 days	***14 days***	***1 month***	***2 months***	***3 months***	***6 months***		***1 year***	
Afghanistan, Iran, Pakistan and Turkey	40	Single 50	Single 60	Single 70	Single 80	Single 120	Multiple 180	Single 240	Multiple 300
Turkmenistan	10 (10 days)	15 (20 days)	20 Single 30	-	50 Single 70	95	130	185	250

			multiple		multiple				
Uzbekistan	-	-	4	-	-	-	10	-	20
Azerbaijan, Kazakhstan & Kyrgyzstan	No visa	No visa	No visa	No visa	No visa	No visa	No visa	No visa	No visa

Republic of Uzbekistan (In US$)

	7days	***15 days***	***1 month***	***3 months***		***6 months***		1 year	
Afghanistan, Iran, Pakistan, Turkey	40	50	60	Single 80	Multiple 150	Single 120	Multiple 150	Single 160	Multiple 250
Kazakhstan	Gratis	Gratis	Gratis	Gratis	Gratis	Gratis	Gratis	Gratis	Gratis
Azerbaijan	-do-	-do-	-do-	-do-	-do-	-do-	-do-	-do-	-do-
Kyrgyzstan, Tajikistan	4	4	4	10	10	15	15	25	25
Turkmenistan	51	61	71	91	161	131	161	171	261

Annex V

The main international road and rail transport agreements and conventions ratified by ECO states as per February 15, 2002.

Category (No. of conventions)	Convention or agreement with the year of establishment.	Azerbaijan	Kazakhstan	Kyrgyz Rep.	Tajikistan	Turkmenistan	Uzbekistan
Infrastructure networks (6)	European Road network (AGR), 1975	X	X				
	European Rail Networks (AGC), 1985						
	European Rail Networks (AGC), 1985						
Road Traffic (11)	Road Traffic, 1949 and 1968		X	X	X	X	X
	Road Signs & signals, 1968, with 1971 Supplements			X	X	X	X
	Protocol Road Markings, 1973						
Vehicles (3)	Technical inspection of vehicles, 1997						
Road transport (9)	Work of Crews Int. Road Transport (AETR) 1970	X	X			X	X
	Contract Road Goods transport (CMR), 1956, with Protocol to CMR, 1978		X	X	X	X	X
Border crossing facilitation (14)	TIR Convention, 1975	X	X	X	X	X	X
	Temporary imported commercial vehicles, 1956	X		X			
	Customs Container convention, 1972						X
	Harmonization of Frontier Control of Goods, 1982	X		X			X
Dangerous goods and special cargoes (5)	Dangerous goods by roads (ADR), 1957	X	X				
	Perishable Foodstuffs (ATP), 1970	X	X				X

Source: UNECE 2002

Annex VI

MEMBERSHIP IN INTERNATIONAL AND REGIONAL ORGANIZATIONS AND TRANSPORT AGREEMENTS

A. Membership of the region's countries in major international or regional organizations relevant to TTF

	WTO 1) Status and date of membership	IMF trade rating 2)	ECO 3)	EEC 4)	GUUAM 5)	SCO 6)	CACO 7)	SPECA 8)	CAF
Azerbaijan	Observer	2.	Yes		X				
Kazakhstan	Observer	..	Yes	Yes		Yes	Yes	Yes	Yes
Kyrgyz Rep	Dec.1998	1.	Yes	Yes		Yes	Yes	Yes	Yes
Tajikistan	Observer	1.	Yes	Yes		Yes	Yes	Yes	Yes
Turkmenistan	..	..	Yes					Yes	
Uzbekistan	Observer	9.	Yes		X	Yes	Yes	Yes	Yes

Note: 1) WTO membership date: www.wto.org, read No.11, 2002
2) IMF rating = 1. Is the most liberal category; 10. The least liberal category; source IMF
3) ECO members also include Pakistan, Iran and Turkey
4) Members of the Euroasian Economic Community also include Russia and Belarus.
5) Ukraine is the fifth member
6) China and Russia are also members
7) Formerly Central Asian Economic Community
8) Kazakhstan is leading the Project Working Group on Transport of SPECA

B. Membership of the countries in major international transport organizations and transport industry associations.

	ICAO 1)	ECAC	IMO 2)	ECMT 3)	IATA 4)	UIC 5)	FIATA 6)	IRU 7)
Azerbaijan	X		X	X	X	X	X	X
Kazakhstan	X		X		X		X	X
Kyrgyz Rep	X							X
Tajikistan	X							AS
Turkmenistan	X		X		X	X		X
Uzbekistan	X						X	X

Note: 1) Membership data: www.icao.org read Nov. 22, 2002
2) Membership data: www.imo.org read Nov.22, 2002
3) Membership data: www.ecmt.org read Nov. 22, 2002
4) The national flag carriers as members: www.iata.orga read Nov. 22, 2002
5) The national railways as members: www.uic.org read Nov. 22, 2002
6) National Freight Forwarding Association as member: www.fiata.org read Nov. 22, 2002

7) Road haulage Associations (or equivalent) as member: www.iru.org read Nov. 22, 2002
Tajikistan is an Associate Member (AS)

Annex-VII

STATUS CHART OF AGREEMENTS CONCLUDED AMONG THE ECO MEMBER STATES

	1		2		3		4		5		6		7		8		9		10		11		12		13	
Country	Treaty of Izmir		Transit Trade Agree-ment. ⇔		Agreement on Simpli-fication of Visa Procedures. ⇔		Agree-ment and Article of Associat-ion on ECO Shipping Co. +		Article of Agreem ent of ECO Trade and Develop-ment Bank.		MOU on ECO Re-insurance Co. ⊕		Charter of ECO Cultural Institute.		Charter of ECO Science Founda-tion.		Charter of ECO Educa-tional Institute.		MOU on Smuggl-ing and Customs Frauds. @		Transit Transport Frame-Work Agree-ment. (TTFA)		Legal Status of ECO National Represen-tatives and Inter-national staff.		Frame-Work Agree-ment on ECO Trade Co-opera-tion. **	
	Sig. By	Rati fied By	Sig. By	Rati fied By	Sig By	Rati fied By	Sig. By	Rat ified By	Sig By	Rat ified By	Sig By	Rat ified By	Sig By	Rat ified By	Sig By	Rat ified By	Sig By	Rat ified By	Sig By	Rat ified By	Sig. By	Rat ified By	Sig By	Rat ified By	Sig By	Rat ified By
Afghanistan	√				√	√	√						√	√	√		√		√		√				√	
Azerbaijan	√	√	√	√	√								√		√	√	√		√		√	√			√	
Iran	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√	√	√		√		√	√	√	√
Kazakhstan	√	√	√	√	√	√	√						√		√		√		√		√		√	√	√	√
Kyrgyzstan	√	**	√	√			√								√		√		√		√	√		√	√	√
Pakistan	√	√	√	√	√	√	√		√	√	√	√	√	√	√	√	√		√		√	√			√	√
Tajikistan	√	√	√	√									√	√	√	√	√	√	√		√	√	√		√	
Turkey	√	√	√	√	√	√			√	√	√	√	√		√		√		√		√		√	√	√	√
Turkmen-Istan	√		√	√	√		√						√		√	√	√		√		√					
Uzbekistan	√														√				√							

⇔ The Agreements which have entered into force.
* The Treaty which is provisionally implemented according to the MOU on Reorganization and Restructure of ECO
\+ Ratification of this Agreement not required.
⊕ Enforceability of this document depends on entry into force of Agreement of ECO Trade and Development Bank.
@ Enforceability of this document does not need ratification and deposition of its instruments.
** MFA of Kyrgyzstan informed the Secretariat that they have delivered the Instrument of Ratification to MFA of Iran. The Instrument of Ratification is being awaited.

Annex-VIII

Foreign Direct Investment stocks in US $ million in 2001

	Inward FDI stock 2001 MUS$	Outward FDI stock 2001 mUS$	inward FDI Performance Rank 1)	Inward FDI Performance Index 2)	Inward FDI Potential Rank 1)	Inward FDI Potential Index 4)
Azerbaijan	3962	632	8	3.3	121	0.174
Kazakhstan	12,647	--	21	2.0	82	0.260
Kyrgyzstan	459	44	55	1.0	135	0.139
Uzbekistan	768	--	100	0.4	92	0.233

Source: UNCTAD: World Investment Report 2002, at www.unctad.org