ECONOMIC COMMISSION FOR EUROPE

25.02.2012

Fourth unedited draft
Not for quotation or reference

EURO-ASIAN TRANSPORT LINKAGES
Phase II

Expert Group Report

UNITED NATIONS

New York and Geneva, 2012

ECE/TRANS/XXX

United Nations Economic Commission for Europe (UNECE)

The United Nations Economic Commission for Europe (UNECE) is one of the five United Nations regional commissions, administered by the Economic and Social Council (ECOSOC). It was established in 1947 with the mandate to help rebuild post-war Europe, develop economic activity and strengthen economic relations among European countries, and between Europe and the rest of the world. During the Cold War, UNECE served as a unique forum for economic dialogue and cooperation between East and West. Despite the complexity of this period, significant achievements were made, with consensus reached on numerous harmonization and standardization agreements.

In the post-Cold War era, UNECE acquired not only many new member States, but also new functions. Since the early 1990s the organization has focused on analyses of the transition process, using its harmonization experience to facilitate the integration of Central and Eastern European countries into the global markets.

UNECE is the forum where the countries of western, central and eastern Europe, central Asia and North America – 56 countries in all – come together to forge the tools of their economic cooperation. That cooperation concerns economics, statistics, environment, transport, trade, sustainable energy, timber and habitat. The Commission offers a regional framework for the elaboration and harmonization of conventions, norms and standards. The Commission's experts provide technical assistance to the countries of South-East Europe and the Commonwealth of Independent States. This assistance takes the form of advisory services, training seminars and workshops where countries can share their experiences and best practices.

Transport in UNECE

The UNECE Inland Transport Committee (ITC) facilitates the international movement of persons and goods by inland transport modes. It aims to improve competitiveness, safety, energy efficiency and security in the transport sector. At the same time it focuses on reducing the adverse effects of transport activities on the environment and contributing effectively to sustainable development. The ITC is a:

- Centre for multilateral transport standards and agreements in Europe and beyond, e.g. regulations for dangerous goods transport and road vehicle construction at the global level
- Gateway for technical assistance and exchange of best practices
- Promoter of multi-country investment planning
- Substantive partner for transport and trade facilitation initiatives
- Historic centre for transport statistics.

For more than six decades, ITC has provided a platform for intergovernmental cooperation to facilitate and develop international transport while improving its safety and environmental performance. The main results of this persevering and important work are reflected in more than 50 international agreements and conventions which provide an international legal framework and technical regulations for the development of international road, rail, inland water and intermodal transport, as well as dangerous goods transport and vehicle construction. Considering the needs of transport sector and its regulators, UNECE offers a balanced approach to and treatment of facilitation and security issues alike.

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FOREWORD BY THE EXECUTIVE SECRETARY

UNECE is delighted to publish this study entitled "Euro-Asia Transport Linkages (EATL) Phase II", which fulfils the mandate of its EATL Expert Group established by the UNECE Inland Transport Committee and the Executive Committee in May 2008 to ensure monitoring and coordination of EATL activities.

Building on the results of the work jointly implemented by UNECE and UNESCAP over the period 2003-07 during the EATL Phase I, the present report is the outcome of the work of designated national focal points from 27 countries along the Euro-Asian land bridge involved in EATL Expert Group during Phase II (2008-11) with the support of the UNECE secretariat and external consultants.

Main results include an investment strategy for developing 404 indentified priority transport infrastructure projects along the main Euro-Asian routes of a total cost of $ 271 billion, together with analysis of non physical obstacles to transport, elaboration of focused studies, development of Geographic Information Systems (GIS) data base and related applications, as well as policy recommendations.

Globalization of the economies and trade is generating a continuous increase in the transport of goods between Europe and Asia. At present, goods between Europe and Asia are mostly carried by maritime transport through increasingly congested ports and hinterland connections. The development of safe, secure and efficient inland Euro-Asian land transport links, in addition to providing more transport options for Euro-Asian trade, is of outmost importance for socio-economic development of countries in the region and for their integration into the global economy, which is especially important for the landlocked developing countries.

The development Euro-Asian inland transport solutions is a long-term undertaking requiring strong political will and commitment of the countries concerned and intensive follow-up work. The results presented in this study contribute to the achievement of Millennium Development Goals (No. 8 - Develop a global partnership for development) and provide a solid basis for the continuation of concerted efforts in future.

Such quality results were made possible thanks to the skills and determination of national focal points of participating countries, as well as the dedicated work of staff and external consultants. Their work was supported by the donations from the Government of the Russian Federation as well as other EATL governments, the Black Sea Economic Cooperation Organization (BSEC) and the Economic Cooperation Organization (ECO) that have hosted several events under the auspices of the EATL project. The Organisation for the Security and Co-operation in Europe (OSCE) also contributed to the organisation and partial financing of several Expert Group meetings.

I should like to thank all those who contributed and encourage all UNECE member States and other stakeholders such as international and other financial organisations to undertake the steps necessary for a progressive implementation of the recommendations contained in this report.

Geneva, February 2012

Andrey Vasilyev
Acting Executive Secretary
United Nations Economic Commission for Europe

Part I

EXECUTIVE SUMMARY

The UN General Assembly approved in 2001 the project "Capacity-building in developing interregional land and land-cum-sea transport linkages", which included a component focusing specifically on Euro-Asian transport links. The project was carried out between 2002 and 2007 jointly by the United Nations Economic Commission for Europe (UNECE) and the Economic and Social Commission for Asia and the Pacific (UNESCAP). The overall objectives of the project were: i) to assist Member States of ECA, ECE, ESCAP, ESCWA and ECLAC in strengthening their national capacities for developing interregional land and land cum-sea transport link, and ii) to promote interregional cooperation to facilitate interregional trade and tourism. The following countries were invited to participate and designate Focal Points: Afghanistan, Armenia, Azerbaijan, Belarus, Bulgaria, China, Georgia, Islamic Republic of Iran, Kazakhstan, Kyrgyzstan, Republic of Moldova, Romania, Russian Federation, Tajikistan, Turkmenistan, Turkey, Ukraine and Uzbekistan. In 2004, Greece, during its chairmanship-in-office of the Organization of the Black Sea Cooperation (BSEC), expressed the wish to be associated to the activities of the project.

With the support of the designated Focal Points and during four Expert Group Meetings under the project government representatives from these countries, the main Euro-Asian transport linkages of international importance were identified, which could form the basis for the extension of Pan-European Transport Corridors (PETCs) towards eastern Asia, the extension of the major Trans-European Transport Axes to the neighbouring countries and regions and the extension of Asian transport networks towards Europe. In total, seven EATL road routes, nine EATL rail routes, 16 EATL inland waterway routes and 48 EATL inland ports and transshipment points were identified to be considered for priority development. In addition to the above, an investment plan of priority on-going and/or planned transport infrastructure projects along the designated EATL routes was developed and presented that included a total of 230 projects with an aggregate value of US$43.4 billion.

UNECE and UNESCAP elaborated a joint proposal for a Phase II to be implemented during a four-year period, between 2008 and 2012. The extension of EATL routes under EATL Phase II addressed only newly involved countries, namely Finland, Germany, Latvia, Lithuania, Luxemburg, Mongolia and the former Yugoslav Republic of Macedonia. In order to ensure consistency of the newly proposed routes, their selection was based on the same criteria used under EATL Phase I. As a result, 9 EATL road routes, 9 EATL rail routes, 17 water transport links, 52 inland river ports and 70 maritime ports were identified.

One of the key activities of EATL Phase II, was the revision (updating) of the EATL priority transport infrastructure projects submitted under Phase I and the development of a new international investment plan for EATL Project Phase II that would entail a consistent and realistic short, medium and long term investment strategy for the identified EATL Phase II routes. This included an extensive inventory of specific road, rail, inland waterway, maritime port, inland terminals and other infrastructure projects for the 27 participating countries, together with their estimated budget and pragmatic investment time plan for their implementation.

Initially, a review and assessment of the status of implementation of the list of EATL Phase I priority projects was carried out, which yielded that approximately 54 per cent of the projects submitted under Phase I have been completed, while 24 per cent of the projects could be considered as part of EATL Phase II.

The framework for the prioritization of new proposed projects to be included in the investment plan of EATL Phase II entailed the application of a methodology for the identification of proposed projects and their grouping into one of four implementation time periods specified for the purpose of Phase II. The three-phase methodology employed was identical to the one developed for the purpose of EATL Phase I project prioritization, in order to ensure consistency between the two EATL phases, and included the:

1) Identification of projects based on pre-set criteria,
2) Evaluation according to functionality, coherence, socio-economic efficiency and sustainability criteria, and
3) Prioritisation according to a project's total score.

For the purpose of data collection on the new transport infrastructure project proposals, the new countries that joined EATL Phase II, as well as the countries that participated in the EATL Phase I prioritisation exercise, received a uniform Questionnaire for each transport mode. Out of the 27 countries participating Phase II, 23 countries submitted data through their National Focal Points (NFPs) on the projects under evaluation, while Belarus, Finland, Luxemburg, and Turkmenistan did not submit any information. The application of the methodology for project prioritisation was based on the updated data received by each country involved. For the cases that this was not feasible due to limited availability of data, the report task force had either to collect the missing information from other sources or categorise the particular project based on the available data.

A total of 311 infrastructure projects were proposed under the EATL Phase II Study and were included in the updated EATL Investment plan, which included an extensive inventory of specific road, rail, inland waterway and maritime/inland terminals infrastructure projects for the aforementioned 23 countries that submitted data, together with their estimated budget and pragmatic investment time plan for their implementation.

The implementation of the EATL network as a whole would require the approximate budget of $215 billion, out of which only 33 per cent has been secured. According to the results of the analysis, only 1 per cent of the EATL Network (as approved) has been completed, while over half of the proposed projects are planned to be completed by year 2013. The analysis also yielded that for a 16 per cent of the EATL network, it is unknown when it would be completed, since further investigation would be necessary before definition, scheduling and possible financing of the proposed infrastructure projects.

In addition to the projects located along the identified EATL Phase II Routes, most participating countries proposed infrastructure projects beyond those specified routes and, thus, these were considered to be of national importance in the analysis. Depending on the significance and priorities set for such national projects, as well as their potential to impact the established connections with EATL routes (existing and potential new ones), it is proposed that these projects are considered for inclusion in a future revision of the EATL network.

One major issue that has an impact on transport and consequently on the future development of Euro Asian Transport linkages is the growing goods trade between Europe and Asia, as well as the social and economic development of transit and landlocked developing countries being members of the EATL. An analysis of trade flows carried out for the 27 countries participating in the EATL Phase II study, indicated in general a high percentage of Asian exports to Europe, representing mainly China's domination in Asia's trade with Europe. In addition, significant growth has been noticed for the intra-Asian trade flows with Asia's imports are divided between Europe.

Nowadays maritime transport dominates the transport of goods from Asia to Europe. The vast distance of Euro-Asian inland transport, combined with several border crossings, political instability, hidden costs, lack of security, delays at borders and unpredictability, discourages the use of inland transport. In addition, maritime transport rates are often incorrectly compared with the rates for inland transport modes. For example, wrong conclusions could be drawn when comparing only the cost and time required for a container to be moved from the Shanghai port to the Hamburg port by maritime versus inland transport. In reality, products carried by containers are transported from as the production to consumption areas, which are often a long distance away from ports. As a result, logistics managers compare the costs for the entire route of the supply chain, which includes truck costs of moving containers to/from the warehouse/port, terminal handling costs and documentation and other administrative costs.

Trains could be more competitive in both time and cost when production areas are situated relatively far from China's and India's ports and production is destined to the South or East European countries. Needless to say, developing Euro-Asian inland transport would be of great value added to the landlocked countries of Central Asia.

Based on the above, part of the aim of this study was also to compare the existing Euro-Asian maritime routes with selected rail routes identified in the EATL project. The methodology used for the analysis strived to be simple and pragmatic. It compared Euro-Asian maritime and rail links from the perspective of a logistics manager of a company that produces in a certain location and needs to deliver the goods produced to some other location. To this end, custom-made questionnaires for each participating country along its rail and maritime transportation systems were distributed. The response rate to these questionnaires was unfortunately only 14 per cent. This was considered insufficient and additional information had to be sought and used, including published research, as well as the author's experience. Border crossing delays was not the focus of this study. The model used herein was "neutral" and it crucially depended on the willingness of governments to minimize stopovers at borders. However, all other possible stopover factors were analyzed and were included in the calculation of the average speed of train. In this way, it was possible to develop realistic time schedules.

In five out of the nine scenarios analyzed, rail transport surpasses the maritime transport (for both cost and time. In all nine scenarios, rail transport performs better than maritime in terms of travel time. The most viable additional transport option to that of maritime that meets the needs of the increasing trade volumes would be that of inland haulage, which could absorb considerable parts of the expected increased transport demand in future. Therefore, successful and competitive rail services along the Euro-Asian transport links are –under certain conditions- a plausible alternative to maritime transport. The study showed that Euro-Asian rail transport and its intermodal combination with maritime and road transport is a feasible and competitive transport option. The establishment of efficient corridor management, governments' willingness to cooperate, as well as rail companies' effective responses to market needs is the prerequisite that can guarantee regular and efficient rail services along the EATL routes.

Another integral part of the EATL Phase II Study of was the identification of non-physical obstacles to transport along the Euro-Asian Transport routes, with one thousand questionnaires sent to EATL road, rail and combined transport operators, supply chains managers, forwarders and important shippers seeking inputs on existing problems and potential solutions along the EATL routes used. The results of the analysis indicated a mismatch between public and private industry trade and transport facilitation interests, attribute to limited formal participation to national trade and transport facilitation committees (NTTFC), or any other formal participation, as well as the to a lack of public and private participation (PPP).

Non-physical obstacles are linked to the quality and management performance of hard infrastructure; roads, rail track and rolling stock, marshalling yard coordination and computerization, condition of railway wagons, platforms and locomotives or lack of container rail platforms and the size, condition, design and layout of border crossing points, which in many EATL participating countries have passed their "sell-by-date". Hard infrastructure is also designed and built "fit-for-purpose", using international good practice instead of stereotype linear traffic lanes and one entry-ext gate, impacting on the quality, efficiency and speed of procedures and asset management methods. Government and border control agencies seem to focus more on supply driven-infrastructure instead of letting the private sector design, build and operate demand-driven infrastructure. Government and border control agency staff managing border crossing point assets, but are not accountable for queue lengths, delays to trucks, congestion and added costs to consumers. Nevertheless, certain good practice trade transaction document examples do exist in the EATL region.

Finally, a SWOT[1] analysis was carried out of for the EATL land transport links that provided useful information on their respective strong and weak points, their potential for further development, as well as related threats.

The priority routes identified by the EATL Phase II study constitute a promising prospect for transportation on Europe-Asia links, primarily taking into account the vast transit traffic capacity potential of land routes through northern Eurasia, which at present are very much underutilised. The development of these land transport routes would provide additional Euro-Asian transport solutions to the existing maritime and at the same time become a development tool for many countries along the Euro-Asian region, including the landlocked ones. The investment plan identified within the framework of the study should ensure that the road, rail, inland waterway and maritime modes are combined to their best advantage, and that infrastructure continuity is provided together with removing barriers to the efficient operation of related transport services, in order to achieve high-quality coverage for all the countries involved.

In conclusion, the study provides a set of recommendations on monitoring and implementing the investment plan regarding close cooperation amongst the EATL member

[1] Strengths, weaknesses, opportunities and threats (SWOT).

countries, between them and their immediate neighbouring countries, the respective National Focal Points and the UNECE, as well as a number of actions with regards to data collection, monitoring, GIS Mapping update/maintenance, continuous revision/update of the Investment Plan and funding securisation, as well as a number of Technical and Institutional actions. The study provides recommendations on facilitation and policies measures and describes how efficient transit regimes, acceding to international trade and transport Conventions can reduce time and costs. Also, it demonstrates how after reducing rent seeking, allowing international transport and logistics service providers to enter national transport markets and eliminating protectionist transport quota permits will help the development of more predictable, reliable and "user-friendly" EATL transport corridors.

Finally, the study sets the ground for the continuation of the EATL study, stipulating the needs and issues that would potentially be addressed in a subsequent third phase.

Recommendations on Infrastructure Development

- The implementation of the EATL network as a whole would require the approximate budget of $215 billion, out of which only 33 per cent has been secured. According to the results of the analysis, only 1 per cent of the EATL Network (as approved) has been completed, while over half of the proposed projects are planned to be completed by year 2013. It is of great importance to obtain and provide the necessary financial resources to continue and complete the completion of identified project along the identified EATL priority road and rail routes.
- Improve infrastructure in order to provide a technically viable and commercially attractive alternative to maritime transport.
- Coordinate national infrastructure investment plans and their implementation in practice.
- It is recommended that the EATL programme is included in the national plans and programmes for the development of infrastructure.

Recommendations on Facilitation

- Reduce and remove hidden cost of transport and transport-related services.
- Significantly improve procedure, practices, equipment, infrastructure and skills of the officials at border-crossing posts.
- Simplify visa requirements and formalities.
- Standardise trade and transport documents. Eventually make them electronic so that there is paperless trade and transport documentation.
- Modernise transport and trade legislation and accede international conventions.
- Ensure interoperable systems.
- Identify bottlenecks and remove them.
- Use containers.
- Increase security of vehicles, crew and cargo in transport and transit.
- Share experience and implement internationally recognised best practices.

Recommendations on Policy

- Support the expansion of trade not only between the EU and Far East, but also along the segments of the EATL routes.
- Ensure that the country fits well into the production, supply and transport chain of modern production.
- Endeavour to obtain additional investment funds from international financial institutions.
- Encourage public-private partnership in infrastructure development.
- Enlarge accession to international conventions and agreements that facilitate trade and transport.
- Develop national master plans for the EATL development.
- Reduce the pressure that comes from the domestic transport and trade-related monopolies.
- Improve the exchange and implementation of best international practice.
- Set targets as benchmarks for the appraisal of policy achievements.
- Improve monitoring of the execution of infrastructure and facilitation plans.
- Improve data collection and dissemination.

In conclusion, inland transport offers shorter geographical distance and faster delivery time than the alternative maritime link between the EU and the Asian Pacific. It offers the advantage of end-to-end transportation, time efficiency and reliability. In this light EATL Phase II identified priority road and rail routes and projects; revealed that transport on certain inland routes is less costly than transport of goods by the sea; encouraged the development of partnership among key players in integrated development of infrastructure and tackling of environmental risks through cooperation among the National Focal Points which was supported by the UNECE secretariat; and there is a high political commitment for the development of EATL.

The globalisation of economic activity and expanding economic relations between Europe on the one hand and China and India on the other offers further opportunities to the EATL project. This is reinforced by economic development of the western part of China; congestion in the principal maritime ports and certain routes (the Suez Canal); economic integration between Belarus, Kazakhstan and the Russian Federation, as well as the expansion of this economic group; and increased economic cooperation among the EATL countries.

Challenges to the development of the EATL appear from a possible offer of competitive prices by the maritime transporters; underutilised possibilities offered by the intermodal transport; political instability; economic crisis and cuts in the public expenditure which may affect infrastructure development and maintenance; and the opening of the Arctic passage for container transport. Non-physical obstacles such as regulation, lack of its coordination and various legal and illegal practices pose serious challenges that policy ought to tackle along the EATL routes.

PART II

REVIEW OF INTERNATIONAL TRANSPORT NETWORKS AND INITIATIVES LINKING ASIA AND EUROPE

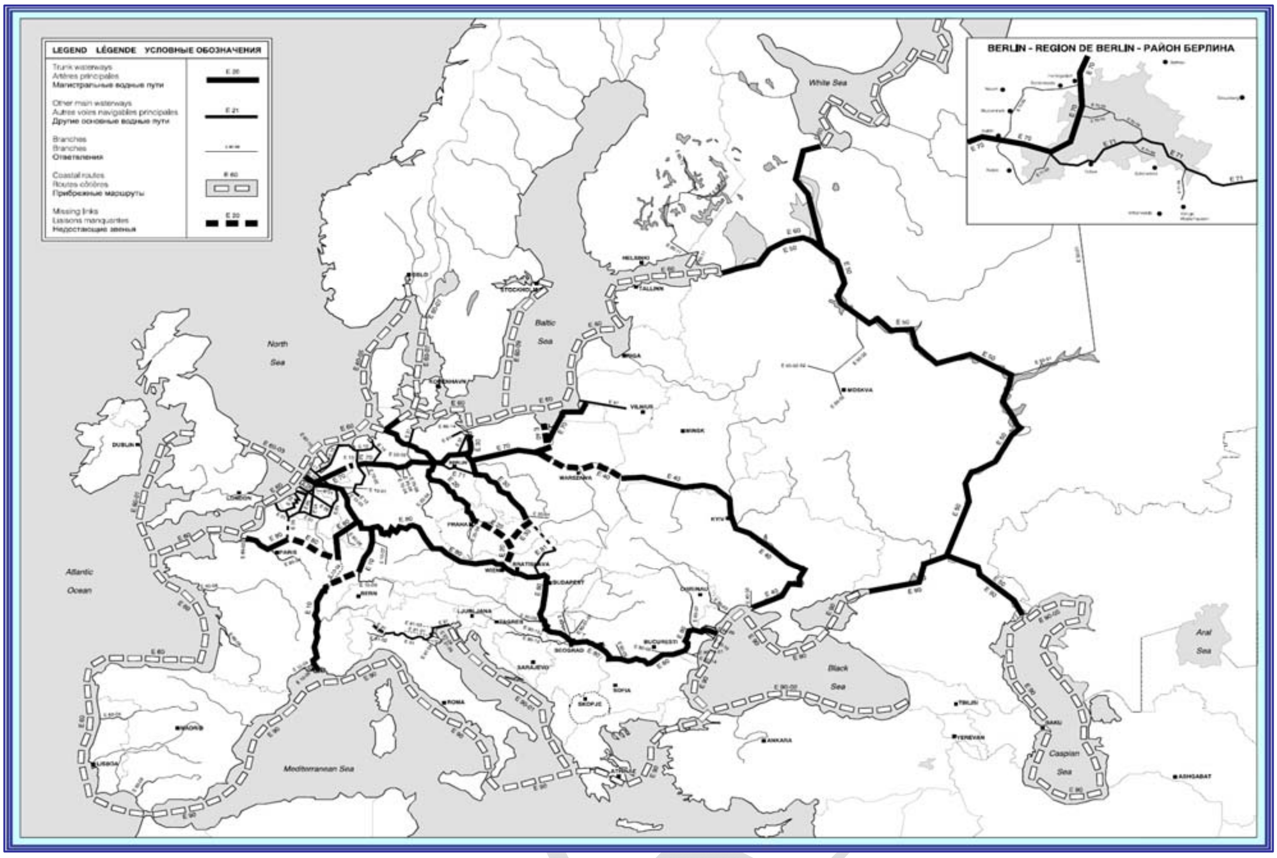
1. United Nations transport networks in the EATL region

Transport is vital to the well-functioning of economic activities and a key to ensuring social well-being and cohesion of populations. Transport ensures everyday mobility of people and is crucial to the production and distribution of goods. Adequate infrastructure is a fundamental precondition for transport systems. In their endeavour to facilitate transport, however, decision-makers in governments and international organizations face difficult challenges. These include the existence of physical barriers or hindrances, such as insufficient or inadequate transport infrastructures, bottlenecks and missing links, as well as lack of funds to remove them. Solving these problems is not an easy task. It requires action on the part of the governments concerned, actions that are coordinated with other governments at international level.

The UNECE Governments have long-standing experience and expertise in the development of coherent international transport networks in Europe. They have created four main transport network agreements aimed at the development of coherent networks for road, rail, inland water and combined transport respectively. The UNECE transport network agreements include:

- The European Agreement on Main International Traffic Arteries **(AGR)**, done in 1975;
- The European Agreement on Main International Railway Lines **(AGC)**, done in 1985;
- The European Agreement on Important International Combined Transport Lines and Related Installations **(AGTC)**, done in 1991; and
- The European Agreement on Main Inland Waterways of International Importance **(AGN)**, done in 1996.

Vectoriser les textes (page de titre), noms (pays, villes) et numéros (routes)   Textes noir en surimpression



These four international Agreements define respectively the E road, rail, combined and inland water transport networks. They also determine the minimum technical norms and requirements according to which the relevant infrastructures should be built. The AGTC also includes operational parameters for combined transport services. Finally, they establish a well-known numbering system, in general following a north-south and east-west grid system.

Although legally binding for countries that become parties to them, the UNECE infrastructure agreements give governments ample latitude for implementation. In particular, they establish neither deadlines nor priorities. Nevertheless, constantly kept up to date, these UNECE infrastructure agreements are the only Pan-European governmental basis for the long-term development of coherent international networks for the various modes of inland transport. As such, they were taken as a basis for the determination of the Pan-European transport corridors at the Pan-European Transport Conferences in Crete and Helsinki.

The E road and E rail networks represent the most useful basis for the identification of priority Euro-Asian transport corridors as they already incorporate the main roads and rail lines planned for the eastern parts of the Russian Federation and for the Caucasus and Central Asian countries.

The European Agreement on Main International Traffic Arteries (AGR) provides UNECE Governments with the international legal framework for the construction and development of a coherent international road network with a view to the development of international road transport and traffic throughout the UNECE region. The AGR defines the E road network, consisting of the arteries channelling major international road traffic flows in Europe, and the infrastructure parameters to which those arteries should conform. The AGR is constantly kept under review and updated whenever necessary to adapt it to new political and transport developments, such as the need for new roads in new States or those created by new traffic flows. It underwent a major revision in the early 90's following the fall of the Iron Curtain in order to take into account the new East-West traffic flows. It has undergone another major revision in recent years in order to also include the international roads of the countries in the Caucasus and Central Asia. States that become Contracting Parties to the AGR commit themselves to its implementation, including the construction or upgrading of the E-roads in their territories, within the framework of their national investment programmes, although they are given complete latitude as to the timing for the completion of construction works. To date, 33 UNECE Member States have become Contracting Parties to the AGR.

The European Agreement on Main International Railway Lines (AGC) similarly provides the legal and technical framework for the development of a coherent international rail network in the region. The AGC identifies the rail lines of major international importance, the E rail network, and defines the infrastructure parameters to which they should conform. It defines infrastructure parameters for two categories of lines: those already existing and those to be newly constructed. The latter are again divided into lines for goods and passenger traffic and others for passenger traffic only. The AGC is also revised whenever necessary to take account of political and transport changes in Europe. It has undergone a major revision in recent years in order to also include the international rail networks of the Caucasus and Central Asian countries. In becoming Contracting Parties to the AGC, European States commit themselves to its implementation, including the construction or the upgrading of the E-rail lines in their territories, within the framework of their national programmes but without any time constraints. 24 UNECE Member States are Parties to the AGC.

The European Agreement on Important International Combined Transport Lines and Related Installations (AGTC) provides the technical and legal framework for the development of efficient international combined road/rail transport infrastructure and services. Combined road/rail transport comprises the transport of containers, swap bodies and entire trucks on railway wagons to and from especially equipped terminals. The AGTC determines all important European railway lines used for international combined transport, identifies all terminals, border crossing points, ferry links and other installations important for international combined transport services. It also establishes internationally acceptable infrastructure standards for those lines and related combined transport installations, and prescribes internationally acceptable performance parameters of trains and combined transport installations and equipment. European States who become Contracting Parties to the AGTC, commit themselves to its implementation, including the construction or the upgrading of the railway lines and related combined transport installations in their territories, within the framework of their national programmes but without any time constraints. The AGTC entered into force on 20 October 1993. To date, 26 UNECE Member States have become Parties to the AGCT.

The European Agreement on Main Inland Waterways of International Importance (AGN) establishes the internationally agreed European network of inland waterways and ports as well as the uniform infrastructure and operational parameters to which they should conform. The geographical scope of the E waterways network, consisting of navigable rivers, canals and coastal routes extends from the Atlantic to the Ural, connecting 37 countries and reaching beyond the European region. By acceding to the AGN, Governments commit themselves to the development and construction of their inland waterways and ports of international importance in accordance with the uniform conditions agreed upon and within their investment programmes. The AGN entered into force on 26 July 1999. To date, 13 UNECE Member States have become Parties to the AGN.

Trans-European North-South Motorway & Trans-European Railway

The Trans-European North-South Motorway (TEM) and the Trans-European Railway (TER) Projects are sub-regional cooperative frameworks established by the Governments of the Central, Eastern and South Eastern European countries under the aegis of UNECE for the purpose of developing coherent road, rail and combined transport infrastructure networks in the region and facilitating international traffic in Europe.

The TEM and the TER are managed by the Project's Steering Committee as the highest administrative and political bodies. They are composed of national coordinators from each participating country who plan and coordinate activities to achieve objectives. National Project Offices in each participating country, provide liaison between national activities and activities under the project.

TEM

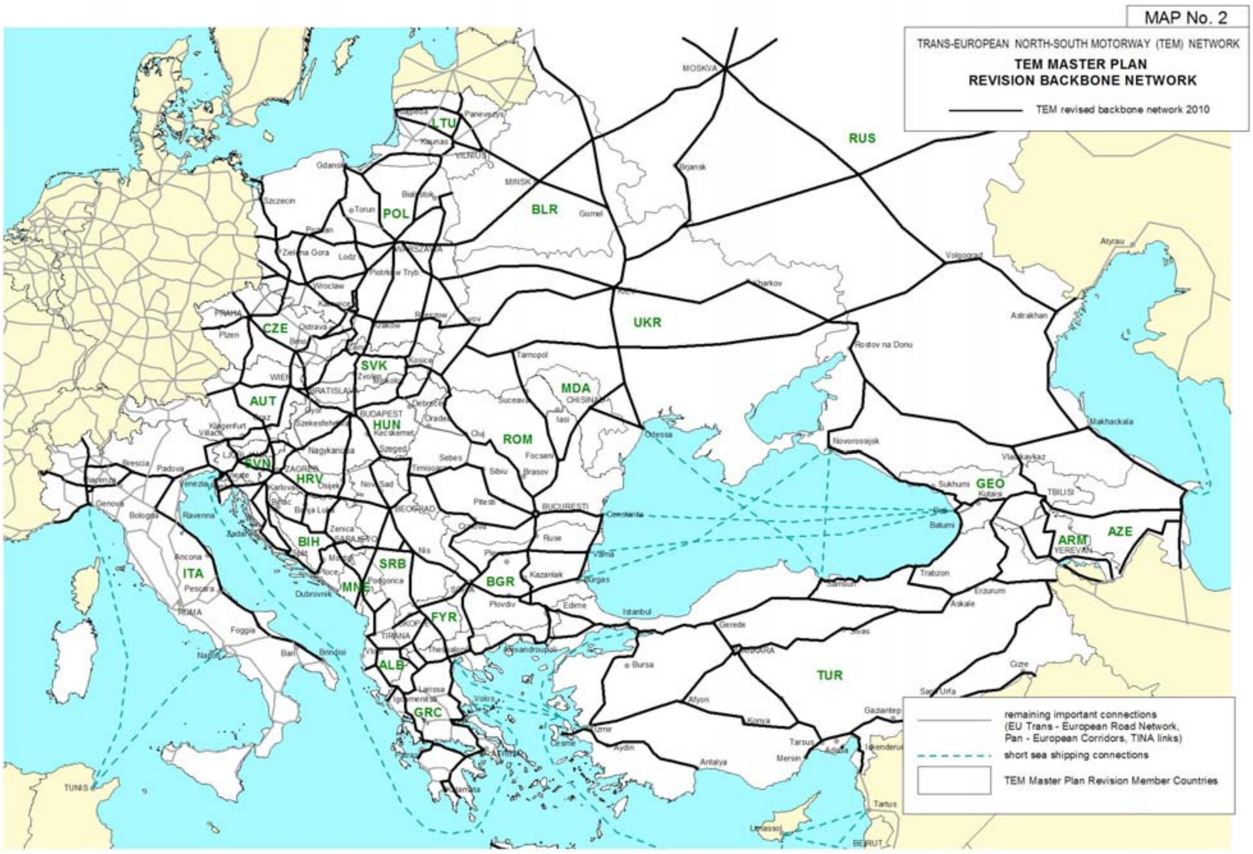
The TEM Project, initiated in 1977, established and assisted in the construction of TEM Network (Figure 6.1) of more than 22,000 Km, out of which 6,118 Km are in operation (26.4 % of TEM network) and 1,575 Km under construction. It contributed in the formation of the future Trans-European Transport Network (TEN-T) in which TEM constitutes an integral part. The TEM network was the backbone of Trans-European Road Corridors in CEE by the decisions of the 2nd and 3rd Pan-European Transport Conferences (Crete 1994-Helsinki 1997). This provided a valuable contribution to the formation of the new strategic transport plan of Europe and placed TEM as the backbone of TINA exercise for the CEE road network. Finally, TER network provided a valuable contribution to the formation of the priority plan for the extension of EU TEN in the candidate countries for membership in the EU.

The project aims at facilitating road traffic in Europe among and through the participating countries;[2] improving the quality and efficiency of transport operations; reducing imbalances existing in the network between Western, Eastern, Central and South-Eastern Europe; as well as

[2] 15 TEM member countries Armenia, Austria (associate member), Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Georgia, Hungary, Italy, Lithuania, Poland, Romania, Slovakia, Slovenia and Turkey. Four other countries have observer status: Montenegro, Serbia, Sweden and Ukraine.

assisting the integration process of European Transport Infrastructure systems in order to promote the overall development of the region.

Figure 6.1. TEM backbone Network



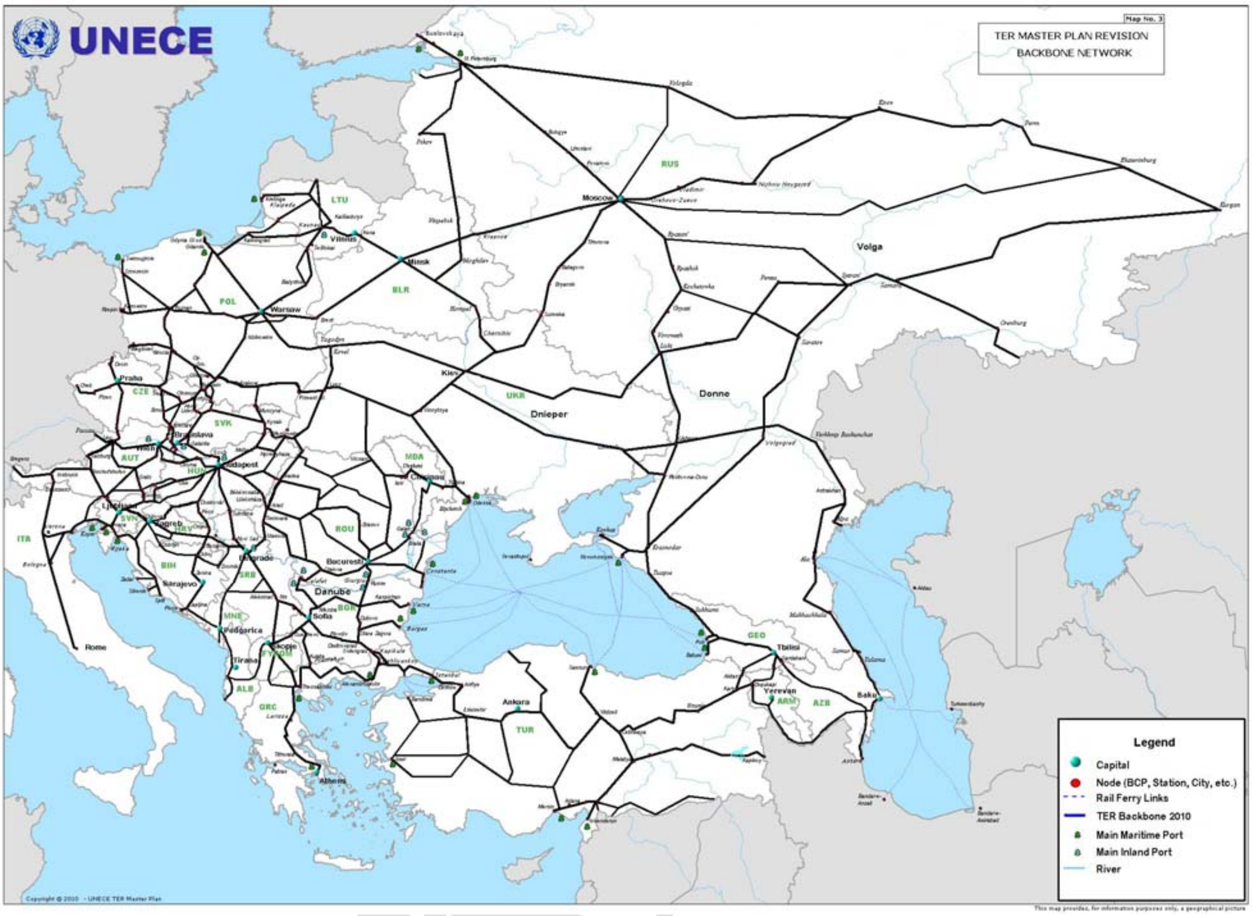
TER

The TER Project was launched in 1990. The objective of the TER is to facilitate and develop coherent and efficient international railway and combined transport system among the Central and Eastern European countries and through the territories of the participating countries[3] as well as between them and other European countries. This objective will be achieved by, for example, upgrading network infrastructure which extends over 24,000km (figure 6.2), and by eliminating obstacles at border crossings. The project aims at developing rail infrastructure, improving co-

[3] There are 17 TER member countries: Armenia, Austria, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Georgia, Greece, Hungary, Italy, Lithuania, Poland, Romania, Russian Federation, Slovak Republic, Slovenia and Turkey. In addition, a number of observer countries participate in certain activities of the project: Belarus, Latvia, Moldova, Montenegro, Serbia, The former Yugoslav Republic of Macedonia and Ukraine.

operation in all matters concerning the rail transport between TER countries, and supporting the European integration process by assisting in implementation of EU directives.

Figure 6.2. TER backbone Network



TEM and TER Master Plan Revision

In 2006, the United Nations Economic Commission for Europe (UNECE) published the original Trans-European North-South Motorway (TEM) and the Trans-European Railway (TER) Master Plan, presenting a reliable and pragmatic short-, medium- and long-term investment strategy for developing road, rail and combined transport backbone networks in the participating countries.

Following important economic, political and technological changes in the region, the objectives of the revision of the original Master Plan which took place between 2008 and 2011 were: (a) to analyse the results of the road and rail infrastructure development in 25 participating countries of Central, Eastern, South-Eastern Europe and the Caucasus, (b) to describe the existing status of road and rail networks and (c) to set out their development programme until the year 2020. Four additional countries - Albania, Armenia, Azerbaijan and Montenegro joined the revision process.
The revised Master Plan proved to be an important step towards improving the transport sector performance in the study region. Many targeted investments - for example, about 45 per cent of the

491 rail and road projects contained in the original Master Plan - have been completed in the meantime.

The slower than expected economic growth in some participating countries, unfortunately resulted in a minimal growth of their passenger and freight transport sector. The budgetary constraints in many countries limited transport infrastructure development. However, the original Master Plan had already acknowledged that the range of possible investments would greatly exceed the immediate and foreseeable capacities of national and international bodies to fund all the identified projects. The original Master Plan did not foresee the global crisis of 2008 – 2009, the consequences of which further deepened the imbalances between the investment needs and funding sources.

The revised Master Plan endeavoured to take these recent and expected future developments into account. First, it addresses the modifications of the TEM and TER Master Plan backbone networks identified in 2005. Furthermore, it reflects changes in traffic flows, political changes in the region, needs of new participating countries, desire to harmonize TEM and TER networks with other international transport networks, changed priorities, as well as the need to connect these networks in the best way with important international combined transport routes and with transshipment points and nodes. During the revision, road and rail missing links identified in the original Master Plan were also taken into account and the great majority of them have been included in the revised networks.

Three scenarios for road and rail traffic growth on backbone networks up to 2020 were developed. These scenarios were based on the results of the 2005 UNECE Censuses of Motor Traffic on Main International Traffic Arteries and of E-Rail Traffic in Europe, results of recent national traffic censuses, TEM and TER databases, national forecasts of traffic development in 2015 and 2020 and recent international studies. The basic scenario reflects, as far as possible, uncertainties inevitably linked with such projections. The other two scenarios take into account the consequences of the global economic crisis with its impacts on development of road and rail traffic in the participating countries in 2008 and 2009. These impacts were identified by a special enquiry carried out in the framework of the Master Plan revision work. So far, this is the first attempt to reflect the impact of the global crisis on the road and rail traffic developments in the forthcoming years. The forecasted traffic flows on particular sections of the TEM (motorway/road) and TER (rail) backbone networks were also illustrated on the respective maps.

The changes in the backbone network, traffic forecast results as well as the above additional requirements have been reflected in the new Master Plan list of road and rail projects, comprising 191 rail and 294 road/motorway construction and/or rehabilitation projects with a total cost of approximately 188 billion EUR. The average cost of a project (approximately 388 million EUR) increased almost twofold in comparison with the average project in the original Master Plan. This increase was partly due to inflation, but more to the larger and more demanding construction projects (e.g. high-speed rail lines in some countries) which frequently focus on the densely populated agglomerations. More stringent environmental protection measures also contributed to the increase.

Special attention was paid to considerations for projects funding in light of the present budgetary funding limitations in almost all participating countries. Annexes III to VI of Volume II focus on financing of rail and road Master Plan projects and recommendations for their implementation.

The expected status of the backbone road and rail networks in the region in the years 2015 and 2020 is shown on the respective maps. This was based on the assumption that identified infrastructure projects would be completed in accordance with the timetables indicated in the report and also on other available sources: national master plans of participating countries, national data provided through the questionnaires; TEM and TER Project databases; and data from the other relevant studies, documentation and information from other sources. It should be noted however, that in particular, the 2020 status maps imply a rather considerable degree of uncertainty and represent the most probable option based on the latest information available. The status data were also of importance for other topics dealt with in this report, e.g. border crossing issues and intermodal relationships.

Different types of rail and road bottlenecks were subsequently analysed, distinguishing between the condition bottlenecks, i.e. links in poor condition and the capacity bottlenecks, i.e. congested road and rail links in the backbone networks. Both types of bottlenecks are identified in the report and indicated on the corresponding maps. The report also includes detailed considerations of identified barriers and border crossings problems in the region, broken down according to their origin (i.e. infrastructure, procedures and staff), which are particularly frequent on borders between Schengen and non-Schengen countries.

The report further considers links between the rail and road backbone networks and between them and the other transshipment points such as terminals, ferry links and sea, river and lake ports of importance for international combined transport.

The original Master Plan did not deal with Intelligent Transport Systems. ITS applications could improve overall service levels by improving transport management and use of infrastructure. The present report underlines that the wider application of ITS could be increased by their integration. ITS integration is also a necessary precondition for interoperability of ITS systems at the European level.

Finally, the revised Master Plan focuses on the most important transport impacts on the environment, i.e. carbon dioxide emissions and noise pollution as well as on road safety and transport security issues. These issues, at present, are basic elements of the definition of transport service quality - provided that there is balance between operational needs and security requirements.

This report was prepared in close cooperation with the TEM and TER National Coordinators and focal points in participating countries. The report recommends that the next revision of the Master Plan should be carried out in the years 2015-2016.

References:

This section is based on publicly available information:

the TEM and TER websites, especially retrieved from http://www.unece.org/trans/main/tem/tem.html; and http://www.unece.org/trans/main/ter/ter.html; and

UNECE, (2011), *TEM and TER Master Plan Revision Volume I and II* , UNECE Transport Division, Geneva, Executive Summary.

United Nations Economic and Social Commission for Asia and the Pacific

The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) is a regional development arm of the United Nations for the Asia-Pacific region, composed of 62 Governments, 58 of which are in the region, with its headquarters in Bangkok, Thailand.[4] UNESCAP was founded in 1947 in order to overcome regional challenges in areas of poverty and development.

The Transport Division at UNESCAP consists of three sections:

- the Transport Infrastructure Section aiming to develop a network of highways, railways and ports across the UNESCAP region;
- the Transport Facilitation and Logistics Section aiming to assist member countries to integrate all modes of transport, adopt effective multimodal and logistics solution, overcome non-physical bottlenecks, harmonise legal regimes, and strengthen human resources and institutional capacities; and
- the Transport Policy and Development Section aiming to improve the information context of transport planning and policy formulation at the regional, national and local levels.

Recent initiatives/ projects

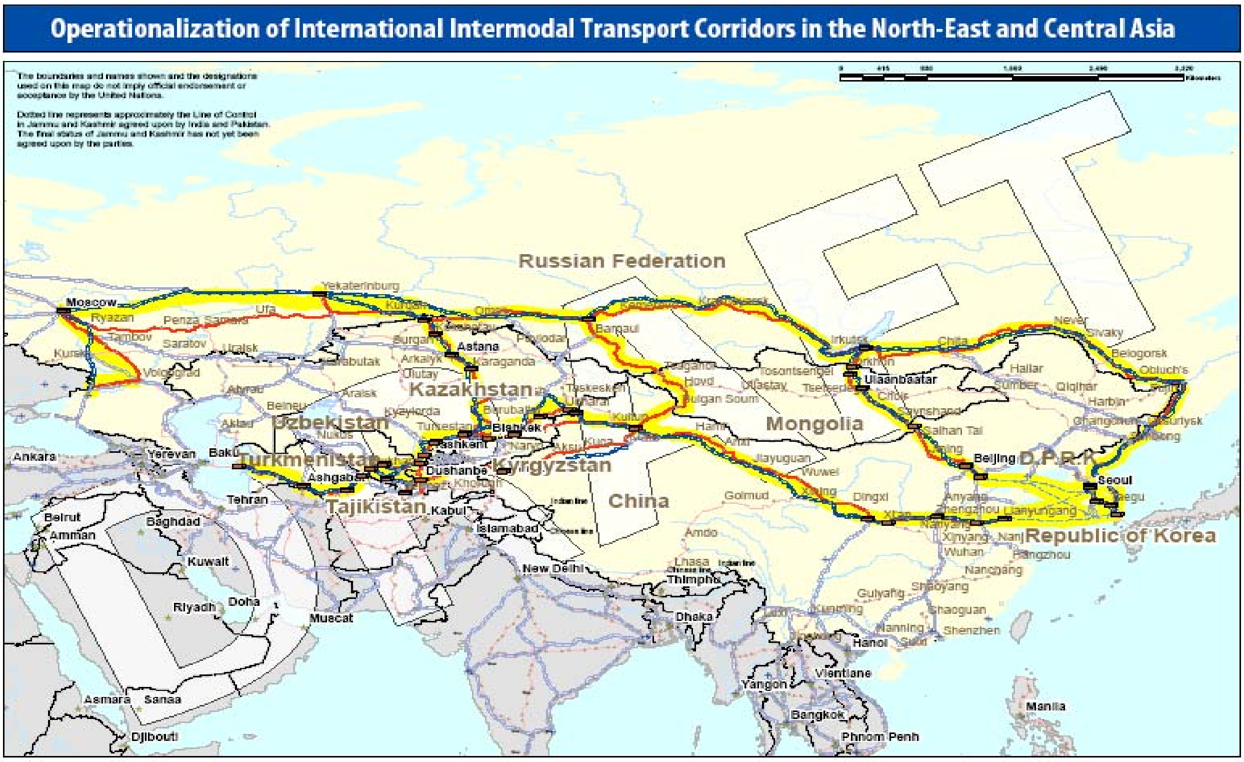
The Transport Division has carried out a project ‘Operationalization of international intermodal transport corridors in North-East and Central Asia’. The main objectives of the project are to support countries to identify priority intermodal transport corridors linking countries in North-East and Central Asia, and to establish and implement cooperative mechanisms for the development and operationalisation of the selected corridors. Under the project, six intermodal corridors (figure 7.1) have been identified based on existing routes of the Asian Highway (AH) and the Trans-Asian Railway (TAR).

[4] For more detail of membership, see http://www.unescap.org/about/member.asp.

Both the AH project and the TAR project have been implemented under the framework of Asian Land Transport Infrastructure Development Project (ALTID) which was launched in 1992 to promote the coordinated development of a regional transport network.

In order to meet the increasing demand for reliable and efficient land transport linkages and services in the region, the AH project was established in 1959 to foster international road transport. The member countries have adopted the network of 141,000km in 32 Asian countries with linkages to Europe (figure 7.2). This network provides access to: capitals; main industrial and agricultural centres; major air, sea and river ports; major container terminals and depots; and major tourist attractions. The AH network was formalised through the Intergovernmental Agreement on the Asian Highway Network which entered into force in 2005.[5] The Agreement has been signed by 28 countries, of which 23 are Parties.

Figure 7.1. Six Intermodal Transport Corridors



[5] For detail of the AH Intergovernmental Agreement, see http://www.unescap.org/ttdw/common/tis/AH/AH-Agreement-E.pdf.

Figure 7.2. AH Route

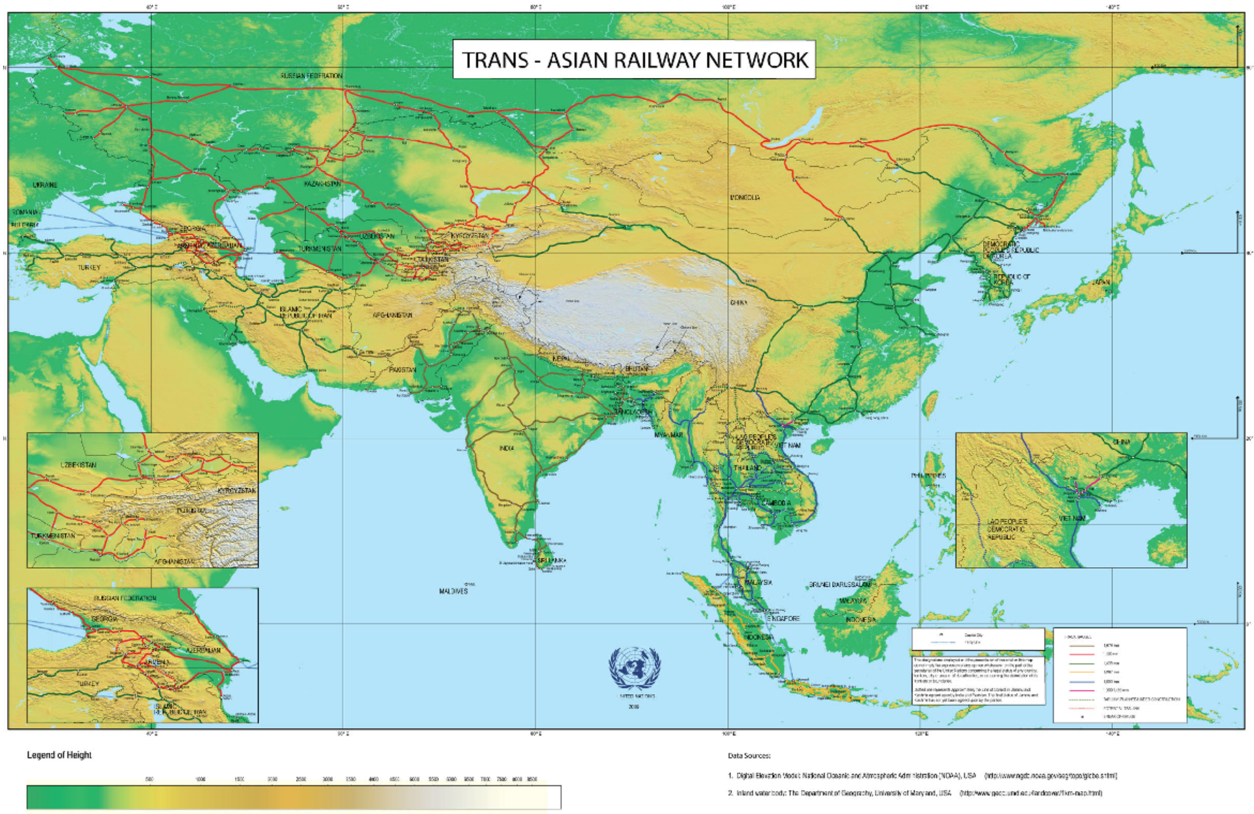
The TAR project was initiated in the early 1960s to offer efficient rail transport services within the region and between Asia and Europe. The network has extended to 114,000km of railways across 28 countries (figure 7.3) through three phases of the project: the Network Identification by four corridor studies [6] (1994-2001); the Network Operationalization by demonstration runs of container block trains [7] (1997-2005); and the Network Formalization by negotiation and finalization of the Intergovernmental Agreement on the Trans-Asian Railway Network [8] (2001-2006).

[6] Four corridors are : the Northern Corridor connecting China, Kazakhstan, Mongolia, Russia and the Korean Peninsula (1995, refined in 1999); the ASEAN and Indo-China subregional network covering Cambodia, China, Indonesia, Lao PDK, Malaysia, Myanmar, Singapore, Thailand and Viet Nam (1996); the Southern Corridor connecting Thailand and the southern Chinese with Turkey through Bangladesh, India, Iran, Myanmar, Pakistan, Sri Lanka (1999); and the North-south Corridor linking Northern Europe to the Persian Gulf through Russia, Central Asia and the Caucasus region (2001).

[7] Demonstration runs were operated along the TAR Northern Corridor.

[8] For detail of TAR Intergovernmental Agreement, see http://www.unescap.org/ttdw/common/TIS/TAR/tar_agreement_final_e.pdf.

Figure 7.3. TAR Network



This Agreement entered into force in June 2009. Under the terms of the Agreement, a working group will be established to regularly discuss policies and issues relating to the development of the rail network.

References:

This section is based on publicly available information accessed at the website of UNESCAP and retrieved from http://www.unescap.org/, especially:

http://www.unescap.org/about/index.asp;
http://www.unescap.org/ttdw/;
http://www.unescap.org/about/committee_t.asp;
http://www.unescap.org/ttdw/index.asp?MenuName=Infrastructure;
http://www.unescap.org/ttdw/index.asp?MenuName=Facilitation;
http://www.unescap.org/ttdw/index.asp?MenuName=Tourism;
http://www.unescap.org/ttdw/index.asp?MenuName=AsianHighway;
http://www.unescap.org/ttdw/common/tis/ah/IGA_intro.asp;
http://www.unescap.org/ttdw/common/TIS/TAR/tar_home.asp; and
http://www.unescap.org/unis/press/2009/jun/g41.asp.

United Nations Special Programme for the Economies of Central Asia

The United Nations Special Programme for the Economies of Central Asia, a joint UNECE-UNESCAP initiative, began in 1998. At present, the participating countries include Afghanistan, Azerbaijan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. Various Project Working Groups have been established to promote greater regional cooperation.[9] Under this framework, the Project Working Group on Transport and Border Crossing (PWG-TBC) was launched with Kazakhstan as the lead country. The main aim of PWG-TBC is further development of Euro-Asian transport corridors as the SPECA region is a potential transport hub connecting Europe and Asia.

Recent initiatives/ projects

The PWG-TBC held its first session in 1998 and has met 14 times to date to implement activities along its programmes of work. [10] In 2005 in Issyk-Kul, Kyrgyzstan, the formulation and adoption of SPECA road and rail networks was identified as one of the key objectives of SPECA countries. The goal is to develop comprehensive network that would include transport routes defined in relevant international agreements.

In this regard, draft SPECA road and rail networks have been developed on the basis of regional agreements such as the Intergovernmental Agreement on the Asian Highway Network, the Intergovenmental Agreement on the Trans-Asian Railway Network, the European Agreement on Main International Traffic Arteries (AGR), the European Agreement on Main International Railway Lines (AGC), the European Agreement on Important International Combined Transport Lines and Related Installations (AGTC) as well as on the basis of routes and networks defined under the framework of ECO (Economic Cooperation Organization), CIS (Commonwealth of Independent States), TRACECA (Transport Corridor Europe Caucasus Asia), and OSJD (Organization for Cooperation of Railways). The SPECA road and rail networks and their respective maps (figure 8.1 and 8.2) have been adopted at the 11th session of the PWG-TBC in 2006 in Almaty, Kazakhstan.

The PWG-TBC developed four priority transport databases (rail routes, road routes, border crossing points and intermodal transport) at its 12th session in 2007 in Dushanbe, Tajikistan. These databases assume a key role in monitoring situation in the transport sector in SPECA countries.

At the 13th session held in Almaty in 2008, the PWG-TBC reviewed initiatives of SPECA countries in relation to the implementation of the Almaty Programme of Action at national level, and noted the importance of the Busan Declaration on Transport Development in Asia and the Pacific. [11] It

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[9] SPECA Project Working Groups are on Gender and Economy, Knowledge-based Development, Statistics, Trade, Transport and Border Crossing, and Water and Energy Resources.

[10] For detail of 2008-2009 Work Plan, see http://www.unece.org/speca/pdf/gc/session2/2008-2009_workplan_e.pdf.

[11] Busan Declaration on Transport Development in Asia and the Pacific was adopted at the Ministerial Conference on Transport in Busan, Republic of Korea in 2006. For detail see http://www.unescap.org/ttdw/common/TIS/TAR/text/busan_declaration_11nov06.pdf, and also Resolution 63/9 Implementation of the Busan Declaration on Transport Development in Asia and the Pacific and the Regional Action Programme for

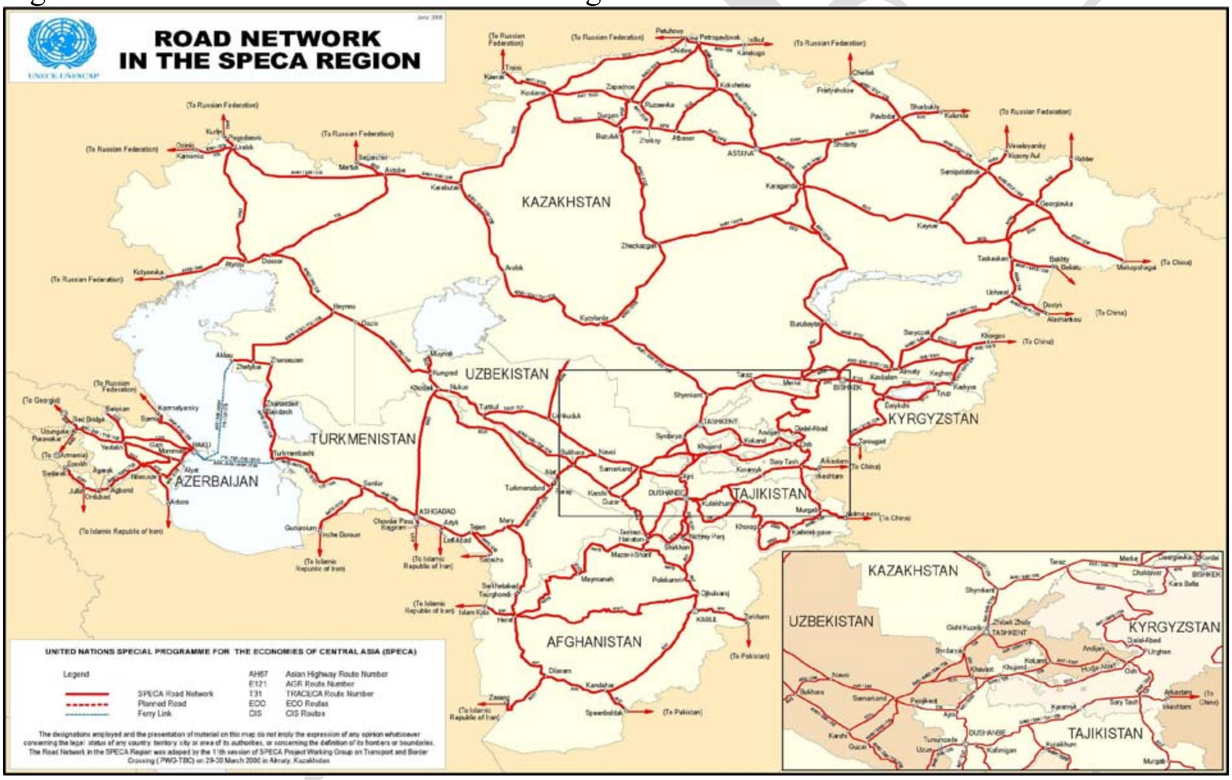
also noted problems hampering international transport in the SPECA region, including significant border-crossing delays, high transit costs, numerous and unnecessary national check points, non-official charges, low standard infrastructure, and bottlenecks and missing links. The Programme of Work 2010-2011[12], in line with the Almaty Programme of Action and the Busan Declaration on Transport Development in Asia and the Pacific, was represented at the 14th PWG-TBC session in Almaty in March 2009.

References:

This section is based on publicly available information about SPECA on the website of UNECE and retrieved from http://www.unece.org/speca/, especially:

http://www.unece.org/speca/tbc.html;
http://www.unece.org/trans/main/speca/speca_12.html;
http://www.unece.org/trans/main/speca/speca_13.html; and
http://www.unece.org/trans/main/speca/speca_14.html.

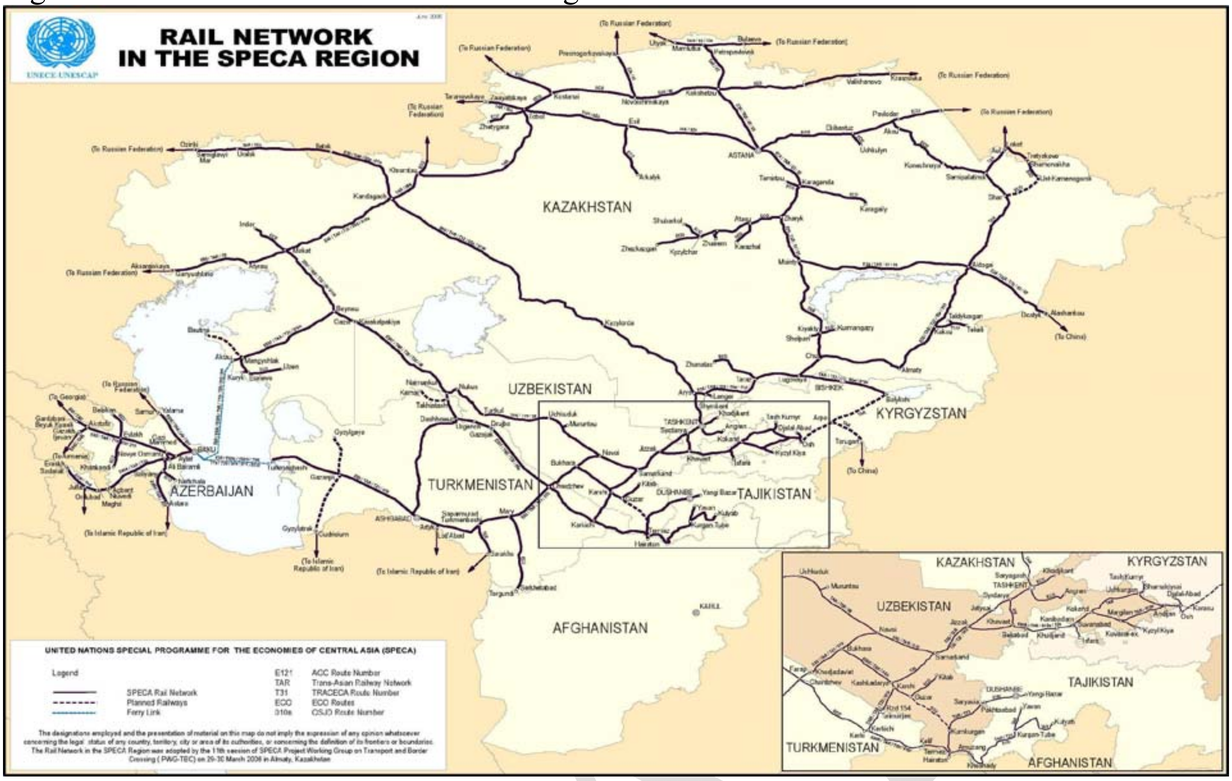
Figure 8.1. Road Network in the SPECA Region



Transport Development in Asia and the Pacific , phase I (2007-2011), being available at http://www.unescap.org/EDC/English/Committee/CMG/CMG4-I/Resoloution63_9.pdf.

12 The draft of Programme of Work 2010-2011 is available at http://www.unece.org/trans/main/speca/docs/14th_document07.pdf.

Figure 8.2. Rail Network in the SPECA Region



6. European Union

The European Union (EU) is an economic and political partnership between 27 Member States[13] with the following decision-making and legislative bodies:

- the European Parliament, elected by citizens, focusing on passing European laws on the basis of proposals presented by the European Commission;
- the Council of the European Union, composed of ministers from the national governments of all EU countries, focusing on decision-making; and
- the European Commission focusing on presenting new proposals to the European Parliament and the Council, implementing EU policies, and managing the spending of EU funds.

EU transport policies aim to foster clean, safe and efficient transport network throughout Europe. The comprehensive network comprises 95,700km of road, 106,000km of railway including 32,000km of high-speed links, 13,000km of inland waterways, 411 airports and 404 sea ports,

[13] http://europa.eu/abc/european_countries/eu_members/index_en.htm.

however, almost 20,000km of road, over 20,000km of railway and 600km of inland waterway remain to be built or substantially upgraded at estimated cost of €500 billion.[14]

Recent initiatives/ projects

The recommendation on Transport Infrastructure Needs Assessment (TINA) was developed at the first structural dialogue between the Transport Council of the EU and the Transport Ministers of the EU-associated countries. On the basis of this recommendation, the Commission launched the TINA process (figure 2.1 and 2.2) with the objective to define the future Trans-European Transport Infrastructure Network.

Figure 2.1. TINA Road Network

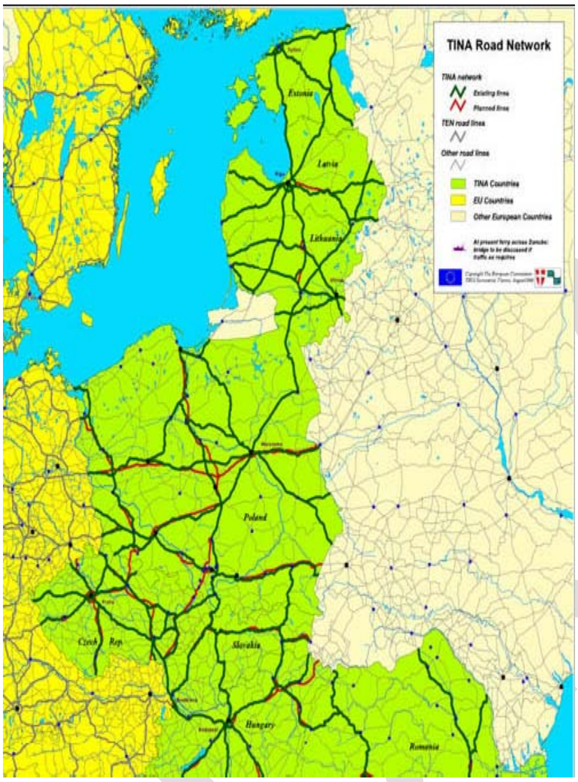


Figure 2.2. TINA Rail Network

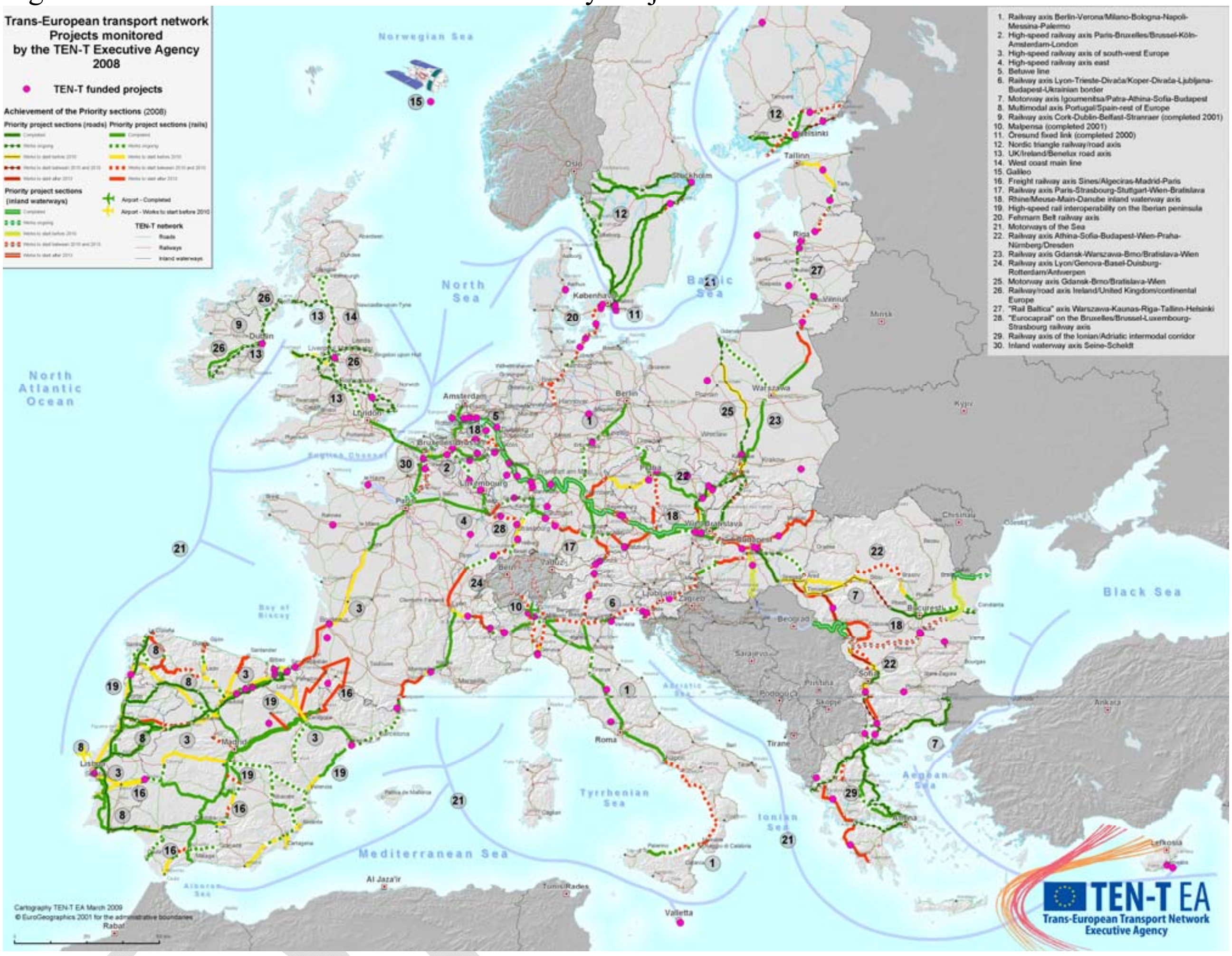
The Trans-European Transport Network (TEN-T) projects have taken a notable role in providing a single market with free movement of people and goods as well as in reinforcing the economic and social cohesion and in promoting economic competitiveness and sustainable development, with financial support by the European Investment Bank.[15] 30 Priority Projects have been identified

[14] Commission of the European Communities, (2009), Green Paper TEN-T: A policy review Towards a Better Integrated Transeuropean Transport Network at the Service of the Common Transport Policy, Brussels, electrically available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0044:FIN:EN:PDF.

[15] For the period 2007-2013, the investment needs in TEN infrastructures are expected at some €300 billion in total.

based on proposals from the Member States (figure 2.3). Of 30 projects, 18 are railway projects, 3 are mixed rail-road projects.[16]

Figure 2.3. TEN-T Network and TEN-T Priority Projects



The TEN-T has developed through key processes:

- the first action plan adopted in 1990;
- the list of 14 priority projects adopted in 1994;
- the related financial regulation adopted in 1995;
- the first guidelines established in 1996;[17] and

[16] For more detail of TEN-T Projects, see http://tentea.ec.europa.eu/en/ten-t_projects/30_priority_projects/ and European Commission, DG Energy and Transport, (May 2008), *TEN-T: Implementation of the Priority Projects, Progress Report*, electrically available at http://ec.europa.eu/transport/publications/doc/2008_brochure_tent_t_implementation_priority_projects_progress_report.pdf.

[17] 'Decision no. 1692/96/EC of the European Parliament and of the Council of 23 July 1996 on Community guidelines for the development of the trans-European transport network' is available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31996D1692:EN:HTML.

- revised guidelines and financial regulations adopted in 2004 to integrate infrastructures of new Member States[18] into the TEN-T.

With the EU enlargement in 2004, TINA networks were incorporated into the TEN-T.

A 2004 study, entitled "Scenario, traffic forecasts and analysis of corridors on the Trans-European Network" (TEN-STAC), analysed traffic, bottlenecks and environmental issues on 25 corridors.

In 2006, the Brussels-based TEN-T Executive Agency (TEN-T EA) was launched to provide an efficient and effective service in realising the technical and financial implementation of the TEN-T programme with close co-operation with the Commission. The Commission makes decisions regarding the TEN-T programme, defines strategies, objectives and priority areas of action, takes the final financing decisions, and monitors and supervises the TEN-T EA, whilst TEN-T EA implements the TEN-T programme on behalf of the Commission and under its responsibility, efficiently manages entire project lifecycle, prepares financing decisions, and provides key feedback to the Commission.

In order to strengthen the relationship between Europe and Asia, the Asia-Europe Meeting (ASEM) is a fundamental informal dialogue and cooperation bringing together 27 EU Member States, the European Commission, 16 Asian countries and the ASEAN (Association of Southeast Asian Nations) Secretariat to address political, economic and cultural issues. The first ASEM Transport Minister's Meeting will be held in October 2009 in Vilnius, Lithuania, to discuss the development of the international transport and trade, in parallel with the Asia-Europe Transport Development Forum aiming at providing a business approach towards transportation issues between Asia and Europe.

References:

This section is based on publicly available information accessed at:

the website of EU retrieved from http://europa.eu/, especially, http://europa.eu/abc/panorama/index_en.htm; http://europa.eu/abc/panorama/howorganised/index_en.htm; http://europa.eu/legislation_summaries/enlargement/2004_and_2007_enlargement/e50017_en.htm;

the website of European Commission DG-TREN retrieved from http://ec.europa.eu/transport/index_en.htm; especially, http://tentea.ec.europa.eu/en/ten-t_projects/30_priority_projects/;

the website of ASEM, retrieved from http://www.aseminfoboard.org/, especially, http://www.aseminfoboard.org/page.phtml?code=About; http://www.asemtransport.org/en/news_55.html; and http://www.asemtransport.org/en/news_55/welcome.html.

[18] On 1st May 2004, ten new countries (Cyprus, the Czech Republic, Estonia, Hungary, Malta, Latvia, Lithuania, Poland, Slovakia and Slovenia) joined the EU.

Transport Corridor Europe-Caucasus-Asia

The Transport Corridor Europe-Caucasus-Asia (TRACECA) Programme is an EU-funded project aiming at improvements in trade and transport. The current 13 participating states[19] work together on reaching the following objectives:

- stimulating the co-operation among the participating states for trade development in the region;
- promoting optimal integration of the international transport corridor TRACECA into Trans-European Networks (TENs);
- identifying factors hindering the development of trade and transport systems; and
- promoting TRACECA projects as means to attract loans from IFIs and private investors.

This Programme was launched at a conference in Brussels in 1993, brought together Trade and Transport Ministers from eight Caucasus and Central Asia countries, for the purpose of development of a transport corridor on a West-East axis from Europe across the Black Sea, through the Caucasus and the Caspian Sea, to Central Asia (map is presented in Figure 5.1). The Brussels Conference identified a number of problems and deficiencies in the trade and transport systems in the region. The programme was developed through four sectoral working groups, namely, Trade Facilitation, Road, Rail and Maritime Transport, with representatives from all participating countries taking an active part. These working groups were responsible for project identification and for the endorsement of projects proposed for EU financing.

[19] Armenia, Azerbaijan, Bulgaria, Georgia, Iran, Kazakhstan, Kyrgyzstan, Moldova, Romania, Tajikistan, Turkey, Ukraine and Uzbekistan.

Figure 5.1. TRACECA Network

etween 1996 and 2006, 61 technical assistance projects[20] and 15 investment projects[21] were supported by the TRACECA programme having disbursed a total amount of about €160 million. These projects were identified and developed in the framework of the Action Programme[22] and in accordance to the TACISs[23] regulations and programming cycle. The technical assistance provided through TRACECA has helped to attract investments from development partners, including the European Bank for Reconstruction and Development, the World Bank, the Asian Development Bank and also the Islamic Development Bank.

[20] For detail, see the website, TRACECA Programme/ Projects→Projects→Technical Assistance.

[21] For detail, see the website, TRACECA Programme/Projects→Projects→Investmnet Projects.

[22] Action Programme comprises projects proposed by the Member States and agreed upon by the EC under the EC regulations and goals.

[23] EU's Tacis Programme aimed to promote the transition to a market economy and to reinforce democracy and the rule of law in the partner states in Eastern Europe and Central Asia. For more information, see Website of European Union, Tacis Programme (2000-2006), http://europa.eu/legislation_summaries/external_relations/relations_with_third_countries/eastern_europe_and_central_asia/r17003_en.htm.

At the 5th Annual Meeting of the Intergovernmental Commission TRACECA in Sofia in 2006, a new strategy for the development of the TRACECA up to 2015 was presented. This strategy proposes the development of a number of actions and principles, which could be summarised as follows:

- strengthening and modernising the institutional dimensions of transport through organisational restructuring and reinforcement of human resources;
- integration and cohesion of infrastructure networks through setting up the principles for development of such networks, planning methodology, traffic forecasts, establishment of key transport projects, and continuous refinement of the network;
- development of sound multimodal chains through port modernisation, motorways of the sea, modernized road transport industry, putting the railway system in perspective, border-crossing, and integrated multimodal plans, advanced logistics and sophisticated IT solution;
- exploring air transport and boosting air passenger traffic;
- safe, secure and sustainable transport;
- secure funding through developing national funding plans, mobilising regional and international resources, promoting public private partnership; and
- enhancement of TRACECA as an international organisation.

References:

This section is based on publicly available information accessed at the website of TRACECA and retrieved from http://www.traceca-org.org/default.php?l=en.

Organization of the Black Sea Economic Cooperation (BSEC)

The Organization of the Black Sea Economic Cooperation (BSEC) was transformed in 1999 from the Black Sea Economic Cooperation which had been established in 1992 to foster interaction and to ensure peace, stability and prosperity among its Member States.[24]

In the same year, the Working Group on Transport and Communications was developed, and in 1994 the Group was divided into two working groups: on transport; and communications. The Working Group on Transport has elaborated most of transport-related initiatives through analysing the transport developments in the region and bringing its conclusion to meetings such as the Meeting of the Ministers of Transport of the BSEC Member States.

At the Meeting of the Ministers of Transport of the BSEC Member States in Thessaloniki in 2005, it was concluded that the development of transport axes connecting Trans-European Transport Network with the Black Sea transport network should be based on the Euro-Asian transport

[24] The eleven founding states are Albania, Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Moldova, Romania, Russia, Turkey and Ukraine and Serbia is also current member since the accession in 2004.

corridors and on the major routes under the UNECE-UNESCAP EATL framework as well as other international agreements and initiatives.

Recent initiatives/ projects

BSEC has worked collaboratively with UNECE on issues related to transport facilitation. The Cooperation Agreement between BSEC and UNECE, signed in 2001, aims at accelerating development of international transport infrastructure networks, transport and border crossing facilitation, and also harmonisation of safety and environment standards in the area of transport. These objectives have been main considerations of BSEC under the strategy of transport development.

Transport Action Plan of the Black Sea Economic Cooperation, established as a particular result of the Third Pan-European Transport Conference in Helsinki in 1997, proposes promotion of a highly efficient and sustainable regional transport system. Priority activities of the Action Plan includes: rehabilitation, modernisation and construction of transport infrastructure; simplification and harmonisation of border crossing procedures; and harmonisation of transport legislation.

The plan of transport infrastructure development was incorporated into the Memorandum of Understanding for the Coordinated Development of the Black Sea Ring Highway.[25] The Black Sea Ring Highway will promote co-operation in development of multimodal transport infrastructure for interconnections with the Trans-European, the Pan-European and the Euro-Asian Transport Networks with the approximately 7,000km route.

References:

This section is based on BSEC's report, 'BSEC Contribution into the Development of the Euro-Asian Links' and publicly available information accessed at the website of BSEC and retrieved from.

http://www.bsec-organization.org/Pages/homepage.aspx, especially:

http://www.bsec-organization.org/Information/Pages/testt.aspx;
http://www.bsec-organization.org/aoc/Transport/Pages/Information.aspx; and
http://www.bsec-organization.org/aoc/Transport/Pages/ActionP.aspx

Asian Development Bank

Asian Development Bank (ADB) is a Manila-based international development finance institution founded in 1966 in order to support its members in reducing poverty and in improving life quality.

[25] The MoU was singed in 2007 and entered into force in 2008. It is available at http://www.bsec-organization.org/documents/LegalDocuments/agreementmous/m3/Documents/MoU%20BSRH%200711227.pdf.

ADB's main partners are governments, nongovernmental organizations, development agencies and also the private sector in 67 members[26] from the region as well as from other parts.

ADB's operations in the transport sector promote economic growth and sustainable increases in welfare in its developing member states. ADB's main focuses for the transport sector are interventions in roads and highways, urban transport systems, railways, ports and waterways, and civil aviation areas with other donors such as Islamic Development Bank (IDB).

Recent initiatives/ projects

ADB has performed the secretariat function for the Central Asian Regional Economic Cooperation (CAREC) Program. CAREC Program is an ADB-supported initiative established in 1997 to encourage economic cooperation among countries in the Central Asia region by cooperation of Central Asian republics[27] and six multilateral institutions, namely; ADB, World Bank, International Monetary Fund (IMF), European Bank for Reconstruction and Development (EBRD), IDB and the United Nations Development Programme (UNDP). Main concerns about inland transport in the CAREC region are:

- inefficient cross-border and transit movement due to excessive bureaucratic procedures;
- lack of unified transport regulations among CAREC countries;
- inadequate regional transport networks;
- lack of competition in railways due to the monolithic and monopolistic nature of organisations;
- limited institutional and human resource capacities; and
- lack of regional approach in civil aviation.

In order to deal with these issues, the CAREC Transport Sector Coordinating Committee (TSCC), launched in 2004, developed 'Regional Transport Sector Road Map (2005-2010)' in 2005 (updated in 2006) for co-operative activities in the transport sector among CAREC countries. The Regional Transport Sector Road Map sets six strategic priorities for an integrated and efficient transport system in the CAREC region:

- Harmonisation and simplification of cross-border transport procedures;
- Harmonisation of transport regulations among CAREC countries;
- Development and improvement of regional and international transport corridors;
- Restructuring and modernisation of railways;
- Improvement of sector funding and management; and
- Incremental approach to liberalisation of civil aviation.

TSCC also worked on establishment of the CAREC Transport and Trade Facilitation Strategy[28] jointly with other participants such as Customs Cooperation Committee. This Strategy aims at three

[26] The list of member countries is available at <http://www.adb.org/About/membership.asp>.

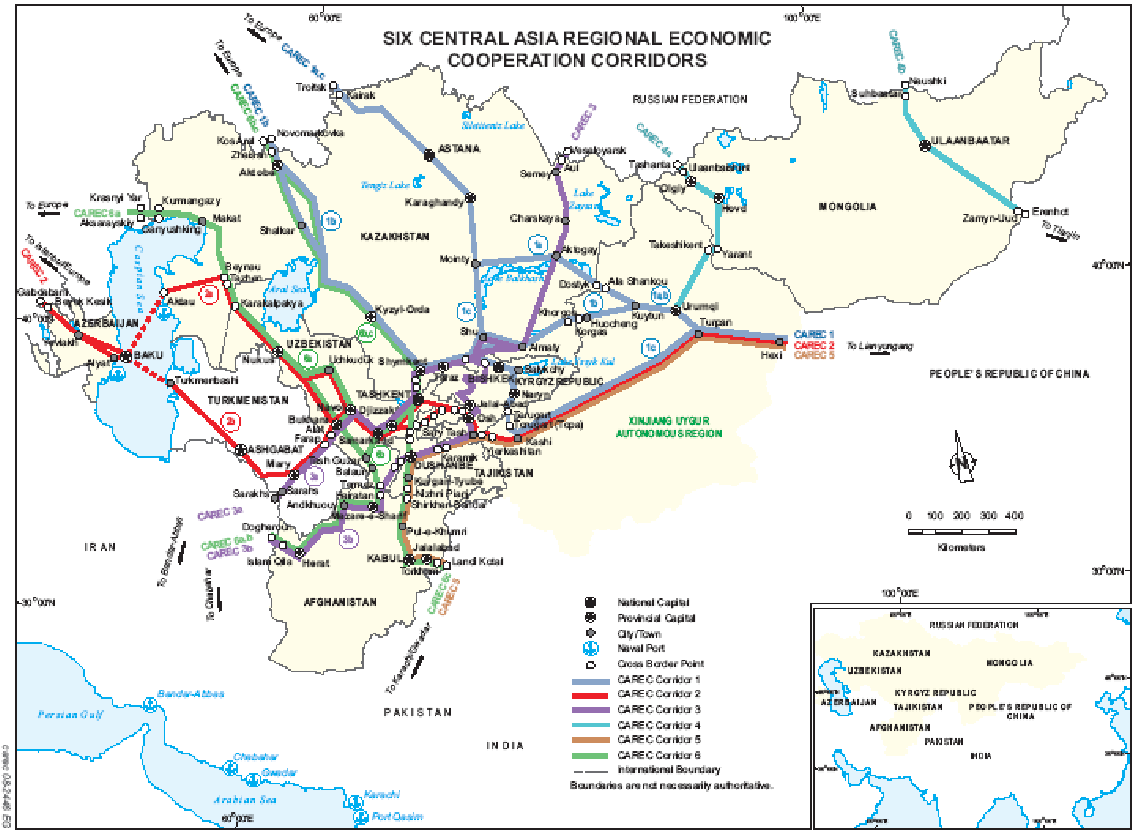
[27] Afghanistan, Azerbaijan, People's Republic of China, Kazakhstan, Kyrgyz Republic, Mongolia, Tajikistan and Uzbekistan

[28] The Strategy was endorsed by the Six Ministerial Conference in 2007 and its assessments are reported in *Transport and Trade Facilitation Strategy Report: Final Report December 2008*.

overarching goals: to establish competitive transport corridors across the CAREC region; to facilitate efficient movement through corridors and across borders; and to develop sustainable, safe, and user-friendly transport and trade networks.

The total CAREC road network is 271,000km and the rail network is 25,700km. The six CAREC Corridors have undertaken a significant role in facilitating transport (figure 1.1). The new CAREC Transport Corridor I will run 2,715 km from the city of Khorgos which is on Kazakhstan's border with the People's Republic of China to the western border with the Russian Federation through Almaty and Shymkent.

Figure 1.1. Six CAREC Corridors



References:

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http://www.adb.org/About/default.asp;
http://www.adb.org/Transport/default.asp;
http://www.adb.org/Carec/programs.asp;
http://www.adb.org/Carec/transportation.asp;
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Economic Cooperation Organization

The Economic Cooperation Organization (ECO) is an intergovernmental organisation founded in 1985 in order to promote economic, technical and cultural cooperation for its Member States.[29] Main goals of the ECO include sustainable economic development, economic liberalisation and privatisation, mutually beneficial cooperation with regional and international organisations, removal of trade barriers, and also the development of transport and communications infrastructure. ECO's activities are conducted by six Directorates under the supervision of Secretary General and his Deputies.

Recent initiatives/ projects

The Directorate of Transport and Communications has played a significant role in facilitating ECO Agreements and Declarations in the transport and communications field to foster economic cooperation, integration and cohesiveness in the ECO region. The ECO transport sector has achieved considerable developments in, for example, interconnection of road and railway networks of Central Asian Republics with Iran, Pakistan and Turkey, and international road transport among all ECO countries on the basis of bilateral agreements and construction of the missing links in the ECO region, under the framework of the Almaty Outline Plan for the Development of Transport Sector in the ECO region adopted at the first meeting of the ECO Ministers of Transport in 1993.

In 2006, the First Meeting of the Transit Transport Coordination Council (TTCC) was held to discuss important issues and also to develop cooperative activities since the Transit Transport Framework Agreement (TTFA) came into force. TTFA aims at adequate transit traffic arrangements for regional and international trade as well as for economic progress through its objectives, which are:

- to facilitate the movement of goods, luggage and passengers and to provide all necessary facilities for transit transport;
- to ensure the safety of goods, luggage and passengers and avoidance of unnecessary delays during the transit traffic; and
- to cooperate and coordinate the efforts to avoid the incidence of customs frauds and tax evasion and harmonising necessary administrative affairs dealing with transit traffic.

The meeting reached a conclusion to establish four committees as auxiliary bodies of TTCC, namely, Road Committee, Railway Committee, Legal Committee and Insurance Committee. The Second Meeting of the TTCC, being held in 2007, finalised modalities for establishment of ECO Fund for implementation of TTFA.

The transport sector of the ECO has developed transport infrastructure linking among the Member States and also between the ECO and other regions. The First Regional Workshop of Euro-Asian Transport Links Phase II: Facilitation of Euro-Asian Transport in the ECO Region, co-organised by

[29] Iran, Pakistan and Turkey are a founding member, and ECO enlarged its member states: Afghanistan, Azerbaijan, Kazakhstan, Kyrgyz, Tajikistan, Turkmenistan and Uzbekistan in 1002.

the ECO and UNECE, was held in Tehran, Iran, in April 2009 to review progress on implementations and achievements of the EATL project and to discuss border crossing facilitation and development of new routes in the ECO region.

References:

This section is based on publicly available information accessed at the website of ECO and retrieved from http://www.ecosecretariat.org/.

4. Eurasian Economic Community

The Eurasian Economic Community (EurAsEC) is an intergovernmental organisation, established in 2000, consisting of five Member States.[30] The two main objectives of the EurAsEC are the establishment of a customs union, and the creation of a single economic space and its activities encompass various domains, pursued by four principle bodies: the Inter-State Council comprising heads of States and Governments; the Integration Committee formed by Deputy Prime Ministers; Inter-Parliamentary Assembly; and the Secretary-General.

In the EurAsEC region, there are motorway and railway corridors running east-west and north-south, and a number of new corridors are under construction. Development of transport in the EurAsEC region is encumbered by both physical and non-physical obstacles such as extremely inefficient road transport, unsophisticated logistic systems, and protracted customs procedures at border crossing. The EurAsEC Integration Committee launched the Council on Transport Policy (CTP) to address these issues.

Recent initiatives/ projects

The CTP brings together the ministers of transport of all EurAsEC countries to develop coordinated activities, for instance, on creating the international transport corridors between Europe and Asia, on developing transport infrastructure as well as standardisation of technical and technological parameters, and on refining the legal framework at the border crossing.

The EurAsEC is focusing on developing a Unified Transport System (UTS) and a Transport Union of its member countries. For this purpose, the Inter-State Council adopted the UTS Development Concept in January 2008, and approved the Measures for Developing the Unified Transport Space in EurAsEC 2008-2010 in order to ensure that UTS-related proposals could be implemented, at the 15th session of the Council in December 2008. The Measures includes harmonisation of regulations within the EurAsEC pertaining to transportation and also agreements between EurAsEC and third countries, and development of transport infrastructure, shared information system and a system of logistic centres.

References:

[30] Member States are Belarus, Kazakhstan, Kyrgyzstan, Russian Federation and Tajikistan. In addition, observer countries are Armenia, Moldova and Ukraine.

This section is based on the report of the Eurasian Development Bank[31], *The EurAsEC Transport Corridors* published in March 2009, and publicly available information:

UNESCO, (2008), Executive Board, provisional agenda, Relations between UNESCO and the Eurasian Economic Community, retrieved from http://unesdoc.unesco.org/images/0016/001618/161885e.pdf; and

Ministry of Foreign Affairs of the Republic of Belarus, retrieved from http://www.mfa.gov.by/en/multilateral/int_org/ref/c1c1d559d46ac4ba.html.

European Bank for Reconstruction and Development

The European Bank for Reconstruction and Development (EBRD) is an international financial institution established in 1991 to assist creation of democratic environment in the formerly communist countries. The EBRD is owned by 61 countries and two intergovernmental institutions.[32] It supports projects in 30 countries from central Europe to central Asia[33] for the purpose of promoting entrepreneurship and transition towards open and democratic market economies.

The transport sector is EBRD's major concern in the context of the economic development. The Transport Operations Policy[34] establishes the framework for EBRD's activities in the transport sector. The principle objective of the policy is to review and update the means whereby the EBRD achieves its mission on the subject of: airports and aviation; ports, shipping and inland waterway; railway; and road infrastructure.

Recent initiatives/ projects

The EBRD fosters the development of efficient, reliable and secure transport system. In 2008, the EBRD invested approximately €660 million in transport infrastructure, with additional €350 million coming from co-financing with other international financial institutions and commercial banks.

EBRD's investment is both in the public and private sector. The South-West Corridor Road Project[35] is aiming at rehabilitation and upgrading of the 102km road section between Russian border and the city of Aktobe in Kazakhstan as part of Western Europe-Western China Corridor linking Europe and China through Kazakhstan and Russia by financial assistance to the Kazakh Government.

[31] The Eurasian Development Bank is an international financial institution established by the intergovernmental agreement signed in 2006 by the Russian Federation and the Republic of Kazakhstan in order to support economic growth and integration processes in Eurasia.
[32] The list is available at http://www.ebrd.com/about/structure/govern.htm.
[33] For project details, see http://www.ebrd.com/country/index.htm.
[34] The Policy (2005-2008) was approved by the Board of Directors in 2005 and is the third policy replacing the Transport Operations Policy of 1997. The full text of the Policy is available at http://www.ebrd.com/about/policies/sector/transpor.pdf.
[35] The Project Summary Document is available at http://www.ebrd.com/projects/psd/psd2008/39258.htm.

References:

The section is based on publicly available information accessed at the website of the EBRD and retrieved from http://www.ebrd.com/, especially:

http://www.ebrd.com/about/index.htm;
http://www.ebrd.com/about/policies/sector/transpor.htm; and also
Annual Report 2008, available at http://www.ebrd.com/pubs/general/ar08e.pdf.

International Road Transport Union

The International Road Transport Union (IRU) was founded in 1948 to represent interests of the international road transport industry. The goals of IRU are to ensure the mobility of people and goods while improving safety and environmental performance of road transport. The IRU holds Euro-Asian Road Transport Conferences biennially in order to promote and revive the 'Silk Road' linking Europe and Asia.

Recent initiatives/ projects

The 5th IRU Euro-Asian Road Transport Conference, held in June 2009 in Almaty, discussed the implementation of the New Eurasian Land Transport Initiatives (NELTI) Project. This project, developed by the IRU, was inaugurated in September 2008. The project has played a significant role in providing data on corridors connecting Europe and China through Central Asia with support from international organisations and governments. The project aims to encourage regular road freight shipments between Europe and China and to assist in achieving the transit potential of, particularly, nations in Central Asia and the Caucasus. The objectives of the project are:

- to contribute to the implementation of the UN Millennium Development Goals and of the Almaty Programme of Action for landlocked developing countries in order to develop Eurasian land transport links;
- to assist in the development of trade in landlocked countries and regions and to broaden access for their goods to international markets;
- to increase the contribution of road transport to international trade and socio-economic development; and
- to offer alternative delivery routes to maritime shipments in order to assist businesses in landlocked countries.

NELTI networks have exceeded 1,100,000km through three corridors (figure 3.1):
Figure 3.1. NELTI Routes

sing

Issues of the NELTI Project include delays at border crossing, disharmonised regulations among NELTI countries and lack of infrastructure on NELTI routes. The second phase of NELTI (NELTI 2) shall be implemented from 2009 to 2011 by monitoring the situation in the bottlenecks as well as by lobbying the Governments of the transit countries and regional economic organisations to implement recommendations based on the conclusions of the first NELTI phase.

References:

This section is based on publicly available information accessed at the website of IRU and retrieved from http://www.iru.org/, especially:

http://www.iru.org/index/en_event_Almaty2009_programme; http://www.iru-nelti.org/index/en_nelti_problems; as well as IRU's report and publications,
IRU, (2008), *Final Countdown…to 16 September 2008*, retrieved from http://www.iru-nelti.org/index/cms-filesystem-action?file=nelti/nelti_en.pdf;
IRU, (2009), *NELTI…creating new business opportunities*, retrieved from

http://www.iru-nelti.org/index/cms-filesystem-action?file=publications/nelti_join_us_en.pdf; 'Report on the First Six Months of the Implementation of the NELTI Project', retrieved from http://www.iru-nelti.org/index/cms-filesystem-action?file=nelti/report_6_months_eng.pdf; and NEA Transport Research Institute & IRU, (2009), *NELTI Final Report: Analysis of Monitoring Data Collected on NELTI Projects Routes in 2008-2009*, retrieved from http://www.iru.org/index/cms-filesystem-action?file=events_2009_almaty/NELTI-report-EN.pdf.

International Transport Forum

The International Transport Forum (ITF) is a global platform and meeting place at the highest level for transport, logistics and mobility under structure of Organisation for Economic Co-operation and Development (OECD). Its member states include OECD member countries as well as Central and Eastern European countries.[36] The ITF was transformed from the European Conference of Ministers of Transport (ECMT)[37] in order to enlarge accession not only of European countries but also of non-European countries as well as in order to cover topics of world-wide strategic importance.

Recent initiatives/ projects

An ECMT/UNECE seminar on intermodal transport between Europe and Asia took place in 2004 in Kiev, Ukraine. This seminar emphasised work on the following issues to create an effective intermodal land transport links between Europe and Asia:

- development of technical and technological capacities of transport infrastructures;
- simplification of border crossing procedures;
- removal of physical and non-physical obstacles;
- enlargement of the network of intermodal transport;
- development and implementation of joint investment projects and ensuring their financing;
- creation of a network of logistic centres and information support;
- implementation of a harmonised tariff and price policy;
- improved usage of the inland waterways for intermodal transportation; and
- harmonisation of the regulatory and legal frameworks.

The ITF aims to foster a deeper understanding of the essential role of transport in the economy by organising annual forums in Leipzig and meetings organised by the Joint Transport Research Centre.[38] The 2009 Forum's main theme "Transport for a Global Economy: Challenges and Opportunities in the Downturn" focussed on discussing the economic downturn and stimulus packages, the risks of protectionism and the challenges of sustainability, the financing of transport,

[36] The list of member countries is at http://www.internationaltransportforum.org/about/members.html. For OECD member states, see http://www.oecd.org/pages/0,3417,en_36734052_36761800_1_1_1_1_1,00.html.

[37] ECMT was established by a Protocol signed in Brussels in 1953. At the meeting in Dublin in 2006, the Council of Ministers agreed on the creation of the ITF.

[38] The Joint Transport Research Centre was established in 2004 jointly by the ECMT and the OECD. The Centre conducts co-coperative research programmes addressing all modes of inland transport and their intermodal linkages, in support of policy-making processes in member countries.

the reliability and security of transport chains, as well as the need for international cooperation. The Forum also discussed importance of efficient transport between Europe and Asia in the globalised economy, which would effect on international trade.

References:

This section is based on publicly available information accessed at the website of ITF and retrieved from http://www.internationaltransportforum.org/, especially,

http://www.internationaltransportforum.org/about/aboutintro.html;
http://www.internationaltransportforum.org/about/history.html;
http://www.internationaltransportforum.org/Press/PDFs/2009-05-29E.pdf; and also,
OECD, (2006), *Transport Links between Europe and Asia*, available at
http://www.internationaltransportforum.org/europe/ecmt/pubpdf/06Europe-Asia.pdf.

Islamic Development Bank

The Islamic Development Bank (IDB) is an international financial institution consisting of its Headquarters in Jeddah, Saudi Arabia and its regional offices in Almaty (Kazakhstan), Kuala Lumpur (Malaysia), Rabat (Morocco) and Dakar (Senegal). IDB was established in 1973 to support the economic development and social progress of its member countries.[39]

Recent initiatives/ projects

IDB Group Infrastructure Strategic Plan (1431H-1433H / 2009- 2011G):

Over the next three years (2009-2011), IDB Group will focus on the core infrastructure sectors including the Transport sector which covers the following sub-sectors: roads, railways, airports, ports, and multi-modal facilities.

Taking into account the existing infrastructure capacity in IDB member states, as well as considering the developmental impact of its financing and the absorption capacity of the regions, IDB Group would significantly alter the existing allocation of its resources. Since inception, the average MENA region share of the total IDB Group infrastructure financing portfolio has been about 55%. It has been proposed that this share be reduced to 30% by 2011 to free-up resources for Sub-Saharan Africa, CIS and Asia regions, where the developmental impact of IDB Group intervention may be higher.

As the IDB is undergoing a major reform exercise, it is envisaged that the current Infrastructure Strategic Plan (2009-2011) will be of a transitional nature for the IDB to fully adopt the proposed new approach to infrastructure. This transition period is needed to allow for the gradual build up of

[39] The membership of IDB includes 56 countries listed at http://www.isdb.org/irj/portal/anonymous?NavigationTarget=navurl://750e51a0219adf78e6329e889512714e.

the IDB Group internal capacity and the absorptive capacity of the member countries in the various categories.

The Objective

The objective of several on-going and planned transport sector projects is to provide year-round, reliable and direct land transport service between the eastern part of Europe and the western part of Asia Region to enhance trade and flow of passengers and freight traffic between Europe and Asia countries in line with CAREC program.

IDB Investments

1. Major investment projects approved or planned under IDB funding are highlighted as follows:

- **Kazakhstan** IDB, together with its co-financiers, ADB and Japan International Cooperation Agency (JICA), has already approved the 480km road section in the Zhambyl Oblast[40] of the Western Europe–Western China International Transport corridor.[41] IDB approved $186 million in February 2009 to cover the financing of the 58 km section in the Jambul Oblast. The financing agreement is currently being negotiated between the IDB and the Government of Kazakhstan. The mark-up to be used was agreed at 5.1%. Meanwhile, the Executing Agency has already published the invitation for pre-qualification of firms through local mass-media and located the same on the IDB website.

- **Kyrgyz Republic.** ADB approved a $20 million grant to rehabilitate the Bishkek-Torugart road in November 2008. Additional $50 million for the km 439-479 and km 365-400 road segments is planned for approval in 2009. To complete the abovementioned road corridor, a Co-financiers' meeting, was held in Bishkek and attended by the members of Coordination Group,(IDB, Kuwait Fund for Arab Economic Development (KFAED), Abu Dhabi Fund for Development (ADFD), OPEC Fund for International Development (OFID) and Saudi Fund for Development (SFD), in October 2008 and an MOU was signed to consider the financing of the road stretch from Dolon Pass to Atbashi of the Bishkek-Torugart Road Corridor. All concerned Funds have in principle agreed to finance the project. IDB is already co-financing with ADB the reconstruction of the Osh-Sary Tash–Irkeshtam road. Furthermore, IDB funded phases of the project "Reconstruction of Taraz-Talas-Suusamyr" are progressing satisfactorily; the Phase I of the road project will be completed by mid-2009. In 2009 the Government of Kyrgyz Republic is planning to invite the concerned Funds of the Coordination Group to conduct its meeting in Bishkek and to consider the priority projects submitted by the Kyrgyz Government. The bilateral meetings were held between the Kyrgyz delegation and the representatives of the

[40] The cost of improving the Zhambyl Oblast section is estimated at about $1.5 billion and is being financed by ADB ($700 million), IDB ($414 million), JICA ($150 million), and the Government ($216 million).

[41] The total length of the corridor is about 2,715 km, of which 2,237 km will be constructed and/or reconstructed. The total investment plan for the corridor is estimated at about $6.7 billion: ADB ($700 million), EBRD ($181 million), IDB ($414 million), JICA ($150 million), World Bank ($2,125 million), the private sector ($2,221 million),and the Government ($909 million).

Coordination Group during the IDB Annual Meeting in Ashgabat, Turkmenistan, 2-3 June 2009. The documentation pertaining to the projects for the above meeting are now being prepared by the concerned ministries.

- **Tajikistan.** A Co-financiers' meeting, was held in Dushanbe and was attended by the members of Coordination Group, (IDB, Kuwait Fund for Arab Economic Development (KFAED), Abdu Dhabi Fund for Development (ADFD), OPEC Fund for International Development (OFID) and Saudi Fund for Development (SFD),in October 2008 and an MOU was signed to consider the financing of the Kulyab-Khalaikum Road Corridor. The IDB and the other funds mounted a joint appraisal mission to Tajikistan in the end of April 2009. In addition to the above the IDB is planning to mount another appraisal mission to Tajikistan in the second half of 2009, to provide financing for the third phase of the Shagon-Zhigar road project subject to successful completion of the second phase.

C. Non-lending Activities

2. IDB has committed to support the Feasibility study of Kafarnigan-Yavan Railway in Tajikistan

3. A list of investment and TA projects in the CAREC transport sector having IDB involvement for the period 2007–2011 along with IDB interventions in the transport sector since 1993 is attached.

External Assistance for Transport Sector in CAREC Countries
Table 1: Approved and Planned Investments 2008−2011

Project Title	CAREC Corridor	Other Intervention	Country Involved	Funding Agency	Total for all Interventions (US$ million)	Total for CAREC Interventions (US$ million)
IDB interventions in the transport sector since 1997						
Karaganda- Astana Road Project (Approved 2000)	-	-	KAZ	IDB	20.0	
Construction of Bishkek- Osh Road (Approved 1998)	-	-	KGZ	IDB	10.0	
Reconstruction of Taraz–Talas–Suusamyr Road (Approved 2000)			KGZ	IDB	9.15	
Reconstruction of Osh- Irkeshtam Road (Approved 2007)			KGZ	IDB	17.3	
Reconstruction of Taraz–Talas–Suusamyr Road (Supplementary)(Approved 2007)			KGZ	IDB	3.6	
Construction of Murgab- Kulma Pass Highway (Approved 1999)			TAJ	IDB	9.5	
Shagoon- Zigar Road (Approved 2001)			TAJ	IDB	9.1	
Shagoon- Zigar Road Phase-II (Approved 2004)			TAJ	IDB	13.77	
Alyat- Ggazi Mohamed Road (Approved 1997)			AZE	IDB	13.14	
Reconstruction of Ujar- Yevlakh Road (Approved 2003)			AZE	IDB	22.0	
Reconstruction of Yevlakh- Ganja Road (Approved 2005)			AZE	IDB	10.4	
Approved and Planned Investments 2008−2011						
Reconstruction of Taraz–Talas–Suusamyr Road Phase-II (	3b	-	KGZ	IDB	11.2	

Project Title	CAREC Corridor	Other Intervention	Country Involved	Funding Agency	Total for all Interventions (US$ million)	Total for CAREC Interventions (US$ million)
Approved 2008)						
2009 APPROVED IN 1 QUARTER						
Western Europe–Western China Corridor (Korday-Taraz-Zhambyl Oblast) Section1(Tranche-1)	1b	-	KAZ	IDB	186.0	186.0
2009 PLANNED						
Dolon-Pass to Atbahsi of the Bishkek-Torugart Road Corridor	1c	-	KGZ	IDB	10.0	15.0
Kulyab-Khalaikum Road project	-		TAJ	IDB	20.0	20.0
Shagon–Zigar Road Reconstruction, Phase III	-	Feeder for 5	TAJ	IDB	20.0	20.0
Bereket- Etree- Gorgan Railway Project (Tranche-1) Turkmenistan			TURK	IDB	120.0	
Subtotal planned for 2009					356.0	25.0
2010 INDICATIVE [b]						
1 Western Europe–Western China (Korday-Taraz-Zhambyl Oblast) Section2, Tranche 2	1b	-	KAZ	IDB	228.0	228.0
2 CAREC Corridor I (Bishkek-Torugart Road), Phase -III	1c	-	KGZ	ADB	40.0	40.0
3 Reconstruction of the Osh-Sary Tash-Irkeshtam Road (Phase II) [c]	2,3b,5		KGZ	IDB	15.0	15.0
4 Reconstruction of Taraz-Talas-Suusamyr Road Phase-III	3b	-	KGZ	IDB	10.0	10.0
5 Bereket- Etree- Gorgan Railway Project (Tranche-2) Turkmenistan			TURK	IDB	120.0	
Subtotal Planned for 2010					413.0	
2011 INDICATIVE						
1 Ujar–Zardab–Aghdjabedi Highway Construction	-	Other	AZE	IDB	50.0	-
2 Bereket- Etree- Gorgan Railway Project (Tranche-3) Turkmenistan			TURK	IDB	120.0	
Subtotal Planned for 2011					170.0	

ADB = Asian Development Bank; AFG = Islamic Republic of Afghanistan; AZE = Azerbaijan; EBRD = European Bank for Reconstruction and Development; IsDB = Islamic Development Bank; JICA = Japan International Cooperation Agency; KAZ = Kazakhstan; KGZ = Kyrgyz Republic; TAJ = Tajikistan;;

[a] The amount of CAREC intervention is estimated.

[b] Processing of projects in 2009 and 2011will depend on further discussion with concerned governments and availability of financing.

[c] In case the Government fails to reach agreement with other financiers, IsDB might finance this project.

Table 2: Approved and Planned Technical Assistance (T.A)

No.	Project Title	Country Involved	Funding Agency	Total (US$'000)
IDB interventions for T.A. in the transport sector since 1993				
1.	T.A for Economic F.S. of Almaty- Bystrovka Road (Approved 1995)	KAZ	IDB	**257.0**
2.	T.A. for F. S. for Karaganda- Akmola Road (Approved 1996)	KAZ	IDB	**298.0**
3.	T.A. for Baravoe- Kokshetau- Petropvlovsk Road (Approved 2001)	KAZ	IDB	**232.0**
4.	T.A. for Detailed Eng. Design & Tender Doc. For Alyat- Ggazi Mohamed Road (Approved 1993)	AZE	IDB	**240.0**
5.	T.A. for F.S. for constructing 15 km Road from Kulma pass to Karako (Approved 1997)	TAJ	IDB	**280.0**

6.	T.A. for F.S. for construction of 30.7 km Road from Shagon to Zigar (Approved 1998)	TAJ	IDB	**270.0**
2009 PLANNED				
1	Feasibility Study for Kafarnigan–Yavan Railway	TAJ	IDB	**300.0**

ADB=Asian Development Bank; AZE=Azerbaijan; EBRD=European Bank for Reconstruction and Development; IDB=Islamic Development Bank; JICA = Japan International Cooperation Agency; KAZ=Kazakhstan; KGZ=Kyrgyz Republic; TAJ=Tajikistan;

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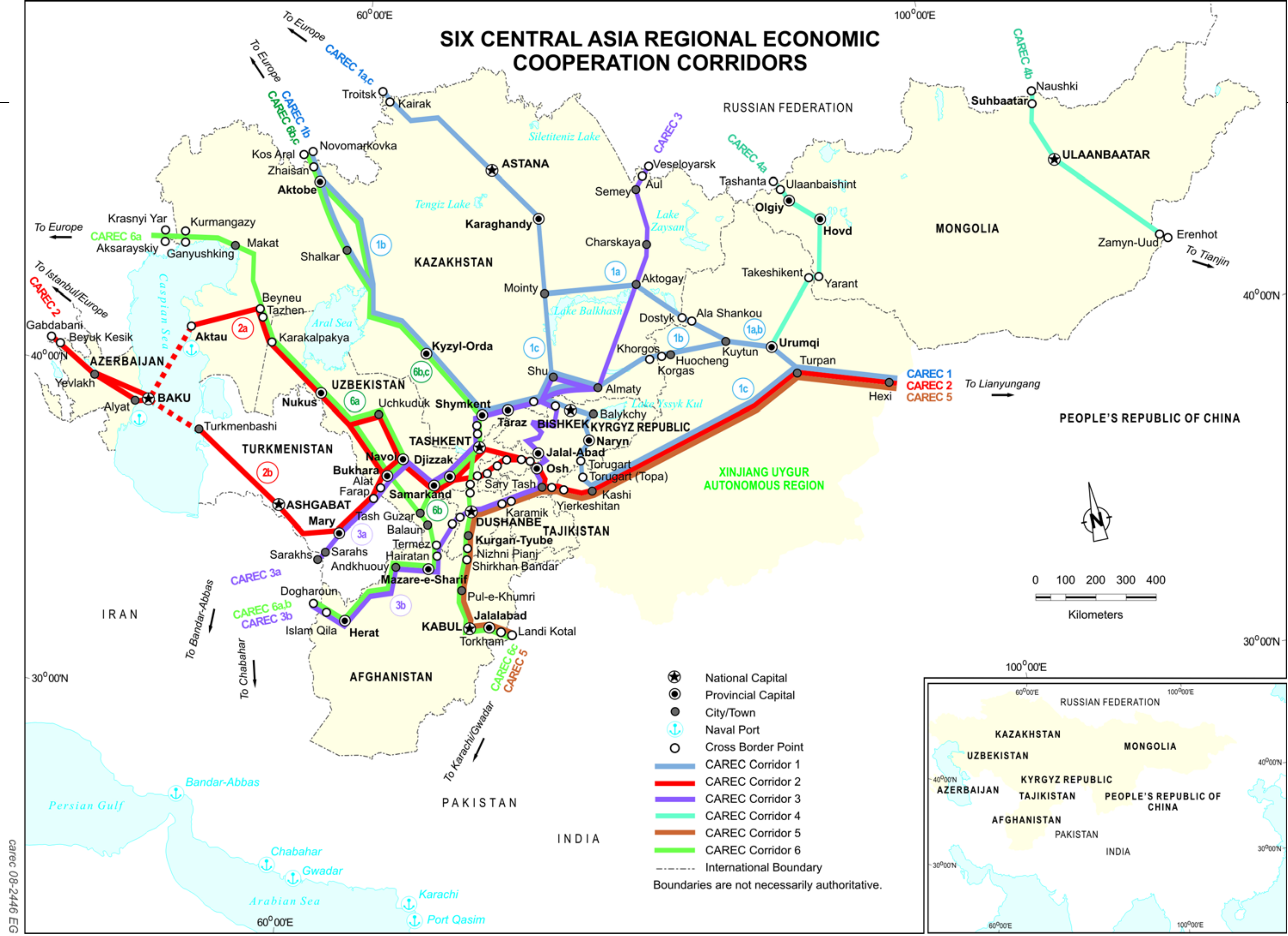
http://www.isdb.org/irj/portal/anonymous?NavigationTarget=navurl://fd0cb8101ac50bfe83d6477ba087e1b8; and
http://www.isdb.org/irj/go/km/docs/documents/IDBDevelopments/Internet/English/IDB/CM/Publications/Annual_Reports/31st/Contents-1426H.pdf.


SIX CENTRAL ASIA REGIONAL ECONOMIC COOPERATION CORRIDORS
60°00'E
100°00'E
40°00'N
30°00'N
RUSSIAN FEDERATION
KAZAKHSTAN
MONGOLIA
UZBEKISTAN
TURKMENISTAN
AZERBAIJAN
KYRGYZ REPUBLIC
TAJIKISTAN
AFGHANISTAN
IRAN
PAKISTAN
INDIA
PEOPLE'S REPUBLIC OF CHINA
XINJIANG UYGUR AUTONOMOUS REGION
To Europe
To Istanbul/Europe
To Tianjin
To Lianyungang
To Bandar-Abbas
To Chabahar
To Karachi/Gwadar
CAREC 1a,c
CAREC 1b
CAREC 6b,c
CAREC 6a
CAREC 2
CAREC 3
CAREC 4a
CAREC 4b
CAREC 3a
CAREC 6a,b
CAREC 3b
CAREC 6c
CAREC 5
CAREC 1
1a
1b
1c
1a,b
2a
2b
3a
3b
6a
6b
6b,c
Troitsk
Kairak
ASTANA
Karaghandy
Novomarkovka
Kos Aral
Zhaisan
Aktobe
Krasnyi Yar
Kurmangazy
Aksarayskiy
Ganyushking
Makat
Shalkar
Beyneu
Tazhen
Aktau
Karakalpakya
Kyzyl-Orda
Gabdabani
Beyuk Kesik
Yevlakh
Alyat
BAKU
Turkmenbashi
Nukus
Uchkuduk
Shymkent
Taraz
TASHKENT
Navoi
Djizzak
Bukhara
Alat
Farap
Samarkand
ASHGABAT
Mary
Tash Guzar
Balaun
Termez
Hairatan
Sarahs
Sarakhs
Andkhuouy
Mazare-e-Sharif
Dogharoun
Islam Qila
Herat
KABUL
Torkham
Jalalabad
Landi Kotal
Pul-e-Khumri
DUSHANBE
Kurgan-Tyube
Nizhni Pianj
Shirkhan Bandar
Karamik
Sary Tash
Osh
Jalal-Abad
BISHKEK
Balykchy
Naryn
Torugart
Torugart (Topa)
Kashi
Yierkeshitan
Shu
Almaty
Khorgos
Huocheng
Korgas
Kuytun
Urumqi
Turpan
Hexi
Dostyk
Ala Shankou
Aktogay
Mointy
Charskaya
Semey
Aul
Veseloyarsk
Tashanta
Ulaanbaishint
Olgiy
Hovd
Takeshikent
Yarant
Naushki
Suhbaatar
ULAANBAATAR
Zamyn-Uud
Erenhot
Siletiteniz Lake
Tengiz Lake
Lake Zaysan
Lake Balkhash
Aral Sea
Caspian Sea
Lake Issyk Kul
Persian Gulf
Arabian Sea
Bandar-Abbas
Chabahar
Gwadar
Karachi
Port Qasim
0 100 200 300 400
Kilometers
National Capital
Provincial Capital
City/Town
Naval Port
Cross Border Point
CAREC Corridor 1
CAREC Corridor 2
CAREC Corridor 3
CAREC Corridor 4
CAREC Corridor 5
CAREC Corridor 6
International Boundary
Boundaries are not necessarily authoritative.
carec 08-2446 EG

Organization for Railway Cooperation

The Organization for Railway Cooperation (OSJD) is an international organisation focusing on developing international railway traffic and exchanging information between member countries. [42] It has established five commissions: Transport Policy, Transport Law, Freight Traffic, Passenger Traffic, and Infrastructure and Rolling Stock.

The railway links among the member countries of the OSJD are notable for lengthy routes (8,000 to 10,000km) with two changes of gauge size during transport in a single direction (1,435mm-1,520mm-1,435mm) and a large number of border crossings en route. In addition, transport operations on OSJD routes between Europe and Asia are governed by regulations, which differ somewhat from those prevailing in Western Europe.

Recent initiatives/ projects

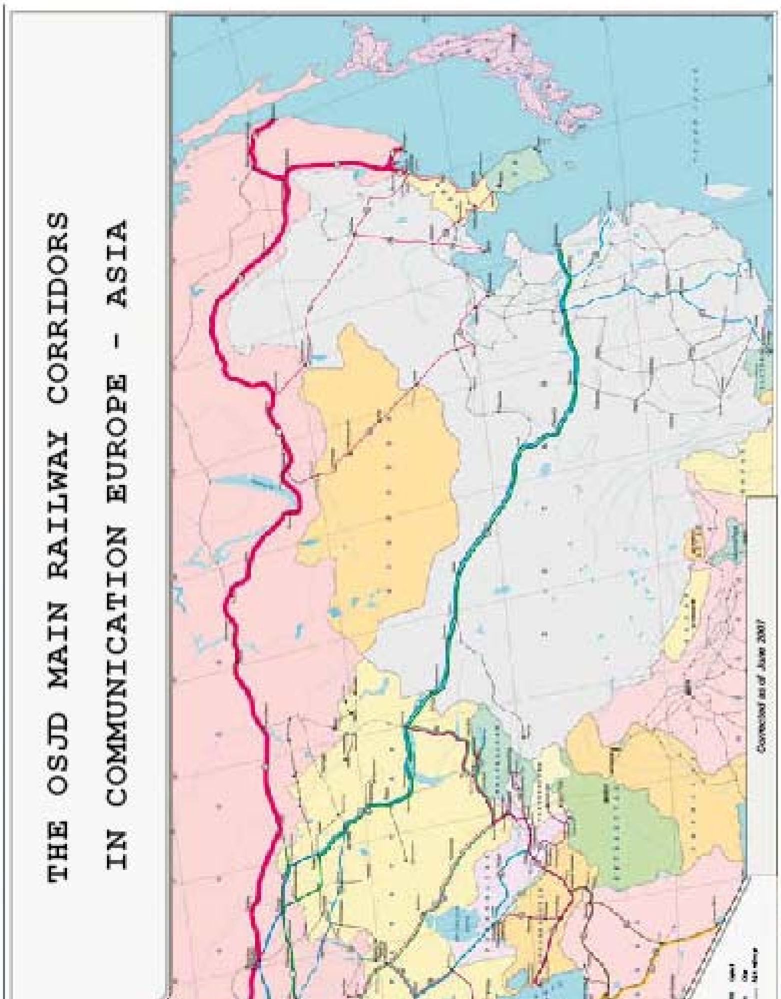
In 1996, 13 main railway routes between Europe and Asia were identified by the OSJD on the basis of flows of goods between countries on the two continents. Between 1996 and 2001, the OSJD performed the analysis of technical and operational indicators and technical equipment of these 13 routes, collected data on infrastructure and border crossing and studied ways of improving the freight transport technology. This work resulted in comprehensive measures being drafted for improving the organisation of international rail transport operations along the transport corridors between Europe and Asia. The interested countries signed Memoranda of Understanding for the development of these corridors, which served as a basis for coordinated actions by States to reorganise and modernise pertinent railway lines.

Taking into account that the geography of transport flows is continuously changing due to numerous factors, the OSJD is constantly adapting and refining its strategies for the development of intercontinental links along the main railway routes. For example, its programme of work for 2005-2015 calls for the development within the Organization of comprehensive plans for the improvement of transport and the development of transport corridors. The Comprehensive Plans for OSJD Corridors No. 1, 9 and 11 were completed in 2006 and endorsed by the 34th session of the OSJD Ministerial Meeting held in Sofia in 2006, and Comprehensive Plans for corridors No. 2, 3, 4, 6, 10 and 12 were adapted at the 35th OSJD Ministers Conference in Warsaw in 2007. The map of OSJD's 13 rail corridors is reproduced in Figure 4.1.

References:

This section is based on publicly available information accessed at the website of OSJD and retrieved from http://osjd.jdvm.cz/, especially,
http://osjd.jdvm.cz/u-index_uvod_dokumenty.htm, and
Report on OSJD activities in 2007, downloaded from
www.osjd.info/wps/PA_1_M71IFOI21GLP502LBRBVSP0021/download?vp=51&load=y&col_id=121&id=111.
Figure 4.1. OSJD

[42] Members are listed at http://osjd.jdvm.cz/u-index_uvod_dokumenty.htm.


THE OSJD MAIN RAILWAY CORRIDORS
IN COMMUNICATION EUROPE - ASIA
LEGEND
Corrected as of June 2007

Organization for Security and Co-operation in Europe

The Organization for Security and Co-operation in Europe (OSCE) is the world's largest regional security organisation. It addresses three dimensions of security: the politico-military, the economic and environmental, and the human dimension, with 56 participating states in Western, Eastern and South-Eastern Europe, South Caucasus, Central Asia and also North America.[43] The OSCE has engaged in transport matters since the adoption of the Helsinki Final Act[44] in 1975.

Recent initiatives/projects

Under the 2006 Belgian Chairmanship, the OSCE's economic and environmental dimension focused its work on *Transportation in the OSCE area: Secure transportation, networks and transport development to enhance regional economic co-operation and stability*. At the annual OSCE Ministerial Council in Brussels (2006), the 56 OSCE participating States adopted Decision No. 11/06 on the *Future Transport Dialogue in the OSCE*. Based on this document, the OCEEA has implemented, in the course of 2008 and 2009, various activities aimed at facilitating transit transport and legitimate cross-border trade across the OSCE region.

Activities in support of the the implementation of the UN Almaty Programme of Action

The OSCE's active support for the implementation of the UN Almaty Programme of Action (APA): Addressing the Special Needs of Landlocked Developing Countries within a New Global Framework for Transit Transport Cooperation for Landlocked and Transit Developing Countries in the region goes back to the adoption of the aforementioned MC Decision No. 11/06. In addition to developing and implementing a number of very practical projects such as capacity-building and training activities, the OCEEA has also been lending its political support to the APA provisions.

On 17-18 September in Piraeus (Greece) the UNECE in conjunction with the Hellenic Republic Ministry of Mercantile Marine and the Agaen and Island Policy held a conference on the important role seaports serve as a link between maritime and inland transport. The OCEEA presented the OSCE approach on transport development and co-operation and emphasized the need to link sea ports more effectively with their remote hinterland, including landlocked developing countries.

On1-3 October 2008, in New York, the Senior Economic Adviser represented the OCEEA at the high-level plenary meeting on the midterm review of the Almaty Programme of Action which was held in the framework of the UN General Assembly. The OSCE's intervention focused on the role the OSCE can play in intensifying regional dialogue and co-operation to help its landlocked countries to overcome transit transportation challenges.

On 2 March 2009, in Geneva, the Co-ordinator attended the Fifth Inter-Agency Consultative Meeting on Accelerating the Implementation of the Almaty Programme of Action: follow-up to the mid-term review jointly organised by the United Nations Office of the High Representative for Least Developed Countries, Landlocked Developing Countries and Small Island Developing States

[43] For details of countries, see http://www.osce.org/regions/.

[44] "Conference on Security and Co-operation in Europe: Final Act" is available at http://www.osce.org/documents/mcs/1975/08/4044_en.pdf.

(UN-OHRLLS) and the UNECE. The Co-ordinator gave a detailed presentation on the OCEEA's planned contributions towards accelerating the implementation of the Almaty Programme of Action in the OSCE region in 2009 and beyond.

Further to providing political support, the OCEEA has also been involved in capacity-building and training activities: On 16-17 March 2009, the OCEEA together with the OSCE Centre in Astana, the UNECE Transport Division and the Customs Committee of Kazakhstan held in Astana a National Seminar on Improving the Implementation of International Legal Instruments to Facilitate Cross-border Trade and Transport Operations. The seminar brought together some 50 representatives of customs departments from Kazakhstan's regions, international experts, including from the UN, the World Customs Organization (WCO) and private sector representatives. Seminar participants discussed, among others: Kazakhstan's recent completion of preparatory work to accede to the WCO's Revised Kyoto Convention, measures to facilitate railway border crossings along the Euro-Asian transport corridors, and benchmarking and performance measurements at border crossings, as well as risk management systems and the potential of advanced public-private partnerships.

On 5-6 May 2009, in Astana, the OCEEA together with the OSCE Centre, the WCO and the Customs Committee of Kazakhstan organised a Seminar on Strategic Anti-corruption Methods in the Customs Field: Sharing International Best Practices. The meeting gathered around 95 national participants, including the heads of relevant departments of the territorial divisions of the customs service and several representatives of law enforcement agencies, the private sector and international organizations. The ultimate aim of the event was to enhance the capacity of the national authorities to further improve and implement their existing national Anti-corruption Strategy.

OSCE/UNECE Handbook of Best Practices at Border Crossings

In May 2008, the OCEEA, jointly with the UNECE and in co-ordination with the CPC OS Borders and the Action Against Terrorism units, started the development a Handbook of Best Practices at Borders. Through the promotion of existing border-crossing best practices in the field, the Handbook's main purpose is to assist OSCE participating States, particularly landlocked countries with limited access to world markets, in developing more efficient border, transit transport and customs policies.

The Handbook is expected to become a reference document for:

- national policy-makers
- senior customs, transport and border guard/police officials
- heads of regional customs chambers/border crossing points.

In addition, the OSCE-UNECE Handbook will also be made accessible to representatives of transport agencies, the business community, civil society and academia. It will focus on border-crossing points along roads and railways and at sea and airports.

As the Handbook is expected to address the real concerns experienced on a day-to-day basis by the relevant authorities in our participating States and to reflect existing best practice experiences, the OCEEA held, in October 2008, two regional preparatory stakeholders' meetings bringing together relevant Customs, Border Guard/Police and Transport officials: one in Minsk (for Eastern and

Central Europe) and one in Bishkek (for Central Asia and South Caucasus). The valuable input received during these meetings will definitely find its way into the final publication.

The Handbook is expected to be published in the second half of 2009. Upon its publication (both in Russian and English) it will be distributed to the Permanent Delegations to the OSCE in Vienna as well as through OSCE Field Presences across the region.

Building partnerships

The OCEEA relies on partnerships with international expert organizations to enhance its capacity to effectively address a wider range of issues. In this regard, in the course of the past year, the OCEEA continued deepening some of its already existing partnerships with technical players in the field of transport and border-crossing facilitation.

On 8 September 2008, upon invitation by the UNECE, the OCEEA participated in Geneva, in a meeting of the **Expert Group on Euro-Asian Transport Links (EATL)**. The Expert Group discussed the programme of work, objectives, tasks and possible deliverables regarding the continuation of Phase II of the EATL and fulfilling the recommendations of the ECE/ESCAP Joint Study on Developing Euro-Asian Transport Linkages. The OCEEA presented the OSCE approach on transport development and co-operation, as well as some recent and planned activities on transport, trade and border crossing facilitation.

On 1-4 September 2008, in Hallstatt (Austria), the OCEEA participated, in the **First UNECE TEM/TER Expert Group Meeting** which was attended by Ministry of Transport officials as well as experts from railway companies and road administrations from across the OSCE region. On this occasion, the OCEEA collected useful information related to the transport and border-crossing infrastructure situation (particularly in the South Caucasus and Eastern Europe) and presented on the OSCE approach towards transport. Possibilities for intensified cooperation as well as possible joint projects were explored as well.

On 2 December 2008, the OCEEA participated in a conference organised in Brussels by the British Chamber of Commerce in Belgium on **Integrated Border Management: Delivering Integrated Border Management: Challenges and Solutions**. The conference offered policymakers, technology solution providers, EU member state officials, transport operators and border agencies, the opportunity to share views and ideas as well as practical solutions for the challenges experienced in the border management field. The OCEEA presented the OSCE approach on transport and trade facilitation and announced the forthcoming OSCE/UNECE Handbook on Best Practices at Borders.

On 4 December 2008, the Deputy Co-ordinator represented the OSCE Secretary General at the **Anniversary Ministerial of the TRACECA Transport Programme** in Baku. He used this opportunity to discuss the OSCE transport-related activities with a number of delegations from Central Asia and the President of the CIS branch of the International Road Transport Union.

On 4-5 December 2008, the OCEEA participated in the **World Customs Forum 2008 on Managing Secure Trade Lanes & the Future of Facilitation – Navigating the Seas of Change** which took place in Brussels. The Forum which was organised in conjunction with the Trusted

Trade Alliance provided a platform for representatives of Customs administrations and the trade to undertake a critical dialogue on the global implementation of national and multilateral initiatives under the auspices of the WCO SAFE Framework of Standards to secure and facilitate global trade. In the margins of the Forum, the OCEEA had consultations with representatives of the US International Chamber of Commerce to discuss progress made regarding the Eurasia Business Platform (EBP), the WCO's Compliance and Facilitation/ Capacity Building Departments to discuss future joint activities and with the UNODC.

On 24-26 February 2009, the Deputy Co-ordinator participated in Geneva in the Seventy-first session of the UNECE Inland Transport Committee. On the first day, the Deputy Co-ordinator made a statement on the positive cooperation between the OSCE and the UNECE in the transport field and on the second day the another OCEEA representative gave a presentation on the forthcoming OSCE-UNECE Handbook of Best Practices at Borders. On the margins of the event, several side-meetings took place with senior representatives of the UNECE Transport Division to discuss future avenues for cooperation.

On 5-6 March 2009, in Paris, the OCEEA, contributed, upon invitation, to a Joint International Transport Forum (ITF), UNECE, World Bank Seminar on Overcoming Border Crossing Obstacles. The Seminar was held as a preparatory thematic meeting for the high-level International Transport Forum taking place in Leipzig (Germany) in May 2009. The OCEEA representative gave a presentation on OSCE efforts aimed at facilitating legitimate cross-border trade and transport operations across its region. On the margins of the seminar various side-meetings with representatives of the OECD, the ILO, the WCO, the World Bank and other relevant organizations took place.

On 21-24 April 2009, in Bad Gastein (Austria), the OCEEA participated, upon invitation, in the Second Joint Meeting of the UNECE TEM/TER Master Plan Expert Group Meeting. Participants discussed the revision of the Master Plan which was initiated in 2008 as well as newly emerging challenges and opportunities such as inter-modality, funding and operational performance. The OCEEA representative provided an overview of OSCE activities in the transport field, paying particular attention to activities in the railway sector. With the aim of exploring possible joint project activities, the OCEEA jointly with the TER Project Co-ordinator, conducted various side-meetings with BSEC and European Investment Bank (EIB) representatives as well as with Ministry of Transport officials and experts of railway companies from across the OSCE/UNECE region.

On 27-29 April 2009, in Tehran (Iran), the OCEEA, upon invitation by the UNECE and the Economic Cooperation Organization (ECO), participated in the First Regional Workshop of Euro-Asian Transport Links Phase II: Facilitation of Euro-**Asian Transport in the ECO region**. Participants from across the ECO region discussed the current status of implementation of the Eurasian Transport Links (EATL) in their region as well as challenges and opportunities, new initiatives and constraints related to its further development. The OCEEA representative gave a presentation on the role of the OSCE in promoting best practice solutions related to the facilitation of legitimate cross-border trade and transport operations across the region. The final day of the workshop was dedicated to the UNECE TIR Convention (1975)._The OCEEA used its presence at the workshop to discuss OSCE transport-related activities with a number of delegations from Central Asia and from OSCE Asian Partners for Cooperation Afghanistan and Mongolia.

Turkmenistan - Railway Infrastructure Planning, Safety and Management

The OSCE Centre in Ashgabad in co-operation with the OCEEA and with the substantial support of the Austrian Federal Railways set up two workshops, which aimed at sharing international best practices and technical expertise in the areas of railway safety, infrastructure planning, operations and maintenance. Fifteen employees from the Ministry of Railway Transport - engineers, technical operators and maintenance workers - participated in both workshops. Participants were also informed on risk management, safety procedures and technical maintenance by experts from the Austrian Federal Railways.

Tajikistan – Trans-border Trade Promotion Centres

The OSCE Office in Tajikistan has continued to promote trade growth between Tajikistan and Afghanistan and supported the operations of four permanent trans-border trade promotion centres, three in the Gorno Badakhshan Region and one in the Khatlon Region, serving the major border crossings to Afghanistan.

The Centres provide information on customs and markets to entrepreneurs from both sides of the border and offer business training focused on small enterprises involved in trans-border trade. The centres in the Badakhshan region continue to assist many businesses in the area. Latter praise the Centres for the information, advice and assistance that they provide on a permanent basis. In 2008, through consultations with the local authorities on the Afghan side of the border, the Centres succeeded in lifting a ban for Afghan businesswomen to participate in trade activities. In addition, the Centres facilitated changes in Tajikistan's regulations on cross-border trade, which resulted in simpler and more effective administrative procedures. The amended regulations were adopted on 1 October 2008.

Uzbekistan - Development of a Regional Transport Programme

Based on the 2007 recommendations on the transport sector in Uzbekistan in phase I, the project commissioned by the OSCE Project Co-ordinator in Uzbekistan entered in its second phase, during which a transport sector policy team was set up. This team focused on analyzing existing legislation and guidelines. It also prepared Terms of Reference for the establishment of a 'Dispatching Co-ordination Centre', which will facilitate national, regional and international trade. Within the framework of the project a legal database was created, regular newsletters issued and a website containing information on freights, road planning and conditions as well as on the overall transportation infrastructure set up. The project will continue in 2009 with OSCE's increased co-operation with the Ministry of Foreign Economic Relations, Investments and Trade and the Agency for Rivers and Automobile Transport.

References:

This section is based on the OSCE submission as well as on publicly available information accessed at the website of OSCE and retrieved from http://www.osce.org/, in particular,
http://www.osce.org/about/19298.html;
http://www.osce.org/eea/29035.html;
http://www.osce.org/eea/29039.html;

http://www.osce.org/conferences/eea_trans_2007.html; and
http://www.osce.org/eea/34787.html, as well as
Office of the Co-ordinator of OSCE Economic and Environmental Activities, (May 2009), *Activity Report June 2008-May 2009*, retrieved from
http://www.osce.org/publications/eea/2009/05/37854_1294_en.pdf.

United Nations Conference on Trade and Development

The United Nations Conference on Trade and Development (UNCTAD), established in 1964, promotes the development-friendly integration of developing countries into the world economy by carrying out three key functions: operating as a forum for intergovernmental deliberations supported by discussions with experts and exchanges of experience for consensus building; undertaking research, policy analysis and data collection; and providing technical assistance to developing countries.

The programmes of Transport and Trade Logistics have been implemented by the Trade Logistics Branch at the Division on Technology and Logistics (DTL). The objective of the DTL is to enhance the economic development and competitiveness of developing countries through efficient trade logistics services, transit transport systems, increased access to and sustainable utilisation of information and communication technology, and training and capacity-building programmes for local institutions.

Recent initiatives/ projects

UNCTAD has contributed by providing tangible solutions to the problems faced by landlocked developing countries and transit countries. The concerns of landlocked and transit developing countries were addressed at the Ministerial Conference on Transit Transport Cooperation, which adopted the Almaty Programme of Action, in Almaty, Kazakhstan, in 2003. As part of the preparatory process of the Mid-term Review of the Almaty Programme of Action, the 'UNCTAD Expert Meeting on Regional Cooperation in Transit Transport- Solution for Landlocked Developing Countries' was held in 2007. The meeting provided a forum to explore models and best practices to improve international transit transport operations based on practical solutions with a view to enhancing transit transport for the benefit of landlocked and transit developing countries.

In July 2008, UNCTAD organised a global preparatory meeting on the mid-term review of the Almaty Programme of Action in order to affirm progress on implementation of trade facilitation for the benefits of landlocked and transit developing countries. The meeting recommended relevant international organisations to continue and intensify their efforts on improving transit facilitation along transit corridors during the period from 2008 till 2013.

References:

This section is based on publicly available information accessed at the website of UNCTAD and retrieved from http://www.unctad.org/Templates/StartPage.asp?intItemID=2068, especially:

http://unctad.org/Templates/Page.asp?intItemID=1530&lang=1;

http://www.unctad.org/Templates/Page.asp?intItemID=1536&lang=1; as well as the website of UNCTAD Trade Logistics Branch, Transport and Trade Logistics, retrieved from http://r0.unctad.org/ttl/; and

UNCTAD Transport Newsletter No. 35- No. 39, downloaded from http://www.unctad.org/Templates/Page.asp?intItemID=2651&lang=1.

United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and the Small Island Developing States

The United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and the Small Island Developing States (UN-OHRLLS) was established by the United Nations General Assembly in 2001 through its resolution 56/227 with functions recommended by the Secretary-General in his report A/56/645 [45] to provide appropriate support to Least Developed Countries, Landlocked Developing Countries and Small Island Developing States.

Recent initiatives/ projects

To deal with constraints facing landlocked countries, the 'International Ministerial Conference of Landlocked and Transit Developing Countries and Donor Countries and International Financial and Development Institutions on Transit Transport Cooperation' was held in Almaty, Kazakhstan, in 2003. 'Almaty Programme of Action: Addressing the Special Needs of Landlocked Developing Countries within a New Global Framework for Transit Transport Cooperation for Landlocked and Transit Developing Countries' was adopted at the Ministerial Conference for the purpose of development of efficient transit transport systems in landlocked and transit developing countries.

The goal of the Programme of Action is to forge partnerships to overcome the specific problems of the landlocked developing countries, resulted from their remoteness and isolation from the world market. The Programme focuses on five priorities: policy improvements by reducing customs bureaucracy and fees; infrastructure development and maintenance of rail, road, ports, inland waterway, pipeline and air transport sectors; international trade facilitation; technical and financial international assistance; and monitoring and follow up on agreements, in order to archive aims to:

- secure access to and from the sea by all means of transport;
- reduce costs and improve services so as to increase the competitiveness of their exports;
- reduce the delivered costs of imports;
- address problems of delays and uncertainties in trade routes;
- develop adequate national networks;
- reduce loss, damage and deterioration en route;
- open the way for export expansion; and
- improve safety of road transport and security of people along the corridor.

[45] Report of the Secretary-General, *Follow-up mechanism for coordinating, monitoring and reviewing the implementation of the Programme of Action for the Least Developed Countries for the Decade 2001-2010*. It is electrically available at http://www.unohrlls.org/UserFiles/File/LDC%20Documents/Reports/N0165665_A%2056%20645.pdf.

The Midterm Review of the Almaty Programme of Action was implemented from 2007 to 2008 including two days of high-level plenary meetings held in October 2008. UN-OHRLLS co-ordinated the preparatory process, in addition, UN system organisations such as the United Nations Conference on Trade and Development and the regional commissions as well as relevant regional and international organisations provided necessary support to the review process.

Under the framework of the Midterm Review, the 'Euro-Asian Regional Review Meeting for the Midterm Review of the Almaty Programme of Action' was jointly organised by the UN-OHRLLS, UNECE and UNESCAP in Bangkok in April 2008. The outcome document of the meeting identifies progress and obstacles in the implementation of the Almaty Programme of Action along its five priority areas, and provides action-oriented recommendations and deliverables aimed at harmonising legal regime, adopting integrated approach to trade and transport facilitation, eliminating physical and non-physical bottlenecks to transport, promoting integrated training programmes in both public and private sectors, establishing national transit and trade facilitation committees, completing missing links, promoting intermodal transport, developing integrated transport corridors and logistics services, and also mobilising domestic and external resources.

References:

This section is based on publicly available information accessed at the website of UN-OHRLLS and retrieved from http://www.unohrlls.org/, especially,

http://www.unohrlls.org/en/about/;
http://www.unohrlls.org/en/lldc/40/;
http://www.unohrlls.org/en/lldc/673/; and
http://www.unohrlls.org/en/orphan/644/.

The World Bank

The World Bank is an international institution, owned by 185 member countries[46], aiming at providing financial and technical assistance to developing countries. The World Bank Group consists of two development institutions, namely: International Bank for Reconstruction and Development (IBRD) focusing on middle income and creditworthy poor countries; and the International Development Association (IDA) focusing on the poorest countries, and three affiliates.[47]

Recent initiatives/ projects

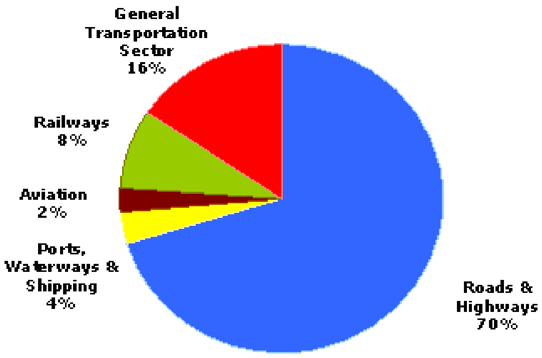
The Transport Sector constitutes a significant part of World Bank's portfolio. This Sector supervises 174 projects with total net commitments of US$23 billion, sharing 23 percent of the

[46] The list is available at http://web.worldbank.org/WBSITE/EXTERNAL/EXTABOUTUS/0,,contentMDK:20103870~menuPK:1697011~pagePK:51123644~piPK:329829~theSitePK:29708,00.html.

[47] The affiliates of the World Bank Group are International Finance Corporation (IFC), Multilateral Investment Guarantee Agency (MIGA) and International Centre for Settlement of Investment Disputes (ICSID).

Bank's portfolio.[48] Lending in the road and highways sector accounts for 70 percent of the transport projects portfolio in the Financial Year 2008.

Transport Portfolio of Active Projects at End of FY08



Source: The World Bank

The Transport Business Strategy for 2008-2012, being an update of the 1996 Strategy, seeks the objective: "to help partner countries to establish the governance, strategies, policies and services that will deliver transport for development in a way that is economically, financially, environmentally and socially sustainable".[49] In order to achieve the goal, the Strategy sets five strategic directions:

1. to create the conditions for increased support for transport investment;
2. to deepen engagement in the roads and highways subsector;
3. to increase engagement in the urban transport subsector;
4. to diversify engagement in transport for trade; and
5. to control emissions and to mitigate impact on climate change.

The World Bank participates with the European Union, the Asian Development Bank and other institutions to build better transport networks between Europe and Asia via Central Asia and Caucasus. The Bank will focus increasingly on promoting trade growth and regional integration by projects creating better international transport links, such as highway improvements, railway modernisation, and multimodal transport corridor development.

References:

This section is based on publicly available information accessed at the website of the World Bank and retrieved from http://www.worldbank.org/, especially:

[48] Information updated in April 2009.
[49] IBRD and the World Bank, *Safe, Clean, and Affordable… Transport for Development : The World Bank Group's Transport Business Strategy for 2008-2012*, p. 80.

http://web.worldbank.org/WBSITE/EXTERNAL/EXTABOUTUS/0,,pagePK:50004410~piPK:36602~theSitePK:29708,00.html;

http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTTRANSPORT/0,,contentMDK:21517582~menuPK:337124~pagePK:148956~piPK:216618~theSitePK:337116,00.html; and

IBRD and the World Bank, (2008), *Safe, Clean, and Affordable… Transport for Development: The World Bank Group's Transport Business Strategy for 2008-2012*, downloaded from http://siteresources.worldbank.org/INTTRANSPORT/Resources/336291-1211381200616/Transport_Business_Strategy_web.pdf.

PART III

TRANSPORT INFRASTRUCTURE ALONG EURO-ASIAN LINKAGES

A. Reviewing, extending and updating priority routes identified in Phase I

1. Methodology

BACKGROUND INFORMATION ON THE IDENTIFICATION OF MAIN EURO-ASIAN INLAND TRANSPORT ROUTES UNDER THE UNECE-UNESCA EATL PROJECT (PHASE I)

In 2001, the General Assembly approved the project "Capacity-building in developing interregional land and land-cum-sea transport linkages" (2002-2006). The project included a component focusing specifically on Euro-Asian transport links. The overall objectives of the project were: i) to assist Member States of ECA, ECE, ESCAP, ESCWA and ECLAC in strengthening their national capacities for developing interregional land and land cum-sea transport link, and ii) to promote interregional cooperation to facilitate interregional trade and tourism.

Within this overall framework, since 2003, ECE and ESCAP started to jointly implement the project component on developing Euro-Asian transport links. The following countries were invited to participate and designate Focal Points: Afghanistan, Armenia, Azerbaijan, Belarus, Bulgaria, China, Georgia, Islamic Republic of Iran, Kazakhstan, Kyrgyzstan, Republic of Moldova, Romania, Russian Federation, Tajikistan, Turkmenistan, Turkey, Ukraine and Uzbekistan. In 2004, Greece, during its chairmanship-in-office of the Organization of the Black Sea Cooperation (BSEC), expressed the wish to be associated to the activities of the project.

A major first step of the project was to identify, through consensus, the main Euro-Asian transport linkages of international importance which may form the basis for the extension of Pan-European Transport Corridors (PETCs) towards eastern Asia, and the extension of Asian transport networks towards Europe. National Focal points agreed that the four Euro-Asian transport corridors presented in the "ECE-ESCAP Strategic Vision" be used as the starting point for discussions. (http://www.unece.org/trans/main/eatl/background.html). Within each of these broad corridors, however, there was a need to identify the Euro-Asian transport linkages/routes.

Given that all of the countries participating in the project are Contracting Parties and/or members of the UNECE European Agreement on Main International Traffic Arteries (AGR) and/or the UNESCAP Asian Highway Agreement and the UNECE European Agreement on Main International Railway Lines (AGC) and/or the UNESCAP Trans-Asian Railway Agreement, it was agreed that these networks be used as the basis for the route alignments. Moreover, a number of qualifications were deemed necessary. Therefore the identification of the routes was based on the following criteria:

- They are within recognized UNECE/UNESCAP networks;
- Not all links in these networks should be included, but only those most relevant;
- Proposed routes should be of Euro-Asian importance;

- Inland water routes and major sea ports should be also considered[50];
- Transport interchange and cargo storage points, including inland container depots and border crossing facilities, should be considered as integral parts of the routes;
- They should have borders with EATL participating countries;
- There should be consensus by neighboring countries, indicating their readiness to contribute to their development;
- Ideally, selected routes should either be already operational, or be in an advanced state of "readiness" for operations. This "readiness" may be considered from both a technical perspective and from the perspective of political willingness;

In four Expert Group Meetings (EGMs) under the project government representatives from these countries have identified the main Euro-Asian rail, road and inland waterway routes to be considered for priority development and the main transshipment points along these routes.

Once countries agreed on the routes which would form the "Euro-Asian transport linkages", country experts provided a huge amount of data[51] on technical characteristics and performances of main rail, road and inland water transport infrastructure, borders crossing points, ferryboat links, intermodal terminals and ports along the identified Euro-Asian routes. (http://www.unece.org/trans/main/eatl/intro.html). There inputs were facilitated through a uniform questionnaire prepared by UNECE and UNESCAP secretariats.

The Meeting of Ministers of Transport of countries in the Euro-Asian region, held on 19 February 2008, in Geneva, interalia, confirmed its support for the development of Euro-Asian transport links and endorsed the priority routes and projects identified by the EATL Project Phase I.

METHODOLOGICAL FRAMEWORK FOR THE EXTENSION OF EATL ROUTES TO NEWLY INVOLVED COUNTRIES

It is therefore understood that the extension of EATL routes under EATL Phase II, addresses only the newly involved countries. In order to ensure consistency of the newly proposed routes, their selection should be based on the same criteria used under EATL Phase I. Furthermore, in order to ensure smooth integration of the new routes into the well established structure under EATL Phase I, the following additional conditions should be met:

- Proposed routes should connect to existing EATL routes[52];
- Spelling of towns/stations/ports etc, should be consistent with the nomenclature used in international agreements;
- Proposals should be accompanied with the provision of related data.

The end of December 2009 was set as the deadline for the submission of proposals and related data (technical characteristics and performances of main rail, road and inland water transport

[50] Air transport was not addressed in the framework of the EATL Project

[51] Used also for the creation of a GIS database and related maps developed by the project.

[52] Please refer to the routes and maps shown in the "Joint Study on Developing Euro-Asian Transport Linkages", pp. 59-113.

infrastructure, borders crossing points, ferryboat links, intermodal terminals and ports) along the identified Euro-Asian.

In view of the limited time available National Focal Points of newly involved countries are invited to be ready with their proposals on the Road, Rail and Inland Water Routes during the 3rd Expert Group Meeting, to be held in Istanbul, 11-13 November 2009. Submission of data on technical characteristics and performances can follow after the identifications of the routes.

THE QUESTIONNAIRES

Consequently, the questionnaires to be circulated to the National Focal Points by the secretariat are divided into two main categories. First, those addressed to newly involved countries. And second, those addressed to all other countries aimed at updating the data already submitted under the EATL Phase I.

Annex I provides an overview of the type of templates which will be included in the questionnaire of the first category. **It is for information only.** An Excel file containing the same tables will be sent to the National Focal Points of newly involved countries to facilitate the data collection exercise.

National Focal Points of other countries, will receive separately an Excel file containing the tables with the existing data of their country, which are to be completed and/or updated as appropriate.

National Focal Points of all countries involved are invited to ask questions or make comments on the questionnaires, at the 3rd EGM.

Annex I. Data Tables

1. ROAD TRANSPORT INFRASTRUCTURE ON EURO-ASIAN TRANSPORT LINKAGES

From	To	AGR Reference No. (if applicable)	s AGR	hway (AH) Reference No. (if applicable)	Road	Length (km)	Number of lanes (total)	Road Condition (Good, Fair or Poor)	Annual Average Daily Traffic	Road toll (if any)	Movement of ISO containers possible? Y/N	Current Bottlenecks or Missing Links

2. RAIL TRANSPORT INFRASTRUCTURE ON EURO-ASIAN TRANSPORT LINKAGES

From	To	AGC Reference No. (if applicable)	AGTC Reference No. (if applicable)	Trans-Asian Railway (TAR) Y/N	Length (km)	Track gauge (mm)	Number of tracks (DT=double , ST=single)	Traction (E=electrified, NE=non-electrified)	Loading gauge (UIC)	Max.	Siding length	Mising links or bottlenecks

3. INLAND WATERWAYS ON EURO-ASIAN TRANSPORT LINKAGES

From	To	AGN Reference No. (if applicable)	Shared with (other countries bordering waterway)	Length (km)	Max. admissible Low Navigable Water Level	**Min. clearance** Highest Navigable Water Level	Lock dimensions	Location of Links to other modes (rail, road)	Bottlenecks	Missing Links

4. MARITIME PORTS ON EURO-ASIAN TRANSPORT LINKAGES

Name	X	Y	Maximum draft vessels served (m)	Types of ships/cargo (general, bulk, container)	Bulk Handling Capacity (tonnes/day)	Container Handling Capacity (TEU/day)	ICD in port? Y/N	Rail connection in port? Y/N	IWT connection? Y/N	Liner Services (containers)	Liner Services (Rail Ferry)	Liner Services (General Cargo)

5. INLAND WATER PORTS ON EURO-ASIAN TRANSPORT LINKAGES

Name	X	Y	AGN Reference No. (if applicable)	Maximum draft (m)	Types of ships handled	Bulk cargo Handling Capacity (tones/day)	Container Handling Capacity (TEU/day)	ICD in port? Y/N	Rail connection in port? Y/N	Major difficulties and plans for improvement

6. INLAND CONTAINER DEPOTS, INTERMODAL FREIGHT TERMINALS AND FREIGHT VILLAGES/LOGISTIC CENTRES ON EURO-ASIAN TRANSPORT LINKAGES

Name	X	Y	Transport modes served[53]	Handling facilities[54]	Bulk cargo handling capacity (tonnes/day)	Container handling capacity (TEU/day)	Open storage space	Covered storage space (m2)	Customs services available? Y/N

[53] Also indicate if the node is an intermodal transhipment point.
[54] Cranes-gantries-mobile-forklifts-20'/40' containers. Also indicate availability of rail/road transhipment facilities.

2. Description of Euro-Asian Transport Linkages

Selected Euro-Asian rail, road and inland water transport routes and inland river ports for further development and cooperation

Table x.1 Rail Routes

		Comment	AGC	TAR*
1.	Bremenhaven – Bremen - Hamburg - Berlin/Seddin – Frankfurt (Oder) (border GER) – Border POL – Kunowice – Poznan – Warsawa – Terespol (border POL) – Brest - Minsk - Moscow – Nizhniy Novgorod – Perm - Yekaterinburg - Omsk - Novosibirsk - Ulan Ude - Karimskaya – Vladivostok (Port)/Vostochny (Port)	PETC 2; OSJD 1	E20, CE20, C45/2 CE55	Y
1.a.	Hanko (port)/Turku (port) – Helsinki – Riihimäki – Kouvola – Vainikkala (border FIN) – Luzhaika (border RUS) - Buslovskaya – St. Petersburg (Port) –Moscow - Yekaterinburg	PETC 9; OSJD 16	E10, E20	Yl
1.b.	Mostiska/ Chop - Lvov – Moscow	PETC 5, 9; OSJD3	E30, E95	N
1.c.	Tavshet – Irkutsk – Ulan Ude – Naushki (border RUS) – Sukhbaatar (Border MON) – Ulaan Bataar – Zamyn Udd (Border MON) – Erenhot (Border CHN) – Beijing – Tianjin (port) and to Jinan - Nanjing	OSJD 1 e	N	Y
1.d.	Karimskaya – Zabaykalsk – Border with China		N	Y
1.e.	(Kaliningrad Port) - Nesterov (border RUS) – Kybartai (border LTU) – Kazlu Ruda – Kaunas – Kaisiadorys – Vilnius – Kena (border LTU) – Gudagai (border BLR) – Maladzecna – Minsk		C20/3	NA
1.f.	Novosibirsk – Lokot – Aktogai		N	Y
1.g.	Sassnitz port –(ferry crossing) - Baltiysk – (ferry crossing) - Ust-Luga - Saint Petersburg			
1.h.	Ventspils (port) – Tukums II – Jelgava – Krustpils – Rezekne – Zilupe (border		C12/ CE12	N

		Comment	AGC	TAR*
	LVA) – Raz. Posinj (border RUS) – Novosokol'niki – Ržev – Moscow			
1.i.	Liepaja (port) – Jelgava		C12/ C12	N
1.j	Riga-Krustpils-Daugavpils-Indra (border LVA)-Bigosovo (border BLR)-Polack-Vicebsk-Orsha-Zlobin		C14 (AGC)/CE14, C95/2 (AGTC)	N
1.k.	Sassnitz port (Germany) – Draugyste (Klaipeda port, LTU) – Siauliai – Radviliskis – Kaunas (Mukran – Draugyste is a ferry crossing)		C20/3	
2.	Bremenhaven – Bremen - Berlin/Seddin – Frankfurt (Oder) (border GER) – Border POL – Kunowice – Poznan – Warsawa – Terespol (border POL) – Brest - Minsk - Moscow - Yekaterinburg – Kurgan - Astana - Drujba - Urumqi - Lianyungang (Port)/Shanghai (Port)	PETC 2; OSJD 1	E20, E24, CE20, C45/2 CE55	Y
2.a.	Hanko (port)/Turku (port) – Helsinki – Riihimäki – Kouvola – Vainikkala (border FIN) – Luzhaika (border RUS) - Buslovskaya – St. Petersburg (Port) –Moscow - Yekaterinburg	PETC 9; OSJD 16	E10, E20	Y
2.b.	(Kaliningrad Port) - Nesterov (border RUS) – Kybartai (border LTU) – Kazlu Ruda – Kaunas – Kaisiadorys – Vilnius – Kena (border LTU) – Gudagai (border BLR) – Maladzecna – Minsk		C20/3	NA
2.c.	Ekaterinburg – Chelyabinsk – Taranovskaya – Zaayatskaya – Tobol – Astana		N	Y
2d.	Sassnitz port (Germany) – Draugyste (Klaipeda port, LTU) – Siauliai – Radviliskis – Kaunas (Mukran – Draugyste is a ferry crossing)		C20/3	
2.e	Berlin – Dresden			
2.f	Sassnitz port – Berlin		CE55	
3.	Curtici – Arad – Bucharest – Constanta (Port) – Poti/Batumi (Port)/(Kulevi - – Kolkheti – Senaki) – Tbilisi – Baku (Port) – Aktau (Port) – Beineu – Nukus – Uchkuduk – Navoi – Tashkent – Shymkent – Almaty – Dostyk – Alataw	PETC 4, TRACECA; OSJD 6a, 8, 10, 2, 5	E54, E562, E60, E50	Y

		Comment	AGC	TAR*
	Shankou – Lianyungang (Port)/Shanghai (Port)			
3.a.	Baku (Port) – Turkmenbashi (Port) – Ashgabat – Chardzhou – Bukhara – Navoi	TRACECA; OSJD 10	E60	Y
3.b.	Tbilisi – Sadakhlo – Gyumri - Yerevan - Gavar – Meghri – Nourdouz – Jolfa (Yerevan - Gavar – Meghri – Nourdouz – Jolfa under study)	TRACECA	E692	Y
3.c.	Balychi - Bishkek – Lugovaya	TRACECA	NA	Y
3.d.	Tashkent – Kanibadam – Andizhan - Kara Suu – Turugart – Kashi – Urumqi (Jalalabad – Turugart – Kashi section under construction**)**	TRACECA	E696	Y
3.f.	Dushanbe – Termez – [Turkmenistan] - Bukhara	TRACECA	E695	Y
3.g.	Mersin (Port) / Iskenderun (Port) – Malatya – Dogukapi – Gyumri – Sadakhlo – Tbilisi	TRACECA	E70**,** E692, E97	Y
3.h.	Ungheni - Chisinau – Bendery - Kuchurgan – Rozdil'na – Odessa (Port) / Ilyichevsk (Port) – Poti/Batumi (Port)	TRACECA; OSJD 5a, 7	E95	NA
3.i.	Border with FYROM - Sofia – Pleven – Varna (Port) – Poti/Batumi (Port)	PETC 8	E680	NA
3.j.	Curtici – Arad – Timisoara – Craiova – Bucharest – Giurgiu – Russe – Kaspichan – Varna (Port) – Poti/Batumi (Port)	PETC 10, 8	E66, E56, E95, E660,E680	NA
3.k.	Dragoman – Sofia – Gorna – Burgas (Port) – Poti/Batumi (Port)		E70, E720	NA
3.l.	Ungheni – Iasi – Bucharest – Giurgiu		E95	NA
3.m.	Bukhara – Karshi – [Turkmenistan] - Termez – Kurgan- T'ube – Kul'ab	TRACECA	E695	Y
3.n.	Kars – Akhalkalaki - Tbilisi (Kars – Akhalkalaki section under construction)		E692	Y
3.o.	Tashkent – Angren – Pap – Andijan (Angren – Pap section under construction)		E696	Y
3.p.	Chisinau – Revaca – Cainari – Giurgiulesti (river port) – Galati (port)		E95, E560	NA
3.r.	Ungheni – Balti - Vapnyarka			

		Comment	AGC	TAR*
4.	Dragoman - Sofia – Svilengrad – Kapikule – Istanbul – Haydarpasa (Port) – Izmit – (Derince Port) - Ankara – Malatya - Kapikoye – Razi – Qazvin - Tehran – Sarakhs – Sarahs - Mary – Chardzou – Navoi – Tashkent – Shymkent – Almaty - Dostyk – Alataw Shankou – Lianyungang (Port)/Shanghai (Port)	PETC 4, 8,10; OSJD 6, 10, 2, 5; TRACECA	E70, E60, E50	Y
4.a.	Mersin (Port) / Iskenderun (Port) – Malatya		E97	Y
4.b.	Ilyichevsk (Port) - Samsun (Port) – Kalin – Sivas – Bostankaya (*rail ferry planned)*	TRACECA	E97, E70	Y
4.c.	Tehran – Qom – Meybod – Yazd – Bafgh – Kerman – Zahedan – Mirjaveh (border IRN) – Koh-i-Taftan (border PAK) – Dalbandin – Spezand - Rohri – Hyderabad – Karachi (port) / Karachi - Rohri – Lahore – Rawalpindi – Islamabad – Peshawar (Kerman – Zahedan under construction).		NA	Y
4.d.	Aliağa - Menemen - Izmir (Port) – Balikesir – Eskisehir		E74	Y
4.e.	Izmir (Port) – Usak – Afyon – Yenice – Mersin (Port)/ Iskenderun (Port)		E97	N
4.f.	Pehlivankoy – Uzun-kopru – Border with Greece		NA	NA
4.g.	Ilychevsk (Port) – Derince (Port) - Izmit			NA
4.h.	Constanta (Port) – Derince (Port) – Izmit			NA
4.i.	Constanta (Port) / Kavkaz (Port) – Samsun (Port) (*rail ferry)*			NA
4.j.	Irmak – Çankırı –Çerkeş – İsmetpaşa – Karabük - Zonguldak	TRACECA		
4.k.	Frontier with TR and BG borders – Alexandroupolis – Komotini – Drama [Kavala port terminal Nea Karvali] - Serres –Thessaloniki – Athens – Piraeus – Neo Ikonion Container Terminal (Piraeus Port)		C70/2 CE85	
4.l.	Thessaloniki – Idomeni (border GR) – Gevgelia (border fYRoM) - Skopje		CE85	NA

		Comment	AGC	TAR*
4.m.	Thessaloniki – Promachon (Border GR) – Kulata (Border BG) - Sofia		CE855	NA
4.n.	Bujanovac (Serbia) – Tabanovce (fYRoM) – Kumanovo and Other border to fYRoM– Skopje	Rail route 3i		
4.o.	Bulgaria Border Crossing – Deve Bair (FYROM) – Kriva Palanka – Beljakovce – Kumanovo – Skopje –Kicevo (fYRoM) – Struga – Lin (ALB)	Rail route 3i		
5.	Hanko (port)/Turku (port) – Helsinki – Riihimäki – Kouvola – Vainikkala (border FIN) – Luzhaika (border RUS) - Buslovskaya - St. Petersburg (Port) – Volgograd – Astrakhan (Port) – Alya (Port) - Anzali (Port) – Rasht – Qazvin - Tehran – Qom – Meybod – Bafgh – Bandar Abbas (Port) (Anzali - Rasht – Qazvin section under construction)	PETC 9; OSJD 11	E10, E99, E50	Y
5.a.	Astrakhan (Port) – Alya (Port) – Amirabad (Port) – Garmsar – Tehran		NA	Y
5.b.	Astrakhan (Port) – Samur – Yalama - Baku – Astara (Azerbaijan) – Astara (Iran) – Rasht (Astara – Astara – Rasht section under study)	OSJD 11	E60, E694	Y
5.c.	Astrakhan (Port) – Askarayskaya – Ganyuchikino – Makat – Beineu – Nukus – Uchkuduk – Bukhara – Chardzhou – Sarahs - Sarakhs – Mashhad – Bafgh	TRACECA	E50, E597	Y
5.d.	Alya (Port) – Aktau (Port) – Beineu		E597	Y
5.e.	Tehran – Qom – Arak – Ahvaz - Bandar Emam (Port)		NA	Y
5.f.	Tehran – Kashan – Badrud - Esfahan – Shiraz – Bushehr (Port) (Esfahan – Shiraz – Bushehr planned)		NA	Y
5.g.	Bafgh – Kerman – Fahraj – Chabahar (Port) (Fahraj – Chabahar planned)		NA	Y
5.h.	Murmansk (Port) – St. Petersburg		NA	N
6.	Luxembourg – border LUX – border FRA Thionville – Metz – Remilly – Forback (border FRA) – Saarbrucken (border GER) Ludwigshafen – Mannheim – Frankfurt (M) – Hanau –	PETC 3, 5	E30, E24, CE23, CE40, CE32, CE30	Y

		Comment	AGC	TAR*
	Erfurt – Leipzig – Dresden – Gorlitz (border GER) – Zgorzelec (border POL) – Wroclaw – Katowice – Krakow – Przemysl – Medyka – Mostiska (border UKR) - Mostiska/ Chop/Yagudin - Lvov – Kiev – Kharkov – Liski – Samara – Ufa – Kurgan – Omsk - Novosibirsk - Ulan Ude - Karimskaya – Vladivostok (Port)/Vostochny (Port)			
6.a.	Chisinau – Bender – Rozdil'na – Zhmerynka - Fastiv – Kyiv – Nizhyn – Konotop – Zrnove/Chernigiv – Gornostaivka	PETC 9	E95,	NA
6.b.	Tavshet – Irkutsk – Ulan Ude – Naushki (border RUS) – Hoit (Border MON) – Ulaan Bataar – Zamyn Udd (Border MON) – Erenhot (Border CHN) – Beijing – Tianjin (port) and to Jinan – Nanjing - Shanghai (Port)		E20	Y
6.c.	Karimskaya – Zabaykalsk – Border with China		NA	Y
6.d.	Aktau (port) – Beyneu - Makat - Kandagach – Nikeltay – Chelyabinsk	TRACECA	E30, E50, E597	T
7.	Mostiska/ Chop - Lvov – Zhmerynka – Fastov – Znamianka – Dnipropetrovsk – Debaltseve – Krasna Mogyla(UKR)/Gukovo(RUS) – Likhaya – Volgograd – Aksarayskaya – Makat – Beineu – Nukus – Uchkuduk – Navoi – Tashkent – Shymkent – Almaty – Dostyk – Alataw Shankou – Lianyungang (Port)/Shanghai (Port)	PETC 3, 5 ; TRACECA	E30, E50, E593, E597	Y
8.	Mostiska/ Chop - Lvov – Fastov – Krasnoarmeysk – Kvashino – Uspenskaya – Rostov-na-Donu – Veseloe – Gandtiadi – Senaki – Tbilisi – Alyat – Astara (Azerbaijan) – Astara (Iran) (Astara – Astara section under construction)	PETC 3, 5; TRACECA	E30, E50, E593, E99, E60	Y
8.a.	Tbilisi – Gyumri – Yerevan	TRACECA	E694	Y
8.b.	Kaliningrad (Port) – (Lithuania) – Minsk – Gornosaivka – Nizhyn – Kiev		E95	NA
8.c.	Kavkaz (Port) – Novorossiysk (Port) – Krasnodar		E99	Y

		Comment	AGC	TAR*
8.d.	Varna (Port) - Kavkaz (Port) – (ferry link) Poti/Batumi (Port)		NA	N
8.e.	Riga – Krustpils – Daugavpils – Indra (border LVA) – Bigosovo (border BLR) – Polak – Vicebsk – Orsha – Zlobin	Connect to Rail Route 8.b.	C14 / CE14, C95/2	
9.	Hanko (port)/Turku (port) – Helsinki – Riihimäki – Kouvola – Vainikkala (border FIN) – Luzhaika (border RUS) - Buslovskaya – Moscow – Ryazan – Orenburg – Aktyubinsk – Kandagach – Aris – Tashkent – Bukhara – Karshi – Tashguzar – Baysun – Kumchurgan – Termez – Galaba – Hairatan (border of Afghanistan)	TRACECA	E10, E24, E30, E50, E695	Y
9.a.	Ryazan - Aksarayskaya – Makat – Karakalpakiya – Uchkuduck – Navoi – Bukhara	TRACECA	E50, E597	Y
9.b.	Rostov-na-Donu – Volgograd – Baskunchak - Aksarayskaya		E99, E50	Y
9.c.	Bukhara – Karshi – Tashguzar – Baysun - Kumchurgan – Sariacia – Dushanbe – Vaghdad		E695	Y
9.d.	Volgograd - Tikhoretskaya - Krasnodar - Novorossiysk			

Notes:

* The Intergovernmental Agreement on the Trans-Asian Railway was adopted in 2005 and signed by 18 countries in 2006. It is now open for signature and accession by ESCAP member countries. Those sections which are in the Agreement will be indicated.

1. Itineraries in blue letters refer to new EATL Phase II routes.
2. Numbering is indicative only.
3. Turkey's border with Armenia is currently closed.

Table x.2 Road Routes

		AGR	AH
1.	Turku (port) – Helsinki –Vaalima – (border RUS) – Torfyanovka - St. Petersburg (Port)– Moscow – Nizhniy Novgorod – Ekaterinburg – Omsk – Novosibirsk – Krasnoyarsk – Irkutsk – Ulan Ude – Chita – Belogorsk – Khabarovsk – Ussuriysk - Vladivostok (Port)/Vostochny (Port)/Nakhodka (Port)	E105, E22	AH8 AH6 AH30
1.a.	Bremenhaven – Bremen – Hamburg - Berlin/Seddin – Frankfurt (Oder) (border GER) – Border POL – Kunowice – Poznan – Warsawa – Terespol (border POL) – Brest – Minsk – Moscow	E85,E30	AH6
1.b.	(Luxembourg – border LUX – border FRA – Thionville – Metz – Remilly – Forback (border FRA) – Saarbrucken (border GER) Ludwigshafen – Mannheim – Frankfurt (M) – Giessen – Eisenach - Gera – Dresden – Gorlitz (border GER) – Legnica – Wroclaw – Katowice – Krakow – Przemysl – Medyka – Mostiska) /Chop – Lvov – Kiev – Moscow	E40, E101	NA
1.c.	Moscow – Yaroslavl – Vologda – Archangelsk (Port)	E115	NA
1.d.	Semipalatinsk – Novossibirsk	N	N
1.e.	(Ventspils (port) – Tukums)/ (Liepaja (port)) – Riga – Jekabpils – Rezekne - Ludza – Terehova (border LVA) – Buracki (border RUS) – Velikie Luki – Moscow – Efremov – Voronezh - Rostov-na-Donu (Port)		
1.f.	Riga-Jekabpils-Daugavpils- Kraslava- Paternieki (border LVA)-Grigorovshchina (border BLR)-Polack-Vicebsk-Orsha-Zlobin	A6	N
1.g.	Sassnitz port (Germany sea link) – Draugyste (Klaipeda port, LTU) – Kaunas – Vilnius – Medininkai (border LTU) – Minsk		
1.h.	Berlin – Neubrandenburg - Stralsund – Sassnitz port (Germany sea link) – Draugyste (Klaipeda port, LTU)		
2.	(Bremenhaven – Bremen – Hamburg - Berlin/Seddin – Frankfurt (Oder) (borderGER) – Border POL – Kunowice – Poznan – Warsawa – Terespol (border POL) – Brest / (Sassnitz port (Germany sea link) – Draugyste (Klaipeda port, LTU) - Klaipeda (port) – Kaunas – Vilnius – Medininkai (border LTU) – Minsk - Moscow – Nizhniy Novgorod – Ufa - Chelyabinsk – Kurgan – Petropavlovsk – Astana – Almaty – Khorgos – Jinghe – Urumqi – Xi'an – Lianyungang (Port) / Shanghai (Port)	E85, E30, E125	AH6, AH64, AH7 AH60
2.a.	Turku (port) – Helsinki –Vaalima – (border RUS) – Torfyanovka – St. Petersburg – Moscow	E18, E105	AH8
2.b.	Petropavlovsk – Omsk – Pavlodar – Semipalatinsk – Georgievka – Taskesken – Ucharal – Dostyk – Alatawshankou – Kuitun – Urumqi	E127	AH60, AH68, AH5
2.c.	Moscow - Samara – Uralsk – Aktobe – Dossor – Makat – Beyneu – Nukus – Navoi – Tashkent – Almaty	E121, E38	AH 60, AH63, AH61
2.d.	Chelyabinsk – Kaerak – Kostani – Astana	E123, 016	AH7

		AGR	AH
2.e.	Archangelsk – Perm – Yekaterinburg – Kurgan – Petropavlovsk	N	N
3.	Luxembourg – border LUX – border FRA – Thionville – Metz – Remilly – Forback (border FRA) – Saarbrucken (border GER) Ludwigshafen – Mannheim – Frankfurt (M) – Giessen – Eisenach - Gera – Dresden – Gorlitz (border GER) – Legnica – Wroclaw – Katowice – Krakow – Przemysl – Medyka – Mostiska (border UKR) - Lvov – Kiev – Kipti – Bachivsk(UKR)/Troebortne(RUS) or Kharkiv – Goptivka(UKR)/Nekhoteevka(RUS) – Kursk – Saratov – Ozinki - Uralsk – Aktyubinsk – Karabutak – Aralsk – Kyzylorda – Shymkent – Almaty – Khorgos – Jinghe – Urumqi – Xi'an – Lianyungang (Port) / Shanghai (Port)	E40, E95, E101, E38	AH61
3.a.	Chop – Uzhgorod – Mukacevo – Stryei – Lviv – Kyiv – Kharkiv – Kamensk – Shahtinskiy – Volgograd – Astrakhan – Atyrau – Beyneu – Nukus – Bukhara – Navoi - Samarkand – Tashkent – Shymkent	E40	AH70, AH8, AH63, AH5
3.b.	Yagodyn – Kovel – Sarny – Korosten – Kiev	E373	NA
3.c.	Kaliningrad (Port) - Tolpaki – Nesterov – (border RUS) – Kybertai (border LTU) –Marijampole – Kaunas –Vilnius - Minsk – Gomel – Kiev	E28, E271, E95	NA
3.d.	Mostiska/Chop – Uzhgorod – Mukacevo – Stryei – Ternopol – Khmelnitski – Vinnitza – Uman – Kirovograd – Dnepropetrovsk – Donetsk – Rostov-na-Donu – Armavir – Mineralijnie Vodi – Vladikavkaz – (Tbilisi) - Makhachkala (Port) – Aktau (Port) – Beyneu	E50 E121	AH70
3.e.	Moscow - Efremov - Voronezh - Rostov-na-Donu – Krasnodar – Novorossijsk (Port) – Kavkaz (Port) – (rail ferry) Samsun (Port) / Poti/Batumi (Port) / Burgas (Port)	E115, E97	NA
3.f.	Sofia – Popvica – Stara Zagora – Burgas (Port) – Kavkaz (Port) – Novorossysk (Port) – Poti/Batumi (Port)	E773	NA
3.g.	Khazan – Orenburg – Sol'lletsk –Aktyubinsk (Kaz)		
4.	Nadlac - Arad – Bucharest – Constanta (Port) – Poti/Batumi (Port) – Tbilisi - Alat – Baku (Port) – Aktau (Port) – Beyneu – Nukus – Bukhara – Tashkent – Shymkent – Bishkek – Almaty – Sary-Ozek – Khorgos – Urumqi – Xi'an – Lianyungang (Port) / Shanghai (Port)	E68, E60, E121, E40, E60	AH5, AH70, AH63, AH62
4.a.	Tbilisi – Sadakho – Yerevan – Eraskh – Goris – Kapan – Megri – (Agarak) – Nourdouz – Jolfa (Iran)– Eyvoghli	E117	AH82
4.b.	Ruse – Giurgiu – Bucharest – Urziceni – Marasesti – Albita – Leucheni – Chisinau – Odessa (Port) – Poti/Batumi (Port)	E85, E581, E58	NA
4.c.	Nova Guta(BY)/Novi Yarylovychi(UKR) – Chrnigiv - Kiev – Odessa (Port) / Ilyichevsk (Port) – Poti/Batumi (Port)	E95	NA
4.d.	Sofia – Pleven – Ruse – Varna (Port) – Poti/Batumi (Port)	E79, E83, E85, E70	NA
4.e.	Merzifon – Samsun (Port) – Trabzon (Port) - Sarp (Turkey) – Sarpi	E95,	AH5

		AGR	AH
	(Georgia) – Batumi (Port) – Poti (Port)	E70	
4.f.	Baku (Port) - Turkmenbashi (Port) – Ashgabhat – Mary – Bukhara	E60	AH5
4.g.	Bishkek – Naryn – Torugart – Kashi	E125	AH61
4.h.	Shymkent – Merket – Almaty	NA	AH5
4.i.	Brest – territory of Belarus - border with Ukraine – territory of Ukraine – border with Moldova – Chisinau – Odessa (Port) / Ilyichevsk (Port) – Poti (Port) / Batumi (Port)	E30, E85	NA
4. j.	Batumi (Port) – Hopa – Kars – Gyumri – Yerevan	E70	AH5
4.k.	Chisinau - Giurgiulesti (river port)	E584	NA
4.l.	Gyumri – Erzurum	E691, E80	NA
4.m.	Odessa (Port) / Ilyichevsk (Port) - Samsun (port) / Trabzon (port)	NA	NA
4.n.	Samsun (Port) / Trabzon (Port) — Poti/Batumi (Port)	NA	NA
4.o.	Djulfa (Azerbaijan) – Nakhichevan – Sadarak – Border with Turkey	E99	N
4.p.	Bishkek – Chaldovar – Suusamyr – Dzatal Abad – Uzgen - Osh		
5.	Border with Serbia /FYRM - Sofia – Kapikule – Istanbul – (Haydarpasa Port) - Izmit (Derince Port) – Merzifon – Refahiye - Gurbulak – Bazargan – Eyvoghli - Tabriz - Qazvin – Tehran – Semnan – Damghan – Sabzevar – Mashhad – Dogharoun – Islam Qala – Herat – Mazar-i-Sharif – Termez – Guzar – Samarkand – Bekabad - Aybek – Khodjent – Kanibadam- Andarkhan – Kokand – Andizhan – Osh – Sary-Tash – Irkeshtam – Kashi – Urumqi – Xi'an – Lianyungang (Port)/ Shanghai (Port)	E80 E60 E006	AH1, AH5, AH85, AH77, AH65
5.a.	Tehran - (Saveh – Salafchegan) - Qom – Yazd – Anar – Kerman – Zahedan – Mirjaveh - Dalbandin – Mastung – Bela – Karachi – Hyderabad - Sukkur - Bahawalpur - Multan - Okara - Lahore - Kharian - Rawalpindi – Hasanabdal - Mansehra - Besham – Chilas - Gilgit - Kunjerab (border Pakistan – China) – Taxkorgan – Kashi (Kashgar)	NA	AH 2
5.b.	Nadlac – Arad – Timisoara – Lugoj - Carasebes – Dr.-Turnu – Severin – Craiova – Calafat – Vidin – Botevgrad – Sofia	E70, E79	NA
5.c.	Istanbul (Kınalı Junction) – Kesan – Ipsala (Greek/Turkish Border Gate) / (Svilengrad – Ormenio - Soufli) – Alexandroupolis (port) – Kommotini – Xanthi – Kavala (port) – Thessaloniki (port) –Veria – Metsovo – Ioanina - Igoumenitsa (port)/ (Doliana – Jergucat)	E90, E84	NA
5.d.	Mashhad – Sarakhs – Tejen	NA	AH75
5.e.	Mazar-i-Sharif – Polekhumri – Kabul – Jalalabad – Torkham – Peshawar - Mansehra - Besham – Chilas - Gilgit - Kunjerab (border Pakistan – China) – Taxkorgan – Kashi (Kashgar)	NA	AH76, AH7, AH1
5.f.	Mazar-i-Sharif – Polekhumri – Nizhniy Panj – Dushanbe – Sary-Tash	E123, E60	AH76, AH7, AH65

		AGR	AH
5.g.	Sherkhan Bandar(Afganistan)– Nizhniy Panj – Dushanbe – Vahdat-Jirgatal(Tajikistan)- Karamik (Kyrgyzstan)	E123, E60	AH7, AH65
5.h.	Termez – Sariasiya- Dushanbe – Vakhdat – Kulob – Khorugh – Murgab – Kulma-Karasu (China)	E60, E009, E008	AH65,AH66, AH4
5.i.	Constanta (Port) – Haydarpasa (Port)	NA	NA
5.j.	Ilyichevsk (Port) – Derince (Port)	NA	NA
5.k.	Tashkent – Aybek – Kodjent – Kanibadam - Andarkhan – Kokand	E006	AH7
5.l.	Tashkent – Aybek – Khodjent –Dushanbe-Kurgantube-Nijniy Panj-Sherkhan Bandar(Afganistan)		AH7
5.m.	Izmit Bati 2 Junction – Yalova – (D575-K11) Junction - Bursa - Motorway Link Road – Bursa Bati K131 - Karacabey Junction – Bigadiç Junction – Gölcük Junction – Izmir – Çeşme / Çiğli – Menemen – Aliağa – Bergama Junc. - Çandarlı	E881	N
5.n.	Hisarönü (Filyos) – Çaycuma - Zonguldak Junc. – Devrek – Mengen - Yeniçağa Gerede Junc. - Yeniçağ K23 Junc. - Gerede – Ankara – Aksaray – (Konya Ereğli) Junction – Pozanti – Mersin (port)	E89, E90, E982	
5.o.	Sofia – Blagoevgrad – Kulata – Promachon - Thessaloniki – Larissa – Athens – Pireaus		
5.p.	Karachi – Bela – Wad – Kalat – Quetta - Chamman – Kandahar – Heart – Eslam Qualeh – SangBast – Sarakhs - Tejen		
5.q.	Herat – Kandahar – Chamman – Quetta – Zhob – D.I. Khan – Peshawar – Islamabad		
5.r.	Bujanovac (Serbia) – Tabanovce (fYRoM) – Kumanovo – Skopje – Dracevo – Titov Veles – Negotino – Smokvica - Gevgelija – Idomeni –Agios Athanasios - Thessaloniki – Larissa – Athens – Pireaus (Port) - Neo Ikonio (Piraeus Container Terminal)	E75	
5.s.	Border (Bulgaria) – Kriva Palanka – Kumanovo – Skopje – Tetovo – Gostivar – Kicevo – Struga – Border (Albania)	E-852, E-65, E-75, E-871	
6.	Turku (port) – Helsinki –Vaalima – (border RUS) – Torfyanovka - St. Petersburg – Moscow – Volgograd – Astrakhan/Alya (Port) – Anzali (Port) – Qazvin - Tehran – Bandar Abbas (Port)	E105, E119, E40	AH8, AH1, AH2, AH70
6.a.	Astrakhan (Port) – Alya (Port) – Samur – Yalama - Baku (Port) – Astara (Azerbaijan) – Astara (Iran) – Qazvin – Tehran	E119	AH8
6.b.	Astrakhan (Port) – Amirabad (Port) – Sari	NA	AH70
6.c.	Astrakhan (Port) – Alya (Port) – Aktau (Port) – Beineu	E121	AH70
6.d.	Qazvin – Saveh – Ahvaz – Bandar Emam (Port)	NA	AH8
6.e.	Thessaloniki (Port) – Kavala - Xanthi - Kommotini – Alexandroupolis – Ipsala (Greek/Turkish border) – Kesan – Lapseki – Bursa – Eskisehir – Sivrihisar – Ankara – Aksaray – Pozanti (link to Mersin) – Adana – Gaziantep – Sanliurfa – Mardin	E90, E982	AH72, AH84

		AGR	AH
	– Habur (frontier with Iraq) - Zakho - Tebriz - Quazvin - Tehran – Qom – Esfahan – Shiraz – Bushehr (Port)		
6.f.	Eserdar – Gudurolum – Inche Boroun – Gorgan – Sari – Semnan – Damghan – Yazd – Anar – Bandar Abbas (Port)	E 121	AH70
6.g.	Astrakhan – Atyrau (Port) – Makat – Beyneu – Aktau (Port) - Turkmenbashi (Port) – Ashgabat – Tegen – Saras – Sarakhs – Mashhad – Birjand – Nehbandan – Dastak – Zahedan – Chabahar (Port)	E40, E121, E60	AH70, AH5, AH75
7.	Murmansk (Port) - Petrozavodsk – St. Petersburg (Port)– Pskov – Ostrov – Gomel – Kiev – Odessa (Port) / Ilyichevsk (Port)	E105, E95	NA
8.	Ulan-Ude - Ivolginsk - Gusinoozersk - Kyakhta (border RUS) - Altanbulag/border/-Ulaanbaatar-Zamiin-Uud/border/-990 km - Erenhot (Border CHN) – Jining - Beijing – to Tianjin (port) and to Cangzhou - Xuzhou - Nanjing		AH3
9.	Novosibirsk - Barnaul - Bijsk - Gorno-Altaysk - Tashanta – Uulaanbaishint -Ulgii-Khovd-Yarant –border (749km) – Qinghe – Karatunggu – Ertai – Jiangjunmiao – Xidi – Miquan – Urumqi		AH4

Notes:
1. Itineraries in blue letters refer to new EATL Phase II routes.
2. Numbering is indicative only.
3. Turkey's border with Armenia is currently closed.

Table x.3 Inland Water Transport Linkages

	Country	From – To	E- No. or other international ref. No.
1	Bulgaria	Danube Km 610 - Km 374	Corridor VII, E-80
2	Lithuania	Klaipeda - Jurbarkas - Kaunas	E41
3	Kazakhstan	Sr.Trekinskiy Yar – Peshnoi island – entering buoy of Uralo-Caspian channel (the Ural river)	
4	Moldova	Prut river from the mouth to Ungheni (0 - 559 km)	E 80-07
5	Moldova	Dniester river from the port Belgorod-Dnestrovsky (Ukraine) to Bender (0 - 667 km)	E 90-03
6	Romania	Danube km. 1.075 – km. 863	Corridor VII E-80
7	Romania	Danube km. 863 - km. 175	Corridor VII E-80
8	Romania	Danube km. 175 - Mm. 0	Corridor VII E-80
9	Romania	Danube – Black Sea Canal	E-80-14
10	Romania	Poarta Alba – Midia – Navodari Canal	E-80-14-01
11	Russian Federation	St Petersburg - Svir - Cherepovets - Rybinsk - Nizhniy Novgorod - Kazan - Samara - Saratov - Volgograd - Krasnoarmeysk - Astrakhan (port) - Caspian Sea (includes Volgo-Baltiyskiy Vodniyput)	North-South Waterway (NSW), E-50
12	Russian Federation	(Rybinsk) - Moskva - Riazan – Nizkhniy Novgorod (includes Kanal im. Moskvi)	NSW, E-50-02
13	Russian Federation	Azov - Rostov-na-Donu - Oust-Donetsk - Krasnoarmeysk – Astrakhan (port) – Caspian Sea	NSW4, NSW, E-90
14	Turkey	Lake Van (Tatvan – Van)	
15	Ukraine	Route No.9 Dniper river (on regulate condition)	E-40
16	Ukraine	River Danube, border between Ukraine/Moldova - cape Izmailskii Chatal	E – 80
17	Ukraine	Danube-Kilia Arm, cape Izmailskii Chatal -sea approach canal (Bistroe Arm Outlet)	E – 80 – 09

Notes:
1. Linkages in blue letters refer to new EATL Phase II routes.
2. Numbering is indicative only.

Table x.4 Inland River Ports Along Selected IWT Linkages

No	Country	Name and Location
1	Bulgaria	Port Complex Rousse (P 80-56) Danube, km 489.300, km 496.050
2	Bulgaria	Rousse East
3	Bulgaria	Rousse West
4	Bulgaria	Port Complex Lom (P 80-53) Danube, km 742.300
5	Bulgaria	Port Vidin, Danube, from km 785 400 to 793 500
6	Kazakhstan	Atyrau River Port (Ural)
7	Kazakhstan	Pavlodar River Port (Ural)
8	Moldova	Bender (P 90-03-02) , Dniester, km 228.0
9	Moldova	Rîbniţa, Prut
10	Moldova	Ungheni, Prut
11	Moldova	Giurgiuleşti (P 80-62) Danube, km 133.0
12	Romania	Sulina, Danube, km 0
13	Romania	Tulcea (P 80-64), 34.0 Mm - 42.0 Mm
14	Romania	Galați (P 80-61), Danube, 76.0 Mm-160.0 km
15	Romania	Braila (P 80-60), Danube, 168.5-172.0 km
16	Romania	Medgidia (P 80-14-01), Danube-Black Sea Canal, 37.5 km
17	Romania	Cernavoda (P 80-59 bis), Danube, 298.0 km
18	Romania	Calarași (P 80-59), Danube, 370.5 km
19	Romania	Calarași (P 80-59), Danube, 370.5 k
20	Romania	Giurgiu (P 80-57), Danube, 493.0 km
21	Romania	Calafat, Danube, km.795
22	Romania	Drobeta Turnu Severin (P 80-51), Danube, 931.0 km
23	Romania	Orșova (P 80-50), Danube, 954.0 km
24	Romania	Moldova Veche, Danube, 1048.0 km
25	Russian Federation	St. Peterburg River Port (P 50-02) Neva, km 1 385
26	Russian Federation	Yaroslavl River Port (P 50-05) Volga, km 520
27	Russian Federation	Nizhni Novgorod River Port (P 50-06) Volga, km 907
28	Russian Federation	Kazan River Port (P 50-07) Volga, km 1313
29	Russian Federation	Samara River Port (P 50-09) Volga, km 1746

No	Country	Name and Location
30	Russian Federation	Volgograd River Port (P 50-11) Volga, km 2560
31	Russian Federation	Ust-Donetsk River Port (P 90-05) Don, km 2997
32	Russian Federation	Rostov-na-Donu River Port (P 90-05) Don, km 3134
33	Russian Federation	Azov River Port (P 90-03) Don, km 3168
34	Russian Federation	Yeysk River Port (P 90-02) Don, Taganrog Bay of the Azov Sea
35	Turkey	Tatvan Port (rail ferry port on Lake Van)
36	Turkey	Van Port (rail ferry port on Lake Van)
37	Ukraine	Reni (P 80-63) Danube, 128 km Danube
38	Ukraine	Izmail (P 80-09-01), Danube-Kilia Arm, km 93
39	Ukraine	Kiliia (P 80-09-02), Danube-Kilia Arm, km, 48
40	Ukraine	Ust'-Dunaisk (P 80-09-03), Danube-Kilia Arm, km 1.0
41	Ukraine	Belhorod-Dnestrovskii (P 90-03-01), Dnestrovskii Liman, Black sea
42	Ukraine	Kherson (P 40-12), Dniper, km 28
43	Ukraine	Kiev River Port
44	Ukraine	Odessa River Port, Black Sea
45	Ukraine	Cherkassy river port (P 40-06), Dniper, km 653
46	Ukraine	Kremechuk river port (P 40-07), Dniper, km 541
47	Ukraine	Dneprodzerzhinsk river port (P 40-08), Dniper, km 429
48	Ukraine	Dnepropetrovsk river port (P 40-09), Dniper, km 393
49	Ukraine	Zaporizhya river port Stock insurer company «Ukrrechflot» (P 40-10), Dniper, km 308
50	Ukraine	Nova Kakhovka river port (P 40-11), Dniper, km 96
51	Ukraine	Khersonskii river port, Stock insurer company «Ukrrechflot» Dniper,
52	Uzbekistan	Termez (River Port Amu Darya)

Notes:
1. Blue letters refer to new EATL ports.
2. Numbering is indicative only.\
3. Where relevant, references to the International Agreement on Inland Waterways of International Importance (AGN) are indicated.

Table x.5 Maritime Ports Considered in EATL Phase II

Coutry	Name	Location and details	Types of ships handled
AZE	Baku	Container terminal TEU x (40 25`) y (50 20`) - Freight terminal x (40 20`) y (49 50`)	Ro-Ro, ferry, dry cargo and tanker ships
BGR	Burgas	Container, freight and oil terminals (42 29' N 27 29' E)	General and bulk cargo containers, refrigerator, liquid cargo and oil products
BGR	Varna	Container and freight terminals (43 12' N 27 55')	General and bulk cargo, containers, installations for handling liquid chemicals
CHN	Lianyungang	Lianyungang	All
CHN	Shanghai	Shanghai	All
CHN	Tanggu	Tanggu	
DEU	Bremmenhaven	Bremmenhaven	
DEU	Sassnitz	Sassnitz	
FIN	Hanko	Hanko	
FIN	Turku	Turku	
GEO	Batumi	Batumi, berths 1,2,3	Oil Products
GEO	Batumi Sea Port	Batumi, All	All
GEO	Poti Sea Port	Poti, All	All
GRC	Alexandroupolis	Freight and passenger terminals	Passanger, ferry, freight
GRC	Igoumenitsa	Freight and passenger terminals	Passanger, ferry, freight
GRC	Kavala	Freight and passenger terminals	Passanger, ferry, freight
GRC	Piraeus	All	All
GRC	Thessaloniki	All	All
IRN	Amirabad	Freight and Ro/Ro terminals	Freight and Ro/Ro
IRN	Bandar Abbas	Container, Ro/Ro, passenger, freight terminals	Container, freight, passenger, Ro/Ro
IRN	Bandar Anzali	Freight and Ro/Ro terminals	Freight and Ro/Ro
IRN	Bandar Emam	Container, freight, Ro/Ro terminal	Container, freight, Ro/Ro
IRN	Bushehr	Freight terminal	Bulk and dry cargo
IRN	Chah Bahar	Freight and container terminlals	Bulk , container and dry
KAZ	Aktau	Freight and passenger terminals	Freight and ferry
LTU	Klapeida	All	All
LVA	Liepaja	All	All
LVA	Riga	All	All
LVA	Ventspils	-	
PAK	Gwadar	All	All

PAK	Karachi	All	All
ROM	Constanta	All	All
ROM	Mangalia	-	-
ROU	Midia - Navodari	44 20’ N, 28 41’ E	
RUS	Alya (Olya)	-	-
RUS	Arkhangel'sk	All	All
RUS	Astrakhan Port	All	All
RUS	Gavan Vysotsk	-	
RUS	Kaliningrad	All	All
RUS	Kandalaksha	-	-
RUS	Kavkaz	Ferry and freight	Ferry and freight
RUS	Khabarovsk	All	All
RUS	Makhachkala	Freight and passenger	Freight and passenger
RUS	Murmansk	All	All
RUS	Novorossiysk	All	All
RUS	Sankt-Peterburg	St. Petersburg All	All
RUS	Taganrogskiy	Taganrog All	All
RUS	Temryukskiy Rukav	Temryuk	
RUS	Tuapse	-	-
RUS	Ust-Luga	-	-
RUS	Vladivostok	All	All
RUS	Vostochnyy Port	-	-
RUS	Vyborg	-	-
TKM	Bekdash	-	-
TKM	Turkmenbashy	All	All
TUR	Çandarli	Izmir	Container and freight
TUR	Derince	Izmit Bay	All
TUR	Filyos	Zonguldak	All
TUR	Haydarpasa	Istanbul	All
TUR	Iskenderun	Iskenderun	All
TUR	Izmir	Izmir	All
TUR	Mersin	Mersin	All
TUR	Mersin Container	Mersin	Container
TUR	Samsun	Samsun	All
TUR	Trabzon	Trabzon	All
UKR	Bilhorod-Dnistrovs'kyy	Belhorod-Dnestrovskii	-
UKR	Illichivs'k	All	All
UKR	Mykolayiv	-	-
UKR	Odesa	All	All

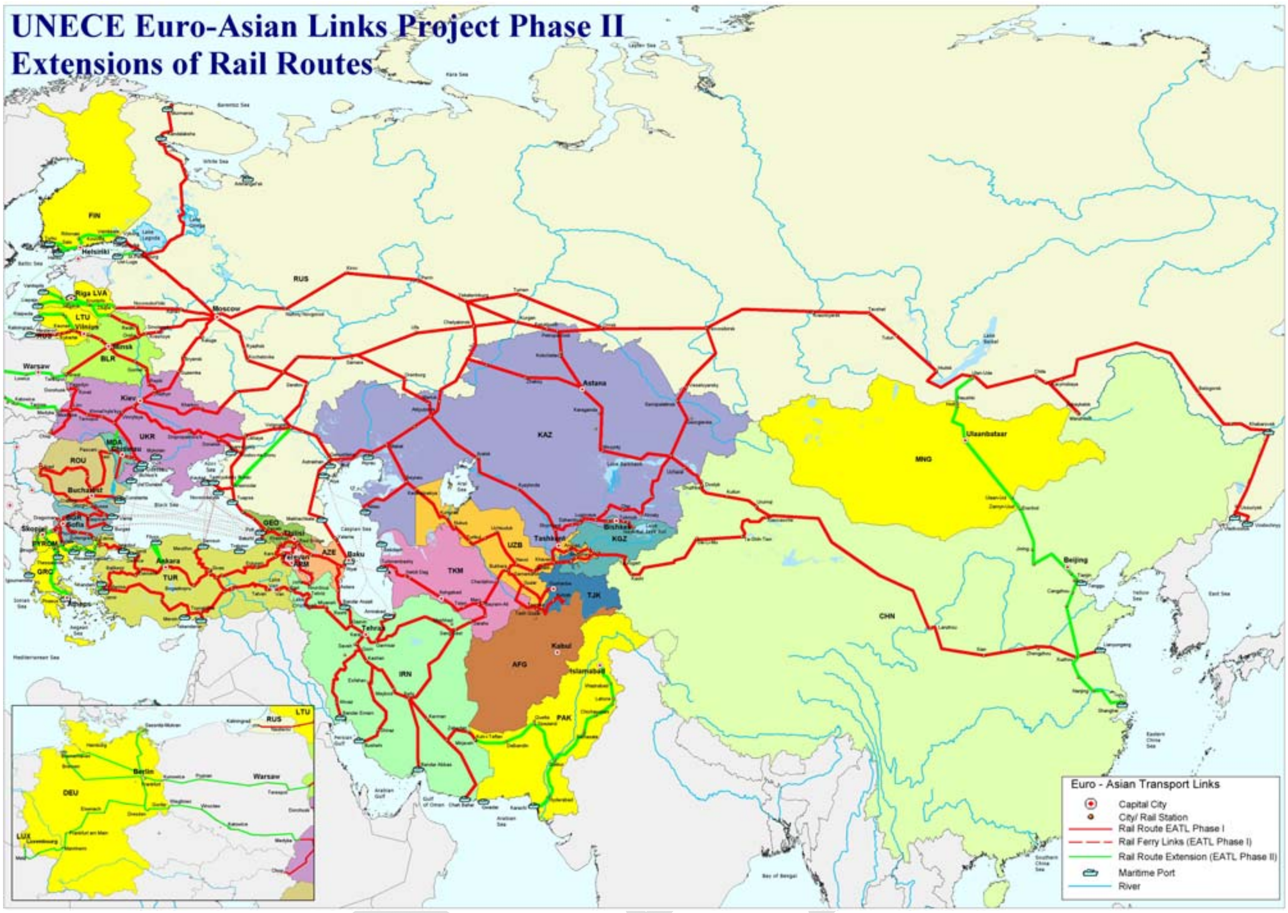
UKR	Ust'Dunaisk	Zhebriianska Bay	

Notes:
1. Blue letters refer to new EATL ports.

3. Maps (interregional and national)

(a) Presentation of Interregional maps

RAIL


UNECE Euro-Asian Links Project Phase II
Extensions of Rail Routes
Euro - Asian Transport Links
Capital City
City/ Rail Station
Rail Route EATL Phase I
Rail Ferry Links (EATL Phase I)
Rail Route Extension (EATL Phase II)
Maritime Port
River
RUS
KAZ
MNG
CHN
IRN
AFG
PAK
TKM
UZB
TJK
KGZ
TUR
UKR
FIN
Moscow
Astana
Ulaanbaatar
Beijing
Tehran
Kabul
Islamabad
Tashkent
Bishkek
Baku
Kiev
Minsk
Helsinki
Bucharest
Sofia
Ankara
Berlin
Warsaw
DEU


UNECE Euro-Asian Links Project Phase II
Extensions of Rail Routes
Euro - Asian Transport Links
Capital City
City/ Rail Station
Rail Route EATL Phase I
Rail Ferry Links (EATL Phase I)
Rail Route Extension (EATL Phase II)
Maritime Port
River


UNECE Euro-Asian Links Project Phase II
Rail Routes
Euro - Asian Transport Links
Capital City
City/ Rail station
Rail Route (EATL)
Rail Ferry Links (EATL)
Maritime Port
River


UNECE Euro-Asian Links Project Phase II
Rail Routes Group 1
Euro - Asian Transport Links
Capital City
City/ Rail station
Rail Route (EATL)
Rail Ferry Links (EATL)
Maritime Port
River


UNECE Euro-Asian Links Project Phase II
Rail Routes Group 2
Euro - Asian Transport Links
Capital City
City/ Rail station
Rail Route (EATL)
Rail Ferry Links (EATL)
Maritime Port
River


UNECE Euro-Asian Links Project Phase II
Rail Routes Group 3
Euro - Asian Transport Links
Capital City
City/ Rail station
Rail Route (EATL)
Rail Ferry Links (EATL)
Maritime Port
River


UNECE Euro-Asian Links Project Phase II
Rail Routes Group 4
Euro - Asian Transport Links
Capital City
City/ Rail station
Rail Route (EATL)
Rail Ferry Links (EATL)
Maritime Port
River
Moscow
Beijing
Astana
Ulaanbataar
Tashkent
Bishkek
Dushanbe
Ashgabad
Tehran
Kabul
Islamabad
Ankara
Sofia
Bucharest
Kiev
Minsk
Warsaw
Helsinki
Tbilisi
Yerevan
Baku
RUS
KAZ
MNG
CHN
UZB
KGZ
TJK
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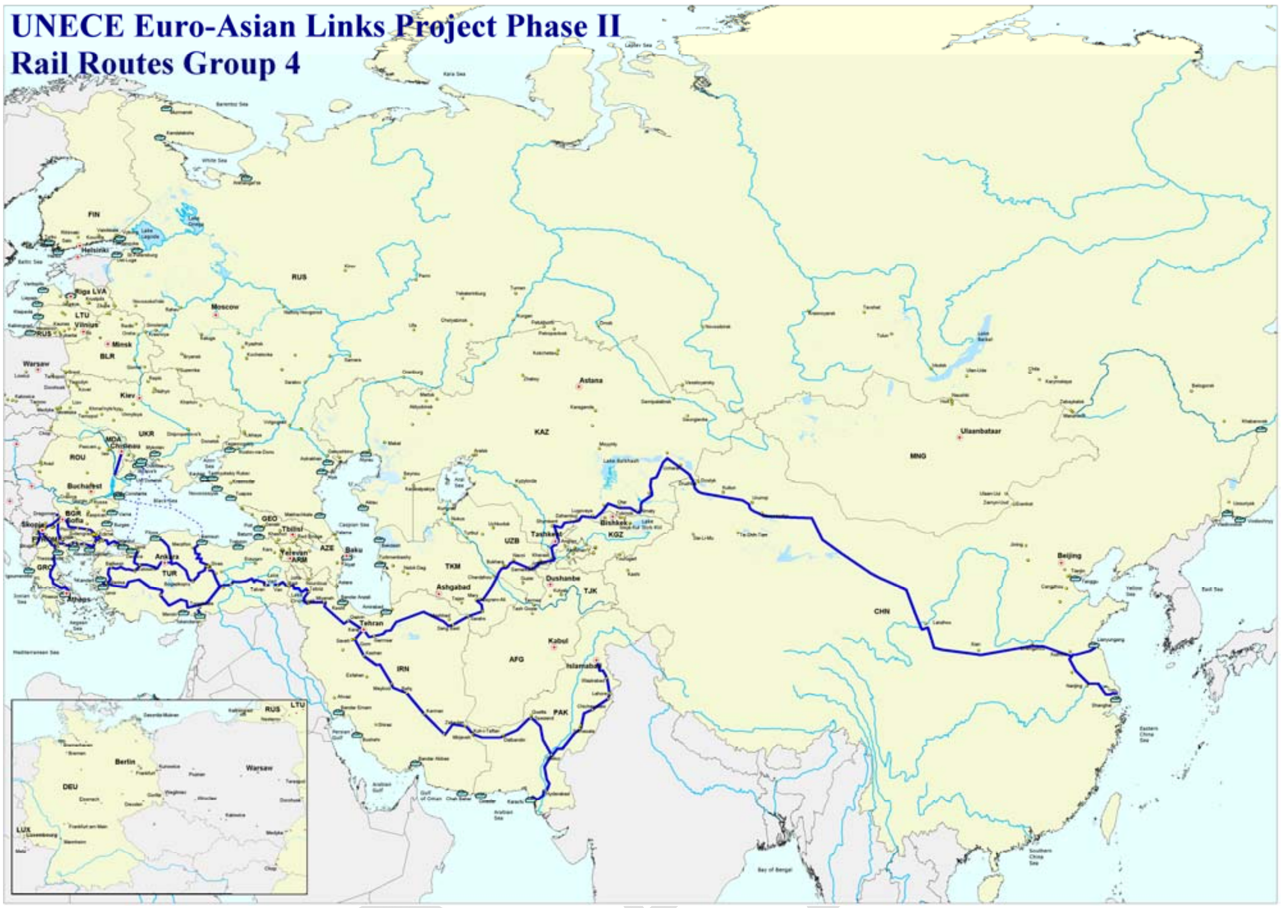
DEU
LUX
Berlin


UNECE Euro-Asian Links Project Phase II
Rail Routes Group 4


UNECE Euro-Asian Links Project Phase II
Rail Routes Group 5


UNECE Euro-Asian Links Project Phase II
Rail Routes Group 6


UNECE Euro-Asian Links Project Phase II
Rail Routes Group 7


UNECE Euro-Asian Links Project Phase II
Rail Routes Group 8
RUS
Moscow
FIN
Helsinki
LVA
Riga
LTU
Vilnius
BLR
Minsk
Warsaw
UKR
Kiev
MDA
Chisinau
ROU
Bucharest
BGR
Sofia
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TUR
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Dushanbe
KGZ
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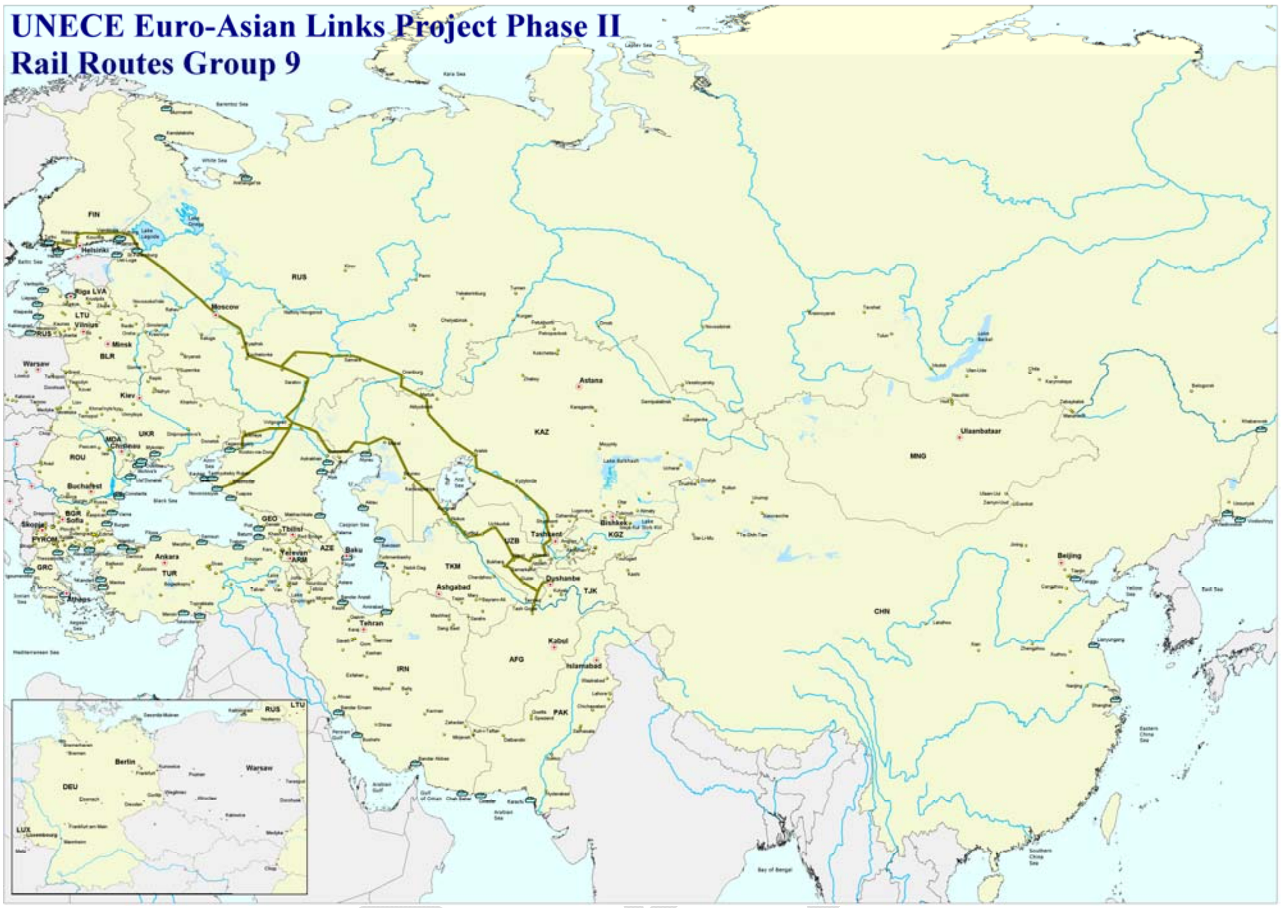
Ulaanbaatar
CHN
Beijing
DEU
Berlin
LUX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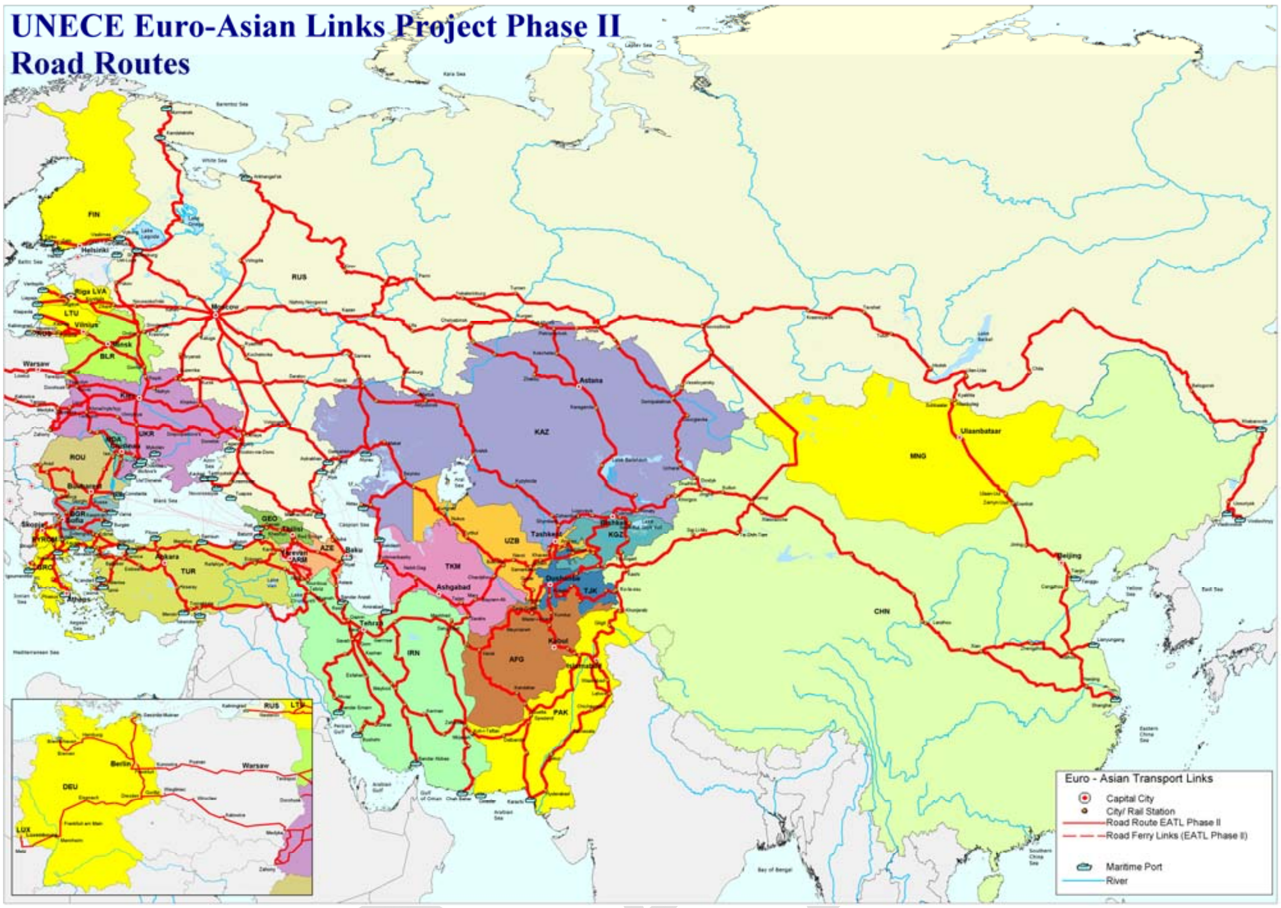
Rail Routes Group 9

ROADS


UNECE Euro-Asian Links Project Phase II
Road Routes
Legend
Route Group 1
Route Group 2
Route Group 3
Route Group 4
Route Group 5
Route Group 6
Route Group 7
Route Group 8
Route Group 9


UNECE Euro-Asian Links Project Phase II
Road Routes
Euro - Asian Transport Links
Capital City
City/ Rail Station
Road Route EATL Phase II
Road Ferry Links (EATL Phase II)
Maritime Port
River


UNECE Euro-Asian Links Project Phase II
Extensions of Road Routes
Euro - Asian Transport Links
Capital City
City/ Rail Station
Road Route EATL Phase I
Road Ferry Links (EATL Phase I)
Road Route Extension (EATL Phase II)
Maritime Port
River


UNECE Euro-Asian Links Project Phase II
Road Routes Group 1


UNECE Euro-Asian Links Project Phase II
Road Routes Group 2


UNECE Euro-Asian Links Project Phase II
Road Routes Group 3


UNECE Euro-Asian Links Project Phase II
Road Routes Group 4

..


UNECE Euro-Asian Links Project Phase II
Road Routes Group 5


UNECE Euro-Asian Links Project Phase II
Road Routes Group 6


UNECE Euro-Asian Links Project Phase II
Road Routes Group 7


UNECE Euro-Asian Links Project Phase II
Road Routes Group 8

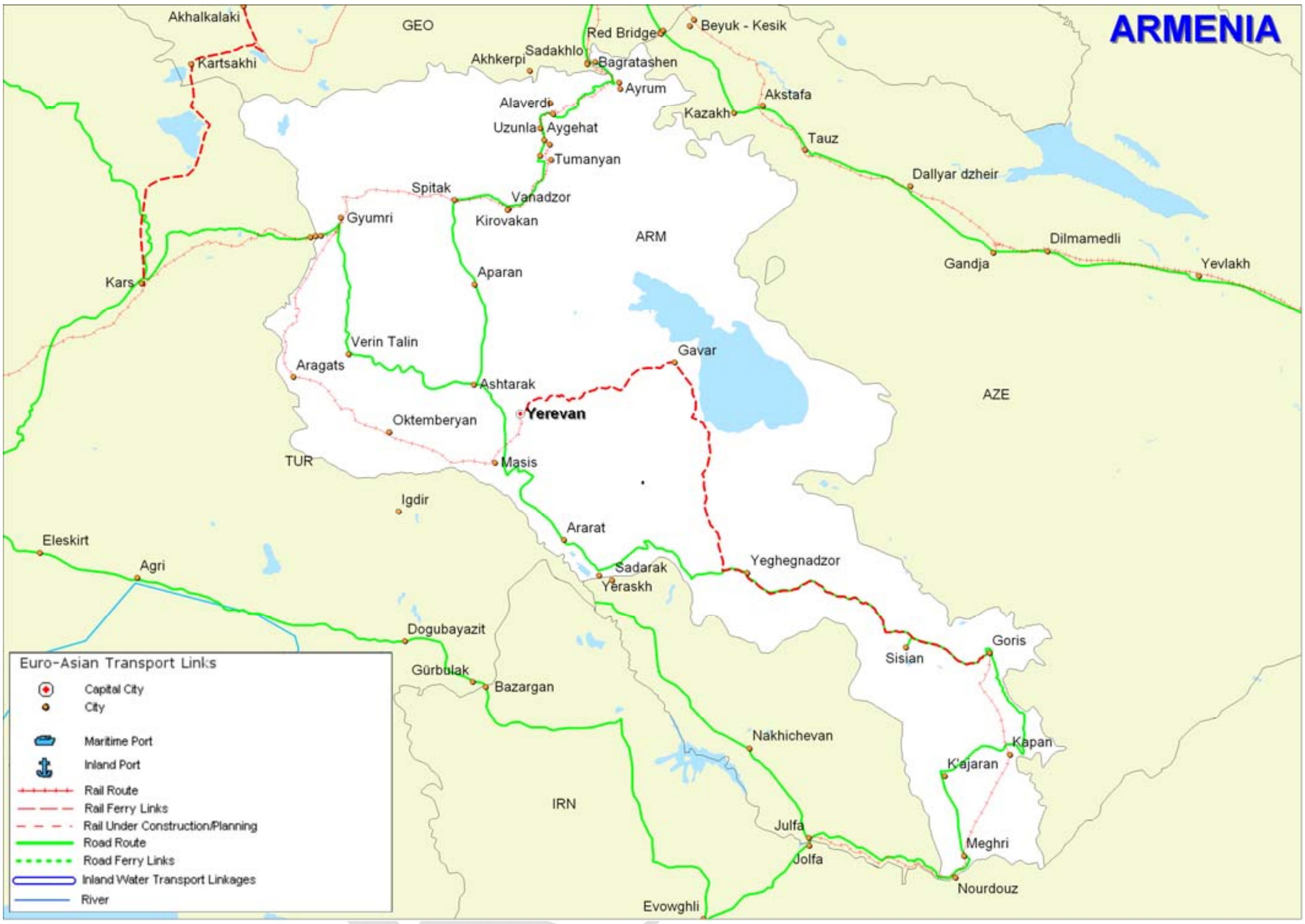

UNECE Euro-Asian Links Project Phase II
Road Routes Group 9

INLAND WATERWAYS AND PORTS

(b) Presentation of country maps

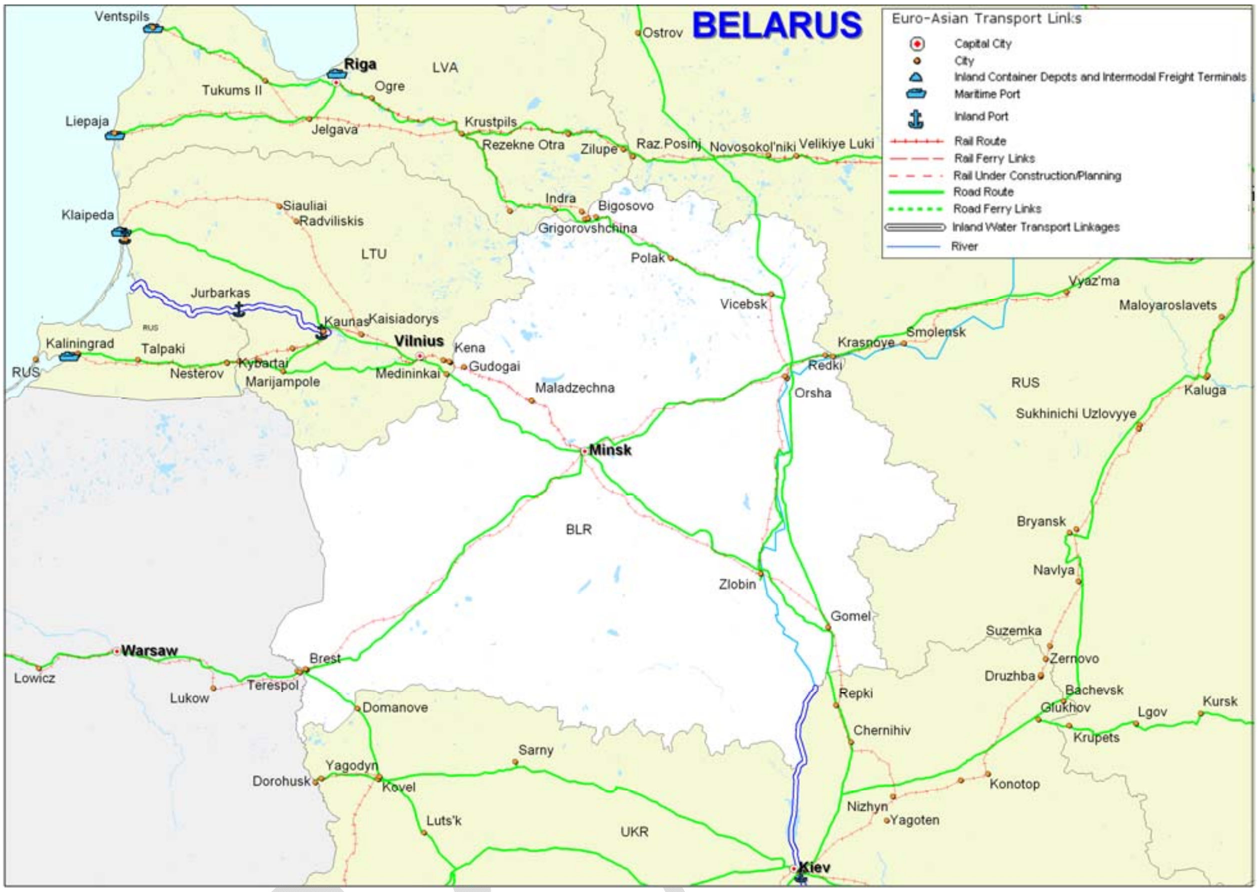
1. Afghanistan

2. Armenia


ARMENIA
Akhalkalaki
Kartsakhi
GEO
Akhkerpi
Sadakhlo
Red Bridge
Beyuk - Kesik
Bagratashen
Ayrum
Alaverdi
Uzunla
Aygehat
Tumanyan
Kazakh
Akstafa
Tauz
Dallyar dzheir
Dilmamedli
Gandja
Yevlakh
Spitak
Vanadzor
Kirovakan
Gyumri
ARM
Kars
Aparan
Verin Talin
Aragats
Gavar
Ashtarak
Yerevan
AZE
Oktemberyan
Masis
TUR
Igdir
Ararat
Eleskirt
Agri
Sadarak
Yeraskh
Yeghegnadzor
Dogubayazit
Sisian
Goris
Gürbulak
Bazargan
Nakhichevan
Kapan
K'ajaran
IRN
Julfa
Jolfa
Meghri
Nourdouz
Evowghli
Euro-Asian Transport Links
Capital City
City
Maritime Port
Inland Port
Rail Route
Rail Ferry Links
Rail Under Construction/Planning
Road Route
Road Ferry Links
Inland Water Transport Linkages
River

3. Azerbaijan

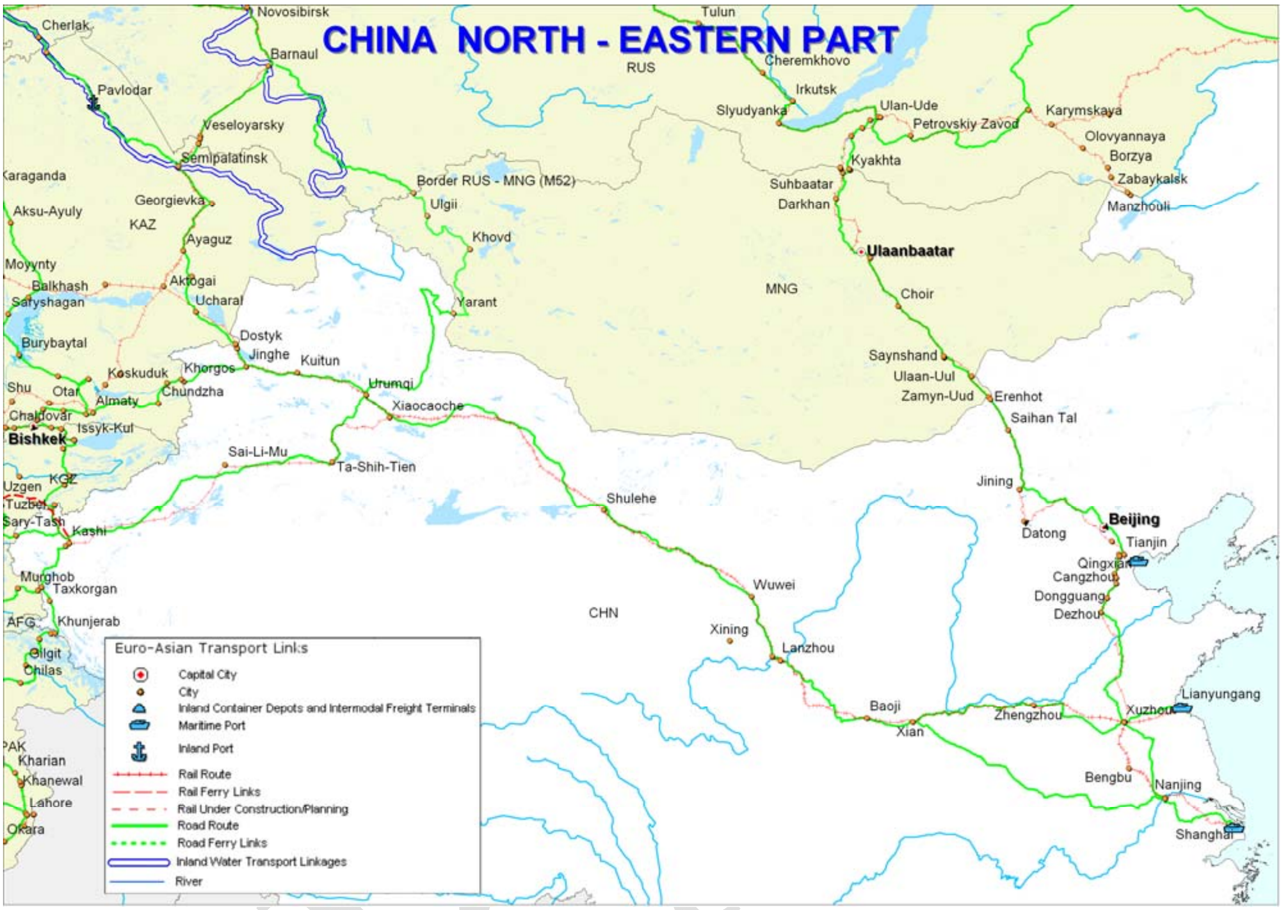
4. Belarus


BELARUS
Euro-Asian Transport Links
Capital City
City
Inland Container Depots and Intermodal Freight Terminals
Maritime Port
Inland Port
Rail Route
Rail Ferry Links
Rail Under Construction/Planning
Road Route
Road Ferry Links
Inland Water Transport Linkages
River
Ventspils
Riga
LVA
Ogre
Tukums II
Liepaja
Jelgava
Krustpils
Rezekne Otra
Zilupe
Raz.Posinj
Novosokol'niki
Velikiye Luki
Ostrov
Indra
Bigosovo
Grigorovshchina
Siauliai
Radviliskis
Klaipeda
LTU
Polak
Jurbarkas
Kaunas
Kaisiadorys
Vicebsk
Vyaz'ma
Maloyaroslavets
Smolensk
Krasnoye
Redki
Kaliningrad
Talpaki
Nesterov
Kybartai
Marijampole
Vilnius
Kena
Gudogai
Medininkai
RUS
Maladzechna
Orsha
Kaluga
Sukhinichi Uzlovyye
Minsk
BLR
Bryansk
Navlya
Zlobin
Gomel
Suzemka
Zernovo
Druzhba
Bachevsk
Glukhov
Lgov
Kursk
Krupets
Warsaw
Lowicz
Lukow
Terespol
Brest
Domanove
Repki
Chernihiv
Sarny
Yagodyn
Dorohusk
Kovel
Konotop
Nizhyn
Yagoten
Luts'k
UKR
Kiev

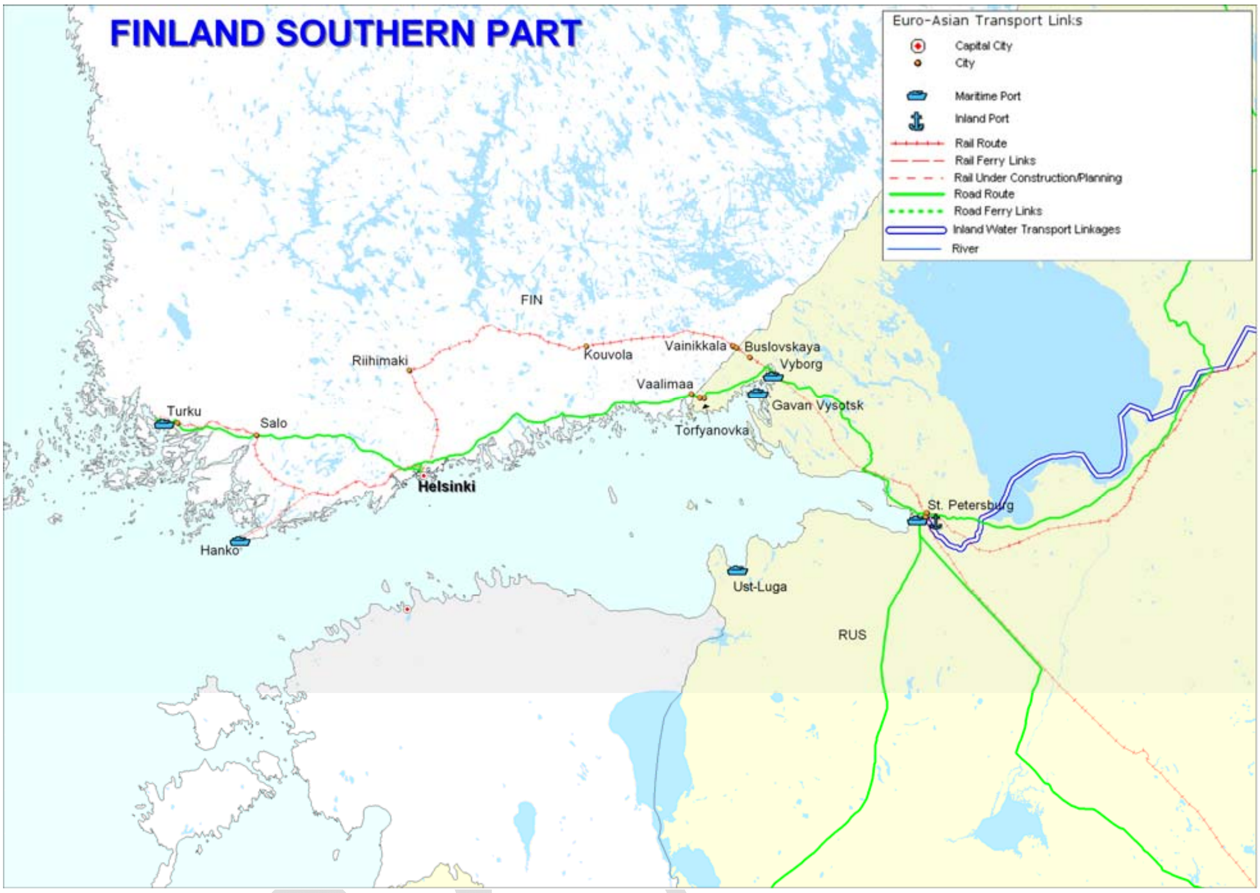
5. Bulgaria


BULGARIA
ROU
BGR
GRC
TUR
The former Yugoslav Republic of Macedonia
Vidin
Calafat
Dimovo
Lom
Giurgiu Nord
Russe
Constanta
Montana
Pleven
Byala
Razgrad
Beli Izvor
Mezdra
Yablanitsa
Tirgoviste
Kaspican
Shumen
Gorna Oryakhovitsa
Veliko Turnovo
Sindel
Varna
Dragoman
Botevgrad
Sofia
Yana
Pernik
Novi Khan
Radomir
Ikhtiman
Sliven
Karnobat
Aytos
Dubovo
Yambol
Stara Zagora
Nova Zagora
Burgas
Kyustendil
Gyueshevo
Pazardzhik
Plovdiv
Chirpan
Dimitrovgrad
Blagoevgrad
Kharmanli
Khaskovo
Lyubimets
Svilengrad
Kapikule
Havsa
Babaeski
Kulata
Promachon
Serres
Xanthi
Komotini
Idomeni
Kavala
Ipsala
Kesan
Alexandroupolis
Thessaloníki
Véroia
Gelibolu
Lapseki
Euro-Asian Transport Links
Capital City
City
Maritime Port
Inland Port
Rail Route
Rail Ferry Links
Rail Under Construction/Planning
Road Route
Road Ferry Links
Inland Water Transport Linkages
River

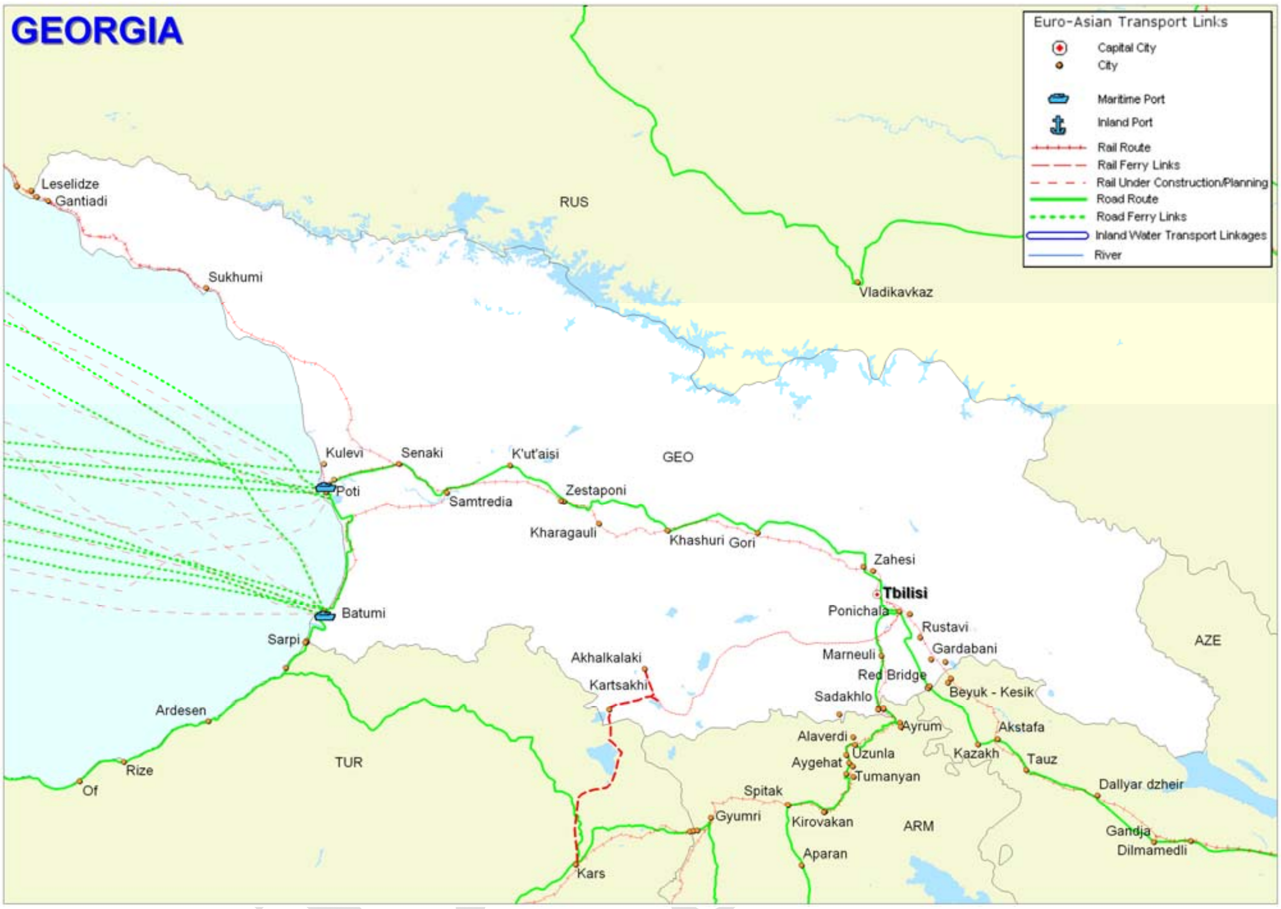
6. China


CHINA NORTH - EASTERN PART
Euro-Asian Transport Links
Capital City
City
Inland Container Depots and Intermodal Freight Terminals
Maritime Port
Inland Port
Rail Route
Rail Ferry Links
Rail Under Construction/Planning
Road Route
Road Ferry Links
Inland Water Transport Linkages
River
RUS
KAZ
MNG
CHN
KGZ
AFG
PAK
Novosibirsk
Barnaul
Cherlak
Pavlodar
Veseloyarsky
Semipalatinsk
Karaganda
Georgievka
Aksu-Ayuly
Ayaguz
Moyynty
Balkhash
Saryshagan
Aktogai
Ucharal
Dostyk
Jinghe
Kuitun
Burybaytal
Koskuduk
Khorgos
Chundzha
Shu
Otar
Almaty
Chaldovar
Bishkek
Issyk-Kul
Urumqi
Xiaocaoche
Sai-Li-Mu
Ta-Shih-Tien
Uzgen
Tuzbel
Sary-Tash
Kashi
Murghob
Taxkorgan
Khunjerab
Gilgit
Chilas
Kharian
Khanewal
Lahore
Okara
Border RUS - MNG (M52)
Ulgii
Khovd
Yarant
Tulun
Cheremkhovo
Irkutsk
Slyudyanka
Ulan-Ude
Petrovskiy Zavod
Karymskaya
Olovyannaya
Borzya
Zabaykalsk
Manzhouli
Kyakhta
Suhbaatar
Darkhan
Ulaanbaatar
Choir
Saynshand
Ulaan-Uul
Zamyn-Uud
Erenhot
Saihan Tal
Jining
Datong
Beijing
Tianjin
Qingxian
Cangzhou
Dongguang
Dezhou
Shulehe
Wuwei
Xining
Lanzhou
Baoji
Xian
Zhengzhou
Xuzhou
Lianyungang
Bengbu
Nanjing
Shanghai

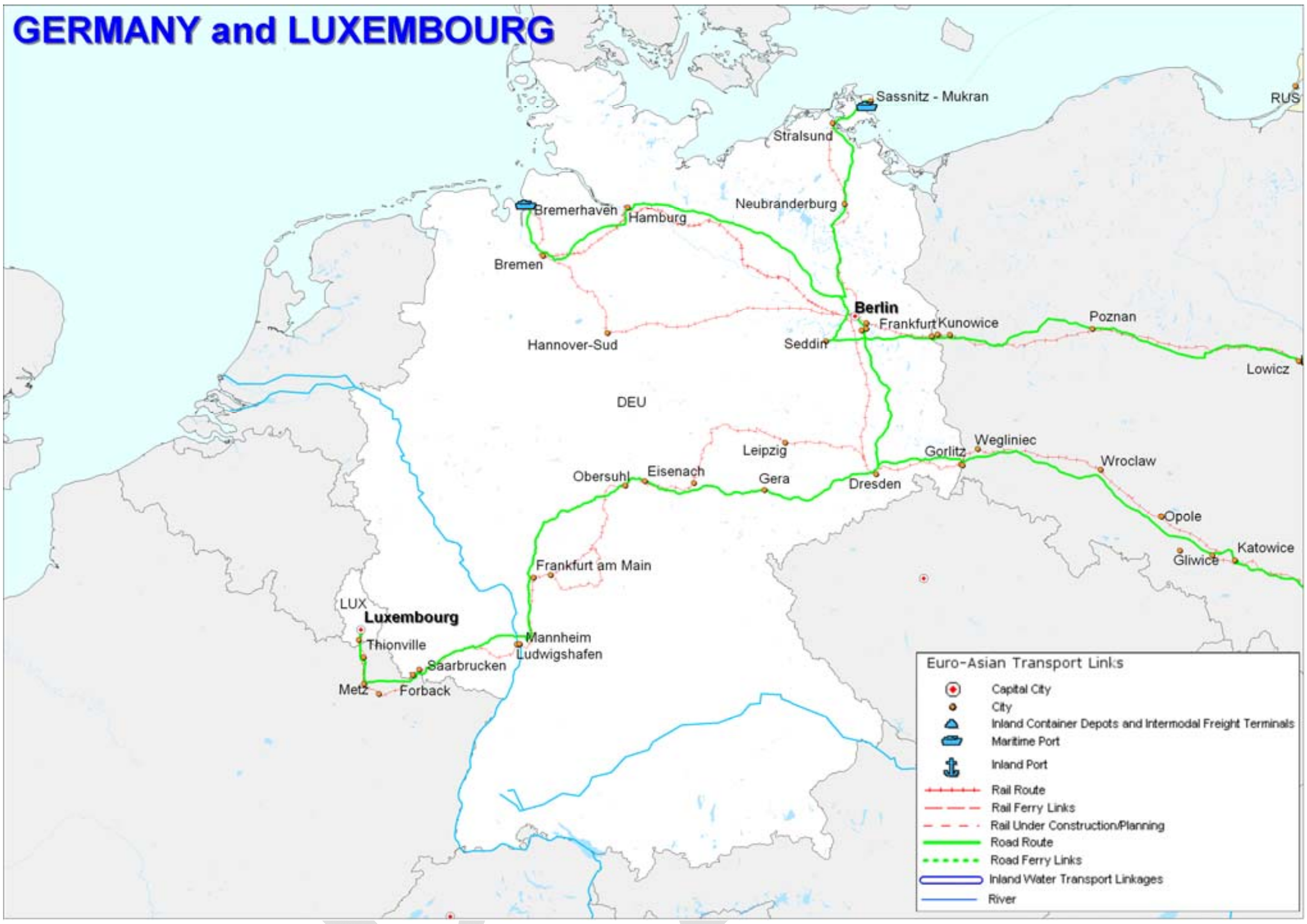
7. Finland


FINLAND SOUTHERN PART
Euro-Asian Transport Links
Capital City
City
Maritime Port
Inland Port
Rail Route
Rail Ferry Links
Rail Under Construction/Planning
Road Route
Road Ferry Links
Inland Water Transport Linkages
River
FIN
Riihimaki
Kouvola
Vainikkala
Buslovskaya
Vyborg
Vaalimaa
Gavan Vysotsk
Torfyanovka
Turku
Salo
Helsinki
Hanko
St. Petersburg
Ust-Luga
RUS

8. Georgia


GEORGIA
Euro-Asian Transport Links
Capital City
City
Maritime Port
Inland Port
Rail Route
Rail Ferry Links
Rail Under Construction/Planning
Road Route
Road Ferry Links
Inland Water Transport Linkages
River
RUS
GEO
TUR
ARM
AZE
Leselidze
Gantiadi
Sukhumi
Vladikavkaz
Kulevi
Senaki
K'ut'aisi
Poti
Samtredia
Zestaponi
Kharagauli
Khashuri
Gori
Zahesi
Tbilisi
Ponichala
Rustavi
Gardabani
Marneuli
Red Bridge
Beyuk - Kesik
Sadakhlo
Batumi
Sarpi
Akhalkalaki
Kartsakhi
Ardesen
Rize
Of
Alaverdi
Ayrum
Uzunla
Aygehat
Tumanyan
Akstafa
Kazakh
Tauz
Dallyar dzheir
Spitak
Gyumri
Kirovakan
Aparan
Kars
Gandja
Dilmamedli

9. Germany



GERMANY and LUXEMBOURG
Sassnitz - Mukran
RUS
Stralsund
Neubranderburg
Bremerhaven
Hamburg
Bremen
Berlin
Frankfurt
Kunowice
Poznan
Hannover-Sud
Seddin
Lowicz
DEU
Leipzig
Weglinieс
Gorlitz
Wroclaw
Obersuhl
Eisenach
Gera
Dresden
Opole
Frankfurt am Main
Katowice
Gliwice
LUX
Luxembourg
Thionville
Mannheim
Ludwigshafen
Saarbrucken
Metz
Forback
Euro-Asian Transport Links
Capital City
City
Inland Container Depots and Intermodal Freight Terminals
Maritime Port
Inland Port
Rail Route
Rail Ferry Links
Rail Under Construction/Planning
Road Route
Road Ferry Links
Inland Water Transport Linkages
River

10. Greece


GREECE
Veles
Kicevo
FYROM
Struga
Ohrid
Kulata
BGR
Ormenio
Havsa
Babaeski
Saray
Promachon
Kastanoussa
Drama
Xanthi
Komotini
Soufli
Uzunkopru
Corlu
Silivri
Istanbul
TUR
Idomeni
Serres
Kavala
Ipsala
Kristoni
Kesan
Alexandroupolis
Véroia
Thessaloniki
Gelibolu
Lapseki
Bandirma
Bursa
Biga
Karacabey
Kozani
Jergucat
Doliana
Métsovo
Ioannina
GRC
Igoumenitsa
Balikesir
Bigadic
Golcuk
Lamia
TUR
Candarli
Aliaga
Usak
Manisa
Cigli
Izmir
Cesme
Athens
Piraeus
Euro-Asian Transport Links
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Maritime Port
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Road Ferry Links
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River

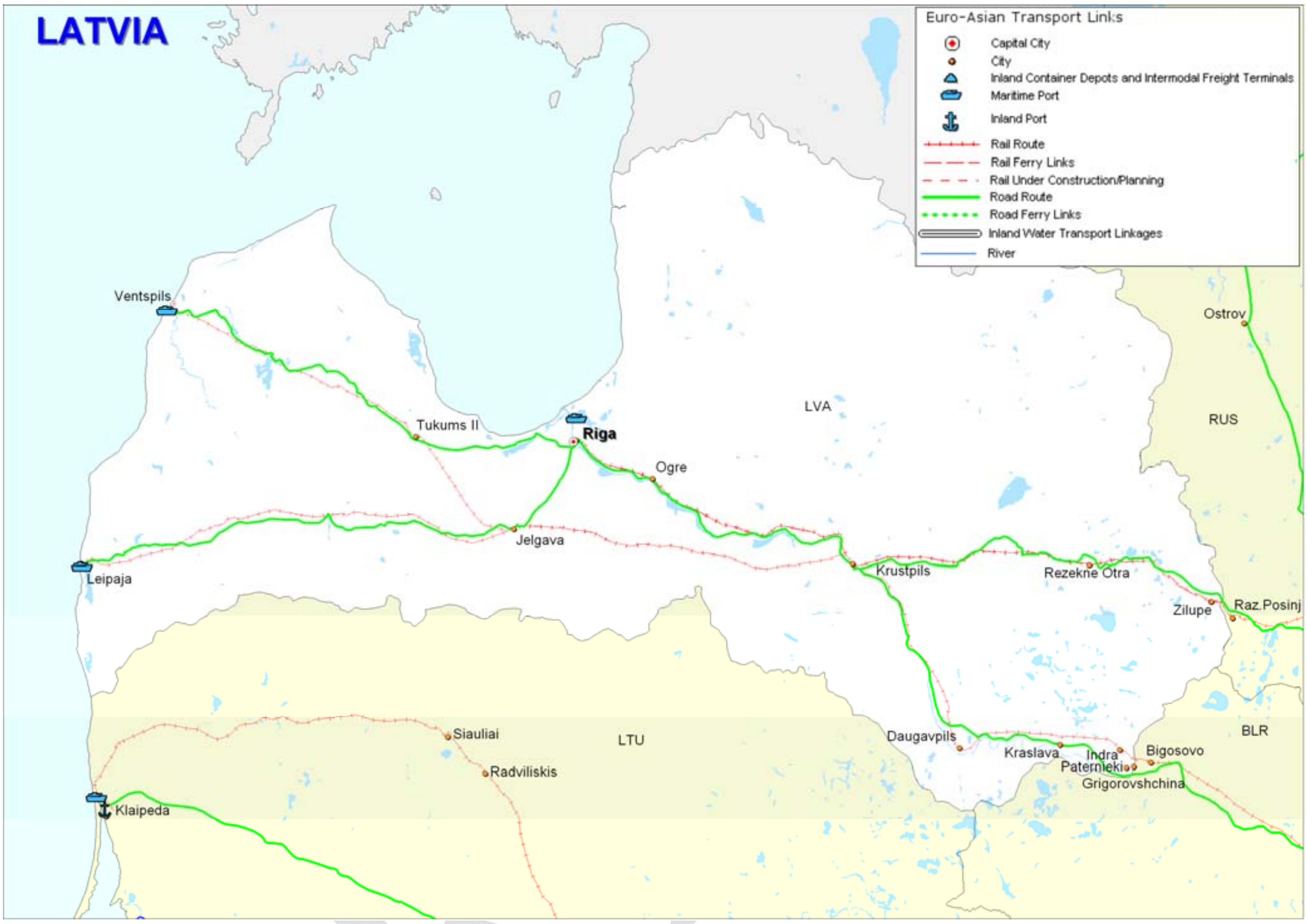
11. Iran


IRAN
ARM
Yerevan
AZE
Baku
Alyat
Turkmenbashy
TKM
Eleskirt
Sadarak
Sisian
Bazargan
TUR
Razi
Jolfa
Nourdouz
Tatvan
Van
Sowfyan
Tebriz
Astara
Astara
Cizre
Zakho
Maragheh
Miyaneh
Bandar Anzali
Zenjan
Qazvin
Ghaemshahr
Amirabad
Sari
Etrek
Godurolum
Inche Boroun
Gorgan
Kazanjik
Kizyl-Arvat
Ashkhabad
Tejen
Mary
Bayram-Ali
Neghab
Mashhad
Sarakhs
Sarahs
Sabzevar
Sang Bast
Damghan
FiruzKuh
Karaj
Tehran
Samnan
Garmsar
Saveh
Qom
Torbat-e Heydariyeh
Dogharoun
Gonabad
Eslam Qaleh
Herat
Sarafjagan
Borujerd
Arak
Khorramabad
Kashan
Jandaq
IRN
Tabas
Do Roud
Andimeshk
Esfahan
Nain
Ardekan
Maybod
Birdjand
Shahreza
Bafqh
Mehriz
Ahvaz
Nehbandan
Dashtak
Anar
Bandar Emam
Kerman
Baghin
Dashtak Jonction
Ghaemiah
Shiraz
Borazjan
Sirjan
Bam
Zahedan
Fahrej
Mirjaveh
Nokundi
Bushehr
Khash
Kavash
Bandar Abbas
Fahrej
Chah Bahar
Gwadar
Gazli
Navoi
Jizzakh
Marakand
Alat
Kagan
Samarkand
Chardzhou
Farap
UZB
Karshi
Guzar
Denau
Kumkurgan
Termez
Mazar -i-Sharif
Meymaneh
AFG
Kandahar
Chaman
Quetta
Nushki
Mastung
Kalat
Dalbandin
Surab
Khuzdar
PAK
Moro
Bela
Uthal
Hala
Liari
Hyderabad
Karachi
Euro-Asian Transport Links
Capital City
City
Maritime Port
Inland Port
Rail Route
Rail Ferry Links
Rail Under Construction/Planning
Road Route
Road Ferry Links
Inland Water Transport Linkages
River

12. Kazakhstan

13. Kyrgyzstan

14. Latvia



LATVIA
Euro-Asian Transport Links
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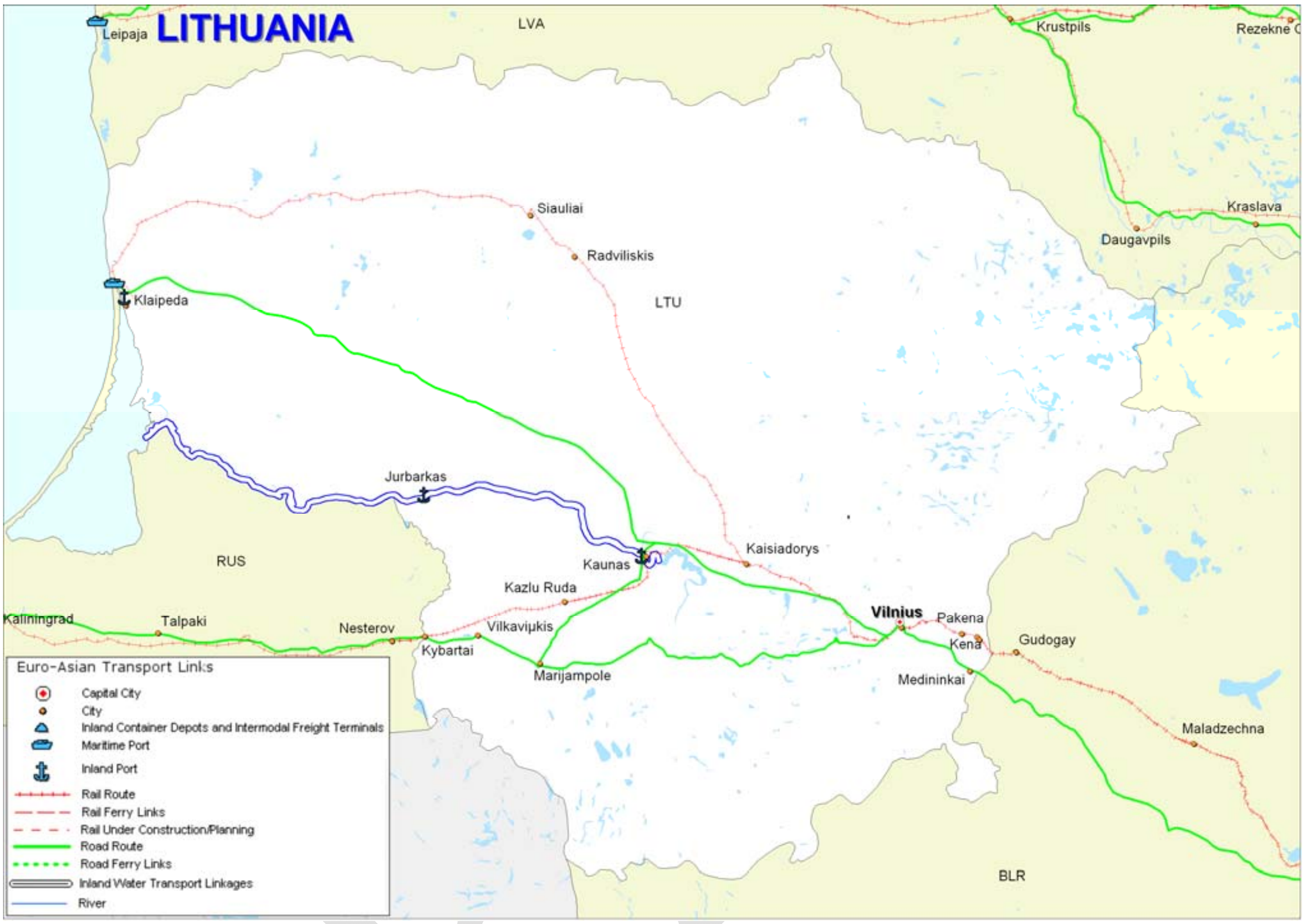
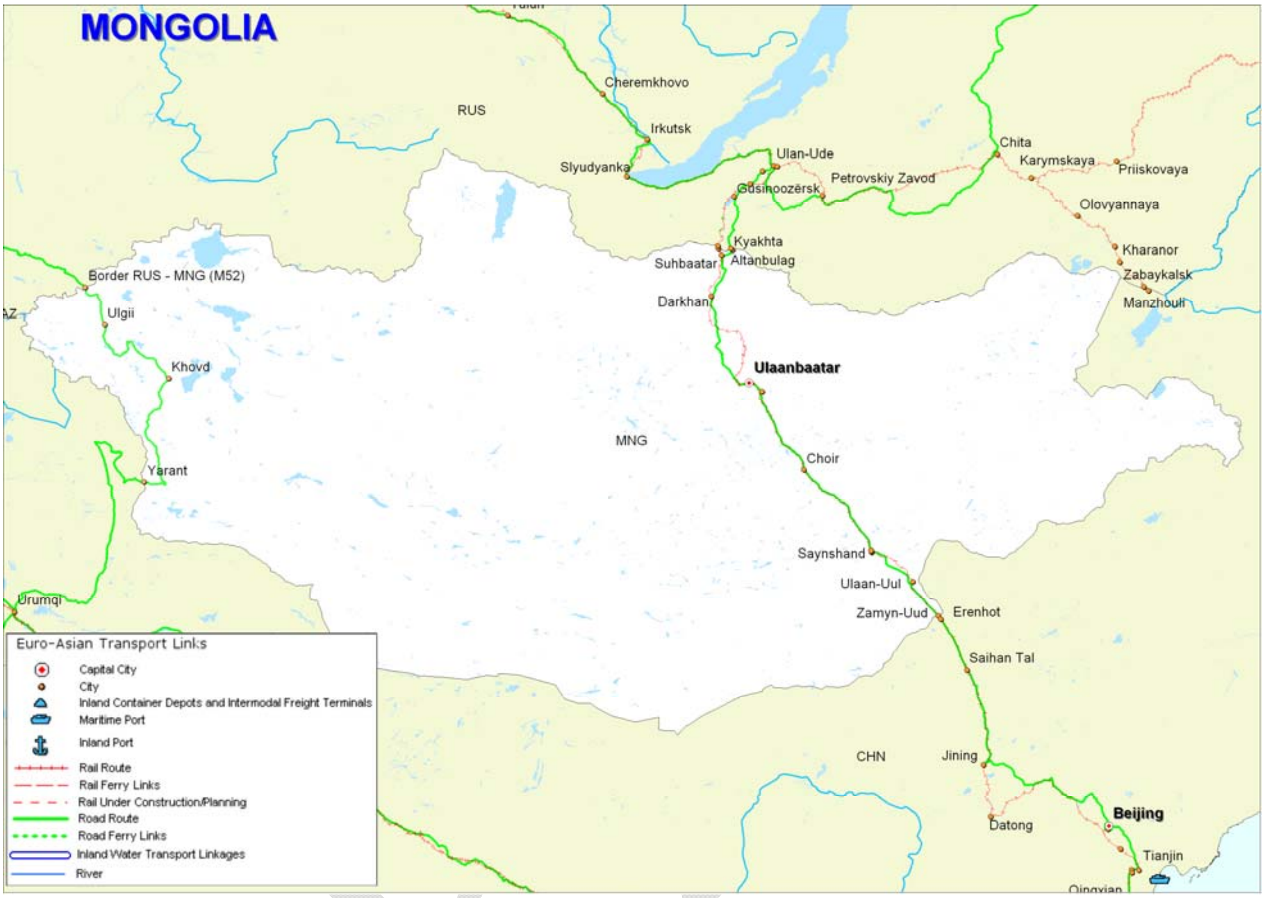
Ogre
LVA
Ostrov
RUS
Jelgava
Leipaja
Krustpils
Rezekne Otra
Zilupe
Raz.Posinj
Daugavpils
Kraslava
Indra
Paternieki
Bigosovo
Grigorovshchina
BLR
Siauliai
Radviliskis
LTU
Klaipeda

15. Lithuania



16. Luxemburg

17. Mongolia



MONGOLIA
RUS
Cheremkhovo
Irkutsk
Slyudyanka
Ulan-Ude
Gusinoozersk
Petrovskiy Zavod
Chita
Karymskaya
Priiskovaya
Olovyannaya
Kharanor
Zabaykalsk
Manzhouli
Kyakhta
Suhbaatar
Altanbulag
Darkhan
Ulaanbaatar
Border RUS - MNG (M52)
Ulgii
Khovd
Yarant
MNG
Choir
Saynshand
Ulaan-Uul
Zamyn-Uud
Erenhot
Saihan Tal
Urumqi
CHN
Jining
Datong
Beijing
Tianjin
Euro-Asian Transport Links
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City
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Inland Port
Rail Route
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Rail Under Construction/Planning
Road Route
Road Ferry Links
Inland Water Transport Linkages
River

18. Pakistan


PAKISTAN
Tejen
Mary
TKM
Sarahs
Mashhad
Baghcheh
Sabzevar
Sang Bast
Torbat-e Heydariyeh
Eslam Qaleh
Gonabad
Herat
Birdjand
Nehbandan
Dashtak
IRN
Dashtak Jonction
Bam
Zahedan
Fahrej
Mirjaveh
Nokundi
Dalbandin
Kavash
Chabahar
Gwadar
UZB
Termez
Shirhan
Parkhar
Kulob
Kholm
Kunduz
Shibergan
Mazar -i-Sharif
Pol-e Khomri
Meymaneh
Dowshi
Jabal os Saraj
Kabul
Jalalabad
AFG
Kandahar
Chaman
Quetta
Spezand
Mastung
Nushki
Kalat
Surab
Khuzdar
Bela
Uthal
Liari
Karachi
Gharo
Qila Saifullah
Zhob
PAK
Khorugh
Taxkorgan
Khunjerab
CHN
Sust
Baltit
Gilgit
Chilas
Dassu
Besham Qila
Mansehra
Torkham
Peshawar
Islamabad
Kohat
Bannu
Lakki
Kundian
D.I. Khan
Kharian
Wazirabad
Khanewal
Lahore
Faisalabad
Raiwind
Okara
Mianchannu
Multan
Chichawatani
Lodhran
Bahawalpur
Ubauro
Sukkur
Moro
Hala
Kotri
Hyderabad
Euro-Asian Transport Links
Capital City
City
Maritime Port
Inland Port
Rail Route
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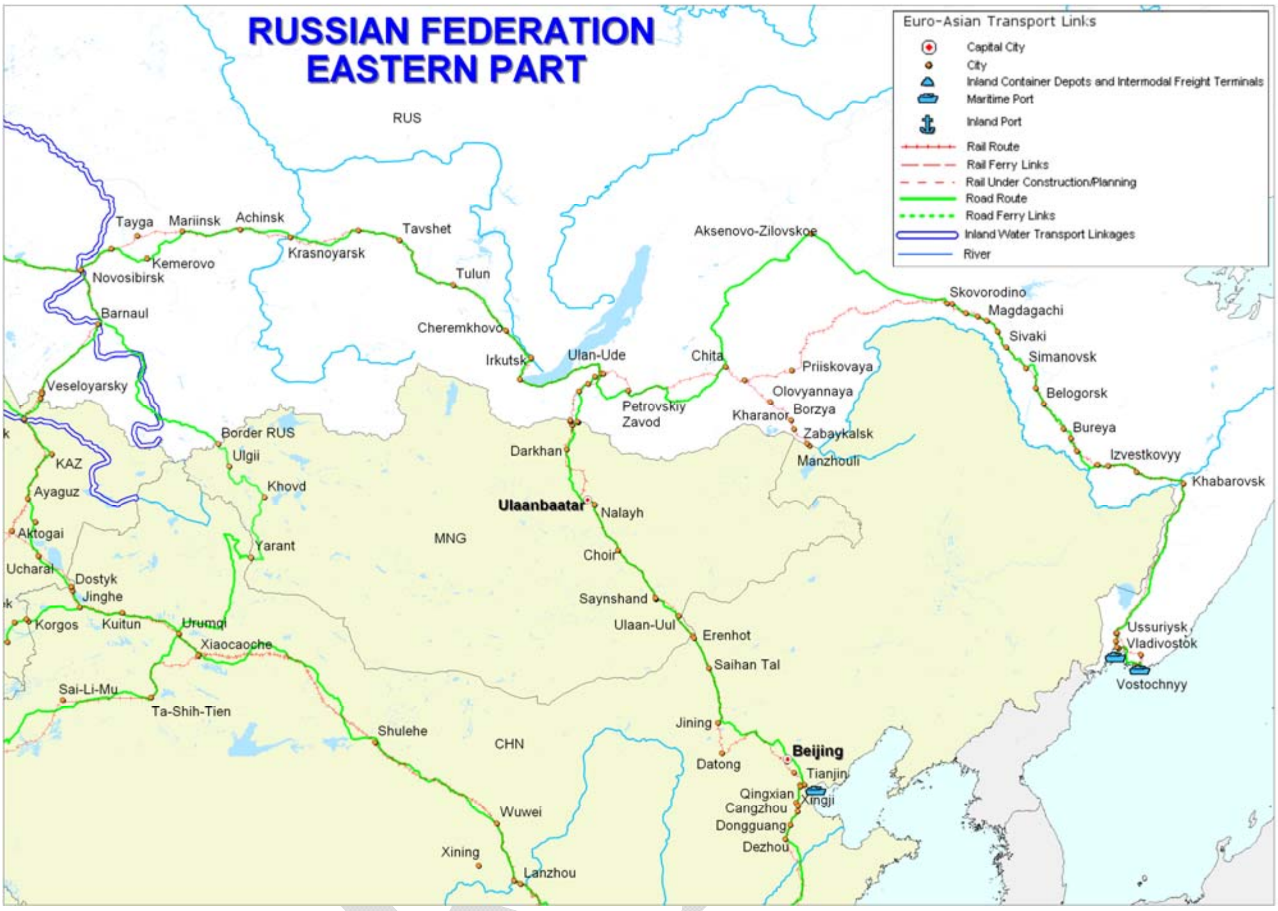
Rail Under Construction/Planning
Road Route
Road Ferry Links
Inland Water Transport Linkages
River

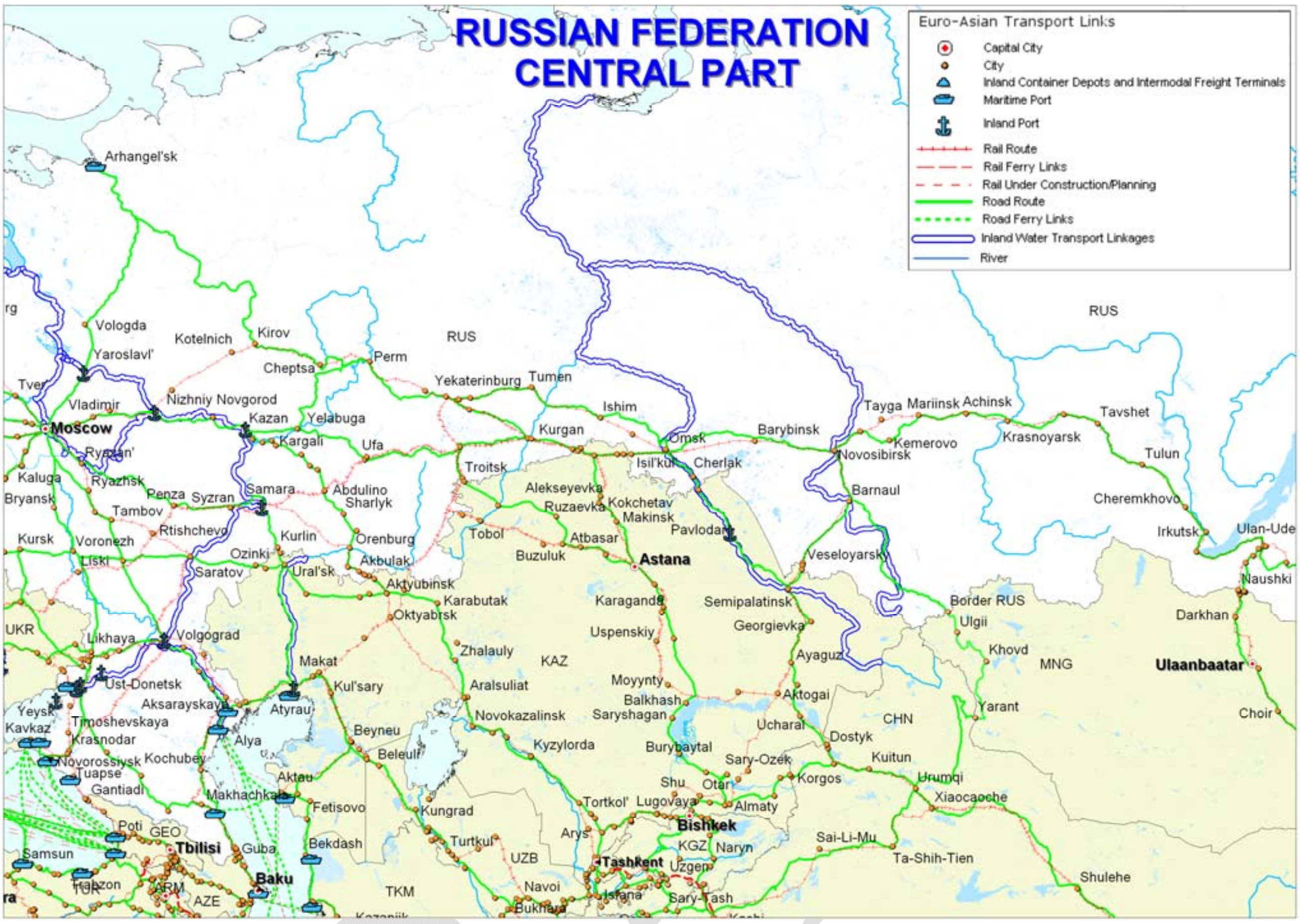
19. Republic of Moldova

20. Romania

Euro-Asian Transport Links
Capital City
City
Inland Container Depots and Intermodal Freight Terminals
Maritime Port
Inland Port
Rail Route
Rail Ferry Links
Rail Under Construction/Planning
Road Route
Road Ferry Links
Inland Water Transport Linkages
River
ROMANIA
UKR
Chernovtsi
Lipkany
Chernevtsy
Edinet
Balti
Slobodka
MDA
Orhei
Pascani
Iasi
Chisinau
Leuseni
Hîncesti
Novosa
Husi
Bacau
Crasna
ROU
Curtici
Arad
Nadlac
Alba Iulia
Copsa Mica
Sebes
Deva
Simeria
Sibiu
Vestem
Brasov
Marasesti
Tecuci
Focsani
Timisoara
Lugoj
Caransebes
Rimnicu Sarat
Galati
Giurgiulesti
Oust-Dunajsk
Braila
Tulcea
Sulina
Buzau
Rîmnicu Vîlcea
Ploiesti
Pitesti
Moldova Noua
Drobeta-Turnu Severin
Urziceni
Hirsova
Bucharest
Lehliu
Fetesti
Craiova
Videle
Navodari
Constanta
Vidin
Calafat
Giurgiu
Russe
Dimovo
Lom
BGR
Razgrad
Byala
Montana
Pleven

21. Russian Federation




RUSSIAN FEDERATION
CENTRAL PART
Euro-Asian Transport Links
Capital City
City
Inland Container Depots and Intermodal Freight Terminals
Maritime Port
Inland Port
Rail Route
Rail Ferry Links
Rail Under Construction/Planning
Road Route
Road Ferry Links
Inland Water Transport Linkages
River
Arhangel'sk
Vologda
Kotelnich
Kirov
Yaroslavl'
Cheptsa
Perm
RUS
Yekaterinburg
Tumen
Tver
Vladimir
Nizhniy Novgorod
Moscow
Kazan
Yelabuga
Kargali
Ufa
Ryazan'
Kaluga
Ryazhsk
Penza
Syzran
Samara
Abdulino
Sharlyk
Bryansk
Tambov
Rtishchevo
Kursk
Voronezh
Liski
Ozinki
Saratov
Ural'sk
Kurlin
Orenburg
Akbulak
Aktyubinsk
Karabutak
Oktyabrsk
UKR
Likhaya
Volgograd
Makat
Ust-Donetsk
Aksarayskaya
Atyrau
Kul'sary
Yeysk
Kavkaz
Timoshevskaya
Krasnodar
Novorossiysk
Tuapse
Kochubey
Gantiadi
Alya
Beyneu
Aktau
Makhachkala
Fetisovo
Poti
GEO
Tbilisi
Samsun
Guba
Bekdash
Baku
ARM
AZE
TKM
Ishim
Kurgan
Omsk
Isil'kul'
Cherlak
Troitsk
Tobol
Alekseyevka
Ruzaevka
Kokchetav
Makinsk
Atbasar
Pavlodar
Buzuluk
Astana
Karaganda
Uspenskiy
Zhalauly
KAZ
Aralsuliat
Moyynty
Balkhash
Saryshagan
Novokazalinsk
Kyzylorda
Burybaytal
Beleuli
Kungrad
Turtkul'
UZB
Navoi
Bukhara
Arys
Tortkol'
Lugovaya
Shu
Otar
Almaty
Bishkek
KGZ
Naryn
Tashkent
Uzgen
Sary-Tash
Sary-Ozek
Barybinsk
Novosibirsk
Barnaul
Semipalatinsk
Georgievka
Veseloyarsk
Ayaguz
Aktogai
Ucharal
Dostyk
CHN
Kuitun
Korgos
Urumqi
Xiaocaoche
Sai-Li-Mu
Ta-Shih-Tien
Shulehe
Tayga
Mariinsk
Achinsk
Kemerovo
Krasnoyarsk
Tavshet
Tulun
Cheremkhovo
Irkutsk
Ulan-Ude
Naushki
Darkhan
Border RUS
Ulgii
Khovd
MNG
Ulaanbaatar
Yarant
Choir


RUSSIAN FEDERATION
WESTERN PART
Euro-Asian Transport Links
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City
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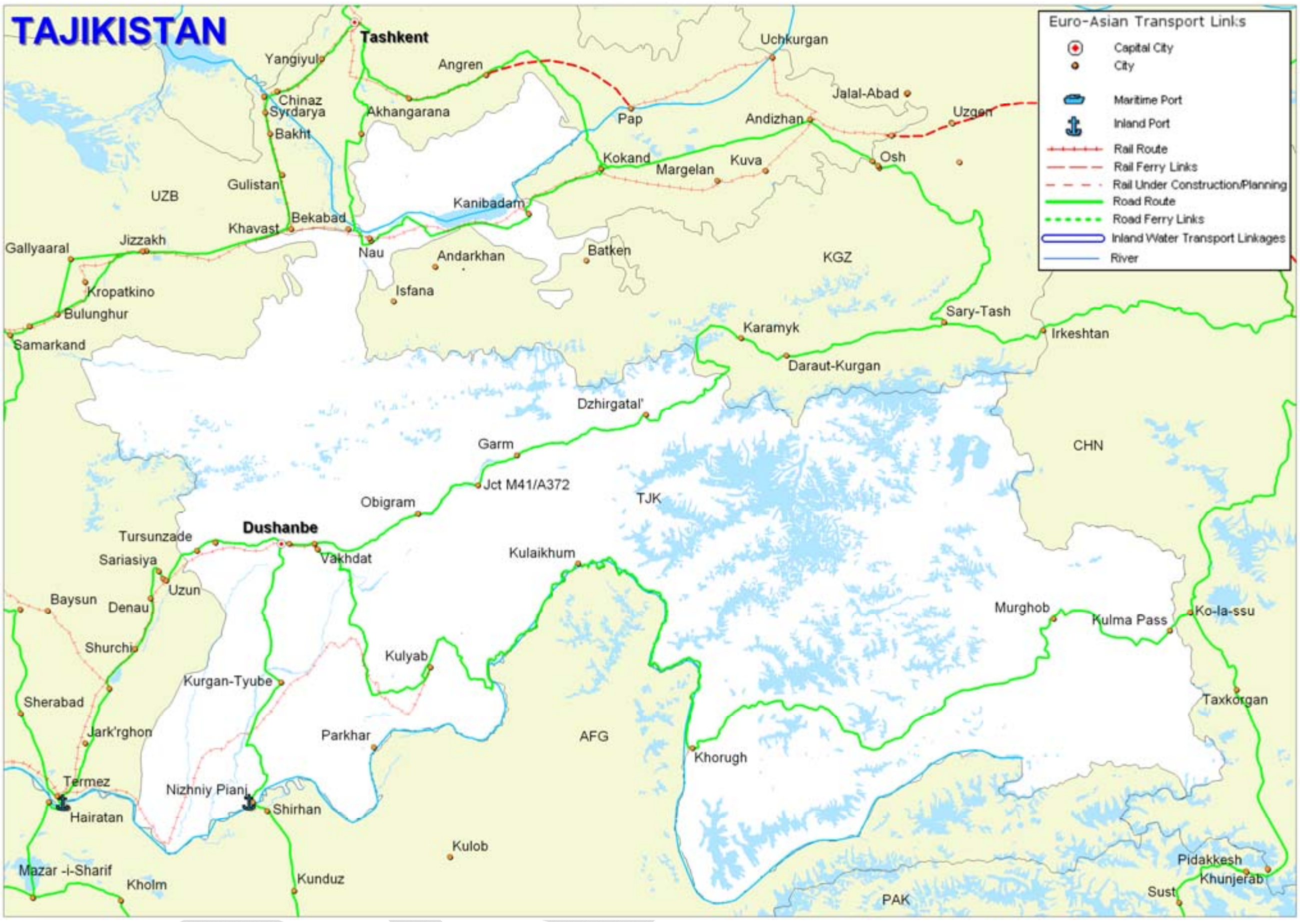
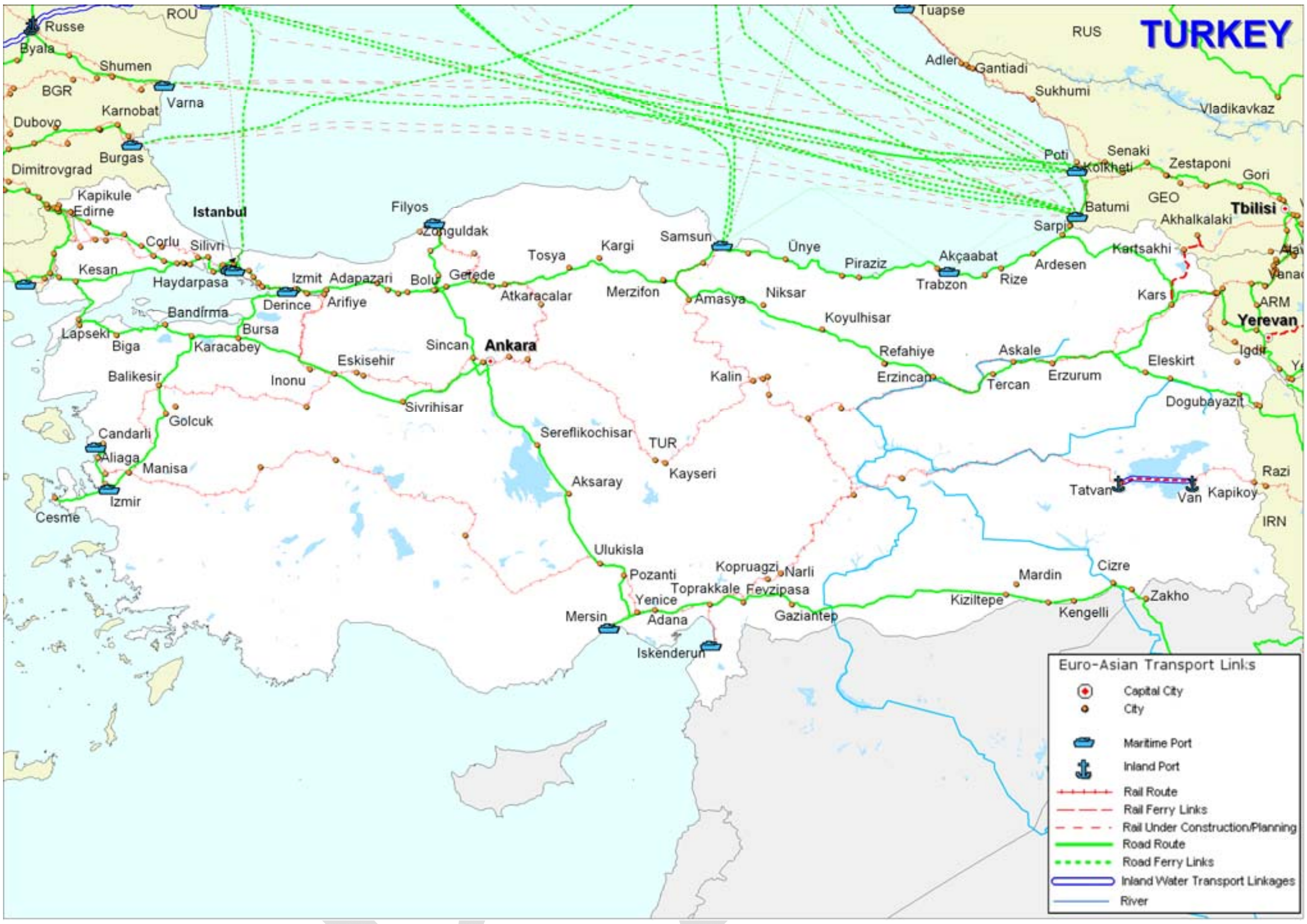
River
Arhangel'sk
Petrozavodsk
St. Petersburg
Vologda
Helsinki
Tallinn
Riga
Vilnius
Minsk
Moscow
Kiev
Chisinau
Warsaw
Tver'
Yaroslavl'
N. Novgorod
Smolensk
Kaluga
Ryazan
Bryansk
Kursk
Voronezh
Kharkov
Tambov
Penza
Saratov
Volgograd
Rostov-na-Donu
Odessa
Kremenchuk
Poltava

22. Tajikistan



23. The former Yugoslav Republic of Macedonia

24. Turkey


TURKEY
Euro-Asian Transport Links
Capital City
City
Maritime Port
Inland Port
Rail Route
Rail Ferry Links
Rail Under Construction/Planning
Road Route
Road Ferry Links
Inland Water Transport Linkages
River
Istanbul
Ankara
Izmir
Samsun
Trabzon
Erzurum
Kayseri
Mersin
Adana
Iskenderun
Gaziantep
Van
Tatvan
Tbilisi
Yerevan

25. Turkmenistan

26. Ukraine


UKRAINE
Zlobin
Gomel
Suzemka
Zernovo
Novi Yarylovychi
Druzhba
Repki
Glukhov
Lgov
Kursk
Voronezh
Krupets
Chernihiv
Terespol
Brest
ukow
Domanove
Sarny
Yagodyn
Dorohusk
Kovel
Nizhyn
Konotop
Yagoten
Luts'k
UKR
Kiev
Liski
Kharkov
Solovey
Kazanluk
Przemysl
Mostiska
Liov
Ternopol
Poltava
Khmel'nyts'kyy
Vinnytsya
Kremenchuk
Stryei
Zhmerinka
Uman'
Uzhgorod
Vapnyarka
Luhans'k
Chop
Mukachevo
Chernovtsi
Lipkany
Kirovograd
Dnepropetrovsk
Krasnoarmeysk
Slobodka
Zaporozhye
Donetsk
Balti
Ribnita
MDA
Kvashino
Uspenskaya
Orhei
Pascani
Ungheni
Chisinau
Rostov
Iasi
Mykolaiv
Azov
Albita
Bender
Kuchurgan
Yeysk
Novo Kakhovka
Bacau
Crasna
Odesa
Khersonskii
Starominskaya
Ilichivs'k
Belgorod-Dnestrovskiy
Tecuci
Brasov
Timoshevskaya
Kiliia
Kavkaz
Temryukskiy Rukav
Galati
Izmail
Oust-Dunajsk
Braila
Reni
Sulina
Tulcea
Ploiesti
Krasnodar
Urziceni
Hirsova
Novorossiysk
Bucharest
Lehliu
Fetesti
Videle
Constanta
Tuapse
Euro-Asian Transport Links
Capital City
City
Maritime Port
Inland Port
Rail Route
Rail Ferry Links
Rail Under Construction/Planning
Road Route
Road Ferry Links
Inland Water Transport Linkages
River

27. Uzbekistan

B. Reviewing, extending and updating priority projects identified in Phase I

An investment plan of priority projects was developed and presented during the Euro-Asian Transport Links (EATL) Project Phase I, based on the proposals of the 18 countries that participated (Armenia, Azerbaijan, Belarus, Bulgaria, China, Georgia, Iran, Kazakhstan, Kyrgyzstan, Republic of Moldova, Romania, Tajikistan, Turkey, Ukraine and Uzbekistan).

All transport infrastructure projects proposed along the identified EATL Phase I were subjected to a structured evaluation based on a prioritization methodology developed by the External Consultant – and approved by the National Focal Points of the countries involved - with the scope to develop the international investment plan for EATL Project Phase I.

One of the activities foreseen for Phase II, is the revision (updating) of the EATL priority transport infrastructure projects and the development of an international investment plan under EATL Project Phase II. To this end, a review and update of the list of EATL Phase I priority projects was carried out, and a new interregional investment plan of priority projects of EATL Phase II was developed, based on new country inputs received received for the new priority projects submitted under the second phase of the project.

More specifically, this section includes the following:

- Overview of the methodology developed for the prioritization of the proposed projects to be included in the new investment plan of EATL Phase II. The type of data required for the elaboration of the proposed methodology is also identified, together with the data collection process designed and employed for the purpose of the analysis.

- Assessment of the status of implementation of projects identified under EATL Phase I, including review and update of those to be included in the new investment plan of EATL Phase II.

- Collection and analysis of the information on new projects based on country inputs under EATL Phase II.

- Project prioritizion through the application of the proposed methodology and development of the new investment plan of EATL Phase II.

1. METHODOLOGY FOR PROJECT PRIORITISATION

The framework for the prioritization of new proposed projects to be included in the investment plan of EATL Phase II entails the development of a methodology for the identification of proposed projects and their grouping into one of the specified implementation time periods. The proposed methodology is identical to the one developed for the purpose of EATL Phase I project prioritization, in order to ensure consistency between the two EATL phases. The latter was developed by the external consultant Professor Dimitrios Tsamboulas and is well documented in the related Report[55]. Nevertheless, a brief description of the methodology in hand is included in the present document for reasons of completeness.

The method proposed is straightforward, and based on the well-established Multi-Criteria Analysis (MCA). The application of the method identifies the projects that are likely to be implemented in selected time periods (short term, medium term, long term), and at the same time addresses the specific objectives of the countries, as well as the international character of the projects.

This method establishes preferences between options by reference to an explicit set of objectives that the decision making body (e.g. Ministry of Transport/Infrastructure) has identified, and for which it has established measurable criteria to assess the extent to which the objectives have been achieved. These criteria are defined through observations, discussions, experimentations and trial-and-error processes. Although there is an inherent subjectivity associated with this method, it is believed that it can bring a degree of structure, analysis and openness to classes of decision. The preferences are merely related to the time frame/periods of the projects implementation. Four time frames/periods were selected, as will be described in the following.

Consequently, no evaluation was carried out for the projects, since this would require a vigorous feasibility study for each project with the same measurement values, followed by cross-evaluation of the projects among the participating countries. Nevertheless, in the case that the countries had carried out an evaluation/feasibility study, the results of such studies (e.g. IRR) were taken into consideration.

Overview of the Methodology

The proposed methodological framework for project prioritization is structured in three phases, i.e. identification, analysis and time period classification, in order to secure the inclusion of the sum of all proposed EATL projects in the revision of the EATL investment strategy.

The definition of "project", as specified in the original EATL methodology, is the following:

Definition of Project: A project is considered a new construction or the upgrade/rehabilitation of a transport infrastructure section. Also, a project can be the construction or the upgrade/rehabilitation of a transport terminal/port (maritime or inland waterways) etc. The infrastructure section can vary in length however it should constitute an expenditure of almost 10 million $. An exception of the latter mentioned rule applies if the project involves a missing link or a bottleneck.

Based on the above, the following types of projects were considered in the prioritization exercise:

[55] Economic Commission for Europe and Economic and Social Commission for Asia and the Pasific. "Joint Study on Developing Euro-Asian Transport Linkages", United Nations, New York and Geneva, 2008.

i) Completed projects, as submitted in the EATL Phase I, during the period that elapsed, and projects of EATL Phase I for which no change was reported.

ii) Projects of EATL Phase I, as submitted in the EATL Phase I, updated or revised, including those for which additional data was provided.

iii) Any new projects submitted, from both the group of countries that participated in EATL Phase I, as well as the new countries involved in the EATL Phase II.

The phases of the proposed methodology are briefly described below:

Phase A-Identification

The identification phase entails the recording of prospective projects, based on their readiness and funding possibilities, as well as the common-shared objectives of responsible authorities, national or international, and the collection of readily available information/ data regarding these projects.

Phase B – Analysis

The analysis is carried out with the application of the well-established multi-criteria approaches, such as the direct analysis of criteria performance, Pair Comparison Matrix and MAUT (Multi Attribute Utility Theory). Both approaches were used in the original EATL Phase I Investment Plan.

It should also be noted that the set of criteria used were the same with those employed in EATL Phase I.

Phase C – Time Period Classification

In the final phase, the selection of projects is carried out according to their “performance” score. Based on the latter, projects are classified into four Time Period Categories (I, II, III and IV), each related to a specified time horizon, as follows:

- **Category I**: projects, which have funding secured and are on-going and expected to be completed in the near future (**up to 2013**).
- **Category II**: projects, which may be funded or their plans are approved and are expected to be implemented rapidly (**up to 2016**).
- **Category III**: projects requiring some additional investigation for final definition before likely financing and implemented (**up to 2020**).
- **Category IV**: projects requiring further investigation for final definition and scheduling before possible financing, including projects, for which insufficient data existed (**most likely to be implemented after 2020**).

Compliance with EATL Phase I

Although the same methodology of EATL Phase I was also applied for the case of EATL Phase II, a number of issues were taken into account, as follows:

- Updating EATL projects entails the identification and grouping of projects into one of four implementation time periods that are not the same with those specified in EATL Phase I, since the time period considered in Phase II differs to the one of Phase I. Proposed implementation periods and categories for EATL Phase II were described in the previous paragraph.
- A number of projects under EATL Phase I were placed in category IV due to lack of essential data. In the case that this data became available during the data collection of EATL Phase II, these might have scored higher rates and, thus, were placed in one the other three categories (I, II or III) in the new investment plan.
- Projects placed into a specific category in Phase I for which no change was reported in Phase II, remained in the same category in the new investment plan.

Important conditions for the prioritisation exercise

The key conditions with regard to the prioritisation exercise are the following:

- Projects were along the main EATL routes identified under Phase II.
- Projects that were not along identified EATL Phase II routes were considered of national importance and were assigned to a Reserve Category.
- Projects with secured funding were directly considered for Category I.
- For projects without committed funding or partly committed funding or under the planning phase, further analysis (Phase B of the methodology) was carried out in order to set implementation priorities, against common shared objectives.
- As the analysis was based on data collected from the countries, projects without any data were automatically classified as last priority in terms of implementation (Category IV).

Data Collection

The data collection process for the purpose of the revision of the original EATL Phase I and the development of the new investment plan for Phase II required the input from countries divided in the following three main categories:

I. <u>Projects identified under EATL Phase I</u>, involving only the 15 countries that submitted data (i.e. Armenia, Azerbaijan, Belarus, Bulgaria, China, Georgia, Iran, Kazakhstan, Kyrgyzstan, Republic of Moldova, Romania, Tajikistan, Turkey, Ukraine and Uzbekistan). This is related to CASE A of data collection described in the following.

II. New project proposals from the 15 countries that have participated in EATL Phase I, as well as project proposals of those that did not submit any data during EATL Phase I (i.e. Afghanistan, Russian Federation, Turkmenistan). This is related to CASE B of data collection described in the following.

III. New project proposals from newly involved countries (Finland, Germany, Greece, Latvia, Lithuania, Luxemburg, Mongolia and the former Yugoslav Republic of Macedonia,). This is related to CASE B for data collection in the following.

Based on the above, two distinct cases are identified with regards to data collection; the first, Case A, refers to projects identified under EATL Phase I, involving only the 15 countries mentioned in the above, while the second, Case B, includes the new project proposals by all countries involved in EATL Phase II.

Case A

For projects already submitted under EATL Phase I, each participating country was asked to review and update the related information for each of these projects. The National Focal Points (NFP) received separately Templates B (B1, B2, B3, B4) containing the data of their respective country, as originally submitted. These were in excel format, as presented in Annex I, and had been completed by the external consultant, as follows: the already submitted projects under EATL Phase I are listed in the white cells of these forms with associated data already submitted in the yellow cells. Thus, each of the 15 countries were asked to verify existing data and update and/ or complete the data in the yellow cells for each of the projects.

The Templates B (B1, B2, B3, B4) for each country that submitted data under EATL Phase I included the following:

- **Template B1**: EATL ROAD PROJECTS existing in EATL Phase I
- **Template B2**: EATL RAILWAY PROJECTS existing in EATL Phase I
- **Template B3**: EATL INLAND WATERWAY PROJECTS existing in EATL Phase I
- **Template B4**: EATL PORTS (SEA AND INLAND WATERWAY), INLAND CONTAINER DEPOT/INTERMODAL FREIGHT TERMINAL/FREIGHT VILLAGE/LOGISTIC CENTRE existing in EATL Phase I

Templates B (B1, B2, B3, B4) were considered crucial in order to fulfil the requirements for the revision of the EATL Phase I, that is, assess the implementation status, review and update projects identified and allocate the projects in the appropriate time period classification.

Case B

With regard to new project proposals to be submitted, the new countries that joined EATL Phase II, as well as the countries that participated in the EATL Phase I prioritisation exercise received a uniform Questionnaire for each transport mode-Templates 2 (2A, 2B, 2C, 2D).

The samples for **Templates 2 (2A, 2B, 2C, 2D)** are presented in Annex II and include the following:

- Template 2A: ROAD and related infrastructure Project Fiche
- Template 2B: RAIL and related infrastructure Project Fiche
- Template 2C: INLAND WATERWAYS and related infrastructure Project Fiche
- Template 2D: PORTS (sea and inland waterway), INLAND CONTAINER/INTERMODAL FREIGHT TERMINAL/FREIGHT VILLAGE/LOGISTIC CENTRE and related infrastructure Project Fiche

Additional information upon original submission

Additional information on the EATL projects was requested from counties that submited their respective input by the consultant through direct correspondence with each respective NFP. Therefore, the following information was requested following original submissions:

For Case A-Templates B(1-4):

- Information on the reasons for which the implementation of projects had been delayed, if applicable.
- The rate of prices adjustment from year 2007 to 2008, since project cost will be given in 2007 prices.
- Expenses made so far (2009), as a percentage of the total project's cost.
- Percentage of budget of public works allocated.
- The country's GDP for 2007.
- Recommendations for the cases of non-secured funding with regards to potential funding sources to cover the amounts for which funds have not been secured.

For Case B-Templates 2 (A-D):

- Expenses made so far (2009), as a percentage of the projects total cost
- Percentage of budget of public works allocated.
- GDP (year 2008 in million).
- Recommendations with regards to potential sources of funding for the cases of non-secure funding, if applicable.
- Reasons for which project implementation has been delayed, if applicable.

In addition to the above, the countries were asked through their NFPs–if they so wished -to provide, for the purpose of the analysis carried out under Part B of the methodology, their own weights, with the appropriate justification, by completing the following Table 1.

Table 1 -Criteria Weights Template

Criterion Weight	Description of Criterion	Default Weight (as used in EATL Phase I)	Weight provided by Country
CLUSTER A			
W_{CA1}	Serving international connectivity (reaching a border crossing point or provide connection to a link that is border crossing).	3.13	
W_{CA2}	Promoting solutions to the particular transit transport needs of the landlocked developing countries.	9.38	
W_{CA3}	Connecting low income and/or least developed countries to major European and Asian markets.	19.79	
W_{CA4}	Crossing natural barriers, removing bottlenecks, raising substandard sections to meet international standards, or filling missing links in the TEM network.	17.71	
	Total A	**50**	**50**
CLUSTER B			
W_{CB1}	Having a high degree of maturity, in order to be carried out quickly (i.e. project stage)	40.00	
W_{CB2}	Environmental and social impacts.	10.00	
	Total B	**50**	**50**
	Total	**100**	**100**

ANNEX I

TEMPLATES B for EATL Phase I Countries

ARMENIA

TEMPLATE B1-ROAD

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node /city*	*Total Length (km)*	*Motorway, Expressway, National Road (please select one)*	*Existing Average Annual Daily Traffic (AADT)*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
Road	ARM-ROD-01	Highways and bridges rehabilitation							Construction	2001	2004	31$				√			45%
Road	ARM-ROD-02	Road maintenance and rehabilitation (every year)							Construction	2004	2004	22$		√					100%
Road	ARM-ROD-03	Investigation of 62 road bridges and design of documents							Study/Design	2004	2004	0,128$		√					
Road	ARM-ROD-04	Rehabiliation of 62 road bridges							Study/Design	2005	2007	3,3$		√					

TEMPLATE B2-RAIL

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node /city*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Programmig, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
Railway	ARM-RLW-01	Railway tracks rehabilitation (70 km)								Construction	2001	2004	15$				√			45%
Railway	ARM-RLW-02	Investigation of railway bridges and design of documents								Study/Design	2006	2006	0,3$		√					100%
Railway	ARM-RLW-03	Rehabilitation of railway bridges								Study/Design	2007	2010								
Railway	ARM-RLW-04	Development of Armenian Railway: rehabilitation (110 km)									2006	2011	50$				√			
Railway	ARM-RLW-05	Constructin of new railway (Gavar - Martuni - Jermuk - Sisian - Kapan - Meghri - Merand (IIR)																		

GDP (in year 2007& in million$)	% Budget of Public Works allocated	* Please indicate reasons of project implementation delay, if applicable:

AZERBAIJAN

TEMPLATE B1-ROAD

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	End point/node /city	Total Length (km)	Motorway, Expressway, National Road (please select one)	Existing Average Annual Daily Traffic (AADT)	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year			National Funds	EU Funds	Bank Loans	Grants	Private Funds	
Road	AZT-ROD-01	Rehabilitation of: Gazimamad – Kurdamir, E60							Construction	2005	2007	41$				100%			
Road	AZT-ROD-02	Rehabilitation of: Kurdamir - Ujar							Study/Design	2005	2007								
Road	AZT-ROD-03	Rehabilitation of: Ujar- Yevlakh							Construction	2005	2007								
Road	AZT-ROD-04	Rehabilitation of: Yevlakh – Gandja							Construction	2005	2008			√		√			
Road	AZT-ROD-05	Rehabilitation of: Ganja – Gazakh							Construction	2003	2005	48$		14%	3%	83%			
Road	AZT-ROD-06	Rehabilitation of: Gazakh – Georgian Border							Construction	2005	2006			15%					
Road	AZT-ROD-07	Reconstruction of: Russian border – Baku – Iranian Border, E119							Study/Design	2005									

TEMPLATE B2-RAIL

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	End point/node /city	Total Length (km)	Existing	Forecasted	Existing	Forecasted	Programmig, Planning, Design, Construction (please select one)	Start year	End year			National Funds	EU Funds	Bank Loans	Grants	Private Funds	
Railway	AZT-RLW-01	Construction of: "North-South" transport corridor Europe - Asia								Study/Design	2004	2008	600$							

TEMPLATE B4-PORTS

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Annual Throughput (tones and		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	End point/node /city	Total Length (km)	Existing	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year			National Funds	EU Funds	Bank Loans	Grants	Private Funds	
Sea Port	AZT-MAR-01	Reconstruction of: Sea station of International Trade Port of Baku							2003	2005	2,4$							
Intermodal Freight Terminal	AZT-MAR-02	Reconstruction of: Ferry Terminal of International Trade Port of Baku							2003	2006	7,7$							

GDP (in year 2007& in million$)	% Budget of Public Works allocated	* Please indicate reasons of project implementation delay, if applicable:

BELARUS

TEMPLATE B1-ROAD

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node/ci ty*	*Total Length (km)*	*Motorway, Expressway, National Road (please select one)*	*Existing Average Annual Daily Traffic (AADT)*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
Road Construction	**BL-ROD-01**	Upgrading of the M1/E30 road, section from km 1.7 to km 9.8							Construction	2003	2004	2,2$		√					
Road Construction	**BL-ROD-02**	Upgrading of the M1/E30 road, section from Telmy to Kozlovichi 21 km length							Construction	2000	2004	15,7		√					
Road Construction	**BL-ROD-03**	Upgrading of the M1/E30 road, section from 573 km to 603 km							Construction	2005	2005	9,5$		√					

TEMPLATE B2-RAIL

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Average Daily Train Traffic (ADTT, passenger trains)		Average Daily Train Traffic (ADTT, freight trains)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node/ci ty*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
Railway	BL-RLW-01	Organisation of speed traffic of passenger trains (section Krasnoje-Minsk-Brest)								Study/Design	2003	2005	0,7$						√	

GDP (in year 2007& in million$)	*% Budget of Public Works allocated*	* Please indicate reasons of project implementation delay, if applicable:

BULGARIA

TEMPLATE B1-ROAD

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node/ci ty*	*Total Length (km)*	*Motorway, Expressway, National Road (please select one)*	*Existing Average Annual Daily Traffic (AADT)*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
Road counstruction	**BG-ROD-01**	Construction of: Motorway "Trakia" Lot 1							Construction	2003	2005	65 €		√		√			
Road counstruction	**BG-ROD-02**	Construction of: Motorway "Trakia" Lot 5							Construction	2003	2005	55 €		√		√			
Road counstruction	**BG-ROD-03**	Rehabilitation of : Corridor 9 Stara Zagora - Kazanlak							Construction	2004	2005	14,50 €		√	√				
Road counstruction	**BG-ROD-04**	Rehabilitation of: Corridor 4 Sofia - Botevgrad							Construction	2004	2005	4,50 €		√	√				
Road counstruction	**BG-ROD-05**	Rehabilitation of: Corridor 8 Sliven - Burgas							Construction	2004	2005	7,50 €		√	√				
Road counstruction	**BG-ROD-06**	Rehabilitation of: Corridor 4 Vidin - Montana							Construction	2004	2005	12 €		√	√				
Road counstruction	**BG-ROD-07**	Rehabilitation of: Corridor 4 Vladaia – Daskalovo (Express road)								2005	2006	10$		√	√	√			
Road counstruction	**BG-ROD-08**	Rehabilitation of: Corridor 4 Vladaia – Daskalovo (Ordinary road)								2005	2006	11$		√	√	√			
Road counstruction	**BG-ROD-09**	Rehabilitation of: Corridor 10 Kalotina - Sofia								2005	2006	13,5$		√	√	√			
Road counstruction	**BG-ROD-10**	Rehabilitation of: Corridor 8 Varna - Burgas								2005	2006	3,5$		√	√	√			
Road counstruction	**BG-ROD-11**	Rehabilitation of: Corridor 8 Kjustendil - Sofia								2005	2006	6,5$		√	√	√			
Road counstruction	**BG-ROD-12**	Construction of: Corridor 4 Motorway "Ljulin								2005	2007	174$		√	√				
Road counstruction	**BG-ROD-13**	Construction of: Motorway "Trakia" Lot 2, 3, 4										288$							
Road counstruction	**BG-ROD-14**	Construction of: Motorway "Marica"										300$							
Road counstruction	**BG-ROD-15**	Construction of: Motorway "Cherno more"										600$							

GDP (in year 2007& in million$)	*% Budget of Public Works allocated*	* Please indicate reasons of project implementation delay, if applicable:

TEMPLATE B2-RAIL

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Average Daily Train Traffic (ADTT, passenger trains)		Average Daily Train Traffic (ADTT, freight trains)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node/ci ty*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
Railway	BG-RLW-01	Plovidiv-Svilengrad railway line electrification and upgrading (E070)			151	26		14		Construction	2005	2010	340 €		11%	44%	45%			3%
Railway	BG-RLW-02	Electrification of Dragoman-Kalotina BS railway line (E070)			15	17		28		Construction	2004	2007	7 €		√					3%
Railway	BG –RLW-03	Modernization and electrification of Radomir-Gueshevo railway line (T855)			88	17		5		Identification	2010	2013	150 €		25%	75%				3%
Railway	BG –RLW-04	Modernization of Vidin-Sofia-Kulata railway line (T056+E855)			420	132		47		Design/Study	2010	2017	2.400 €		25%	75%				4,50%
Railway	BG –RLW-05	Modernization of Sofia-Dragoman railway line			42	33		39		Planning	2010	2012	55 €		25%	75%				4,50%
Railway	BG –RLW-06	Modernization of Sofia-Plovdiv-Burgas/Varna railway line (E070+E720+E951)			600	127		87		Planning	2009	2015	937 €		25%	75%				4,50%
Railway	BG –RLW-07	Restoration of design parameters of Sofia-Karlovo-Zimnitsa railway line			320	39		56		Planning	2007	2010	900 €		25%	75%				4,50%

TEMPLATE B3-MARITIME-INLAND WATERWAY

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Yearly Vessel Traffic		URRENT STATU	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node/cit y*	*Total Length (km)*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
Maritime	**BG-INW-01**	Rehabilitation, reconstruction and Modernisation of the port of Lom							2004	2007	29,70		√		57,24%	15,15%		
Maritime	**BG-MAR-01**	Port of Bourgas expansion project						Construction			145$		10,36%		89,66%			

CHINA

TEMPLATE B1-ROAD

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node/ci ty*	*Total Length (km)*	*Motorway, Expressway, National Road (please select one)*	*Existing Average Annual Daily Traffic (AADT)*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
		Kashi-Honqilaf Road			419	Construction	2000			2002	2006	135$		54%				46%	14,87%
		Sailimu Lake-Horgos			106	Construction	4600			2005	2007	413$		22%				78%	
		Road upgrade: Kuerle-Akesu (AH4)			550	Study/Design	5500			2007	2010	864$							
		Road upgrade: Akesu-Atushi(AH4)			237	Study/Design				2008	2010	80$							
		Road upgrade: Kashi-Irkestan Road (AH65)			215	Study/Design	2200			2008	2010	68,8$							
		Wuqia-Turgart (AH61)			110	Study/Design	800			2007	2008	21$							

TEMPLATE B4-PORTS

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Annual Throughput (tones and TEUs)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node/ci ty*	*Total Length (km)*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
		The container berths in Phase Three of Miaoling ,Lian Yungang						Construction	2005	2009	3543$				66%		34%	
		The alumina berth of Lian Yungang						Study/Design			647$				65%		35%	

GDP (in year 2007& in million$)	*% Budget of Public Works allocated*	* Please indicate reasons of project implementation delay, if applicable:

GEORGIA

TEMPLATE B1-ROAD

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/city	*End point/node/city*	*Total Length (km)*	*Motorway, Expressway, National Road (please select one)*	*Existing Average Annual Daily Traffic (AADT)*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
	GE-ROD-01	Reconstruction-Construction of Tbilisi by pass ring road			79	Class II	3646		Planning			175							
	GE-ROD-02	Construction of Gori-Khashuri-Rikoti section of Georgian roads			190	Class I	10145		Planning			190							
	GE-ROD-03	Construction of Zestafoni-Samtredia section of Georgian roads			68	Class I	11167		Planning			125							
	GE-ROD-04	Modernization of Tbilisi-Red Bridge section of Georgian roads			38	Class II	1490		Planning			60							
	GE-ROD-05	Construction of by pass roads of Kobuleti and Batumi			44	Class II	150		Planning			150							
	GE-ROD-06	Reconstruction-Construction of Mleta-Larsi section of Georgian roads			58	Class II	351		Planning			220							
	GE-ROD-07	Modernization of Khashuri-Borjomi section of Georgian roads			30	Class II	4035		Planning			60							
	GE-ROD-08	Construction of Bakurtsikhe-Tsnori section of Georgian roads			17	Class II	3715		Planning			35							

TEMPLATE B4-PORTS

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Annual Throughput (tones and TEUs)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/city	*End point/node/city*	*Total Length (km)*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
	GE-MAR-01	Poti Port: First stage of new breakwater construction				tones:1049752 TEU:105931		Planning			approximately 17							
	GE-MAR-02	Poti Port: Construction of new container terminal				tones:1049752 TEU:105931		Planning			155							
	GE-MAR-03	Poti Port: Second phase Southern breakwater rehabilitation				tones:1049752 TEU:105931		Design/Study			28,1							
	GE-MAR-04	Poti Port: Construction of oil pier				tones:1049752 TEU:105931		Planning			12							
	GE-MAR-05	Poti Port: Installation of wind electric generators				tones:1049752 TEU:105931		Planning			6							
	GE-MAR-06	Poti Port: Construction of new rail-ferry and RO-RO bridges with Eastern and Western European gauge				tones:1049752 TEU:105932		Planning			27							
	GE-MAR-07	Poti Port: Construction of bulked chemical cargo processing terminal				tones:1049752 TEU:105933		Planning			30							

GDP (in year 2007& in million$)	*% Budget of Public Works allocated*	* Please indicate reasons of project implementation delay, if applicable:

TEMPLATE B2-RAIL

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Average Daily Train Traffic (ADTT, passenger trains)		Average Daily Train Traffic (ADTT, freight trains)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node/city*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
	GE-RLW-01	Creating completely integrated computerized system								Planning			4 to 5							
	GE-RLW-02	Port station Development (Poti and Batumi)				8.0		12.9		Planning	2007	2007	5,8							
	GE-RLW-03	Border station development (Gardabani-Sadakhlo)				8.0		12.9		Planning	2007	2007	8							
	GE-RLW-04	Samtredia and Tbilisi marshalling station reconstruction				8.0		12.9		Planning	2010	2010	15							
	GE-RLW-05	Initiate general dispatching centre								Planning	2007	2007	25							
	GE-RLW-06	New dislocation for Samtredia emergency repair train and fire train				8.0		12.9		Planning	2007	2007	0,172							
	GE-RLW-07	Rehabilitation of Khashuri emergency repair train facilities								Planning	2007	2007	0,05							
	GE-RLW-08	Arrangement of new dislocation for fire train in Poti station								Planning	2007	2007	0,15							
	GE-RLW-09	Emergency repair and fire train rolling stock (wagon) fleet renewal								Planning	2006	2008	0,6							
	GE-RLW-10	Initiation of logistical centre in railway port (Poti) crossing point								Planning	2007	2007	technical equipment of business centre will need apprx 0.8-1million US$							
	GE-RLW-11	Organizing container railway shipment to Poti-Tbilisi-Poti			300,00	8.0		12.9		Planning	2007	2007	fitting container terminal technical equipment will need apprx 3-4 million US$							
	GE-RLW-12	Truck improvement in Batumi district			104,00	8.0		12.9		Planning	2006	2009	16.229							
	GE-RLW-13	Truck improvement in Kvalo-Poti district			28,00	8.0		12.9		Planning	2006	2007	6.86							
	GE-RLW-14	Second track construction in Senaki-Abasha district			13,00	8.0		12.9		Planning	2007	2010	4,6							
	GE-RLW-15	New line construction in Supsa-Poti			94,00	8.0		12.9		Planning	2007	2012	18,3							
	GE-RLW-16	Reconstruction of Poti station				8.0		12.9		Planning	2007	2010	10,9							
	GE-RLW-17	Realization of works in order to raise the speed of passenger trains up to 120 km/h and freight trains – 90 km/h on Gardabani-Tbilisi-Khashuri district			152,00	8.0		12.9		Planning	2006	2010	25							
	GE-RLW-18	Construction of Kars-Akhalkalaki-Tbilisi-Baku New railway connecting line			260 (Georgian section)					Design/Study	2007	2010	Approximate cost of the project is 500 million US$							
	GE-RLW-19	Reconstruction of Shorapani-Likhi railway section			56,00	8.0		12.9		Planning	2006	2010	96							
	GE-RLW-20	Construction of second trackin Kharagauli crossing point on Tbilisi-Samtredia railway section			243 (Tbilisi-Samtredia)	8.0		12.9		Planning			37							
	GE-RLW-21	Reconstruction of Zestafoni-Khashuri section			182,00	8.0		12.9		Planning			132							
	GE-RLW-22	Construction of Poti-Supsa new single-track			94,00	8.0		12.9		Planning			23 to 28							

IRAN

TEMPLATE B1-ROAD

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENS (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	End point/node/ city	Total Length (km)	Motorway, Expressway, National Road (please select one)	Existing Average Annual Daily Traffic (AADT)	Forecasted	Programmig, Planning, Design, Construction (please select one)	Start year	End year			National Funds	EU Funds	Bank Loans	Grants	Private Funds	
	IR-ROD-01	Upgrading of: Astara - Rasht			180,00		13240		Construction	2001	2009	100$		100%					
	IR-ROD-02	Upgrading of: Anzali - Rasht			37,00		14084		Construction	1982	2006	36$		100%					
	IR-ROD-03	Construction of: Rasht - Qazvin			165,00		17616		Construction	2003	2008	307$		75%	25%				
	IR-ROD-04	Construction of: Qazvin - Saveh			144,00		11500		Planning			160$		50%					0,5
	IR-ROD-05	Construction of: Ahvaz - Bandar Emam			90,00		9396		Construction			80$		50%					0,5
	IR-ROD-06	Rehabilitation of: Naeen-Ardekan			110,00		4300		Construction	1998	2006	40$		100%					
	IR-ROD-07	Rehabilitation of: Ardekan - Yazd			60,00		9932		Construction	2001	2006	20$		100%					
	IR-ROD-08	Rehabilitation of: Mehriz - Anar			112,00		6308		Construction	2001	2006	15$		100%					
	IR-ROD-09	Rehabilitation of: Anar - Sirjan			200,00		4473		Construction	2002	2009	89$		100%					
	IR-ROD-10	Construction of: Sirjan - Bandar Abbas			300,00		13827		Study/Design			320$		50%					0,5
	IR-ROD-11	Rehabiltation of: Sirjan - Bandar Abbas (Accomplished)			311,00		13827		Construction	1993	2004	4$		100%					
	IR-ROD-12	Upgrading of: Semnan - Damghan			114,00		9163		Construction	1996	2006	55$		100%					
	IR-ROD-13	Construction of: Jandagh - Ardekan			251,00		819		Construction	1989	2008	100$		100%					
	IR-ROD-14	Upgrading of: Sarakhs - Sangbast			164,00		6955		Construction	1995	2006	35,3$		100%					
	IR-ROD-15	Upgrading of: Baghcheh - Torbat Heydarieh			110,00		15252		Construction	2001	2008	50$		100%					
	IR-ROD-16	Construction of: Torbat Heydarieh - Gonabad			124,00		4665		Study/Design	2006	2010	58$		100%					
	IR-ROD-17	Upgrading of: Gonabad - Birjand			210,00		4539		Study/Design	2006	2010	100$		100%					
	IR-ROD-18	Rehabilitation of: Zahedan - Khash			170,00		3159		Construction	1989	2006	25$		100%					
	IR-ROD-19	Rehabilitation of: Khash - Iranshahr			150,00		1110		Construction	2003	2010	40$		100%					
	IR-ROD-20	Construction of: Iranshahr - Chabahar			270,00		1332		Construction	1991	2009	130$		100%					
	IR-ROD-21	Upgrading of: Shahreza - Shiraz			393,00		12466		Construction	1983	2009	231$		100%					
	IR-ROD-22	Rehabilitation of: Jolfa - Eyvoghli			45,00		3941		Construction	2000	2006	11$		100%					
	IR-ROD-23	Rehabilitation of: Eyvoghli - Marand			62,00		2589		Construction	2004	2008	13$		100%					
	IR-ROD-24	Rehabilitation of: Marand - Tabriz			60,00		9648		Construction	1999	2006	11,5$		100%					
	IR-ROD-25	Rehabilitation of: Tabriz - Bostanabad			40,00		23543		Construction	2004	2009	9,3$		100%					
	IR-ROD-26	Construction of: Tabriz - Zanjan			285,00		14152		Construction	1996	2007	360$		40%					60%
	IR-ROD-27	Upgrading of: Damghan - Sabzevar			294,00		9545		Construction	2002	2007	140$		100%					
	IR-ROD-28	Upgrading of: Sabzevar - Baghcheh			188,00		11618		Construction	2000	2006	90$		100%					
	IR-ROD-29	Upgrading of: Anar - Baghein			189,00		5072		Construction	2000	2007	44$		100%					
	IR-ROD-30	Rehabilitation of: Sangbast - Dogharun			210,00		4273		Construction	2002	2007	100$		100%					
	IR-ROD-31	Upgrading of: Qazvin - Saveh			173,00		11500		Construction	2003	2008	91$		100%					
	IR-ROD-32	Construction of: Khorramabad - Andimeshk			170,00		8110		Construction	2006	2010	420$		50%					50%
	IR-ROD-33	Upgrading of: Sirjan - Bandar Abbas			300,00		13827		Construction	2002	2009	145$		100%					
	IR-ROD-34	Construction of: Bazargan - Tabriz			260,00		4208		Study/Design	2007	2011	320$		50%					50%

GDP (in year 2007& in million$)	% Budget of Public Works allocated	* Please indicate reasons of project implementation delay, if applicable:

TEMPLATE B2-RAIL

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node/ city*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Programmig, Planning, Design, Construction* (please select one)	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
	IR-RLW-01	Construction of: Anzali - Rasht			41					Contsruction	2006	2010	60$		100%					11%
	IR-RLW-02	Construction of: Rasht - Qazvin			165					Contsruction	2004	2009	320$		100%					
	IR-RLW-03	Construction of: Esfahan - Shiraz			506					Contsruction	2002	2009	650$		100%					9,40%
	IR-RLW-04	Construction of: Tabriz - Mianeh			200					Contsruction	2001	2009	450$		100%					
	IR-RLW-05	Construction of: Bam - Zahedan			281					Contsruction	2001	2007	200$		100%					
	IR-RLW-06	Construction of: Astara - Rasht			170					Study/Design	2006	2011	370$		100%					
	IR-RLW-07	Construction of: Bam - Chabahar			600					Study/Design	2009	2014	778$		50%				50%	
	IR-RLW-08	Construction of: Zahedan - Mirjaveh			100					Identification	2008	2010	100$							
	IR-RLW-09	Construction of: Shiraz - Bushehr			425					Planning	2009	2014	450$		100%					
	IR-RLW-10	Construction and upgrade of: Tehran - Esfahan			420					Planning	2009	2014	1350$		50%				50%	

KAZAKHSTAN

TEMPLATE B1-ROAD

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node /city*	*Total Length (km)*	*Motorway, Expressway, National Road* (please select one)	*Existing Average Annual Daily Traffic (AADT)*	*Forecasted*	*Programming, Planning, Design, Construction* (please select one)	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
Road	**KZ-ROD-01**	Rehabilitation of the motorway Almaty – Gulshad on the sections Almaty – Gulshad, Akchatau – Karagandy				Construction				2000	2005	135,7$							
Road	**KZ-ROD-02**	Reconstruction of the passage through Karagandy				Construction				2002	2004	12,5$							
Road	**KZ-ROD-03**	Rehabilitation of the motorway Karagandy-Astana				Construction						64,08$							
Road	**KZ-ROD-04**	Reconstruction of the highway network in Western Kazakhstan				Construction				2002	2006	280,7$							
Road	**KZ-ROD-05**	Project on developing of the highway system (Almaty-Bishkek)				Construction				2002	2006	105,8$							
Road	**KZ-ROD-06**	Reconstruction of the motorway Aktau - Atyrau				Construction				2004	2008	42,4$							
Road	**KZ-ROD-07**	Reconstruction of the motorway Astana-Kostanai-Chelyabinsk				Construction				2000	2008	239,7$							
Road	**KZ-ROD-08**	Reconstruction of the motorway Omsk-Pavlodar-Maikapchagai				Construction				2000	2008	349,2$							
Road	**KZ-ROD-09**	Reconstruction of the motorway Borovoye-Kokshetau-Petropavlovsk- border of RF				Construction				2001	2008	123,9$							
Road	**KZ-ROD-10**	Reconstruction of the motorway border of the RF – Uralsk – Aktobe				Construction				2000	2007	142$							
Road	**KZ-ROD-11**	Reconstruction of the motorway Karabutak – Irghiz – border of Kyzylordinskaya oblast								2000	2007	68,6$							
Road	**KZ-ROD-12**	Reconstruction of the motorway Kyzylorda – Zhezkazgan – Pavlodar – Uspenka –border of the RF				Construction				2000	2008	103,1$							
Road	**KZ-ROD-13**	Reconstruction of the motorway Usharal - Dostyk				Construction				2001	2006	30,9$							
Road	**KZ-ROD-14**	Reconstruction of the motorway border of Uzbekistan – (towards Tashkent) – Shymkent – Taraz – Almaty - Khorgos				Construction				2003	2008	162,5$							
Road	**KZ-ROD-15**	Reconstruction of the motorway samara – Shymkent – on the section of the border of Aktyubinskaya oblast – Kyzylorda – Shymkent				Construction				2003	2008	193,8$							
Road	**KZ-ROD-16**	Reconstruction of the motorway Beineu – Akzhighit – border of Uzbekistan				Construction				2001	2007	26,9$							
Road	**KZ-ROD-17**	Reconstruction of the motorway Almaty – Ust-Kamenogorsk				Construction				2003	2008	363,2$							
Road	**KZ-ROD-18**	Construction and reconstruction of Astana – Borovoye highway								2005	2009	222,5$							
Road	**KZ-ROD-19**	Project research works								2005	2009	12,8$							

TEMPLATE B2-RAIL

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node /city*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Programmig, Planning, Design, Construction* (please select one)	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
Rail	KZ-RLW-01	Construction of: Khromtau-Altynsarin								Construction	2001	2005	244,7$							
Rail	KZ-RLW-02	Construction of: Yeralievo - Kuryk								Planning	2004	2005								10,00%
Rail	KZ-RLW-03	Construction of TransKazakhstan railway									2006	2011	3500$							13,07%

GDP (in year 2007& in million$)	*% Budget of Public Works allocated*	* Please indicate reasons of project implementation delay, if applicable:

KYRGYZSTAN

TEMPLATE B1-ROAD

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION: Start point/node/ city	PROJECT LOCATION: End point/node /city	PROJECT LOCATION: Total Length (km)	ROAD TYPE: Motorway, Expressway, National Road (please select one)	TRAFFIC VOLUMES: Existing Average Annual Daily Traffic (AADT)	TRAFFIC VOLUMES: Forecasted	CURRENT STATUS: Programming, Planning, Design, Construction (please select one)	TIME PLAN*: Start year	TIME PLAN*: End year	TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**): National Funds	EU Funds	Bank Loans	Grants	Private Funds	IRR / (ROE if PPP)
Road	KG-ROD-01	Project 'Rehabilitation ща motor way Bishkek-Osh'																	
Road	KG-ROD-02	Section ща motor way (61-161 km), incl. Tunnel on the crossing Too-Ashoo								1999	2004	55,367$							
Road	KG-ROD-03	Sectionща motor way (247-324 km; 360-414 km)								2000	2004	48,139$							
Road	KG-ROD-04	Section motor way (426 –498 km, 614 –664km)								2003	2006	50$							
Road	KG-ROD-05	Project 'Rehabilitation of motor way Jalal–Abad – Uzgen and detour station Madaniyat'								2000	2004	11,286$							
Road	KG-ROD-06	Project 'Rehabilitation of motor way Bishkek-Georgevka'								2003	2005	53,923$							

TEMPLATE B2-RAIL

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION: Start point/node/ city	PROJECT LOCATION: End point/node /city	PROJECT LOCATION: Total Length (km)	ADTT (passenger): Existing	ADTT (passenger): Forecasted	ADTT (freight): Existing	ADTT (freight): Forecasted	CURRENT STATUS: Programmig, Planning, Design, Construction (please select one)	TIME PLAN*: Start year	TIME PLAN*: End year	TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**): National Funds	EU Funds	Bank Loans	Grants	Private Funds	IRR / (ROE if PPP)
KG-RLW-01	Railway	New Rolling Stock									2003	2005	53,923$							45%

GDP (in year 2007& in million$)	% Budget of Public Works allocated	* Please indicate reasons of project implementation delay, if applicable:

REPUBLIC OF MOLDOVA

TEMPLATE B1-ROAD

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	End point/node /city	Total Length (km)	Motorway, Expressway, National Road (please select one)	Existing Average Annual Daily Traffic (AADT)	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year			National Funds	EU Funds	Bank Loans	Grants	Private Funds	
	MD-ROD-01	Improvement of Road and Roadside Services along the Moldavian component of Corridor IX by modernising a 18-km Chişinău bypass							Study/Design	2006	2007	18,3$		50%					16-30%
	MD-ROD-02	Improvement of Road and Roadside Services along a 153-km road the border with Romania – Leuşeni – Chişinău – Dubăsari – the border with								2009	2012	65,1$		25%					12-21%
	MD-ROD-03	Improvement of a 217-km Road Chişinău – Cimislia – Comrat – Vulcăneţti – Giurgiuleşti – the border with Romania								2008	2012	83,6$		25%					6-17%
	MD-ROD-04	Rehabilitation of a 68-km road Sarateni Vechi – Bălţi								2012	2013	18,5$		25%					39%
	MD-ROD-05	Rehabilitation of a 136-km road Bălţi – Criva								2015	2017	40$		25%					

TEMPLATE B2-RAIL

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**					IRR / (ROE if PPP)
			Start point/node/ city	End point/node /city	Total Length (km)	Existing	Forecasted	Existing	Forecasted	Programmig, Planning, Design, Construction (please select one)	Start year	End year			National Funds	EU Funds	Bank Loans	Grants	Private Funds	
	MD-RLW-01	Cainari (a missing link between the Moldavian components of Corridor IX, CE-95 and E-560								Construction	2005	2006	22$		√					5,30%
	MD-RLW-02	with Ukraine – Bender – Chişinău – Ungheni – the border with Romania									2010	2015	316,9$							4,40%
	MD-RLW-03	Construction of a 54-km railway line Cahul – Giurgiuleşti									2015	2018	74,5$							5,30%

TEMPLATE B3-MARITIME-INLAND WATERWAY

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Yearly Vessel Traffic		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	End point/node /city	Total Length (km)	Existing	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year			National Funds	EU Funds	Bank Loans	Grants	Private Funds	
Inland Water	MD-INW-01	Construction of the Giurgiuleşti port complex on the territory of the Republic of Moldova in the							2005	2012	250$							8%

GDP (in year 2007& in million$)	% Budget of Public Works allocated	* Please indicate reasons of project implementation delay, if applicable:

ROMANIA

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	End point/node /city	Total Length (km)	Motorway, Expressway, National Road (please select one)	Existing Average Annual Daily Traffic (AADT)	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year			National Funds	EU Funds	Bank Loans	Grants	Private Funds	
	RO-ROD-01	Rehabilitation of: Lugoj-Timisoara km 500+400 - km 552+600																	
	RO-ROD-02	Rehabilitation of: Timisoara By-pass DN 6-km 546+076 - DN 69-km 6+430																	
	RO-ROD-03	Rehabilitation of: Drobeta Turnu Severin - Lugoj (km 332+150 - km 495+800)																	
	RO-ROD-04	Rehabilitation of: Ciochiuta-Tn. Severin (km 298+000-km 332+150)																	
	RO-ROD-05	Rehabilitation of: Filiasi-Ciochiuta (km268+390-km 298+000)																	
	RO-ROD-06	Rehabilitation of: Craiova-Filiasi (km 233+200-km 268+390)																	
	RO-ROD-07	Rehabilitation of: Craiova By-pass DN 65-km 6+000 - DN 6-km 234+400																	
	RO-ROD-08	Widening to 6 lanes of the existing overpass Otopeni including ramps, NR1 km 12+384																	
	RO-ROD-09	Widening to 6 lanes, NR 1km 12+845-km 16+087																	
	RO-ROD-10	New overpass at Otopeni Airport NR1-km 16+087 la km 17+165																	
	RO-ROD-11	Traffic improvement on NR 24 ;By-pass Tecuci																	
	RO-ROD-12	Widening to 4 lanes NR5 Adunatii Copaceni-Giurgiu (km 23+200-km 59+100)																	
	RO-ROD-13	By-pass Adunatii Copaceni and rehabilitation of the existing road in Adunatii Copaceni																	
	RO-ROD-14	Construction of : Bucharest – Fundulea motorway																	
	RO-ROD-15	Construction of : Fundulea – Lehliu motorway																	
	RO-ROD-16	Construction of : Lehliu – Drajna motorway																	
	RO-ROD-17	Construction of : Drajna – Fetesti motorway																	
	RO-ROD-18	Construction of : Fetesti - Cernavoda motorway																	
	RO-ROD-19	Construction of : By-pass Pitesti																	
	RO-ROD-20	Construction of : By-pass Sibiu																	
	RO-ROD-21	Rehabilitation of: Craiova-Calafat (km 0+000 - km 84+020)																	
	RO-ROD-22	Rehabilitation of: Alexandria-Craiova (km 89+750 - 227+810)																	
	RO-ROD-23	Rehabilitation of: Lugoj-Ilia-DN68A																	
	RO-ROD-24	Construction of : Nadlac-Arad motorway																	
	RO-ROD-25	Construction of : Arad-Timisoara motorway																	
	RO-ROD-26	Construction of : Timisoara -Lugoj motorway																	
	RO-ROD-27	Construction of : Lugoj-Deva motorway																	
	RO-ROD-28	Construction of : Deva-Sibiu motorway																	
	RO-ROD-29	Construction of : By-pass Deva																	
	RO-ROD-30	Construction of : By-pass Orastie																	
	RO-ROD-31	Construction of : By-pass Sebes																	
	RO-ROD-32	Construction of : Cernavoda-Constanta motorway																	
	RO-ROD-33	Construction of : By-pass Conatanta																	
	RO-ROD-34	Construction of : Bucharest-Ploiesti Motorway																	
	RO-ROD-35	Construction of : Comarnic-Predeal Motorway																	
	RO-ROD-36	Construction of : Predeal-Brasov Motorway																	
	RO-ROD-37	Construction of : Sibiu-Deva Motorway																	
	RO-ROD-38	Construction of : Ploiesti-Sculeni Motorway																	

TEMPLATE B2-RAIL

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node /city*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Programmig, Planning, Design, Construction* (please select one)	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
Railway	RO-RLW-01	Upgrading of: Bucharest - Brasov																		
Railway	RO-RLW-02	Upgrading of: Bucharest – Constanta																		
Railway	RO-RLW-03	Upgrading of : Brasov – Simeria																		
Railway	RO-RLW-04	Upgrading of: Simeria - Curtisi																		

TEMPLATE B3-MARITIME-INLAND WATERWAY

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Yearly Vessel Traffic		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node /city*	*Total Length (km)*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction* (please select one)	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
RO-INW-01	Inland Waterway	Bank Protection on Sulina Channel. Signaling and topo-hydrographic measurement system on Danube.																
RO-INW-02	Inland Waterway	Improvement of the Condition for Navigation on the Danube, km 375-175, Calarasi-Braila sector																
RO-INW-03	Inland Waterway	Implementation of the VTMIS (Vessel Traffic Management Information System) on Danube, Romanian sector																

TEMPLATE B4-PORTS

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Annual Throughput (tones and		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node /city*	*Total Length (km)*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction* (please select one)	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	

GDP (in year 2007& in million$)	*% Budget of Public Works allocated*	* Please indicate reasons of project implementation delay, if applicable:

TAJIKISTAN

TEMPLATE B1-ROAD

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENS (in % of total cost)	% FUNDING SECURED (or possible funding sources*)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node/ city*	*Total Length (km)*	*Motorway, Expressway, National Road* (please select one)	*Existing Average Annual Daily Traffic (AADT)*	*Forecasted*	*Programmig, Planning, Design, Construction* (please select one)	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
TJK-ROD-01	Road	Rehabilitation and reconstruction of highway Qurghonteppa-Dusti-Nizhniy Panj							Tendering	2004	2006	9,415$							
TJK-ROD-02	Road	Investment project Dushanbe - Termez							Tendering	2004	2008	6,69$							
TJK-ROD-03	Road	Post Fotekhobod, Buston, Sogd region								2005	2007	1.560 €		50%					
TJK-ROD-04	Road	Post Bratstvo Tursun-zoda								2006	2009	1.560 €		50%					

TEMPLATE B2-RAIL

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources*)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node/ city*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Programmig, Planning, Design, Construction* (please select one)	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
TJK-RLW-01	Railway	Improvement of regional railway Bekobod - Konibodom (Republic of Tajikistan)								Tendering	2004	2009								

GDP (in year 2007& in million$)	*% Budget of Public Works allocated*	* Please indicate reasons of project implementation delay, if applicable:

TURKEY

TEMPLATE B1-ROAD

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node/ci ty*	*Total Length (km)*	*Motorway, Expressway, National Road (please select one)*	*Existing Average Annual Daily Traffic (AADT)*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
	TU-ROD-01	Upgrading: from Sarp Border Gate to Piraziz			356				Construction	1977	2009	2.191$							
	TU-ROD-02	Upgrading: from Piraziz to Ünye			82				Construction	1992	2006	456$							
	TU-ROD-03	Upgrading: from Ünye to Çarşamba			83				Construction	1992	2007	114$							
	TU-ROD-04	Upgrading: from Samsun to Kavak			48				Construction	1997	2006	110$							
	TU-ROD-05	Upgrading: from Kavak to Merzifon			58				Construction	2001	2007	192$							
	TU-ROD-06	Upgrading: from Koyulhisar to Niksar Junction			84				Construction	1992	2006	34 €							
	TU-ROD-07	Upgrading: from Niksar Junction to Amasya			90				Construction	1992	2006	27 €							
	TU-ROD-08	Upgrading : from Gerede-15.Divison Border			75		5476	7266	Planning	2006	2010								
	TU-RO-09	Upgrading : from 15. Division Border to Osmancık			49		4325	5647	Planning	2006	2010	Gerede - Merzifon State Road Project is 309 km in length& estimated cost is approximately 350 milUS $, road is divided							
	TU-ROD-10	Upgrading :from Osmancık-Saraycık to Merzifon			63		4515	5927	Planning	2006	2010	Gerede - Merzifon State Road Project is 309 km in length& estimated cost is approximately 350 milUS $, road is divided							
	TU-ROD-11	Upgrading: from 4.Division Border-Kurşunlu-Ilgaz to (Kastamonu –Korgun) Junction			57		4568	6022	Planning	2006	2010	Gerede - Merzifon State Road Project is 309 km in length& estimated cost is approximately 350 milUS $, road is divided							
	TU-R0D-12	Upgrading: from (Kastamonu –Korgun) Junction –Tosya to 7.Division Border			65		4243	5585	Planning	2006	2010	Gerede - Merzifon State Road Project is 309 km in length& estimated cost is approximately 350 milUS $, road is divided							

TEMPLATE B2-RAIL

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Average Daily Train Traffic (ADTT, passenger trains)		Average Daily Train Traffic (ADTT, freight trains)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node/c ity*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
	TU-RLW-01	Ankara-Istanbul High-Speed Railway Construction (PHASE1)			237,0	31				Construction	2003	2007	732 €							13,8
	TU-RLW-01	Ankara-Istanbul High-Speed Railway Construction (PHASE2)			157,0	31				Tendering	2004	2007	701 €				√			13,8
	TU-RLW-02	Istanbul [1] Rail Tunnel Crossing & Rehabilitation of Gebze-Halkalı Railway Line			76,3					Construction	2004	2009	2.913 €				√		√	
	TU-RLW-03	Boğazköprü-Ulukışla-Yenice-Mersin-Adana-Toprakkale signalling and telecommunication project			380,0	25		15		Tendering	2006	2008	135 €				√			14,4
	TU-RLW-04	Ankara- Sivas New Railway Construction			475,0					Design/Study	2007	2010	1,2billon$							
	TU-RLW-05	Kars-Tblisi New Railway Construction			70,0					Design/Study	2005	2006 for design study	250$							
	TU-RLW-06	Construction of: Lake Van Northern Crossing			237,0					Design/Study			795$							
	TU-RLW-07	Construction of : Ankara-Polatlı-Afyon-İzmir			606,0					Design/Study			1,6billion$							
	TU-RLW-08	Construction and Rehabilitation of : Samsun-İskenderun																		

[1]For further clarification on the subject please consider official communications received by the governments of the Russian Federation and Turkey as well as the extract of document ECE/TRANS/SC.2/GEURL/2011/9 of the Working Party on Rail Transport Group of Experts towards Unified Railway Law, Report of the Group of Experts on its second session Geneva, held on 7 October 2011 (this can be found at the end of this document).

TEMPLATE B4-PORTS

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Annual Throughput (tones and TEUs)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node/ci ty*	*Total Length (km)*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
Sea Port	TU-MAR-01	Rehabilitation of the Port of Derince						Construction			34 €				√			
Sea Port	TU-MAR-02	Modernization of facilities at İzmir port and dredging in İzmir Bay						Construction	2005		200$							
Inland Container Depot	TU-MAR-03	Construction of second container terminal at Mersin Port							2005									
Inland Container Depot	TU-MAR-04	Construction of container terminal at Iskenderun Port						Study/Design			250$							

GDP (in year 2007& in million$)	*% Budget of Public Works allocated*	** Please indicate reasons of project implementation delay, if applicable:*

UKRAINE

TEMPLATE B2-RAIL

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Average Daily Train Traffic (ADTT, passenger trains)		Average Daily Train Traffic (ADTT, freight trains)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)				
			Start point/node/ city	*End point/node/ city*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*
Railway	UKR-RLW-01	"Development of Ukrainian rails" Purchase of modern track technique for modernization and maintanance of track at section Lvov - Schmerinka-Kiev								Tendering	2001	2004	92,57$		40%		60%		
Railway	UKR-RLW-02	"High-speed passenger traffic at Ukrainian rails". Building of Beskidskiy tunnel (Pan-European transport corridor №5); passenger's coachs purchase; track technique purchase.								Construction	2004	2008	200$		40%		60%		

TEMPLATE B3-MARITIME-INLAND WATERWAY

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Yearly Vessel Traffic		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node/c ity*	*Total Length (km)*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
Inland Water Transport	UKR-INW-01	Pan-European transport corridor № 3 "Dnipro-Visla -Oder" (including Dnipro deep-way (Dnipro mouth -Pripiyat mouth) -1000 km						Study/Design										
Inland Water Transport	UKR-INW-02	Pan-European transport corridor № 9, "North - South" "Western Dvina (Dyagava) -Dnipro"						Study/Design			751$		Attraction investments of EBDR, European countries and domestic investors					
Inland Water Transport	UKR-INW-03	Pan-European transport corridor № 7 Rein-Main-Dynai "Dynai - Black Sea"						Study/Design			156.25$							
Inland Water Transport	UKR-INW-04	Deep-water navigable Dynai and Black sea connection (Dynai mouth reach at the territory of Ukraine, Odesskiy region).						Study/Design			24.9$		72%		28%			

TEMPLATE B4-PORTS

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Annual Throughput (tones and TEUs)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**)					IRR / (ROE if PPP)
			Start point/node/ city	*End point/node/ city*	*Total Length (km)*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Funds*	*EU Funds*	*Bank Loans*	*Grants*	*Private Funds*	
Maritime Transport/ Sea Port	UKR-MAR-01	Trade port Illichevsk, multimodal terminal							2006		1.5$							

GDP (in year 2007& in million$)	***% Budget of Public Works allocated***	* Please indicate reasons of project implementation delay, if applicable:

UZBEKISTAN

TEMPLATE B1-ROAD

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION: Start point/node/ city	PROJECT LOCATION: End point/node /city	PROJECT LOCATION: Total Length (km)	ROAD TYPE: Motorway, Expressway, National Road (please select one)	TRAFFIC VOLUMES: Existing Average Annual Daily Traffic (AADT)	TRAFFIC VOLUMES: Forecasted	CURRENT STATUS: Programming, Planning, Design, Construction (please select one)	TIME PLAN*: Start year	TIME PLAN*: End year	TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**): National Funds	EU Funds	Bank Loans	Grants	Private Funds	IRR / (ROE if PPP)
Road	UZB-ROD-01	Rehabilitation and reconstruction of 152 km of Samarkand-Termez road (section of Transafghan international transport corridor)							Construction	2002	2005	58,8$			74%	26%			
Road	UZB-ROD-02	Construction and reconstruction works of the road sections "Ukraine border-Volgograd-Astrahan-Atirau-Beineu-Tashkent" highway (main section of international transport corridor E-40)							Construction	2004	2007								
Road	UZB-ROD-03	Feasibility study and reconstruction and rehabilitation works of 500 kms of "Kungrad-Jaslik Beineu" road							Construction	2004	2007			√	√				
Road	UZB-ROD-04	Construction and rehabilitation of Tashkent-Andijan-Osh-Saritash-Irkeshtam-Kashgar road 940 km							Construction	2004					√	√	√		
Road	UZB-ROD-05	Rehabilitation of 125 km of Angren-Pap mountain road							Construction	2004									
Road	UZB-ROD-06	Construction of Uchkuduk (Uzbekistan) - Kizil Orda (Kazakhstan) road								2005				√					

TEMPLATE B2-RAIL

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION: Start point/node/ city	PROJECT LOCATION: End point/node /city	PROJECT LOCATION: Total Length (km)	ADTT (passenger): Existing	ADTT (passenger): Forecasted	ADTT (freight): Existing	ADTT (freight): Forecasted	CURRENT STATUS: Programmig, Planning, Design, Construction (please select one)	TIME PLAN*: Start year	TIME PLAN*: End year	TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**): National Funds	EU Funds	Bank Loans	Grants	Private Funds	IRR / (ROE if PPP)
Railway	UZB-RLW-01	Reconstruction of 341 km of railroad, and laying of fiber line (Samarkand-Hodjadavlet)								Construction	2001	2005	155$		52%		48%			
Railway	UZB-RLW-02	Construction of 282 km of railroad, and 33 km of railroad Reconstruction Tasgguzar-Boysun-Kumkurgan								Construction	1995	2010	447$		64%		35%			
Railway	UZB-RLW-03	Electrification of 114 km of railroad line Tukimachi-Angren								Construction	2003	2007	80,626$		35%		65%			
Railway	UZB-RLW-04	Reconstruction of 139 kmof railroad line Marokand-Karshi								Study/Design	2007	2010	30$		33%		67%			
Railway	UZB-RLW-05	Reconstruction of railroadstation Termez-Galaba, including bridge through the river Amudarya laying [illegible]								Study/Design	2004	2008	17,8$		53%	13%	34%			
Railway	UZB-RLW-06	Construction and electrification of 118 km new railroad Angren-Pap line with mountain tunnel																		
Railway	UZB-RLW-07	Reconstruction of 79 km of Djalalabad-Karasu-Andijan railroad section																		
Railway	UZB-RLW-08	Reconstruction of 700 km of Aktau-Beineu-Kungrad railroad section																		

TEMPLATE B4-PORTS

NETWORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION: Start point/node/ city	PROJECT LOCATION: End point/node /city	PROJECT LOCATION: Total Length (km)	Annual Throughput (tones and: Existing	Annual Throughput: Forecasted	CURRENT STATUS: Programming, Planning, Design, Construction (please select one)	TIME PLAN*: Start year	TIME PLAN*: End year	TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possible funding sources**): National Funds	EU Funds	Bank Loans	Grants	Private Funds	IRR / (ROE if PPP)
Intermodal Freight Terminal	UZB-INM-01	Construction of customs control complex "Karakalpaliya", which will control rail and road transportation							2004	2006			√					
Intermodal Freight Terminal	UZB-INM-02	Modernization and supply with a modern equipment of the country customs control complexes and main customs points																

GDP (in year 2007& in million$)	% Budget of Public Works allocated	* Please indicate reasons of project implementation delay, if applicable:

ANNEX II

TEMPLATES 2 (2A, 2B, 2C, 2D)

TEMPLATE 2A – Road and related infrastructure Project Fiche

Project Name:
Project ID:
Network (EATL Route):
Project Description:

Projects Group: *Funded/ Unfunded*

Note: If Funded, fill in Section 1 only. If Unfunded, fill in Sections 1 and 2.

Section 1. Project Technical Characteristics:

1. Location (latitude/longitude or alternatively a map):
2. Start point/node/city
3. End point/node/city
4. Road Class[1]:
5. Length (in km):
6. Number of carriageways:
7. No of lanes:
8. Design Speed (km/h):
9. Annual Average Daily Traffic[2]:
10. Estimated % of freight vehicles[3]:
11. Annual Average Daily Traffic (passengers):
12. *Annual Average Daily Traffic (tones):*
13. Expected (total) traffic increase (in % - *both existing and generated*):
14. Road toll implementation: ☐ YES ☐ NO

Section 2. Project Information Concerning Criteria of CLUSTER A

15. Is the project serving international connectivity? ☐ YES ☐ NO

If **yes** is it expected to:

A: Greatly improves connectivity, B: Significantly improves connectivity, C: Somewhat improves connectivity, D: Slightly improves connectivity, E: Does not improve connectivity.

16. Will the project promote solutions to the particular transit transport needs of the landlocked developing countries? ☐ YES ☐ NO

If **yes** is the project providing solution:

A: Greatly, B: Significantly, C: Somewhat, D: Slightly, E: Does not

17. Will the project connect low income and/or least developed countries to major European and Asian markets? ☐ YES ☐ NO

If **yes** is the project providing connection:

A: Greatly, B: Significantly, C: Somewhat, D: Slightly, E: Does not

18. Will the project cross natural barriers, removes bottlenecks, raises substandard sections to meet international standards, or fills missing links in the EATL? ☐ YES ☐ NO

If **yes** is the project crosses..:

A: Greatly, B: Significantly, C: Somewhat, D: Slightly, E: Does not

19. Will the project have a high degree of urgency due to importance attributed by the national authorities and/or social interest? ☐ YES ☐ NO

If **yes** the projects is:

A: In the national plan and immediately required (for implementation up to 2013), B: In the national plan and very urgent (for implementation up to 2016), C: In the national plan and urgent (for implementation up to 2020), D: In the national plan but may be postponed until after 2020, E: Not in the national plan.

20. Will the project potentially create negative environmental or social impacts (pollution, safety, etc)? ☐ YES ☐ NO

If **yes** the size of impact is:

A: No impact, B: Slight impact, C: Moderate impact, D: Significant impact, E; Great impact.

Project Information Concerning Criteria of CLUSTER B

21. Project cost (in million):

22. Expected Starting Date:

23. Expected Completion Date:

24. IRR:

25. Project's stage: ☐ Construction ☐ Tendering ☐ Study/Design ☐ Planning ☐ Identification

26. Expected Funding Sources (and the % of funding for each one):

    a. ….
    b. ….
    c. …..
    d. ….

[1] *If AGR (M=Motorway, E=Express road, O=Ordinary road); if AH (P=Primary, I= Class I, II= Class II, III=Class III), or both if applicable.*
[2] *For the year 2008 and latest year, if available.*
[3] *Freight vehicles include any vehicles used to transport freight, such as trucks and trailers.*

TEMPLATE 2B – Rail and related infrastructure Project Fiche

Project Name:
Project ID:
Network (EATL Route):
Project Description:

Projects Group: *Funded/ Unfunded*

Note: If Funded, fill in Section 1 only. If Unfunded, fill in Sections 1 and 2.

Section 1. Project Technical Characteristics:

1. Location (latitude/longitude or alternatively a map):
2. Start point/node/city:
3. End point/node/city:
4. Length (in km):
5. Track gauge (mm):
6. No of tracks:
7. Traction: ☐ Electrified ☐ Non-Electrified
8. Signaling type: ☐ Automatic ☐ Manual
9. Maximum allowed speed - passenger trains:
10. Maximum allowed speed - freight trains:
11. Average Daily Train Traffic - Passenger trains[1]:
12. Average Daily Train Traffic - Freight trains[1]:
13. Expected (passenger) traffic increase (in % - *both existing and generated*):
14. Expected (freight) traffic increase (in % - *both existing and generated*)
15. Volume of cargo moved (tones and TEUs)[1]:

Section 2. Project Information Concerning Criteria of CLUSTER A

16. Is the project serving international connectivity? ☐ YES ☐ NO

If **yes** is it expected to:

A: Greatly improves connectivity, B: Significantly improves connectivity, C: Somewhat improves connectivity, D: Slightly improves connectivity, E: Does not improve connectivity.

17. Will the project promote solutions to the particular transit transport needs of the landlocked developing countries? ☐ YES ☐ NO

If **yes** is the project providing solution:

A: Greatly, B: Significantly, C: Somewhat, D: Slightly, E: Does not

18. Will the project connect low income and/or least developed countries to major European and Asian markets? ☐ YES ☐ NO

If **yes** is the project providing connection:

A: Greatly, B: Significantly, C: Somewhat, D: Slightly, E: Does not

19. Will the project cross natural barriers, removes bottlenecks, raises substandard sections to meet international standards, or fills missing links in the EATL? ☐ YES ☐ NO

If **yes** is the project crosses..:

A: Greatly, B: Significantly, C: Somewhat, D: Slightly, E: Does not

20. Will the project have a high degree of urgency due to importance attributed by the national authorities and/or social interest? ☐ YES ☐ NO

If **yes** the projects is:

A: In the national plan and immediately required (for implementation up to 2013), B: In the national plan and very urgent (for implementation up to 2016), C: In the national plan and urgent (for implementation up to 2020), D: In the national plan but may be postponed until after 2020, E: Not in the national plan.

21. Will the project potentially create negative environmental or social impacts (pollution, safety, etc)? ☐ YES ☐ NO

If **yes** the size of impact is:

A: No impact, B: Slight impact, C: Moderate impact, D: Significant impact, E; Great impact.

Project Information Concerning Criteria of CLUSTER B

22. Project cost (in million):

23. Expected Starting Date:

24. Expected Completion Date:

25. IRR:

26. Project's stage: ☐ Construction ☐ Tendering ☐ Study/Design ☐ Planning ☐ Identification

27. Expected Funding Sources (and the % of funding for each one):

    a. ….
    b. ….
    c. …..
    d. ….

[1] *For the year 2008 and latest year, if available.*

TEMPLATE 2C – Inland waterways and related infrastructure Project Fiche

Project Name: Project ID: Network (EATL Route): Project Description:
Projects Group: *Funded/ Unfunded* *Note*: If Funded, fill in Section 1 only. If Unfunded, fill in Sections 1 and 2.
Section 1. Project Technical Characteristics: 1. Location (latitude/longitude or alternatively a map): 2. Start point/node/city: 3. End point/node/city: 4. Length (in km): 5. Max. admissible LNWL[1]: 6. Mi. bridge clearance at HNWL[2]: 7. Lock dimensions: 8. Permitted operational speed (km/h): 9. Yearly vessel traffic[3]: 10. Expected (total) traffic increase (in % - *both existing and generated*):
Section 2. Project Information Concerning Criteria of CLUSTER A 11. Is the project serving international connectivity? ☐ YES ☐ NO If **yes** is it expected to: A: Greatly improves connectivity, B: Significantly improves connectivity, C: Somewhat improves connectivity, D: Slightly improves connectivity, E: Does not improve connectivity. 12. Will the project promote solutions to the particular transit transport needs of the landlocked developing countries? ☐ YES ☐ NO If **yes** is the project providing solution: A: Greatly, B: Significantly, C: Somewhat, D: Slightly, E: Does not 13. Will the project connect low income and/or least developed countries to major European and Asian markets? ☐ YES ☐ NO If **yes** is the project providing connection: A: Greatly, B: Significantly, C: Somewhat, D: Slightly, E: Does not 14. Will the project cross natural barriers, removes bottlenecks, raises substandard sections to meet international standards, or fills missing links in the EATL? ☐ YES ☐ NO If **yes** is the project crosses..: A: Greatly, B: Significantly, C: Somewhat, D: Slightly, E: Does not

15. Will the project have a high degree of urgency due to importance attributed by the national authorities and/or social interest? ☐ YES ☐ NO

If **yes** the projects is:

A: In the national plan and immediately required (for implementation up to 2013), B: In the national plan and very urgent (for implementation up to 2016), C: In the national plan and urgent (for implementation up to 2020), D: In the national plan but may be postponed until after 2020, E: Not in the national plan.

16. Will the project potentially create negative environmental or social impacts (pollution, safety, etc)? ☐ YES ☐ NO

If **yes** the size of impact is:

A: No impact, B: Slight impact, C: Moderate impact, D: Significant impact, E; Great impact.

Project Information Concerning Criteria of CLUSTER B

17. Project cost (in million):

18. Expected Starting Date:

19. Expected Completion Date:

20. IRR:

21. Project's stage: ☐ Construction ☐ Tendering ☐ Study/Design ☐ Planning ☐ Identification

22. Expected Funding Sources (and the % of funding for each one):

    a. ….
    b. ….
    c. …..
    d. …..

[1] *Low Navigable Water Level*
[2] *Highest Navigable Water Level*
[3] *For the year 2008 and latest year, if available.*

TEMPLATE 2D – Ports (sea and inland waterway), Inland container depot/Intermodal freight terminal/Freight village/Logistic centre and related infrastructure Project Fiche

Project Name: Project ID: Network (EATL Route): Project Description:
Projects Group: *Funded/ Unfunded* *Note*: If Funded, fill in Section 1 only. If Unfunded, fill in Sections 1 and 2.
Project Type: ☐ Sea Port ☐ Inland Waterway Port ☐ Inland Container Depot ☐ Intermodal Freight Terminal ☐ Freight Village/Logistic Center
Section 1. Project Technical Characteristics: 1. Location (latitude/longitude or alternatively a map): 2. Start point/node/city: 3. End point/node/city: 4. Maximum draft of vessels served (in m) – PORTS ONLY: 5. Ships berths available (in m) – PORTS ONLY: 6. Handling facilities (specific equipments)[1]: **7. Open/ covered storage space (in m^2):** **8. Customs and services available:** 9. Types of ships handled (refer to specific types i.e. Dry cargo-bulk-container-Ro/Ro Passenger): 10. Bulk cargo handling capacity (tonnes/day)[2]: **11. Container handling capacity (TEU/day):** **12. Annual throughput (tones and TEUs)[3]:** **13. Expected (total) traffic increase (in % - *both existing and generated*):**
Section 2. Project Information Concerning Criteria of CLUSTER A 14. Is the project serving international connectivity? ☐ YES ☐ NO If **yes** is it expected to: A: Greatly improves connectivity, B: Significantly improves connectivity, C: Somewhat improves connectivity, D: Slightly improves connectivity, E: Does not improve connectivity. 15. Will the project promote solutions to the particular transit transport needs of the landlocked developing countries? ☐ YES ☐ NO If **yes** is the project providing solution: A: Greatly, B: Significantly, C: Somewhat, D: Slightly, E: Does not 16. Will the project connect low income and/or least developed countries to major European and Asian markets? ☐ YES ☐ NO If **yes** is the project providing connection: A: Greatly, B: Significantly, C: Somewhat, D: Slightly, E: Does not

17. Will the project cross natural barriers, removes bottlenecks, raises substandard sections to meet international standards, or fills missing links in the EATL? ☐ YES ☐ NO

If **yes** is the project crosses..:

A: Greatly, B: Significantly, C: Somewhat, D: Slightly, E: Does not

18. Will the project have a high degree of urgency due to importance attributed by the national authorities and/or social interest? ☐ YES ☐ NO

If **yes** the projects is:

A: In the national plan and immediately required (for implementation up to 2013), B: In the national plan and very urgent (for implementation up to 2016), C: In the national plan and urgent (for implementation up to 2020), D: In the national plan but may be postponed until after 2020, E: Not in the national plan.

19. Will the project potentially create negative environmental or social impacts (pollution, safety, etc)? ☐ YES ☐ NO

If **yes** the size of impact is:

A: No impact, B: Slight impact, C: Moderate impact, D: Significant impact, E; Great impact.

Project Information Concerning Criteria of CLUSTER B

20. Project cost (in million):

21. Expected Starting Date:

22. Expected Completion Date:

23. IRR:

24. Project's stage: ☐ Construction ☐ Tendering ☐ Study/Design ☐ Planning ☐ Identification

25. Expected Funding Sources (Name the sources and the % of funding for each one):

a. ….

b. ….

c. …..

d. ….

[1] *Cranes-gantries-mobile-forklifts-20'/40' containers. Also indicate availability of rail/road transhipment facilities.*

[2] *Where applicable.*

[3] *For the year 2008 and latest year, if available.*

2. IMPLEMENTATION OF PRIORITY PROJECTS IDENTIFIED IN PHASE I

The scope of this section was to assess the status of implementation of projects identified under EATL Phase I. The status report was based on the inputs received from the 15 countries that had originally submitted data under EATL Phase I, which were asked to review and update the related information for each of these projects for the purpose of the current study. It should be noted that the information sent to each respective country was based on their original input submitted under Phase I, as well as additional/ complimentary information received by the external consultant following the formal completion of the EATL Phase I Project. Therefore, the EATL Phase I Project Status is presented on a country basis in the following, while respective projects were classified under the following four key categories:

- Completed
- Updated and now part of the EATL Phase II study
- Not realised
- No information on the status of the project

Afghanistan

Afghanistan did not submit information for the purpose of the EATL Phase I study.

Armenia

Armenia proposed 9 projects in total under EATL Phase I:

- 4 road projects (all classified as Priority I)
- 5 rail projects (2 classified as Priority I and 3 classified as Priority IV)

Armenia did not submit revised information. According to original information:

Table 2.1-Armenia Project Status

Network	ID	Description	Completed	Part of EATL Phase II	Not realized	No info
Road	ARM-ROD-01	Highways and bridges rehabilitation	√			
Road	ARM-ROD-02	Road maintenance and rehabilitation (every year)	√			
Road	ARM-ROD-03	Investigation of 62 road bridges and design of documents	√			
Road	ARM-ROD-04	Rehabiliation of 62 road bridges	√			
Rail	ARM-RLW-01	Railway tracks rehabilitation (70 km)	√			
Rail	ARM-RLW-02	Investigation of railway bridges and design of documents	√			
Rail	ARM-RLW-03	Rehabilitation of railway bridges				?

Rail	ARM-RLW-04	Development of Armenian Railway: rehabilitation (110 km)				**?**
Rail	ARM-RLW-05	Construction of new railway (Gavar - Martuni - Jermuk - Sisian - Kapan - Meghri - Merand (IIR)				**?**

Azerbaijan

Azerbaijan proposed 10 projects in total under EATL Phase I:
- 7 road projects (all classified as Priority I)
- 1 rail project (classified as Priority I)
- 2 port projects (1 classified as Priority I and 1 classified as Priority IV)

According to new information submitted by Azerbaijan:

Table 2.2- Azerbaijan Project Status

Network	ID	Description	Completed	Part of EATL Phase II	Not realized	No info
Road	AZT-ROD-01	Rehabilitation of: Gazimamad – Kurdamir, E60	√			
Road	AZT-ROD-02	Rehabilitation of: Kurdamir - Ujar		√		
Road	AZT-ROD-03	Rehabilitation of: Ujar- Yevlakh	√			
Road	AZT-ROD-04	Rehabilitation of: Yevlakh – Gandja		√		
Road	AZT-ROD-05	Rehabilitation of: Ganja – Gazakh	√			
Road	AZT-ROD-06	Rehabilitation of: Gazakh – Georgian Border		√		
Road	AZT-ROD-07	Reconstruction of: Russian border – Baku – Iranian Border, E119		√		
Rail	AZT-RLW-01	Construction of: "North-South" transport corridor Europe - Asia				**?**
Port	AZT-MAR-01	Reconstruction of: Sea station of International Trade Port of Baku		√		
Port	AZT-MAR-02	Reconstruction of: Ferry Terminal of International Trade Port of Baku				**?**

Belarus

Belarus proposed 4 projects in total under EATL Phase I:
- 3 road projects (all classified as Priority I)
- 1 rail project (classified as Priority I)

Belarus did not submit revised information. According to original information:

Table 2.3- Belarus Project Status

Network	ID	Description	Completed	Part of EA TL Phase II	Not realized	No info
Road	BL-ROD-01	Upgrading of the M1/E30 road, section from km 1.7 to km 9.8	√			
Road	BL-ROD-02	Upgrading of the M1/E30 road,	√			

		section from Telmy to Kozlovichi 21 km length				
Road	BL-ROD-03	Upgrading of the M1/E30 road, section from 573 km to 603 km	√			
Rail	BL-RLW-01	Organisation of speed traffic of passenger trains (section Krasnoje-Minsk-Brest)	√			

Bulgaria

Bulgaria proposed 24 projects in total under EATL Phase I:

- 15 road projects (12 classified as Priority I and 3 as Priority IV)
- 7 rail projects (all classified as Priority I)
- 1 port project (classified as Priority I)
- 1 inland waterway project (classified as Priority I)

According to new information submitted by Bulgaria:

Table 2.4- Bulgaria Project Status

Network	ID	Description	Completed	Part of EATL Phase II	Not realized	No info
Road	BG-ROD-01	Construction of: Motorway "Trakia" Lot 1	√			
Road	BG-ROD-02	Construction of: Motorway "Trakia" Lot 5	√			
Road	BG-ROD-03	Rehabilitation of : Corridor 9 Stara Zagora - Kazanlak	√			
Road	BG-ROD-04	Rehabilitation of: Corridor 4 Sofia - Botevgrad	√			
Road	BG-ROD-05	Rehabilitation of: Corridor 8 Sliven - Burgas	√			
Road	BG-ROD-06	Rehabilitation of: Corridor 4 Vidin - Montana	√			
Road	BG-ROD-07	Rehabilitation of: Corridor 4 Vladaia – Daskalovo (Express road)	√			
Road	BG-ROD-08	Rehabilitation of: Corridor 4 Vladaia – Daskalovo (Ordinary road)	√			
Road	BG-ROD-09	Rehabilitation of: Corridor 10 Kalotina - Sofia	√			
Road	BG-ROD-10	Rehabilitation of: Corridor 8 Varna - Burgas	√			
Road	BG-ROD-11	Rehabilitation of: Corridor 8 Kjustendil - Sofia	√			
Road	BG-ROD-12	Construction of: Corridor 4 Motorway "Ljulin	√			
Road	BG-ROD-13	Construction of: Motorway "Trakia" Lot 2, 3, 4		√		
Road	BG-ROD-14	Construction of: Motorway "Marica"		√		
Road	BG-ROD-15	Construction of: Motorway "Cherno more"				**?**
Rail	BG-RLW-01	Plovidiv-Svilengrad railway line electrification and upgrading (E070)		√		
Rail	BG-RLW-02	Electrification of Dragoman-Kalotina BS railway line (E070)		√		
Rail	BG –RLW-03	Modernization and electrification of Radomir-Gueshevo railway line		√		

		(T855)				
Rail	BG –RLW-04	Modernization of Vidin-Sofia-Kulata railway line (T056+E855)		√		
Rail	BG –RLW-05	Modernization of Sofia-Dragoman railway line		√		
Rail	BG –RLW-06	Modernization of Sofia-Plovdiv-Burgas/Varna railway line (E070+E720+E951)		√		
Rail	BG –RLW-07	Restoration of design parameters of Sofia-Karlovo-Zimnitsa railway line		√		
Inland Waterway	BG-INW-01	Rehabilitation, reconstruction and Modernisation of the port of Lom		√		
Port	BG-MAR-01	Port of Bourgas expansion project	√			

China

China proposed 8 projects in total under EATL Phase I:

- 6 road projects (classified as Priority I)
- 2 maritime projects (both classified as Priority II)

According to new information submitted by China:

Table 2.5- China Project Status

Network	ID	Description	Completed	Part of EATL Phase II	Not realized	No info
Road		Kashi-Honqilaf Road	√			
Road		Sailimu Lake-Horgos	√			
Road		Road upgrade: Kuerle-Akesu (AH4)				?
Road		Road upgrade: Akesu-Atushi(AH4)				?
Road		Road upgrade: Kashi-Irkestan Road AH65		√		
Road		Wuqia-Turgart AH61	√			
Port		The container berths in Phase Three of Miaoling ,Lian Yungang	√			
Port		The alumina berth of Lian Yungang				?

Georgia

Georgia proposed 49 projects in total under EATL Phase I:

- 4 road projects (all classified as Priority I) which have been completed.
- 21 rail projects (all classified as Priority IV).
- 24 port projects (all classified as Priority IV).

According to new information submitted by Georgia:

- All road projects have been completed.
- The majority of rail projects is either completed or not realized (2 projects are submitted under EATL Phase II).

- No information was given on port projects.

Iran

Iran proposed 44 projects in total under EATL Phase I:

- 34 road projects (31 classified as Priority I, 2 as Priority II and 3 as Priority III)
- 10 rail projects (5 classified as Priority I, 3 as Priority II and 2 as Priority III)

Iran did not submit revised information. According to original information:

Table 2.6- Iran Project Status

Networ	ID	Description	Completed	Part of EATL Phase II	Not realised	No info
Road	IR-ROD-01	Upgrading of: Astara - Rasht	√			
Road	IR-ROD-02	Upgrading of: Anzali - Rasht	√			
Road	IR-ROD-03	Construction of: Rasht - Qazvin	√			
Road	IR-ROD-04	Construction of: Qazvin - Saveh				?
Road	IR-ROD-05	Construction of: Ahvaz - Bandar Emam				?
Road	IR-ROD-06	Rehabilitation of: Naeen-Ardekan	√			
Road	IR-ROD-07	Rehabilitation of: Ardekan - Yazd	√			
Road	IR-ROD-08	Rehabilitation of: Mehriz - Anar	√			
Road	IR-ROD-09	Rehabilitation of: Anar - Sirjan	√			
Road	IR-ROD-10	Construction of: Sirjan - Bandar Abbas				?
Road	IR-ROD-11	Rehabiltation of: Sirjan - Bandar Abbas (Accomplished)	√			
Road	IR-ROD-12	Upgrading of: Semnan - Damghan	√			
Road	IR-ROD-13	Construction of: Jandagh - Ardekan	√			
Road	IR-ROD-14	Upgrading of: Sarakhs - Sangbast	√			
Road	IR-ROD-15	Upgrading of: Baghcheh - Torbat Heydarieh	√	√		
Road	IR-ROD-16	Construction of: Torbat Heydarieh - Gonabad		√		
Road	IR-ROD-17	Upgrading of: Gonabad - Birjand		√		
Road	IR-ROD-18	Rehabilitation of: Zahedan - Khash	√			
Road	IR-ROD-19	Rehabilitation of: Khash - Iranshahr		√		
Road	IR-ROD-20	Construction of: Iranshahr - Chabahar	√			
Road	IR-ROD-21	Upgrading of: Shahreza - Shiraz	√			
Road	IR-ROD-22	Rehabilitation of: Jolfa - Eyvoghli	√			
Road	IR-ROD-23	Rehabilitation of: Eyvoghli - Marand	√			
Road	IR-ROD-24	Rehabilitation of: Marand - Tabriz	√			
Road	IR-ROD-25	Rehabilitation of: Tabriz - Bostanabad	√			
Road	IR-ROD-26	Construction of: Tabriz - Zanjan	√			
Road	IR-ROD-27	Upgrading of: Damghan - Sabzevar	√			
Road	IR-ROD-28	Upgrading of: Sabzevar - Baghcheh	√			
Road	IR-ROD-29	Upgrading of: Anar - Baghein	√			

Road	IR-ROD-30	Rehabilitation of: Sangbast - Dogharun	√			
Road	IR-ROD-31	Upgrading of: Qazvin - Saveh	√			
Road	IR-ROD-32	Construction of: Khorramabad - Andimeshk		√		
Road	IR-ROD-33	Upgrading of: Sirjan - Bandar Abbas	√			
Road	IR-ROD-34	Construction of: Bazargan - Tabriz		√		
Rail	IR-RLW-01	Construction of: Anzali - Rasht		√		
Rail	IR-RLW-02	Construction of: Rasht - Qazvin	√			
Rail	IR-RLW-03	Construction of: Esfahan - Shiraz	√			
Rail	IR-RLW-04	Construction of: Tabriz - Mianeh	√			
Rail	IR-RLW-05	Construction of: Bam - Zahedan	√			
Rail	IR-RLW-06	Construction of: Astara - Rasht		√		
Rail	IR-RLW-07	Construction of: Bam - Chabahar		√		
Rail	IR-RLW-08	Construction of: Zahedan - Mirjaveh		√		
Rail	IR-RLW-09	Construction of: Shiraz - Bushehr		√		
Rail	IR-RLW-10	Construction and upgrade of: Tehran - Esfahan		√		

Kazakhstan

Kazakhstan proposed 14 projects in total under EATL Phase I:

- 14 road projects (all classified as Priority I)

According to new information submitted by Kazakhstan all projects have been completed.

Table 2.7- Kazakhstan Project Status

Network	ID	Description	Completed	Part of EATL Phase II	Not realized	No info
Road	KZ-ROD-01	Rehabilitation of the motorway Almaty – Gulshad on the sections Almaty – Gulshad, Akchatau – Karagandy	√			
Road	KZ-ROD-02	Reconstruction of the passage through Karagandy	√			
Road	KZ-ROD-03	Rehabilitation of the motorway Karagandy-Astana	√			
Road	KZ-ROD-04	Reconstruction of the highway network in Western Kazakhstan	√			
Road	KZ-ROD-05	Project on developing of the highway system (Almaty-Bishkek)	√			
Road	KZ-ROD-06	Reconstruction of the motorway Aktau - Atyrau	√			
Road	KZ-ROD-07	Reconstruction of the motorway Astana-Kostanai-Chelyabinsk	√			
Road	KZ-ROD-08	Reconstruction of the motorway Omsk-Pavlodar-Maikapchagai	√			
Road	KZ-ROD-09	Reconstruction of the motorway Borovoye-Kokshetau-Petropavlovsk- border	√			

		of RF				
Road	KZ-ROD-10	Reconstruction of the motorway border of the RF – Uralsk – Aktobe	√			
Road	KZ-ROD-11	Reconstruction of the motorway Karabutak – Irghiz – border of Kyzylordinskaya oblast	√			
Road	KZ-ROD-12	Reconstruction of the motorway Kyzylorda – Zhezkazgan – Pavlodar – Uspenka –border of the RF	√			
Road	KZ-ROD-13	Reconstruction of the motorway Usharal - Dostyk	√			
Road	KZ-ROD-14	Reconstruction of the motorway border of Uzbekistan – (towards Tashkent) – Shymkent – Taraz – Almaty - Khorgos	√			

Kyrgyzstan

Kyrgyzstan proposed 7 projects in total under EATL Phase I:

- 6 road projects (all classified as Priority I)
- 1 rail project (classified as Priority IV)

According to new information submitted by Kyrgyzstan all projects have been completed.

Table 2.8- Kyrgyzstan Project Status

Network	ID	Description	Completed	Part of EA TL Phase II	Not realized	No info
Road	KG-ROD-01	Project 'Rehabilitation ща motor way Bishkek-Osh'	√			
Road	KG-ROD-02	Section ща motor way (61-161 km), incl. Tunnel on the crossing Too-Ashoo	√			
Road	KG-ROD-03	Sectionща motor way (247-324 km; 360-414 km)	√			
Road	KG-ROD-04	Section motor way (426 –498 km, 614 –664km)	√			
Road	KG-ROD-05	Project 'Rehabilitation of motor way Jalal–Abad – Uzgen and detour station Madaniyat'	√			
Road	KG-ROD-06	Project 'Rehabilitation of motor way Bishkek-Georgevka'	√			
Rail	KG-RLW-01	New Rolling Stock	√			

Republic of Moldova

The Republic of Moldova proposed 9 projects in total under EATL Phase I:

- 5 road projects (all classified as Priority IV)
- 3 rail projects (1 classified as Priority I, 2 as Priority IV)
- 1 inland waterway project (classified as Priority I)

Moldova did not submit revised information. According to original information:

Table 2.9- Moldova Project Status

Networ	**ID**	**Description**	**Completed**	**Part of EATL Phase II**	**Not realised**	**No info**
Road	MD-ROD-01	Improvement of Road and Roadside Services along the Moldavian component of Corridor IX by modernising a 18-km Chişinău bypass	√			
Road	MD-ROD-02	Improvement of Road and Roadside Services along a 153-km road the border with Romania – Leuşeni – Chişinău – Dubăsari – the border with Ukraine		√		
Road	MD-ROD-03	Improvement of a 217-km Road Chişinău – Cimislia – Comrat – Vulcăneţti – Giurgiuleşti – the border with Romania		√		
Road	MD-ROD-04	Rehabilitation of a 68-km road Sarateni Vechi – Bălţi		√		
Road	MD-ROD-05	Rehabilitation of a 136-km road Bălţi – Criva		√		
Rail	MD-RLW-01	Construction of a 44-km railway line Revaca - Cainari (a missing link between the Moldavian components of Corridor IX, CE-95 and E-560 main lines)	√			
Rail	MD-RLW-02	Electrification of a 211-km railway line the border with Ukraine – Bender – Chişinău – Ungheni – the border with Romania		√		
Rail	MD-RLW-03	Construction of a 54-km railway line Cahul – Giurgiuleşti		√		
Inland	MD-INW-01	Construction of the Giurgiuleşti port complex on the territory of the Republic of Moldova in the mouth of the Danube river, including the terminal of oil product processing and a new oil refinery		√		

Romania

Romania proposed 12 projects in total under EATL Phase I:

- 7 port projects (3 classified as Priority I and 4 classified as Priority IV)
- 5 inland waterway projects (3 classified as Priority I, 1 as Priority II and 1 as Priority IV)

According to new information submitted by Romania:

Table 2.10- Romania Project Status

Networ	ID	Description	Completed	Part of EATL Phase II	Not realised	No info
Port	RO-MAR-01	Construction of Container Terminal on Pier II S	√			
Port	RO-MAR-02	Construction of: Passenger Terminal	√			
Port	RO-MAR-03	Constanta Port Environment and Infrastructure project	√			
Port	RO-MAR-04	Extension of the North Breakwater in Constanta Port		√		
Port	RO-MAR-05	Construction of Cereal Terminal	√			
Port	RO-MAR-06	Construction of Liquid Gas Terminal				**?**
Port	RO-MAR-07	Construction of: Mineral Oil Terminal				**?**
Inland	RO-INW-01	Bank protection on Sulina Channel. Signaling and Topohydrographical Measurements system on the Danube		√		
Inland	RO-INW-02	Improvement of the Condition for Navigation on the Danube, km 375-175, Calarasi – Braila sector		√		
Inland	RO-INW-03	Implementation of the VTMIS (Vessel Traffic Management Information System on Danube, Romanian sector		√		
Inland	RO-INW-04	Activation and Development of the river maritime – sector in Constanta Port		√		
Inland	RO-INW-05	Improvement of the Navigation on the Danube, km 875 – 375, Romanian – Bulgarian sector		√		

Russian Federation

The Russian Federation did not submit information for the purpose of the EATL Phase I study.

Tajikistan

Tajikistan proposed 5 projects in total under EATL Phase I:

- 4 road projects (all classified as Priority IV)
- 1 rail project (classified as Priority IV)

Tajikistan did not submit revised information. According to original information all projects should have been completed.

Table 2.11- Tajikistan Project Status

Network	ID	Description	Completed	Part of EATL Phase II	Not realized	No info
Road	TJK-ROD-01	Rehabilitation and reconstruction of highway Qurghonteppa -Dusti-Nizhniy Panj	√			
Road	TJK-ROD-02	Investment project Dushanbe - Termez	√			
Road	TJK-ROD-03	Post Fotekhobod, Buston, Sogd region	√			
Road	TJK-ROD-04	Post Bratstvo Tursun-zoda	√			
Rail	TJK-RLW-01	Improvement of regional railway Bekobod - Konibodom (Republic of Tajikistan)	√			

Turkey

Turkey proposed 23 projects in total under EATL Phase I:

- 12 road projects (7 classified as Priority I and 5 classified as Priority III)
- 7 rail projects (2 classified as Priority I and 5 as Priority II)
- 4 port projects (all classified as Priority IV)

According to new information submitted by Turkey:

Table 2.12- Turkey Project Status

Network	ID	Description	Completed	Part of EATL Phase II	Not realized	No info
Road	TU-ROD-01	Upgrading: from Sarp Border	√			

		Gate to Piraziz				
Road	TU-ROD-02	Upgrading: from Piraziz to Ünye	√			
Road	TU-ROD-03	Upgrading: from Ünye to Çarşamba	√			
Road	TU-ROD-04	Upgrading: from Samsun to Kavak	√			
Road	TU-ROD-05	Upgrading: from Kavak to Merzifon	√			
Road	TU-ROD-06	Upgrading: from Koyulhisar to Niksar Junction		√		
Road	TU-ROD-07	Upgrading: from Niksar Junction to Amasya		√		
Road	TU-ROD-08	Upgrading : from Gerede-15.Divison Border		√		
Road	TU-RO-09	Upgrading : from 15. Division Border to Osmancık		√		
Road	TU-ROD-10	Upgrading :from Osmancık-Saraycık to Merzifon		√		
Road	TU-ROD-11	Upgrading: from 4.Division Border-Kurşunlu-Ilgaz to (Kastamonu –Korgun) Junction		√		
Road	TU-R0D-12	Upgrading: from (Kastamonu – Korgun) Junction – Tosya to 7.Division Border		√		
Rail	TU-RLW-01	Ankara-Istanbul High-Speed Railway Construction (PHASE1)		√		
	TU-RLW-01	Ankara-Istanbul High-Speed Railway Construction (PHASE2)		√		
Rail	TU-RLW-02	Istanbul[56] Rail Tunnel Crossing & Rehabilitation of Gebze-Halkalı Railway Line		√		
Rail	TU-RLW-03	Boğazköprü-Ulukışla-Yenice-Mersin-Adana-Toprakkale signalling and telecommunication project		√		
Rail	TU-RLW-04	Ankara- Sivas New Railway Construction		√		
Rail	TU-RLW-05	Kars-Tblisi New Railway Construction		√		
Rail	TU-RLW-06	Construction of: Lake Van Northern Crossing		√		
Port	TU-MAR-01	Rehabilitation of the Port of Derince				?
Port	TU-MAR-02	Modernization of facilities at İzmir port and dredging in İzmir Bay				?
Port	TU-MAR-03	Construction of second container terminal at Mersin Port		√		

[56] For further clarification on the subject please consider official communications received by the governments of the Russian Federation and Turkey as well as the extract of document ECE/TRANS/SC.2/GEURL/2011/9 of the Working Party on Rail Transport Group of Experts towards Unified Railway Law, Report of the Group of Experts on its second session Geneva, held on 7 October 2011 (this can be found at the end of this document).

Port	TU-MAR-04	Construction of container terminal at İskenderun Port				?

Turkmenistan

Turkmenistan did not submit information for the purpose of the EATL Phase I study.

Ukraine

Ukraine proposed 7 projects in total under EATL Phase I:

- 2 rail projects (classified as Priority I)
- 1 port project (classified as Priority I)
- 4 inland waterway projects (2 classified as Priority I and 2 as Priority IV)

Ukraine did not submit revised information. According to original information:

Table 2.13- Ukraine Project Status

Network	ID	Description	Completed	Part of EATL Phase II	Not realized	No info
Rail	UKR-RLW-01	"Development of Ukrainian rails" Purchase of modern track technique for modernization and maintanance of track at section Lvov - Schmerinka-Kiev	√			
Rail	UKR-RLW-02	"High-speed passenger traffic at Ukrainian rails". Building of Beskidskiy tunnel (Pan-European transport corridor №5); passenger's coachs purchase; track technique purchase.	√			
Port	UKR-MAR-01	Trade port Illichevsk, multimodal terminal				?
Inland Waterway	UKR-INW-01	Pan-European transport corridor № 3 "Dnipro- Visla - Oder" (including Dnipro deep-way (Dnipro mouth - Pripiyat mouth) - 1000 km, Pripiyat-Dnipro-Bygskiy channel - Western Byg untill the Western Byg flows into the Visla - 1026 km; Visla waterway - Budgoschuskiy channel -Odra – 554 km.				?
Inland Waterway	UKR-INW-02	Pan-European transport corridor № 9, "North - South" "Western				?

		Dvina (Dyagava) - Dnipro"				
Inland Waterway	UKR-INW-03	Pan-European transport corridor № 7 Rein-Main-Dynai "Dynai - Black Sea"				?
Inland Waterway	UKR-INW-04	Deep-water navigable Dynai and Black sea connection (Dynai mouth reach at the territory of Ukraine, Odesskiy region).				?

Uzbekistan

Uzbekistan proposed 15 projects in total under EATL Phase I:

- 5 road projects (classified as Priority I)
- 8 rail projects (5 classified as Priority I and 3 classified as Priority III)
- 2 port projects (1 classified as Priority I and 1 classified as Priority IV)

Uzbekistan did not submit revised information. According to original information:

Table 2.14- Uzbekistan Project Status

Network	ID	Description	Completed	Part of EATL Phase II	Not realized	No info
Road	UZB-ROD-01	Rehabilitation and reconstruction of 152 km of Samarkand-Termez road (section of Transafghan international transport corridor)	√			
Road	UZB-ROD-02	Construction and reconstruction works of the road sections "Ukraine border-Volgograd-Astrahan-Atirau-Beineu-Tashkent" highway (main section of international transport corridor E-40)	√			
Road	UZB-ROD-03	Feasibility study and reconstruction and rehabilitation works of 500 kms of "Kungrad-Jaslik-Beineu" road	√			
Road	UZB-ROD-04	Construction and rehabilitation of Tashkent-Andijan-Osh-Saritash-Irkeshtam-Kashgar road 940 km				?
Road	UZB-ROD-05	Rehabilitation of 125 km of Angren-Pap mountain road				?
Rail	UZB-RLW-01	Reconstruction of 341 km of railroad, and laying of fiber line (Samarkand-Hodjadavlet)	√			
Rail	UZB-RLW-02	Construction of 232 km of railroad, and 68 km of railroad Reconstruction Tasgguzar-Boysun-Kumkurgan	√			
Rail	UZB-RLW-03	Electrification of 114 km of railroad line Tukimachi-Angren	√			

Rail	UZB-RLW-04	Reconstruction of 139 kmof railroad line Marokand-Karshi		√		
Rail	UZB-RLW-05	Reconstruction of railroadstation Termez-Galaba, including bridge through the river Amudarya laying telecommunicational links	√			
Rail	UZB-RLW-06	Construction and electrification of 118 km new railroad Angren-Pap line with mountain tunnel				**?**
Rail	UZB-RLW-07	Reconstruction of 79 km of Djalalabad-Karasu-Andijan railroad section				**?**
Rail	UZB-RLW-08	Reconstruction of 700 km of Aktau-Beineu-Kungrad railroad section				**?**
Freight Terminal	UZB-INM-01	Construction of customs control complex "Karakalpaliya", which will control rail and road transportation				**?**
Freight Terminal	UZB-INM-02	Modernization and supply with a modern equipment of the country customs control complexes and main customs points	√			

Summary Results

Table 2.15 presents a summary of the current status of projects that were submitted under EATL Phase I from the 15 countries that submitted data.

To this end, according to the summary results:

- 54% of the projects have been completed
- 24% of the projects are now part of EATL Phase II
- 2% of the projects have not been realised
- For 22% of the projects no information of current status was made available

TABLE 2.15-Summary of EATL Phase I Project Current Status

Country	STATUS				Total
	Completed	Part of EATL Phase II	Not realised	No info	
Afghanistan					
Armenia	6			3	9
Azerbaijan	3	5		2	10
Belarus	4				4
Bulgaria	13	10		1	24
China	4	1		3	8
Georgia	18	2	5	24	49
Iran	29	12		3	44
Kazakhstan	14				14
Kyrgyzstan	7				7
Republic of Moldova	2	7			9
Romania	4	6		2	12
Russian Federation					0
Tajikistan	5				5
Turkey	5	15		3	23
Turkmenistan					0
Ukraine	2			5	7
Uzbekistan	8	1		6	15
Total	**124**	**59**	**5**	**52**	**240**

3. UPDATING EATL PRIORITY INFRASTRUCTURE PROJECTS AND DEVELOPING AN EATL INVESTMENT PLAN

The scope of this section is to analyse the information on new projects based on country inputs, prioritize these through the application of the proposed methodology and include them in the new investment plan of EATL Phase II. The goal is to present a consistent and realistic short, medium and long term investment strategy for the identified EATL routes. This included an extensive inventory of specific road, rail, inland waterway, maritime port, inland terminals and other infrastructure projects for the twenty seven participating countries, together with their estimated budget and pragmatic investment time plan for their implementation.

The analysis was based on the:

- review and update of projects identified under EATL Phase I
- methodology and related assumptions for the prioritization of new proposed projects to be included in the new investment plan of EATL Phase.

Input received

Out of the 27 countries participating in this project, countries submitted data through their NFPs on the projects under evaluation.

- **<u>Countries that submitted updated and new data:</u>**
  (*It should be noted that in certain cases insufficient data was provided*.)

  Afghanistan, Armenia, Azerbaijan, Bulgaria, China, Georgia, Germany, Greece, Iran, Latvia, Lithuania, Kazakhstan, Kyrgyzstan, Mongolia, Pakistan, Republic of Moldova, Romania, Russian Federation, Tajikistan, the former Yugoslav Republic of Macedonia, Turkey, Ukraine, Uzbekistan

- **<u>Countries that did not submit updated or new data:</u>**
  Belarus, Finland, Luxemburg, Turkmenistan

Data presentation

Each project was identified with a unique Project ID specifying the country, the transport mode and a specific number. The following abbreviations were introduced for country identification in Project ID: Afghanistan (AFG), Armenia (ARM), Azerbaijan (AZE), Belarus (BLR), Bulgaria (BGR), China (CHN), Finland (FIN), Georgia (GEO), Germany (DEU), Greece (GRC), Iran (IRN), Kazakhstan (KAZ), Kyrgyzstan (KGZ), Latvia (LVA), Lithuania (LTU), Luxembourg (LUX), Mongolia (MNG), Pakistan (PAK), Republic of Moldova (MDA), Romania (ROU), Russian Federation (RUS), Tajikistan (TJK), the Former Yugoslav Republic of Macedonia (FYROM), Turkey (TUR), Turkmenistan (TKM), Ukraine (UKR), Uzbekistan (UZB).

The following abbreviations were introduced for type of infrastructure identification in Project ID: Road projects (ROD), Railway project (RLW), Maritime projects (MAR), Inland waterway projects (INL), Inland/border crossing and other projects (INM).

Table 3.2 presents the number of projects submitted by each country per type of infrastructure under the two distinct categories, that is, those that are along proposed EATL routes, and those that are of national importance, thus belonging to the Reserve Category.

Annex III presents the completed templates of project information, for all projects considered for EATL Phase II, for each of the participating countries.

TABLE 3.2-DATA SUBMITTED BY COUNTRIES FOR ALL PROJECTS AND PER TYPE OF INFRASTRUCTURE

Country	Total	EATL	Per type of inftrastructure-EATL					Reserve	Per type of inftrastructure-Rererve				
			ROAD	RAILWAY	MARITIME	INW	INM		ROAD	RAILWAY	MARITIME	INW	INM
			No. of projects	No. of projects	No. of projects	No. of projects	No. of projects		No. of projects	No. of projects	No. of projects	No. of projects	No. of projects
Afghanistan	35	6	6					29	17	12			
Armenia	13	10	5	3			2	3		3			
Azerbaijan	6	6	4	1	1								
Belarus													
Bulgaria	23	11	3	6	1	1		12	11	1			
China	18	18	16		2								
Finland													
Georgia	20	16	12	4				4	4				
Germany	6	5	2	3				1		1			
Greece	7	4	2	1	1			3	2	1			
Iran	7	6		6				1		1			
Kazakhstan	13	10	8	2				3	1	2			
Kyrgystan	9	7	3	4				2	2				
Latvia	16	16	6	10									
Lithuania	55	48	9	30	5	4		7	3	3	1		
Luxemburg													
Mongolia	1							1		1			
Pakistan	26	24	21	1	2			2	1	1			
Republic of Moldova	5	4	2	1		1		1		1			
Romania	7	6			2	4		1	1				
Russian Federation	70	51	18	23	5		5	19	3	16			
Tajikistan	32	13	10	2			1	19	13	6			
The former Yugoslav Republic of Macedonia	11	10	6	4				1		1			
Turkey	24	24	8	9	7								
Turkmenistan													
Ukraine	4	4	3	1									
Uzbekistan	13	12	2	10				1		1			
Total	**421**	**311**	**146**	**121**	**26**	**10**	**8**	**110**	**58**	**51**	**1**	**0**	**0**

Project Prioritisation

This section presents the results of the application of the prioritisation methodology on the projects considered under EATL Phase II at the country level. To this end, projects together with their associated costs are presented:

a) By type of infrastructure:
- Road projects (ROD)
- Railway project (RLW)
- Maritime projects (MAR)
- Inland waterway projects (INL)
- Inland/border crossing and other projects (INM)

b) By priority category:
- **Category I**: projects, which have funding secured and are on-going and expected to be completed in the near future (up to 2013).
- **Category II**: projects, which may be funded or their plans are approved and are expected to be implemented rapidly (up to 2016).
- **Category III**: projects requiring some additional investigation for final definition before likely financing and implemented (up to 2020).
- **Category IV**: projects requiring further investigation for final definition and scheduling before possible financing, including projects, for which insufficient data existed. (most likely to be implemented after 2020)
- **Completed projects**
- **Reserve category:** projects along other important routes and of national importance that may be included in the EATL routes in the future.

It should be noted that the application of the methodology was based on the updated data received by each country involved. Nevertheless, the application of the methodology was not feasible in most cases due to limited availability of data. To this end, in the case of limited data availability, the consultant attempted to either collect the missing information from other sources, or categorise the project based on the available data. This is explicitly defined in each case.The cases, for which the application of the methodology was carried out, are presented in detail in *ANNEX IV*.

In addition, projects belonging to the *Reserve Category*, were not evaluated and hence not included in the prioritisation exercise.

Project costs are depicted in Billion United States Dollars. Where necessary, an average conversion rate for year 2010 was used[57] .

[57] http://www.x-rates.com/d/USD/EUR/hist2010.html

Afghanistan

Afghanistan proposed 35 projects in total, out of which 6 are along proposed EATL routes. More specifically:

- 23 Road Projects
  - 6 are along proposed EATL Routes
    - 1 has committed funding and thus belongs to Category I
    - 5 were classified as category IV due to lack of information on funding
  - 17 are of national importance
- 12 Rail Projects, all of national importance

According to available information, 1% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.1 below, while Figure 5.1 and Figure 5.2 in *ANNEX V* depict the location of the road and rail projects, respectively.

Table 4.1-Afghanistan Prioritisation Results Summary

			All	**Per Priority Category**					
				I	**II**	**III**	**IV**	**Com-**	**Reserve**
No. of projects			**35**	**1**			**5**		**29**
Cost* of projects			**>3,020**	**0,003**			**>0,225**		**>2,792**
Per type of infrastructure	***ROD***	No. of projects	**23**	1			5		17
		Cost* of projects	**>2,149**	0,003			>0,225		1,921
	RLW	No. of projects	**12**						12
		Cost* of projects	**>0,871**						>0,871
	MAR	No. of projects							
		Cost* of projects							
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects							
		Cost* of projects							

* *in Billion USD*

Armenia

Armenia proposed 13 projects in total, out of which 10 are along proposed EATL routes. More specifically:

- 5 Road Projects:
  - All along proposed EATL routes
  - All have committed funding, thus belong to Category I

- 6 Rail Projects[58]:
    - 3 are along EATL routes
        - According to available information, these were classified as Category IV (at launch of tender but financing not secured yet)
    - 3 are of national importance
- 2 Other Projects[59] (Logistic Centres):
    - All along proposed EATL routes
    - According to available information, these were classified as Category II (Transport Strategy 2009-2019 to be completed in 2015).

According to available information, 17% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.2 below, while Figure 5.3 and Figure 5.4 in *ANNEX V* depict the location of the road and rail projects, respectively.

Table 4.2-Armenia Prioritisation Results Summary

			All	**Per Priority Category**					
				I	**II**	**III**	**IV**	**Com-**	**Reserve**
No. of projects			**13**	**5**	**2**		**3**		**3**
Cost* of projects			**>3.570**	**0,517**	**>0,032**		**>2,520**		**>0,501**
Per type of infrastructure	***ROD***	No. of projects	**5**	5					
		Cost* of projects	**0,517**	0,517					
	RLW	No. of projects	**6**				3		3
		Cost* of projects	**>3,021**				>2,520		>0,501
	MAR	No. of projects							
		Cost*of projects							
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects	**2**		2				
		Cost* of projects	**>0,032**		>0,032				

** in Billion USD*

(a)

(b)

58 "Priority Projects-Fact Sheets", First TRACECA Investment Forum, Brussels 12th October 2010

59 "Transport Sector in Armenia", 19TH OSCE Economic and Environmental Forum, Druskininkai, Lithuania, 4-5 April 2011

Azerbaijan

Azerbaijan proposed 6 projects in total, which are all along proposed EATL routes. All have committed funding and, thus, belong to Category I. With regard to infrastructure type, the breakdown is as follows:

- 4 Road Projects
- 1 Rail Project
- 1 Port Project

According to available information 100% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.3 below, while Figure 5.5 and Figure 5.6 in *ANNEX V* depict the location of the road and rail projects, respectively.

Table 4.3-Azerbaijan Prioritisation Results Summary

				Per Priority Category					
			All	**I**	**II**	**III**	**IV**	**Com-**	**Reserve**
No. of projects			**6**	**6**					
Cost* of projects			**>1,338**	**>1,338**					
Per type of infrastructure	***ROD***	No. of projects	**4**	4					
		Cost* of projects	**0,938**	0,938					
	RLW	No. of projects	**1**	1					
		Cost* of projects	**-****	-**					
	MAR	No. of projects	**1**	1					
		Cost*of projects	**0,4**	0,4[60]					
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects							
		Cost* of projects							

** in Billion USD*

(c) *** no cost estimate provided*

Belarus

[60] http://www.abc.az/eng/news/23628.html

Belarus did not submit any data for the purpose of the EATL Phase II Study. According to original information, all projects submitted under EATL Phase I, should have been completed.

Bulgaria

Bulgaria proposed 23 projects in total, as per the following:

- 14 Road Projects
  - 3 are along proposed EATL routes, which, according to available information:
    - 2 were classified as Category I
    - 1 was classified as Category II
  - 11 are of national importance
- 7 Rail Projects
  - 6 are along proposed EATL routes and have committed funding, thus belong to Category I
  - 1 is of national importance
- 1 Maritime port project that has been completed
- 1 Inland Waterway project for which no information was given and was classified as Category IV

According to available information, 93% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.4 below, while Figure 5.7 and Figure 5.8 in *ANNEX V* depict the location of the road and rail projects, respectively.

Table 4.4-Bulgaria Prioritisation Results Summary

				Per Priority Category					
			All	**I**	**II**	**III**	**IV**	**Com-**	**Reserve**
No. of projects			**23**	**8**	**1**		**1**	**1**	**12**
Cost* of projects			**>8,097**	**>7,172**	**0,332**		**-***	**0,193**	**0,4**
Per type of infrastructure	***ROD***	No. of projects	**14**	2	1				11
		Cost* of projects	**0,929**	>0,323	0,332				0,274
	RLW	No. of projects	**7**	6					1
		Cost* of projects	**6,975**	6,849					0,126
	MAR	No. of projects	**1**					1	
		Cost*of projects	**0,193**					0,193	
	INW	No. of projects	**1**				1		
		Cost* of projects	**-****				-**		

	INM	No. of projects							
		Cost* of projects							

(d) **in Billion USD*

(e) *** no cost estimate provided*

(f)

China

China proposed 18 projects in total, which are all along proposed EATL routes, as per the following:

- 16 Road Projects:
  - 6 have committed funding, thus belong to Category I
  - For the remaining 10, according to the application of the prioritization methodology:
    - 9 were classified as Category II
    - 1 was classified as Category III
- 2 Port Projects that have committed funding, thus belong to Category I

According to available information, 57% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.5 below, while Figure 5.9 in *ANNEX V* depicts the location of the road projects. The results of the application of the methodology are presented in *Annex IV*.

Table 4.5-China Prioritisation Results Summary

				Per Priority Category					
			All	**I**	**II**	**III**	**IV**	**Com-**	**Reserve**
No. of projects			**18**	**8**	**9**	**1**			
Cost* of projects			**>7,193**	**>4,072**	**3,003**	**0,118**			
Per type of infrastructure	***ROD***	No. of projects	**16**	6	9	1			
		Cost* of projects	**>6,289**	>3,168	3,003	0,118			
	RLW	No. of projects							
		Cost* of projects							
	MAR	No. of projects	**2**	2					
		Cost*of projects	**0,904**	0,904					
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects							
		Cost* of projects							

(g) *in Billion USD*
(h)

Finland

Finland did not submit any data for the purpose of the EATL Phase II Study.

Georgia

Georgia proposed 20 projects in total, as per the following:

- 16 Road projects
  - 12 along proposed EATL routes
    - 6 have committed funding and, thus, belong to Category I
    - For the remaining 6, there was limited information given and, thus, these were classified as Category IV
  - 4 are of national importance
- 4 Rail Projects, all along proposed EATL routes:
  - 2 have committed funding, and thus belong to Category I
  - According to available information, 1 project was classified as Category II and one as Category IV.

According to available information, 71% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.6 below, while Figure 5.10 and Figure 5.11 in *ANNEX V* depict the location of the road and rail projects, respectively.

Table 4.6-Georgia Prioritisation Results Summary

			All	Per Priority Category					
				I	II	III	IV	Com-	Reserve
No. of projects			**20**	**9**	**1**		**7**		**4**
Cost* of projects			**>1,427**	**0,972**	**0,399**		**-****		**>0,056**
Per type of infrastructure	***ROD***	No. of projects	**16**	6			6		4
		Cost* of projects	**>0,495**	0,439			-**		>0,056
	RLW	No. of projects	**4**	2	1		1		
		Cost* of projects	**>0,932**	0,533	0,399		-**		
	MAR	No. of projects							
		Cost*of projects							
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects							

		Cost* of projects							

(i) *in Billion USD

(j) ** no cost estimate provided

(k)

Germany

Germany proposed 6 projects in total, as per the following:

- 2 Road Projects along proposed EATL routes
  - Based on the application of the evaluation methodology, these were classified as Category IV.
- 4 Rail Projects
  - 3 are along EATL routes, 1of which has been completed.
  - Based on the application of the evaluation methodology:
    - 1 was classified as Category III
    - 1was classified as Category IV
  - 1 is of national importance

According to available information, no funding has been secured.

The above information complete with project costs is summarized in Table 4.7 below, while Figure 5.12 and Figure 5.13 in *ANNEX V* depict the location of the road and rail projects, respectively. The results of the application of the methodology are presented in *Annex IV*.

Table 4.7-Germany Prioritisation Results Summary

			All	**Per Priority Category**					
				I	**II**	**III**	**IV**	**Com-**	**Reserve**
No. of projects			**6**			**1**	**3**	**1**	**1**
Cost* of projects			**>5,294**			**0,717**	**>0,352**	**3,56**	**0,665**
Per type of infrastructure	***ROD***	No. of projects	**2**				2		
		Cost* of projects	**0,352**				0,352		
	RLW	No. of projects	**3**			1	1	1	1
		Cost* of projects	**>4,942**			0,717	**-****	3,56	0,665
	MAR	No. of projects							
		Cost*of projects							
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects							
		Cost* of projects							

(l) *in Billion USD

(m) ** no cost estimate provided

(n)

Greece

Greece proposed 7 projects in total, as per the following:

- 4 Road Projects
  - 2 are along EATL routes, have committed funding, thus belong to Category I
  - 2 are of national importance
- 2 Rail Projects
  - 1, part of which is along EATL route, and was classified as Category I
  - 1 of national importance
- 1 Port Project
  - Along EATL route with committed funding, thus belongs to Category I

According to available information, 100 % of funding has been secured.

The above information complete with project costs is summarized in Table 4.8 below, while Figure 5.14 *ANNEX V* depicts the location of the road projects.

Table 4.8-Greece Prioritisation Results Summary

			All	**Per Priority Category**					
				I	**II**	**III**	**IV**	**Com-**	**Reserve**
No. of projects			**7**	**4**					**3**
Cost* of projects			**>0,98**	**0,78**					**>0,2**
Per type of infrastructure	***ROD***	No. of projects	**4**	2					2
		Cost* of projects	**>0,807**	0,705					>0,102
	RLW	No. of projects	**2**	1					1
		Cost* of projects	**0,115**	0,017					0,098
	MAR	No. of projects	**1**	1					
		Cost*of projects	**0,058**	0,058					
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects							
		Cost* of projects							

(o) **in Billion USD*

(p)

Iran

Iran did not submit information for the purpose of the EATL Phase II Study.

According to other information available[61], there are 7 rail projects proposed , out of which 6 are along proposed EATL routes and one is of national importance. Based on the available information:

- 5 were classified as Category I
- 1 was classified as Category II

According to available information, 65% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.9 below, while Figure 5.15 *ANNEX V* depicts the location of the rail projects.

Table 4.9-Iran Prioritisation Results Summary

				Per Priority Category					
			All	**I**	**II**	**III**	**IV**	**Com-**	**Reserve**
No. of projects			**7**	**5**	**1**				**1**
Cost* of projects			**3,878**	**2,528**	**1,35**				**-****
Per type of infrastructure	***ROD***	No. of projects							
		Cost* of projects							
	RLW	No. of projects	**7**	5	1				1
		Cost* of projects	**3,878**	2,528	1,35				-**
	MAR	No. of projects							
		Cost*of projects							
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects							
		Cost* of projects							

(q) **in Billion USD*
(r) *** no cost estimate provided*

Kazakhstan

Kazakhstan proposed 13 projects in total, as per the following:

- 9 Road Projects
  - 8 are along EATL routes
  - 1 is of national importance
- 4 Rail Projects
  - 2 are along EATL routes
  - 2 are of national importance

[61] H. JAMALI, Deputy General Director of Intl. Affairs.Presentation “The first regional workshop of Euro-Asian transport linksPhase II Facilitation of Euro-Asia transport in the ECO region”

Based on relevant information collected[62], all projects proposed along EATL routes are planned to go ahead, and thus belong to Category I.

According to available information, 100% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.10 below, while Figure 5.16 and Figure 5.17 in *ANNEX V* depict the location of the road and rail projects, respectively.

Table 4.10-Kazakhstan Prioritisation Results Summary

			All	**Per Priority Category**					
				I	**II**	**III**	**IV**	**Com-**	**Reserve**
No. of projects			**13**	**10**					**3**
Cost* of projects			**10,489**	**8,918**					**1,571**
Per type of infrastructure	***ROD***	No. of projects	**9**	8					1
		Cost* of projects	**7,841**	7,411					0,43
	RLW	No. of projects	**4**	2					2
		Cost* of projects	**2,648**	1,507					1,141
	MAR	No. of projects							
		Cost*of projects							
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects							
		Cost* of projects							

(s) **in Billion USD*

(t)

Kyrgyzstan

Kyrgyzstan proposed 9 projects in total, as per the following:

- 5 Road Projects
  - 3 are along EATL routes, have committed funding, and, thus, belong to Category I
  - 2 are of national importance
- 4 Rail Projects along EATL routes
  - According to available information:
    - 1 was classified as Category II
    - 3 were classified as Category IV

[62] CAREC Report, "Kazakhstan: Country Progress Report on the Implementation Action Plan for the Transport and Trade Facilitation Strategy", 22 April 2009 *and*
г. Вена, ноябрь 2010 год, Presentation: DEVELOPMENT OF ROAD AND RAIL TRANSPORT INFRASTRUCTURE, Vienna November 2010

According to available information, 20% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.11 below, while Figure 5.18 and Figure 5.19 in *ANNEX V* depict the location of the road and rail projects, respectively.

Table 4.11-Kyrgyzstan Prioritisation Results Summary

			All	**Per Priority Category**					
				I	**II**	**III**	**IV**	**Com-**	**Reserve**
No. of projects			**9**	**3**	**1**		**3**		**2**
Cost* of projects			**3,085**	**0,586**	**0,066**		**2,245**		**0,188**
Per type of infrastructure	***ROD***	No. of projects	**5**	3					2
		Cost* of projects	**0,774**	0,586					0,188
	RLW	No. of projects	**4**		1		3		
		Cost* of projects	**2,311**		0,066		2,245		
	MAR	No. of projects							
		Cost*of projects							
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects							
		Cost* of projects							

(u) **in Billion USD*

(v)

Latvia

Latvia proposed 16 projects in total, all along proposed EATL routes, as per the following:

- 6 road projects
  - 3 have committed funding, and, thus belong to Category I
  - For 3, no information on sources of funding was made available and hence, were classified as Category IV.
- 10 rail projects
  - 8 have committed funding, and, thus belong to Category I
  - For 2, no information on sources of funding was made available and hence, were classified as Category IV.

Based on available information, 25% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.12 below, while Figure 5.20 and Figure 5.21 in *ANNEX V* depict the location of the road and rail projects, respectively.

Table 4.12-Latvia Prioritisation Results Summary

			All	Per Priority Category I	II	III	IV	Com-	Reserve
No. of projects			**16**	11			5		
Cost* of projects			**3,683**	0,925			2,758		
Per type of infrastructure	***ROD***	No. of projects	**6**	3			3		
		Cost* of projects	**0,967**	0,365			0,602		
	RLW	No. of projects	**10**	8			2		
		Cost* of projects	**2,716**	0,560			2,156		
	MAR	No. of projects							
		Cost*of projects							
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects							
		Cost* of projects							

(w) **in Billion USD*

Lithuania

Lithuania proposed 55 projects in total, as per the following:

- 12 Road Projects
  - o 9 are along EATL routes, have committed funding, and, thus, belong to Category I
  - o 3 are of national importance
- 33 Rail Projects
  - o 30 are along EATL routes, have committed funding, and, thus, belong to Category I
  - o 3 are of national importance
- 6 Maritime Projects
  - o 5 are along EATL routes, have committed funding, and, thus, belong to Category I
  - o 1 is of national importance
- 4 Inland Waterway Projects
  - o All are along EATL routes, have committed funding, and, thus, belong to Category I

Based on available information, 100% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.13 below, while Figure 5.22 and Figure 5.23 in *ANNEX V* depict the location of the road and rail projects, respectively.

Table 4.13-Lithuania Prioritisation Results Summary

			All	**Per Priority Category**					
				I	**II**	**III**	**IV**	**Com-**	**Reserve**
No. of projects			**55**	**48**					**7**
Cost* of projects			**1,72**	**1,46**					**0,26**
Per type of infrastructure	***ROD***	No. of projects	**12**	9					3
		Cost* of projects	**0,559**	0,447					0,112
	RLW	No. of projects	**33**	30					3
		Cost* of projects	**0,987**	0,844					0,143
	MAR	No. of projects	**6**	5					1
		Cost*of projects	**0,165**	0,16					0,005
	INW	No. of projects	**4**	4					
		Cost* of projects	**0,009**	0,009					
	INM	No. of projects							
		Cost* of projects							

(x) **in Billion USD*

(y)

Luxembourg

Luxembourg did not submit any data for the purpose of the EATL Phase II Study.

Mongolia

Mongolia proposed one rail project of national importance, the cost of which is presented in Table 4.14 below, while Figure 5.24 in *ANNEX V* depicts the location of the project.

Table 4.14-Mongolia Prioritisation Results Summary

			All	Per Priority Category					
				I	II	III	IV	Com-	Reserve
No. of projects			**1**						**1**
Cost* of projects			**1,76**						**1,76**
Per type of infrastructure	***ROD***	No. of projects							
		Cost* of projects							
	RLW	No. of projects	**1**						1
		Cost* of projects	**1,76**						1,76
	MAR	No. of projects							
		Cost*of projects							
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects							
		Cost* of projects							

(z) **in Billion USD*

(aa)

Republic of Moldova

Moldova proposed 5 projects in total, as per the following:

- 2 road projects, along proposed EATL routes, which according to available information:
  - 1 has committed funding and thus belongs to Category I
  - 1 was classified as Category III
- 2 rail projects
  - 1 along proposed EATL routes, classified as Category IV.
  - 1 of national importance
- 1 inland waterway project along EATL routes with committed funding, thus belonging to Category I

Based on available information, 49% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.15 below, while Figure 5.25 and Figure 5.26 in *ANNEX V* depict the location of the road and rail projects, respectively.

Table 4.15-Moldova Prioritisation Results Summary

	All	Per Priority Category

				I	II	III	IV	Com-	Reserve
No. of projects			**5**	**2**		**1**	**1**		**1**
Cost* of projects			**0,871**	**0,387**		**0,092**	**0,317**		**0,075**
Per type of infrastructure	***ROD***	No. of projects	**2**	1		1			
		Cost* of projects	**0,229**	0,137		0,092			
	RLW	No. of projects	**2**				1		1
		Cost* of projects	**0,392**				0,317		0,075
	MAR	No. of projects							
		Cost*of projects							
	INW	No. of projects	**1**	1					
		Cost* of projects	**0,25**	0,25					
	INM	No. of projects							
		Cost* of projects							

(bb) **in Billion USD*

Pakistan

Pakistan proposed 26 projects in total, as per the following:

- 22 road projects
  - 21 are along proposed EATL routes, out of which, based on the application of the prioritisation methodology
    - 10 have committed funding and belong to Category I
    - 10 were classified as Category II
    - 1 was classified as category III
  - 1 of national importance
- 2 rail projects
  - 1 along proposed EATL routes, for which limited information was given and was classified as Category IV
  - 1 of national importance
- 2 maritime projects along proposed EATL routes
  - 1 has been completed
  - 1 for which limited information was given and was classified as Category IV

Based on available information, 56% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.16 below, while Figure 5.27 and Figure 5.28 in *ANNEX V* depict the location of the road and rail projects, respectively. The results of the evaluation methodology are presented in Annex *I V*.

Table 4.16-Pakistan Prioritisation Results Summary

			All	Per Priority Category					
				I	II	III	IV	Com-	Reserve
No. of projects			**26**	**10**	**10**	**1**	**2**	**1**	**2**
Cost* of projects			**4,449**	**2,376**	**1,334**	**0,133**	**-****	**0,399**	**0,207**
Per type of infrastructure	***ROD***	No. of projects	**22**	10	10	1			1
		Cost* of projects	**4,050**	2,376	1,334	0,133			0,207
	RLW	No. of projects	**2**				1		1
		Cost* of projects	**-***				-**		-**
	MAR	No. of projects	**2**				1	1	
		Cost*of projects	**>0,399**				-**	0,399	
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects							
		Cost* of projects							

(cc) **in Billion USD*
(dd) *** no cost estimate provided*

Romania

Romania proposed 7 projects in total, as per the following:

- 1 road project of national importance
- 2 maritime projects along proposed EATL routes
    - o 1 with committed funding, thus belonging to Category I
    - o 1 for which limited information is available, and , thus was classified as Category IV
- 4 inland waterway projects along proposed EATL routes
    - o 3 have committed funding, and, thus belong to Category I
    - o 1 was classified as Category II

Based on available information, 42% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.17 below, while Figure 5.29 in *ANNEX V* depicts the location of the road and project.

Table 4.17-Romania Prioritisation Results Summary

			All	Per Priority Category					
				I	II	III	IV	Com-	Reserve
No. of projects			**7**	**4**	**1**		**1**		**1**
Cost* of projects			**9,843**	**0,273**	**0,245**		**0,125**		**9,2**
Per type of infrastructure	***ROD***	No. of projects	**1**						1
		Cost* of projects	**9,200**						9,2
	RLW	No. of projects							
		Cost* of projects							
	MAR	No. of projects	**2**	1			1		
		Cost*of projects	**0,286**	0,161			0,125		
	INW	No. of projects	**4**	3	1				
		Cost* of projects	**0,357**	0,112	0,245				
	INM	No. of projects							
		Cost* of projects							

(ee) **in Billion USD*

(ff)

(gg)

Russian Federation

The Russian Federation proposed 70 projects in total, as per the following:

- 21 road projects
  - 18 are along proposed EATL routes, which according to available information
    - 2 were classified as Category I
    - 15 were classified as Category II
    - 1 was classified as Category IV
  - 3 are of national importance
- 39 rail projects
  - 23 along proposed EATL routes, which according to to available information :
    - 6 were classified as Category I
    - 10 were classified as Category II
    - 7 were classified as Category IV
  - 16 are of national importance
- 5 maritime projects along proposed EATL routes, for which limited information was given and, thus, were classified as Category IV
- 5 intermodal terminals projects along proposed EATL routes, which have committed funding, and, thus belong to Category I.

Based on available information, 16% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.19 below, while Figures 5.30-5.32 and Figures 5.33-5.36 in *ANNEX V* depict the location of the road and rail projects, respectively.

Table 4.18-Russian Federation Prioritisation Results Summary

				Per Priority Category					
			All	**I**	**II**	**III**	**IV**	**Com-**	**Reserve**
No. of projects			**70**	**13**	**25**		**13**		**19**
Cost* of projects			**>148,498**	**18,268**	**74,757**		**>19,267**		**>36,205**
Per type of infrastructure	***ROD***	No. of projects	**21**	2	15		1		3
		Cost* of projects	**89,913**	0,243	71,264		0,494		17,911
	RLW	No. of projects	**39**	6	10		7		16
		Cost* of projects	**41,345**	0,785	3,493		>18,773		>18,294
	MAR	No. of projects	**5**				5		
		Cost*of projects	**-****				-**		
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects	**5**	5					
		Cost* of projects	**17,24**	17,24					

(hh) **in Billion USD*

(ii) *** no cost estimate provided*

(jj)

Tajikistan

Tajikistan proposed 32 projects in total, as per the following:

- 23 road projects
  - 10 are along proposed EATL routes, out of which
    - 7 have committed funding, and, thus, belong to Category I
    - 3 for which limited information was given and were classified as Category IV
  - 13 are of national importance
- 8 rail projects
  - 2 are along proposed EATL routes, for which funding has yet to be secured and, and, thus, were classified as Category IV
  - 6 are of national importance
- 1 intermodal terminal along proposed EATL routes, for which funding has yet to be secured and, thus, was classified as Category IV

Based on available information, 55% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.19 below, while Figure 5.37 and Figure 5.38 in *ANNEX V* depict the location of the road and rail projects, respectively.

Table 4.19-Tajikistan Prioritisation Results Summary

			All	**Per Priority Category**					
				I	**II**	**III**	**IV**	**Com-**	**Reserve**
No. of projects			**32**	**7**			**6**		**19**
Cost* of projects			**4,872**	**0,345**			**0,282**		**4,245**
Per type of infrastructure	***ROD***	No. of projects	**23**	7			3		13
		Cost* of projects	**1,191**	0,345			0,192		0,654
	RLW	No. of projects	**8**				2		6
		Cost* of projects	**3,661**				0,07		3,591
	MAR	No. of projects							
		Cost*of projects							
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects	**1**				1		
		Cost* of projects	**0,02**				0,02		

(kk) **in Billion USD*

The former Yugoslav Republic of Macedonia

The former Yugoslav Republic of Macedonia proposed 11 projects in total, as per the following:

- 6 Road Projects
  - All along EATL routes
  - All belong to Category I according to the information received.
- 5 Rail Projects
  - 4 along proposed EATL routes, which were classified as Category II based on the application of the methodology
  - 1 is of national importance

Based on available information, 58% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.20 below, while Figure 5.39 and Figure 5.40 in *ANNEX V* depict the location of the road and rail projects, respectively. The results of the application of the methodology are presented in *Annex IV*.

Table 4.20-The former Yugoslav Republic of Macedonia Prioritisation Results Summary

			All	Per Priority Category					
				I	II	III	IV	Com-	Reserve
No. of projects			**11**	**6**	**4**				**1**
Cost* of projects			**2,402**	**1,377**	**1,013**				**0,012**
Per type of infrastructure	*ROD*	No. of projects	**6**	6					
		Cost* of projects	**1,377**	1,377					
	RLW	No. of projects	**5**		4				1
		Cost* of projects	**1,025**		1,013				0,012
	MAR	No. of projects							
		Cost*of projects							
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects							
		Cost* of projects							

(ll) **in Billion USD*

(mm)

Turkey

Turkey proposed 24 projects in total, all along proposed EATL routes. Based on the evaluation methodology applied to the road and rail projects:

- **8 Road Projects**
  - o 5 have committed funding, thus belong to Category I
  - o 3 were classified as Category II.
- **9 Rail Projects**
  - o 5 have committed funding, thus belong to Category I
  - o 1 was classified as Category II
  - o 1 was classified as Category III
  - o 2 were classified as Category IV
- **7 Port Projects**
  - o 5 have committed funding, thus belong to Category I
  - o 2 were classified as Category II

Based on available information, 39% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.21 below, while Figure 5.41 and Figure 5.42 in *ANNEX V* depict the location of the road and rail projects, respectively. The results of the application of the methodology are presented in *Annex IV*.

Table 4.21-Turkey Prioritisation Results Summary

			All	**Per Priority Category**					
				I	**II**	**III**	**IV**	**Com-**	**Reserve**
No. of projects			**24**	**15**	**6**	**1**	**2**		
Cost* of projects			**>41.716**	**16,094**	**18,442**	**2**	**5,18**		
Per type of infrastructure	***ROD***	No. of projects	**8**	5	3				
		Cost* of projects	**12,567**	0,796	11,771				
	RLW	No. of projects	**9**	5	1	1	2		
		Cost* of projects	**23,003**	13,823	2	2	5,18		
	MAR	No. of projects	**7**	5	2				
		Cost*of projects	**>6,146**	>1,475	4,671				
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects							
		Cost* of projects							

(nn) **in Billion USD*

(oo)

Turkmenistan

Turkmenistan did not submit any data for the purpose of the EATL Phase II Study.

Ukraine

Ukraine proposed 4 projects in total, all along proposed EATL, as per the following:

- 3 Road Projects, which according to available information:
  - 2 were classified as Category I
  - 1 was classified as Category II.
- 1 Rail Project with committed funding, thus belonging to Category I

Based on available information, 71% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.22 below, while Figure 5.43 and Figure 5.44 in ANNEX V depict the location of the road and rail projects, respectively.

Table 4.21-Ukraine Prioritisation Results Summary

			All	Per Priority Category					
				I	II	III	IV	Com-	Reserve
No. of projects			**4**	**3**	**1**				
Cost* of projects			**2,141**	**1,523**	**0,618**				
Per type of infrastructure	***ROD***	No. of projects	**3**	2	1				
		Cost* of projects	**1,962**	1,344	0,618				
	RLW	No. of projects	**1**	1					
		Cost* of projects	**0,179**	0,179					
	MAR	No. of projects							
		Cost*of projects							
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects							
		Cost* of projects							

(pp) **in Billion USD*
(qq)

Uzbekistan

Uzbekistan proposed 13 projects in total, as per the following:

- 2 Road Projects
  - All along proposed EATL routes.
  - According to available information, these were classified as Category I.
- 11 Rail Projects[63]
  - 10 are along proposed EATL routes, and according to available information
    - 8 have committed funding, and thus belong to Category I.
    - 2 were classified as Category II.
  - 1 is of national importance

Based on available information, 69% of the funding has been secured.

The above information complete with project costs is summarized in Table 4.23 below, while Figure 5.45 in *ANNEX V* depicts the location of the rail projects.

[63] Presentation from Uzbekistan Railways: Railways netork of Uzbekistan *and* CAREC Report, “Uzbekistan: Country Progress Report on the Implementation Action Plan for the Transport and Trade Facilitation Strategy”, 30 April 2009

Table 4.23-Uzbekistan Prioritisation Results Summary

			All	Per Priority Category					
				I	II	III	IV	Com-	Reserve
No. of projects			**13**	**10**	**2**				**1**
Cost* of projects			**2,904**	**1,862**	**0,832**				**0,21**
Per type of infrastructure	***ROD***	No. of projects	**2**	2					
		Cost* of projects	**0,783**	0,783					
	RLW	No. of projects	**11**	8	2				1
		Cost* of projects	**2,121**	1,079	0,832				0,21
	MAR	No. of projects							
		Cost*of projects							
	INW	No. of projects							
		Cost* of projects							
	INM	No. of projects							
		Cost* of projects							

(rr) **in Billion USD*

Summary

In total 421 projects were proposed by the participating countries, out of which **311 projects** have been identified to be along the proposed EATL Phase II Routes with an estimated total cost of **215 Billion USD**.

Out of these **311 projects**:

- 3 projects have been completed
- 187 projects belong to Category I
- 64 projects belong to Category II
- 5 projects belong to Category III
- 52 projects belong to Category IV

The above results together with project costs are presented Table 3.23 per type of infrastructure.

Table 3.23-Summary Results of EATL II Projects

			All	Per Priority Category				
				I	II	III	IV	Completed
No. of projects			**311**	**187**	**64**	**5**	**52**	**3**
Cost* of projects			**215**	**72**	**102**	**3**	**33**	**4**
Per type of infrastructure	***ROD***	No. of projects	**146**	84	39	3	20	0
		Cost* of projects	**113**	22	88	0,3	1.9	0
	RLW	No. of projects	**121**	75	20	2	23	1
		Cost* of projects	**75**	29	9	3	31	4
	Other	No. of projects	**44**	28	5	0	9	2
		Cost* of projects	**26**	21	5	0	0,1	0.6

(s/s) **in Billion USD*

Summary of Prioritization Results

The countries proposed a total number of **421 infrastructure projects** of total cost amounting to approximately **$273 billion**. Out of the latter, **311 projects** are along proposed EATL Phase II routes of total cost amounting to approximately **$215 billion.** The remaining 110 projects are of national importance with a total value of approximately $58,5 billion.

Out of the **311 projects** are along proposed **EATL Phase II** routes:

- **146** are **road projects** (47%), with an estimated value of **$113 billion**, representing 53% of the total investment cost.
- **121** are **railway projects** (39%), with an estimated value of **$75 billion**, representing 35 % of the total investment cost.
- **44** are **other projects** (14%), with an estimated value of **$26 billion**, representing 12 % of the total investment cost.

The **percentage of secured funding** for the total number of EATL Projects is **33%**.

Further to the above, the results of the prioritisation exercise, are summarised in the following per type of project and priority category.

(a) Results summary per **road** projects’ priorities and cost

- 57% of the road projects belong to Category I, with an estimated value of $22,3 billion, representing 20% of the total investment cost for road projects.
- 27% of the road projects belong to Category II, with an estimated value of $88,3 billion, representing 78% of the total investment cost for road projects.
- 2% of the road projects belong to Category III, with an estimated value of $0,3 billion, representing 0.3% of the total investment cost for road projects.
- 14% of the road projects belong to Category IV, with an estimated value of $1,9 billion, representing 1.7% of the total investment cost for road projects.

(b) Results summary per **rail** projects’ priorities and cost

- 62% of the railway projects belong to Category I, with an estimated value of $28,7 billion, representing 38% of the total investment cost for rail projects.
- 16% of the railway projects belong to Category II, with an estimated value of $9,2 billion, representing 12% of the total investment cost for rail projects.
- 2% of the railway projects belong to Category III, with an estimated value of $2,7 billion, representing 4% of the total investment cost for rail projects.
- 19% of the railway projects belong to Category IV, with an estimated value of $31,3 billion, representing 42% of the total investment cost for rail projects.
- 1% of the rail projects have been completed, with an estimated value of $3.6 billion, representing 5% of the total investment cost for rail projects.

(c) Results summary per **other** projects' priorities and cost

- 64% of other projects belong to Category I, with an estimated value of $20,8 billion, representing 79% of the total investment cost for other projects.
- 11% of other projects belong to Category II, with an estimated value of $4.9 billion, representing 19% of the total investment cost for other projects.
- 20% of other projects belong to Category IV, with an estimated value of $0,1 billion, representing 1% of the total investment cost for other projects.
- 5% of other projects have been completed, with an estimated value of $0,6 billion, representing 2% of the total investment cost for other projects.

EATL Phase II Investment Plan

The analysis of their implementation plans demonstrated that:

- 1 % of the proposed projects for the EATL Network has been completed
- 60 % of the proposed projects for the EATL Network is expected to be completed until 2013.
- 21 % of the proposed projects for the EATL Network is expected to be completed until 2016.
- 2 % of the proposed projects for the EATL Network is possible to be completed until 2020 and
- For 17 % of the proposed projects for the EATL Network, it is unknown when would be completed, since further investigation is necessary before definition, scheduling and possible financing.

The EATL Phase II Transport Infrastructure Investment Plan is depicted in Table 5.1 with related project costs presented in Billion USD. The available/secured percentage of funding is also shown in Table 5.1.The implementation will follow the time plan presented in Table 5.2.

Table 5.1-EATL Phase II Transport Infrastructure Investment Plan (in billion $)

[redacted]

Table 5.2-EATL Phase II Transport Infrastructure Investment Implementation Time Plan

Country	Projects	EATL Projects Implementation Progress					Project Funding
		Completed	Up to 2013	2013-2016	2016-2020	2020-unknown	% Secured
AFG	6	0%	17%	0%	0%	83%	1%
ARM	10	0%	50%	20%	0%	30%	17%
AZE	6	0%	100%	0%	0%	0%	100%
BLR							
BGR	11	9%	73%	9%	0%	9%	93%
CHN	18	0%	44%	50%	6%	0%	57%
FIN							
GEO	16	0%	50%	6%	0%	44%	71%
DEU	5	20%	0%	0%	20%	60%	0%
GRC	4	0%	100%	0%	0%	0%	100%
IRN	6	0%	83%	17%	0%	0%	61%
KAZ	10	0%	100%	0%	0%	0%	100%
KGZ	7	0%	43%	14%	0%	43%	20%
LVA	16	0%	69%	0%	0%	31%	25%
LTU	48	0%	100%	0%	0%	0%	100%
LUX							
MNG							
PAK	24	4%	42%	42%	4%	8%	56%
MDA	4	0%	50%	0%	25%	25%	49%
ROU	6	0%	67%	17%	0%	17%	42%
RUS	51	0%	25%	49%	0%	25%	16%
TJK	13	0%	54%	0%	0%	46%	55%
FYROM	10	0%	60%	40%	0%	0%	58%
TUR	24	0%	63%	25%	4%	8%	39%
TKM							
UKR	4	0%	75%	25%	0%	0%	71%
UZB	12	0%	83%	17%	0%	0%	69%

EATL NETWORK	Projects	EATL Projects Implementation Progress					% Funding Secured
		Completed	Up to 2013	2013-2016	2016-2020	2020-unknown	
	311	1%	60%	21%	2%	16%	33%

Conclusions and Recommendations

A total of 311 infrastructure projects were proposed in the EATL Phase II Study and should be included in the updated EATL Investment plan. The majority of the projects were road projects. The implementation of the EATL network as a whole will require the approximate sum of $215 billion, out of which only 33% has been secured.

According to the results of the analysis, only 1 % of the EATL Network has been completed, while over half of the proposed projects are planned to be completed by year 2013. On the other hand, the analysis yielded that for a 16% of the EATL network, it is unknown when it would be completed, since further investigation is necessary before definition, scheduling and possible financing of the proposed infrastructure projects. It should, however, be noted that lack of information with regard to the status, start and end dates, sources of funding and percentage of secured funding of proposed projects, as well as the complete omission of information from Belarus, Finland, Luxemburg, and Turkmenistan contributed significantly to the latter outcome. Hence, the above figures could potentially be different, should information had become available.

Based on the above, it is acknowledged that the implementation of EATL Phase II network is a long-term process that requires first and foremost all political will and commitment from all the countries involved. To see it to fruition will also require continuous close cooperation amongst the EATL member countries, between them and their immediate neighbouring countries, the respective National Focal Points and the UNECE.

To this end, a number of actions could be recommended with regards to data collection, monitoring, GIS Mapping update/maintenance, continuous revision/update of the Investment Plan and funding securisation, as well as some Technical and Institutional actions.

Finally, in addition to the projects located along the identified EATL Phase II Routes, most participating countries proposed infrastructure projects beyond those specified routes and, thus, these were considered to be of national importance in the analysis. Depending on the significance and priorities set for such national projects, as well as their potential to impact the established connections with EATL routes, it is proposed that these projects are considered for inclusion in a future revision of the EATL network.

ANNEX III
Completed Templates B

Projects Along proposed EATL Phase II Routes

Projects of National Importance

AFGHANISTAN

Road

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio $)	EX far (
		Start point/node / city	End point/node/city	Total Length (km)	Motorway, Expressway, National Road (please select one)	Existing Average Annual Daily Traffic (AADT)	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year		
AFG-ROD-01	Rehabilitation of North-South Corridor: Mazar-e-Sharif-dari suf	Mazar-e-Sharif-	Dara-e-Soof	140	Regional Highway			Construction				
AFG-ROD-02	Rehabilitation of North-South Corridor: Bamyan-Yakawlang	Bamyan	Yakawlang	100	Regional Highway			Construction			140	
AFG-ROD-03	Rehabilitation of East-West Corridor: Herat-Chageheran	Heart	Chageheran	335	Regional Highway			Planning			234	
AFG-ROD-04	Rehabilitation of East-West Corridor: Chageheran-Gardandewar	Chageheran	Gardandewar	330	Regional Highway			Planning			231	
AFG-ROD-05	Rehabilitation of North-South Corridor: Yakawlang-Panjab	Yakawlang	Panjab	40	Regional Highway			Planning			28	
AFG-ROD-06	Rehabilitation of North-South Corridor: Dare-suf Bamyan	Dare-suf	Bamyan	180	Regional Highway			Planning			126	
AFG-ROD-07	Rehabilitation of North-South Corridor: Panjab-Kandahar-Herat Ring Road	Panjab	Heart	300	Regional Highway			Planning			120	
AFG-ROD-08	Eshkashem-Faizabad	Eshkashem	Faizabad	150	Regional Highway			Planning			150	
AFG-ROD-09	Jabalsaraj-Sorubi	Jabalsaraj	Sorubi	100	Regional Highway			Planning			40	
AFG-ROD-10	Kabul City Ring Road	Kabul City	Kabul City	160	Regional Highway			Planning			160	
AFG-ROD-11	Khulum-kunduz	Khulum	kunduz	45	Regional Highway			Planning			45	
AFG-ROD-12	Charekar-Bamyan-Doshi	Charekar	Doshi	180	Regional Highway			Planning			180	
AFG-ROD-13	Hiratan-Mazar-e-Sharif, Iskam Qalam Herat Road	Hiratan-Mazar-e-Sharif	Iskam Qalam Herat									
AFG-ROD-14	Sherkhan Bandar-Kunduz-kabul-Jalalabd-Torkham Road: Upgrate to four lanes	Sherkhan Bandar	Torkham									
AFG-ROD-15	Asphalting of Taluqan City roads			56					2011	2013	16,8	
AFG-ROD-16	Asphalting of Nimroz City roads			10					2011	2012	5	
AFG-ROD-17	Construction of road from Nangarhar kanal to Qarghai in Laghman province 9 km			9					2011	2012	3	
AFG-ROD-18	Asphalting of Herat to Chaghcharan			335					2011	2015	201	
AFG-ROD-19	Asphalting of Chaghcharan to Gardandewal			330					2011	2015	198	
AFG-ROD-20	Rehabilitation Qaisar–Bala Murghab Road	Qaisar	Bala Murghab	90							55	
AFG-ROD-21	construction of Bala Murghab to Leman road	Bala Murghab	Leman	143					2009	2011	176	
AFG-ROD-22	Road Rehabilitation Leman–Armalick	Leman	Armalick	53					2009	2010	30	
AFG-ROD-23	Road Rehabilitation Pul-e-Khumri–Doshi	Pul-e-Khumri	Doshi	52					2009	2010	10	

Rail

JECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		RRENT STAT	TIME PLAN*		TOTAL COST (in mio $)	E fa
		Start point/node/ city	End point/node /city	Total Length (km)	Existing	Forecasted	Existing	Forecasted	Programmig , Planning, Design, Construction (please select one)	Start year	End year		
W-01	Construction of pakage 4 of khaf-heratt Railway project	Khawaaf (Iran)	Herat	62					Construction	2010		100	
W-02	Feasibility , Design and Construction of the Andkhoy- Aqina Railway	Andkhoy	Aqina	36						2011	2012	65	
W-03	Construction of the Mazar Shiberghan Railway	Mazar	Shiberghan	149						2012	2015	275	
W-04	Construction of Torkham – Jalalabad Railway	Torkham	Jalalabad	75						2011	2013	130	
W-05	Construction of Shirkhan Bander – Kunduz 68 km	Shirkhan Bander	Kunduz	68						2013	2015	120	
W-06	Construction of Spin Boldak – Kandahar Railway project	Spin Boldak	Kandahar	100						2012	2014	180	
W-07	Feasibility Design and Construction of the Logar- Kabul – Jalal Abad – Kunduz Rail way project	Logar	Kunduz	930						2011	2017		
W-08	Feasibility study of Delaram- Zarang Railway	Delaram	Zarang	120						2012			
W-09	Feasibly study of Heart-Mazar-Kunduz,Railway	Herat	Kunduz							2009	2011	1,2	
W-10	Kabul-Jalalabad-Torkham-Peshwar (Pakistan)	Kabul	Peshwar (Pakistan)										
W-11	Kandahar –Spin Boldak-Queta (Pakistan)	Kandahar	Queta (Pakistan)										
W-12	Shirkhan Bandar-kundoz-Mazari Sharif- Herat-Delaram-Zaranj........	Sherkhan Bandar	Herat	1250									

ARMENIA

Road

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio $)	EXPEN SES so far (in % of total cost)
		Start point/nod e/ city	End point/nod e/city	Total Length (km)	Motorway, Expressway, National Road (please select one)	Existing Average Annual Daily Traffic (AADT)	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year		
ARM-ROD-01	North South Transport Corridor, Iran Border-Kapan, Rehabilitation of Existing Road	Agarak (Iran Border)	Kapan	83	AH82 Class II	1500				2017	48	
ARM-ROD-02	North South Transport Corridor, Goris-Yeraskh, Rehabilitation of Existing Road	Goris	Yeraskh	173	AH82 Class II	5500				2017	62	
ARM-ROD-03	North South Transport Corridor, Kapan- Goris, Rehabilitation of Existing Road	Kapan	Goris	75	AH82 Class II	3000				2017	348	
ARM-ROD-04	North South Transport Corridor, Yeraskh- Yerevan, Rehabilitation of Existing Road	Yeraskh	Yerevan	50	AH82 Class II	25000				2017	7	
ARM-ROD-05	North South Transport Corridor, Yerevan-Ashtarak, Rehabilitation of Existing Road	Yerevan	Ashtarak	18	AH82 Class II	10000				2017	52	

Rail

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EX SE far (of t co
		Start point/nod e/ city	End point/nod e/city	Total Length (km)	Existing	Forecasted	Existing	Forecasted	Programmig , Planning, Design, Constructio n (please select one)	Start year	End year			
ARM-RLW-01	Gagarin-Meghri/Iran Border:New railroad	Gagarin	Meghri/Iran Border	400								1100	1463	
ARM-RLW-02	Dilijan-Ijevan/ Azerbaijan border:Rehabilitation	Dilijan	Ijevan/ Azerbaijan border											
ARM-RLW-03	Vanadzor-Fioletovo: Construction of new railroad	Vanadzor	Fioletovo	32-47								200	266	
ARM-RLW-04	Terminal in Gyumri: Terminal rehabilitation													
ARM-RLW-05	Rehabilitation of the Tbilisi – Yerevan section (including seven bridges (Yerevan-Tbilisi rail link)	Tbilisi	Yerevan						Finalised feasibility study			794,95	1057,284	
ARM-RLW-06	Rehabilitation of Hrazdan – Ijevan section	Hrazdan	Ijevan									176,5	234,745	

Intermodal

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Annual Throughput (million tones)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EXPENSES so far (in % of total cost)
		Start point/node/ city	*End point/node/city*	*Total Length (km)*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			
ARM-INM-01	Yerevan Logistic Center	Yerevan				375,000 t.		2011	2015	24,379	32,42407	
ARM-INM-02	International Logistic Center in Akhuryan	Akhuryan										

AZERBAIJAN

Road

ROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio $)	EXPENSES so far (in % of total cost)
		Start point/node/ city	*End point/node/city*	*Total Length (km)*	*Motorway, Expressway, National Road (please select one)*	*Existing Average Annual Daily Traffic (AADT)*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*		
E-ROD-01	Rehabilitation of: Kurdamir – Ujar	Kurdamir	Ujar	42,1	Motorway	7800		Study/Design	2008	2010	18,29	
E-ROD-02	Rehabilitation of: Yevlakh – Gandja	Yevlakh	Gandja	49,8	Motorway	7600		Construction	2008	2010	60,7	
E-ROD-03	Rehabilitation of: Gazakh – Georgian Border	Gazakh	Georgian Border	38,0	Motorway	1469-1480		Construction	2007	2010	30	
E-ROD-04	Reconstruction of: Russian border – Baku – Iranian Border, E119	Russian border – Baku	Iranian Border	454,0	Motorway	3600-31700		Construction/ Planning	2006	2010	829,49	

Rail

ROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		URRENT STATU	TIME PLAN*		TOTAL COST (in mio $)	EX far
		Start point/node/ city	*End point/nod e/city*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Programmig, Planning, Design, Construction (please select one)*	*Start year*	*End year*		
-RLW-01	Reconstruction of: Baku - Georgian border	Baku	Georgian border	512,30	8,00		30		Study/Design	2009	2013		

Maritime

ROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Annual Throughput (tones		CURRENT	TIME PLAN*		TOTAL COST (in mio $)	EXPENSES so far (in % of total cost)	% FUNDIN
		Start point/node/ city	*End point/nod e/city*	*Total Length (km)*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*National Fun*
E-MAR-01	Construction of New Baku International Sea Trade Port project			400 ha			Design	2010	2015	400		√

BULGARIA

Road

OJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EXPEN so fa
		Start point/node/ city	End point/node/ city	Total Length (km)	Motorway, Expressway, National Road (please select one)	Existing	Forecasted	Programmig, Planning, Design, Construction (please select one)	Start year	End year			
ROD-01	Rehabilitation of: Corridor 9 Shipka pass - Shipka and sections of Road I- 6 Kalofer - Kazanlak	Kalofer	Kazanlak	58,74	Ordinary Road/Expressway			under construction	2009	2011	21,6	28,728	
ROD-02	Rehabilitation of: Corridor 9 - Veliko Tarnov-Debeletz, Rehabilitation of Danube bridge	Veliko Tarnov	Debeletz	3,55	Ordinary Road			to be tendered	2011	2013	9,5	12,635	
ROD-03	Rehabilitation of Corridor 4 -road junction Muhovo - Plovdiv, Sofia - road junction Muhovo	Muhovo	Sofia	131,00	Ordinary Road			to be tendered	2011	2013	55,6	73,948	
ROD-04	Rehabilitation of Road II-71 Silistra - Dobrich	Silistra	Dobrich	74,00	Ordinary Road			under construction	2009	2011	27,24	36,2292	
ROD-05	Rehabilitation of sections of Road I-6 Maglish - Gurkovo - Sliven	Maglish	Sliven	67,80	Expressway			under construction	2008	2010	20,5	27,265	
ROD-06	Rehabilitation of Road II-21 Ruse - Silistra	Ruse	Silistra	93,01	Ordinary Road			under construction	2009	2010	31,4	41,762	
ROD-07	Rehabilitation of Sections of Road I-4 (E772) Veliko Tarnovo - Lyaskovets (road junction), Yastrebino - Omurtag,Targovishte - Belokopitovo and reconstruction of road junctio,Kortina-Sevlievo	Veliko Tarnovo	Sevlievo	62,80	Ordinary Road			tendered	2011	2013	11,4	15,162	
ROD-08	Rehabilitation of sections of Road I-9 Durankulak - Kavarna, Road III-901 Shabla-Tulenovo-Kavarna (E87)	Durankulak	Kavarna	72,90	Ordinary Road			under construction	2010	2012	10,7	14,231	
ROD-09	Rehabilitation of Corridor 4 -Kiustendil by-pass - Dupnitsa,Dupnitsa by-pass	Kiustendil by-pass	Dupnitsa by-pass	42,05	Ordinary Road			under construction	2009	2011	17,8	23,674	
ROD-10	Rehabilitation of Coridor 4 - Chirpan-Zatiovo	Chirpan	Zatiovo	4,77	Ordinary Road			tendered	2011	2012			
ROD-11	Rehabilitation of Road I-9 (E87) Burgas-marinka_Zvezdec_Malko Tyrnovo_Turkey border	Burgas	Turkey border	61,84	Ordinary Road			under construction	2010	2012			
ROD-12	Lot 2: Stara Zagora – Nova Zagora	Stara Zagora	Nova Zagora	31,80	Motorway			under construction	2010	2012	70,5	93,765	
	Lot 3: Nova Zagora – Yambol	Nova Zagora	Yambol	34,30	Motorway			under construction	2010	2012	65	86,45	
	Lot 4: Yambol – Karnobat	Yambol	Karnobat	49,10	Motorway			under construction	2010	2012	107	142,31	
ROD-13	Construction of Maritza Motorway				Motorway			under construction					
ROD-14	Lot 1: Dolna Dikania – Dupnitsa Lot 2: Dupnitsa – Blagoevgrad Lot 4: Sandanski – Kulata	Dolna Dikania	Kulata	65,78	Motorway			tender	2011	2013	250	332,5	
	Lot 3: Blagoevgrad – Sandanski – construction in the next programming period 2014 – 2020	Blagoevgrad	Sandanski	66,22	Motorway			design	2014	2020			

<u>Rail</u>

JECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION: Start point/node/ city	PROJECT LOCATION: End point/nod e/city	PROJECT LOCATION: Total Length (km)	ADTT (passenger): Existing 2007 (trainkm)	ADTT (passenger): Forecasted 2010 (trainkm)	ADTT (freight): Existing 2007 (trainkm)	ADTT (freight): Forecasted 2010 (trainkm)	URRENT STATU: Programmig, Planning, Design, Construction (please select one)	TIME PLAN*: Start year	TIME PLAN*: End year	TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EXP S s (in total
LW-01	Plovidiv-Svilengrad railway line electrification and upgrading (E070)	Plovidiv	Svilengrad	144	886.462	513.000	647.035	427.000	Construction	2005	2012	340	452	
	Svilengrad - Turkish border railway line electrification and upgrading	Svilengrad	Turkish border	19					Construction	2009	2011	36,567	49	
LW-02	Renovation and electrification of Voluyak-Dragoman-Dimitrovgrad-GS BS railway line (E070)	Voluyak	Dimitrovgrad-GS	49	31.879	33.000	241.228	113.000	Construction	2004	2011	24,05	32	
RLW-03	Modernization and electrification of Radomir-Gueshevo railway line (T855) - Desing ISPA	Radomir	Gueshevo	88	358.290	332.000	24.610	13.000	Design	2009	2010	1,02	1	
	Modernization and electrification of Radomir-Gueshevo railway line (T855) - Construction									2014	2017			
RLW-04	Modernization of Vidin-Sofia railway line (T056) - Desing ISPA	Vidin	Sofia	269	2.290.167	2.290.000	713.770	267.000	Design	2007	2010	3,00	4	
	Modernization of Vidin-Sofia railway line (T056) - Desing OPT									2010	2013	40,00	53	
	Modernization of Vidin-Sofia railway line (T056) - Construction OPT									2014	2020	2.680,00	3.564	
	Modernization of Sofia-Radomir railway line (E855) Desing ISPA	Sofia	Radomir	48	1.163.407	900.000	108.100	109.000	Design	2008	2010	0,91	1	
	Modernization of Sofia-Radomir railway line (E855) Construction									2014	2020	359,58	478	
	Modernization of Radomir-Kulata railway line (T056) Desing ISPA	Radomir	Kulata	162	574.469	1.050.000	470.492	280.000	Planning	2008	2013	3,00	4	
	Modernization of Radomir-Kulata railway line (T056) Construction									2013	2019			
RLW-05	Modernization of Sofia-Dragoman railway line - Desing ISPA	Sofia	Dragoman	43	284.432	262.000	254.557	175.000	Design	2008	2010	0,76	1	
	Modernization of Sofia-Dragoman railway line - Construction									2011	2013	132,26	176	
RLW-06	Modernization of Sofia-Plovdiv railway line (E070) - Desing ISPA	Sofia	Plovdiv	156	1.890.630	1.960.000	839.004	605.000	Design	2008	2010	1,28	2	
	Modernization of Sofia-Plovdiv railway line (E070) - Construction OPT									2010	2018	1.336,52	1.778	
	Modernization of Plovdiv-Burgas railway line (E720) - Desing ISPA	Plovdiv	Burgas	292	2.643.720	2.560.000	1.256.891	985.000	Design	2007	2010	2,98	4	
	Modernization of Plovdiv-Burgas railway line (E720) - Construction OPT									2010	2013	187,36	249	
RLW-07	Restoration of design parameters of Sofia-Karlovo-Zimnitsa railway line- lot 1 Sofia-Karlovo	Sofia	Zimnitsa	323	1.818.991	1.900.000	2.107.986	1.005.000	Construction	2006	2015	95,10	126	

Maritime and INW

JECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION: Start point/node/ city	PROJECT LOCATION: End point/node/ city	PROJECT LOCATION: Total Length (km)			Yearly Vessel Traffic: Existing (tonnes)	Yearly Vessel Traffic: Forecasted (tonnes)	CURRENT STATUS: Programmig, Planning, Design, Construction (please select one)	TIME PLAN*: Start year	TIME PLAN*: End year	TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EXP sc (in % c
W-01	Rehabilitation, reconstruction and Modernisation of the port of Lom								Planning	2010	2015			
AR-01	Port of Bourgas expansion project	Latitude 42°29.50' Longitude 27°29.00'	Burgas	0,82	-	-	1800000	6000000	Completed	2001	2006	145	192,85	

CHINA

Road

…RK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio $)	EXPENSES so far (in % of total cost)	% F…
			Start point/node/ city	End point/node/c ity	Total Length (km)	Motorway, Expressway, National Road (please select one)	Existing Average Annual Daily Traffic (AADT)	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year			N…
Highway	CHN-ROD-01	construction of Tianshui-Dingxi road in Gansu province	Tianshui	Dingxi	236	Expressway	5535	26393	construction	2007	2010	1243		
	CHN-ROD-02	construction of Xujiamo-Gulang road in Gansu province	Xujiamo	Gulang	146	Expressway	6214	19433	construction	2008	2010			
	CHN-ROD-03	Reconstruction of Anxi-Xingxingxia road in Gansu province	Anxi	Xingxingxia	154	Expressway	3415	12762	construction	2009	2011			
	CHN-ROD-04	ReconstructionXingxingxia-Xiaocaohu in Xinjiang	Xingxingxia	Xiaocaohu	437	Expressway	5312	23489	construction	2010	2013	504,8		
	CHN-ROD-05	Reconstruction of South section of Urumqi ring road in Xinjiang	East point	West point	18	Expressway	4460	26117	Design(Reconstruction)	2011	2012	43,5		
	CHN-ROD-06	Reconstruction of Kuitun-Sayram Lake road in Xinjiang	Kuitun	SayramLake	304	Expressway	4205	25086	Design(Reconstruction)	2012	2013	169,1		
	CHN-ROD-07	Reconstruction of Sayram lake-Khorgos Port in Xinjiang	SayramLake	Khorgos Port	107	Expressway	5284	25118	construction	2009	2013	398,9		
y	CHN-ROD-08	construction of Xijiagang-Qidong road in Shanghai	Xijiagang	Qidong	52	Expressway	8491	44153	construction	2009	2012	644,1		
	CHN-ROD-09	construction of Liuhe-Pukou road in Jiangsu province	Liuhe	Pukou	33	Expressway	12616	48572	construction	2010	2013			
Highway	CHN-ROD-10	Reconstruction of Jinghe-Alatawshankou road of S205 in Xinjiang	Jinghe	Alatawshankou	40	Provincal Road	2607	9907	Planning	2012	2013	19,3		
ay	CHN-ROD-11	Reconstruction of Xiaocaohu-Heshuo road in Xinjiang	Xiaocaohu	Heshuo	239	Expressway	5984	26566	Planning	2012	2013	42,3		
	CHN-ROD-12	Reconstruction of Korla-Aksu road in Xinjiang	Korla	Aksu	555	Expressway	5897	25768	construction	2008	2012	1280,7		
	CHN-ROD-13	Reconstruction of Aksu-Kashi road in Xinjiang	Aksu	Kashi	450	Expressway	4181	17669	Design(Reconstruction)	2012	2014	1286,2		
	CHN-ROD-14	construction of Kashi ring road in Xinjiang	North piont	South piont	28	Expressway	4550	26354	Design	2015	2017	118,4		
	CHN-ROD-15	Reconstruction of Kashi-Honqilaf road in Xinjiang	Kashi	Honqilaf	416	National Road	1075	4192	Design(Reconstruction)	2013	2015	236,7		
way	CHN-ROD-16	construction of Kashi-Irkeshtam road in Xinjiang	Kashi	Irkeshtam	211	Expressway	2303	10767	Design	2011	2013	301,9		

Maritime

…ORK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Annual Throughput (million tones)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	EXPENSES so far (in % of total cost)
			Start point/node/ city	End point/node/c ity	Total Length (km)	Existing	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year		
RT	CHN-MAR-1	Construction Phase 1 of a container berth on the bank of Lian Yungang port				108,43	250	Planning	2011	2013	192	
	CHN-MAR-2	Construction Phase 6 of the container berths in Waigaoqiao				494,67	650	Construction	2007	2010	712	

GEORGIA

Road

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EXPENSES so far (in % of total cost)
		Start point/node/city	*End point/node/city*	*Total Length (km)*	*Motorway, Expressway, National Road (please select one)*	*Existing Average Annual Daily Traffic (AADT)*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			
O-ROD-01	Sveneti-Ruisi	Sveneti	Ruisi	15	Highway	10974		Construction	2009	2011	97	129,01	9%
O-ROD-02	Zestafoni-Kutaisi-Samtredia	Zestafoni	Samtredia	59	Highway	9033		Design	2010	2013	154	204,82	-
O-ROD-03	Choloki-Sarpi	Choloki	Sarpi	48	Highway	5736		Design	2010	2013	33	43,89	-
O-ROD-04	Rikoti Tunnel Rehabilitation	Rikoti Tunnel	Rikoti Tunnel	4	Highway	5615		Rehabilitation	2010	2012	21,4	28,462	19%
O-ROD-05	Tbilisi Entrance	15th km	21st km	7	Highway	2235		Construction	2010	2011	6,47	8,6051	2,70%
O-ROD-06	Vaziani-Gombori-Telavi	Vaziani	Telavi	55	National Road	584		Rehabilitation	2009	2010	18,36	24,4188	26,70%
O-ROD-07	Zugdidi-Jvari-Mestia	Zugdidi	Mestia	90	Secondary Road			Rehabilitation	2010	2012	28,2	37,506	19,20%
O-ROD-08	Zugdidi-Jvari-Mestia (Municipal Development Fund)	Zugdidi	Mestia	24	Secondary Road			Rehabilitation	2011	2012	14,23	18,9259	
O-ROD-09	Tbilisi-Rustavi	Tbilisi	Rustavi	30	Highway	15841		Design	2011	2012			
O-ROD-10	Ruisi -Rikoti	Ruisi	Rikoti	50	Highway	9986		Planning	2011	2014			
O-ROD-11	Rikoti-Zestafoni	Rikoti	Zestafoni	50	Highway	6680		Planning	2013	2017			
O-ROD-12	Samtredia-Grigoleti	Samtredia	Grigoleti	57	Highway	3902		Planning	2014	2017			
O-ROD-13	Tbilisi-Marneuli	Tbilisi	Marneuli	39	National Road	6539		Planning	2014	2017			
O-ROD-14	Tbilisi-Sagarejo	Tbilisi	Sagarejo	35	National Road	8451		Planning	2013	2017			
O-ROD-15	Rustavi-Red Bridge	Rustavi	Red Bridge	10	Highway	2769		Planning	2015	2017			
O-ROD-16	Batumi- Akhaltsikhe	Batumi	Akhaltsikhe	174	Secondary Road	870		Planning	2012	2017			

Rail

ROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		URRENT STATU	TIME PLAN*		TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EXPE far (in c
		Start point/node/ city	*End point/nod e/city*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Programmig, Planning, Design, Construction (please select one)*	*Start year*	*End year*			
-RLW-01	Construction of Tbilisi Bypass Railway	Avchala	Lilo	37	-	-	-	-	Design	2010	2013	250	332,5	
-RLW-02	Modernization of Tbilisi-Makhinjauri Railway Line	Tbilisi	Makhinjauri	357	9700	12500	7500	8400	Planning	2010	2013	300	399	
-RLW-03	Baku – Tbilisi – Kars Project (on the Territory of Georgia)	Kartsakhi		27					Construction	2007	2012		200	
-RLW-04	Senaki-Poti Section	Senaki	Poti	31										

GERMANY

Road

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EXPE SES far (in of tot cos
		Start point/node/ city	*End point/n ode/city*	*Total Length (km)*	*Motorway, Expressway, National Road (please select one)*	*Existing Average Annual Daily Traffic (AADT)*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			
DEU-ROD-01	Upgrade of the A 12 motorway (Spreeau junction– Frankfurt (Oder) of road Link Berlin-Frankfurt (Oder)-German/Polish Border	Spreeau junction	Frankfurt	57,9	Motorway	27000-44000	37000-45000	study/design	Not yet determined	/	155	206,15	
DEU-ROD-02	Upgrade of Northern branch: motorway A13/A15, Berlin (A10) – Cottbus – Forst – German/Polish border	Interchange Schoenefeld A 13	Spreewald Junction A 15	62,5	Motorway	39000-45000	41000-58000	study/design	Not yet determined	/	110	146,3	

Rail

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		CURRENT STATUS	TIME PLAN			TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EX...
		Start point/node/ city	*End point/node/city*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction* (please select one)	*Start year*	*End year*				
EU-RLW-1	Upgrade of Rail link Berlin – Frankfurt (Oder)	Berlin	Frankfurt	85					Construction	1997	2016		539	716,87	314
EU-RLW-2	Upgrade of northern branch Hoyerswerda – Horka – German/Polish border section	Hoyerswerda	Horka – German/Polish border	53	80					2010-2012	2014-2015		500	665	
EU-RLW-3	: Upgrade of southern branch Dresden – Goerlitz – German/Polish border	Dresden	Goerlitz	102						Not yet determined			no details		
EU-RLW-4	: Upgrade Hamburg - Büchen - Berlin	Hamburg	Berlin	271						1998	2004		2.677	3560,41	

GREECE

Road

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EXPENSES so far (in % of total cost)
		Start point/node/ city	*End point/node/city*	*Total Length (km)*	*Motorway, Expressway, National Road* (please select one)	*Existing Average Annual Daily Traffic (AADT)*	*Forecasted*	*Programming, Planning, Design, Construction* (please select one)	*Start year*	*End year*			
GRC-ROD-01	E79	THESSALONIKI	PROMACHON	96	Motorway	5.000 – 20.000	10-15%	Construction	1996	2010	300	399	96%
GRC-ROD-02	E85	ARDANIO	ORMENIO	124	Expressway	< 10.000	15%	Construction/ Design	1999	2011	230	305,9	68
GRC-ROD-03		KOMOTINI	NYMPHAIA	23	National Road			Construction	2007	2011	77	102,41	66
GRC-ROD-04		XANTHI	ECHINOS	60	National Road			Planning / Design					

Rail

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EXPEN SES s far (in of tota cost)
		Start point/node/ city	*End point/node/city*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Programmig, Planning, Design, Construction (please select one)*	*Start year*	*End year*			
GRC-RLW-01	Patras- Athens-Thessaloniki-Eidomeni/Promachonas	Patras	Promachonas						Study			13	17,29	
	Route 1	Patras	Kalamata									31	41,23	
GRC-RLW-02	Route2	Antirrio	Ioannina						Study			43	57,19	

IRAN

<u>Rail</u>

[redacted]

KAZAKHSTAN

<u>Road</u>

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		RENT STA	TIME PLAN*		TOTAL COST (in mio $)	EXPENSES so far	% FU
		Start point/node/ city	*End point/node/c ity*	*Total Length (km)*	*Motorway, Expressway, National Road (please select one)*	*Existing*	*Forecasted*	*Programmig, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*Natio Fun*
KAZ-ROD-01	Aktobe-Martuk	Aktobe	Martuk	102	Motorway						180		
KAZ-ROD-02	Karabutak – border of Kyzylorda	Karabutak	border of Kyzylorda	215	Motorway						900		
KAZ-ROD-03	Border of Kyzylorda region –Kyzylorda - Shymkent	border of Kyzylorda	Shymkent		Motorway						2125		
KAZ-ROD-04	Border of South Kazakhstan region - Taraz-Kordai	Border of South Kazakhstan region	Kordai	480	Motorway						1162		
KAZ-ROD-05	Tashkent-Shymkent- border of South-Kazakhstan region	Tashkent	border of South-Kazakhstan region		Motorway				2011	2013	474		
KAZ-ROD-06	Almaty-Khorgos	Almaty	Khorgos		Motorway				2010	2013	1126		
KAZ-ROD-07	ASTANA-KARAGANDA	Astana	Karaganda	238	Motorway				2011	2013	894		
KAZ-ROD-08	ALMATY-KAPSHAGAY	Almaty	Kapshagay	104	Motorway				2011	2013	430		
KAZ-ROD-09	Rehabilitation of Aktau–Beyneu Road Project	Aktau	Beyneu	417					2009	2012	550		

<u>Rail</u>

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		JRRENT STATU	TIME PLAN		TOTAL COST (in mio $)	EXPENSES so far(in % of total cost)	% F
		Start point/node/city	End point/node/city	Total Length (km)	Existing	Forecasted	Existing	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year			Nati Fu
KAZ-RLW-01	the construction of the railway Zhetygen-Korgas	Zhetygen st. (Almaty reg.)	Korgas st.	293					construction	2009	2012	801		
KAZ-RLW-02	Construction of the railway Uzen-the State border of Turkmenistan	Uzen st. (Mangystau reg.)	Bolashak st.	146					construction	2009	2011	340		55.4 (allo by capi ion c *Kaz an te zhol* JSC
KAZ-RLW-03	Electrification of Almaty–Aktogay Railway Section	Almaty	Aktogay	558						2009	2013	1000		
KAZ-RLW-04	Electrification of Dostyk–Aktogay Railway Section	Dostyk	Aktogay	312						2009	2012	507		

KYRGYZSTAN

Road

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio $)	EXPENSES so far (in % of total cost)
		Start point/node/ city	End point/node/city	Total Length (km)	Motorway, Expressway, National Road (please select one)	Existing Average Annual Daily Traffic (AADT)	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year		
Z-ROD-01		Sarytash (Kyrgyzstan)	Karamyk (Tajikistan)	122	National Road	388	–	Rehabilitation	2008	2011	48,6	17%
Z-ROD-02	Section Osh-Gulcho			259	National Road	1680	–	Rehabilitation	2008	2009		completed
	Section Gulcho-Sopu-Korgon	Osh-Sarytash-Irkeshtam	Irkeshtam						2008	2010		
	Section Sarytash-Nura	(Kyrgyzstan)	(China)						2008	2011	139,7	
Z-ROD-03	Section Osh-Isfana	Osh-Batken-Isfana	Isfana (Uzbekistan)	413	National Road	1630	–	Rehabilitation	2008	2009	67,43	completed
	Section Pulgon-Burgondu								2010	2012	25	
	Section Burgondu-Batken								2010	2012	35	
	Section Kon-Talaa-Pulgon	(Kyrgyzstan)							2010	2012	8,6	
Z-ROD-4	Bishkek-Dolon Pass	Bishkek-Naryn-Torugart	Torugart	539	National Road	2683	–	Rehabilitation	2010	2014		
	Section Bishkek- - Torugart								2010	2012		
	Section Bishkek- - Torugart	(Kyrgyzstan)	(China)						2010	2012	397,3	
Z-ROD-05	Reconstruction of Taraz–Talas–Suusamyr Road Phase II			52						2012	52,2	

Rail

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		URRENT STATU	TIME PLAN*		TOTAL COST (in mio $)	EXPENSES so far (in % of total cost)
		Start point/node/ city	End point/node/city	Total Length (km)	Existing	Forecasted	Existing	Forecasted	Programmig, Planning, Design, Construction (please select one)	Start year	End year		
Z-RLW-01	China-Kyrgyzstan-Uzbekistan Railroad	Kashgar (China)	Kara-Suu	268,4	-	-	-	-	Planning	2011	2016	2000	
Z-RLW-02	Electrification of the Bishkek–Balykchy Railway	Bishkek	Balykchy							2015	2017	100	
Z-RLW-03	Track Rehabilitation Project (Chaldovar–Balykchy)	Chaldovar	Balykchy							2011	2014	65,6	
Z-RLW-04	Electrification of railway segment between Lugovoe and Balykchy	Lugovoe	Alamedin	157								69	
		Alamedin	Balykchy	165,7								76	

LATVIA

Road

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			OAD TYP	RAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EXPENSES so far (in % of total cost)
		Start point/node/city	*End point/node/city*	*Total Length (km)*	*Motorway, Expressway, National Road (please select one)*	*Existing Average Annual Daily Traffic (AADT)*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			
LVA-ROD-01	1.Section Rīga (Tīnūži) – Koknese	Rīga (Tīnūži)	Koknese					Construction	2007	2012	175,6	233,548	2
LVA-ROD-02	2. Section Ludza – Russian border (Terehova)	Ludza	Russian border (Terehova)					Construction	2007	2012	86,5	115,045	47,
LVA-ROD-03	3. Section Priedaine – Ķemeri	Priedaine	Ķemeri					Planning	2015	2020	185	246,05	
LVA-ROD-04	4. Section Rēzekne - Ludza	Rēzekne	Ludza					Planning	2015	2020	12,1	16,093	
LVA-ROD-05	5. Section Pļaviņas – Jēkabpils (Jēkabpils bypass)	Pļaviņas	Jēkabpils (Jēkabpils bypass)					Planning	2015	2020	61,5	81,795	
LVA-ROD-06	6. Section from the junction with road A4/A6 to the junction with Ķekava bypass							Planning	2015	2020	206,3	274,379	

Rail

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		CURRENT STATUS	TIME PLAN		TOTAL COST (in mio euro)	TOTAL COST (in mio $)
		Start point/node/ city	*End point/nod e/city*	*Total Length (km)*	*Existing*	*Forecast ed*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*		
LVA-RLW-01 *(3DP/3.3.1.2.0/10/IMI A/003)*	Modernization of the signaling, telecommunication and power supply systems in Bolderaja I – Zasulauks section.	Riga node	Riga node	7,6					Planning	2010	2014	10,9	14,49
LVA-RLW-02 *(3DP/3.3.1.2.0/10/IPI A/SM/003)*	Construction of Bolderaja 2 station and a Connecting Line to the Terminals of Krievu sala.	Riga node	Riga node						Tendering	2012	2014	45,6	60,64
LVA-RLW-03*	Electrification of the Latvian Railway network	Riga-Krustpils-Daugavpils-state border; Riga- Jelgava –Ventspils; Jelgava-Krustpils - Rezekne		711	5		20	13%	Study	2015	2020	1500	199
LVA-RLW-04**	Introduction of GSM-R Communication system	Riga	Whole territory	2412,9			26		Study			120,94	160,850
LAT-RLW-05 *(2001/LV/16/P/PT/00 7)*	Modernization of the hot-box detection system (East-West railway Corridor)	whole network	whole network	2412,9					Construction	2002	2010	15,1	20,08
LVA-RLW-06	Construction of Second Track Skriveri-Krustpils (Riga-Krustpils section)	Skriveri	Krustpils	52	5		22	13%	Design	2010	2012	94	125,0
LVA-RLW-07 *(2001/LV/16/P/PT/00 6)*	Modernisation of the Signalling System (Latvian East-West Rail Corridor). Stage 2. Works	Krustpils, Daugavpils	Ventspils	356			22	13%	Construction	2007	2010	92,9	123,55
LVA-RLW-08 *(2007/20/2001/LV/16/ P/PT/006/02/01)*	Modernisation of the Signalling System (Latvian East-West Rail Corridor). Stage 2. Works	Zilupe, Daugavpils	Krustpils	210	5		15	13%	Construction	2007	2011	42,9	57,05
LVA-RLW-09	Modernization of the Marshalling Hump in Skirotava Marshalling Yard	Riga, Skirotava station	Skirotava						Design	2011	2013	30,5	40,56
LVARLW-10 *(CCI 2004 LV 16 C PT 002)*	Track Renewal on sections of the East-West Railway Corridor in Latvia	Eastern border (Indra, Zilupe)	Ventspils	260					Construction	2004	2010	89,42	118,928

LITHUANIA

Road

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN		TOTAL COST (in mio euro)	TOTAL COST (in mio $)
		Start point/node/ city	End point/node/city	Total Length (km)	Motorway, Expressway, National Road (please select one)	Existing Average Annual Daily Traffic (AADT)	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year		
evelopment of Roads E85 (Vilnius–Lyda) and 272 (Vilnius–Panevezys–Siauliai–Palanga). Road lnius–Panevezys–Siauliai–Palanga construction and pavement strengthening (Stage	During the project the following was done: 38.71 km of road pavement strengthened, 6 bridges and viaducts reconstructed, 4 underground crossings for wild animals reconstructed, 3.54 km of crash barriers erected, 3.74 km of illumination installed, 92.37 km of wire mesh fence implemented	Vilnius	Palanga	38,71	Motorway	7012	13699	Construction	2008	2010	31,3	41,6
evelopment of roads E85 (Vilnius–Lida) and 272 (Vilnius–Panevezys–Siauliai–Palanga). econstruction of section Siauliai–Radviliskis of ad Panevezys–Siauliai (Stage I)	It is planed to reconstruct 6.51 km of road, to construct 1.39 km of pedestrians cycling path, 5.23 km of connecting roads including pedestrians and cycling paths, 4.84 km of connecting roads without pedestrians and cycling paths, 1.1 km of connecting roads on intersections, to arrange 2.44 km of illumination, to construct 1 roundabout intersection and at-grade separate intersection, to construct 1 underground passage for pedestrians and 1 underground passage for pedestrians and vechicles, tunnel viaduct and noise barrier.	Siauliai	Radviliskis	6.51	National Road	9236	14296	Construction	2009	2011	23,2	30,9
econstruction of Road E85 /ilnius–Kaunas–Klaipėda) of the Transeuropean oad Network. Widening and strengthening of avement (Stage I)	During the project the following was done: 65,99 km of road pavement, 1 pedestrian viaduct reconstructed, 133,7 km of crash barriers erected, 9,16 km of road lightening, 133 km of wire net fence installed, 2 underground passages for wild animals constructed.	Vilnius	Klaipėda	65,99	Motorway / Expressway	7506	12685	Construction	2008	2010	43,3	57,6
econstruction of Road E85 /ilnius–Kaunas–Klaipeda) of the Transeuropean oad Network. Reconstruction of pavement	It is planned to stregthen 23,23 km of road pavement, to reconstruct 5 viaducts, to install 44,76 km of wire net fence, to implement traffic safety and environmental protection measures	Vilnius	Klaipėda	23,23	Motorway / Expressway	8288	11189	Construction	2009	2011	26,1	34,7
econstruction of Road E85 /ilnius–Kaunas–Klaipeda) of the Transeuropean oad Network. Reconstruction of road section in rigiskes (Stage II)	It is planned to reconstruct the road section in Grigiskes according to the requirements set for motorways.	Vilnius	Vilnius	7,21	Expressway	13898	28028	Construction	2010	2012	27,5	36,6
econstruction of Road E85 /ilnius–Kaunas–Klaipeda) of the Transeuropean oad Network. Road reconstruction according to e requirements set to motorways.	It is planned to construct 2 grade separated intersections	Vilnius	Klaipėda		Motorway / Expressway	25867	53854	Design	2011	2013	23,1	30,7

Road (continued)

econstruction of Road E85 /ilnius–Kaunas–Klaipėda) of the Transeuropean oad Network. Construction of Skyway in the rection of Kaunas–Klaipeda and laipeda–Kaunas at the Jakai Junction	It is planned to reconstruct the Jakai junction, i.e. to construct a new road (total length km1.02), to reconstruct the existing road (length km 0.34), to construct a new skyway (length km 0.61) of four traffic lanes, to construct a tunnel viaduct (length km 0.024), to install traffic lights in a tunnel, to reconstruct road engineering networks and install lighting	Klaipėda	Klaipėda	1.994	Motorway	49711	102740	Construction	2009	2011	34,0	45,2
econstruction of Road E85 /ilnius–Kaunas–Klaipeda) of the Transeuropean oad Network. Construction of Skyway in the rection of Kaunas–Palanga and Palanga–Kaunas the Jakai Junction	It is planned to reconstruct the Jakai junction, i.e. construction a new skyway in the direction Kaunas–Palanga (on the 2-nd level, length km 0.3) of two traffic lanes, to construction a new skyway in the direction Palanga–Kaunas (on the 3-rd level, length km 0.55) of two traffic lanes, to construct pedestrian-cycling paths (length km 1.5) noise barriers (length km 0.75)	Klaipėda	Klaipėda	0.85	Motorway	47814	65505	Design	2010	2011	30,3	40,3
oad E85 of Transeuropean Road Network. The lnius city southern bypass	It is planned to reconstruct 7.6 km of road, to construct 5 grade separate intersections, 5.6 km of pedestrians cycling path, 1 tunnel under the railway	Vilnius	Vilnius	7.6	National Road	20117	26251	Design	2010	2013	71,8	95,5
evelopment of roads E85 (Vilnius–Lyda) and 272 (Vilnius–Panevezys–Siauliai–Palanga). econstruction of section Siauliai–Radviliskis of ad Panevezys–Siauliai (Stage II)	It is planned to build 9.38 km bypass of Kairiai, to construct roundabout intersection, 1 uderground passage for wild animals, 1 viaduct, grade separate intersection, to construct 1 underground passage for pedestrians and noise barrier.	Siauliai	Radviliskis	9.38	National Road	n.d.	n.d.	Design	2011	2012	29,9	39,8
lnius western bypass (Stage I)	It is planned to build new A1 category road (1,1 km), to construct 2 grade separated intersections, to construct tunnel	Vilnius	Vilnius	1.1	National Road			Construction	2009	2011	47,1	62,6
lnius western bypass (Stage IA) (Lazdynai road idge)	It is planned to reconstruct Lazdynai road bridge, part of Laisves avenue and Oslo street	Vilnius	Vilnius	2.54	National Road			Construction	2009	2011	32,9	43,8

<u>Rail</u>

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN		TOTAL COST (in mio euro)	TOTAL (in m
		Start point / node / city	End point / node / city	Total Length (km)	Existing	Forecasted 2030 y	Existing	Forecasted 2030 y	Programming, Planning, Design, Construction (please select one)	Start year	End year		
chnical assistance (design) for the odernisation of Vilnius–Kaunas track for the eeds up to 160 km/h, for the construction of cond track on a Kyviskes–Valciunai and usynas–Paneriai sections	It is planned to design technical projects for the modernisation of Kaunas-Vilnius railway line for the speeds up to 160 km/h (track, construction of the second track, modernisation of signalling) and for the construction of second tracks on Kyviškės-Valčiūnai and Pušynas-Paneriai sections	Vilnius	Vilnius	-	-	-	-	-	Design	2009	2011	13,1	
odernisation of signalling and power supply uipment at Kaunas station, alemonas–Rokai–Jiesia bypass and aunas–Kybartai line	It is planned to modernise the signalling systems, power supply equipment, and technological communication network at Kaunas station, Palemonas–Rokai–Jiesia bypass and Kaunai–Kybartai line	Kaunas	Kybartai	102	-	-	20	28	Construction	2009	2014	48,3	
odernisation of track equipment at Kaunas ation, Palemonas–Rokai–Jiesia bypass and aunas–Kybartai line (stage I)	It is planned to construct a second track, reconstruct a bridge, replace 5 switches, install drainage system, rain water ditches, clear out and reinforce flanks, increase their incline rake and widen the track bed (total length of reconstructed railway 1,050 km)	Kaunas	Kybartai	1	-	-	20	28	Construction	2009	2012	7,4	
onstruction of second track on Vilnius bypass yviskes–Valciunai of Corridor IXB	It is planned to construct second track by making a new track, rearrange Kyviškes station's switch system leading toward Valčiūnai station, reconstruct existing level-crossings, water passes, bridges for two-track railway, crossings for high intensity traffic – to replace them by overpasses (total length of railway reconstruction – 24 km)	Vilnius	Vilnius	24	-	-	16	21	Design	2010	2013	62,8	
onstruction of second track on Vilnius bypass usynas–Paneriai of Corridor IXB	It is planned to construct new two-track railway on the section Vaidotai (Pušynas)–Paneriai, construct two-truck junction on the branch from Pušynas to the main Vilnius-Kaunas line toward Lentvaris, to renovate old switches and install new ones at Pušynas station, reconstruct one railway bridge, construct one overpass on the road for motor vehicles and carry out other related works (total length of railway reconstruction – 8 km)	Vilnius	Vilnius	8	-	-	12	19	Design	2011	2012	10,7	
chnicall assistance (design) for the construction second tracks on Telsiai–Lieplauke, ulupenai–Kretinga, Pavenciai–Raudenai, unge–Sateikiai and Telsiai–Duseikiai sections	It is planned to design technical projects for the construciton of second tracks on five sections of the line Šiauliai–Klaipėda	Siauliai	Klaipeda	-	-	-	-	-	Design	2009	2012	2,9	
stallation of infrastructure diagnostics systems	It is planned to modernise the system of infrastructure diagnostics systems (purchasing of road-metering wagon, diagnostic equipment, installation of polygon metric network, purchasing and implementation of soft ware, accreditation of meteorological laboratory)	Vilnius	Klaipėda	-	-	-	-	-	Construction	2009	2012	14,2	
stallation of traffic control centre	It is planned to install a general railway traffic control centre	Vilnius	Vilnius	-	-	-	-	-	Design	2010	2013	26,0	

Rail (continued)

rastructure rehabilitation and modernisation on dviliskis–Pagegiai–State Border section of rridor IA (stage I)	Infrastructure rehabilitation and modernisation on section Radviliškis–Pagėgiai–State Border (ground track bed, tracks, road constructions, level-crossings, station tracks, switches and equipment) with adjustment for the 120/90 km/h speed of passenger/freight trains; total length of railway reconstruction – 34,6 km	Radviliskis	Pagegiai	34,6	-	-	8	13	Design	2010	2013	18,8	2
odernisation of Rail Baltica railway line on unas–Siauliai section. Construction of second cks on Zeimiai-Luksiai and Gimbogala-Linkaiciai ctions	It is planned to construct second tracks on Žeimiai–Lukšiai (10 km) and Gimbogala–Linkaičiai (6 km) railway sections, total length 16 km	Kaunas	Siauliai	16	6*	14	33*	80	Planning	2012	2013	32,5	4
nstruction of second track on lupenai–Kretinga section	It is planned to construct second track (approximately 8 km), construct track bed, three bridges, one pass, protective accoustic walls, measures for migration of animals, etc.	Siauliai	Klaipeda	8	10**	12	28**	73	Design	2011	2013	33,3	4
nstruction of second track on venciai–Raudenai section	It is planned to construct second track (approximately 4 km), track bed, protective accoustic walls, measures for migration of animals, necessary road-side signalling equipment, install additional electric power supply equipment, etc..	Siauliai	Klaipeda	4	10**	12	28**	73	Design	2011	2013	16,0	2
habilitation of signalling, communications, power pply, traffic control systems and railway stations railway the railway line Lithuanian/Polish rder–Marijampole–Kazlu Ruda	It is planned to reconstruct existing signalling, communications, power supply, traffic control systems and railway stations on the railway line Lithuanian/Polish border–Marijampolė–Kazlų Rūda (79 km)	Lithuania/Polish border	Kazlu Ruda	79	5	10	2	5	Planning	2012	2013	49,1	6
habilitation of the existing Marijampole–Kazlu da railway section	It is planned to reconstruct the existing Marijampolė–Kazlų Rūda railway line by paralleling with 1435 mm gauge track or constructing additional 1435 mm gauge track (24 km)	Marijampole	Kazlu Ruda	24	3	4	3	8	Planning	2012	2013	39,9	5
habilitation of the existing Kazlu Ruda–Kaunas lway section	It is planned to reconstruct the existing Kazlų Rūda–Kaunas railway section by paralleling with 1435 mm gauge track or constructing additional 1435 mm gauge track (36 km)	Kazlu Ruda	Kaunas	36	24	39	19	27	Planning	2012	2013	58,9	7
odernisation of signalling on Kazlu Ruda–Kaunas ction	It is planned to modernise signalling on Kazlų Rūda–Kaunas railway section regarding the construction of paralleling with 1435/1520 mm gauge track or 1435 mm gauge track (36 km)	Kazlu Ruda	Kaunas	36	24	39	19	27	Planning	2012	2013	42,0	5
habilitation of the existing railway section unas (Palemonas)–Gaiziunai	It is planned to reconstruct the existing railway section (Palemonas)–Gaižiūnai (28 km) and modernise signalling system in railway stations	Kaunas	Gaiziunai	28	-	-	4	8	Planning	2012	2014	32,4	4
sign of the rehabilitation of the Klaipeda station cks and of the accoustic walls	It is planned to design the technical project for reconstruction of Klaipėda railway station and the accoustic walls equipment	Klaipeda	Klaipeda	-	-	-	-	-	Design	2010	2011	3,0	4
sign of the rehabilitation of Rimkai station	It is planned to design the technical project for extension of existing tracks up to the functional length of 1050 m in both directions, rehabilitation of aged obsolete tracks and level-crossing reconstruction	Klaipeda	Klaipeda	-	-	-	-	-	Design	2010	2010	0,1	0
sign of the rehabilitation of Pauostis tracks	It is planned to prepare a project for the extension of Pauostis marshalling yard roads up to 1050 m of functional length, reconstruction of aged obsolete tracks, also the technical project - terms of reference - for extracting road construction	Klaipeda	Klaipeda	-	-	-	-	-	Design	2009	2011	1,0	1
velopment of Klaipeda railway junction, stage I. habilitation of Draugyste station tracks	It is planned to extend 10 railway roads the functional length of which should reach no less than 850 m, and 6 railway roads the functional length of which should not be less than 1050 m, construct two new arrival and departure tracks no less than the length of 1050 m	Klaipeda	Klaipeda	-	-	-	-	-	Construction	2010	2012	38,3	5

Rail (continued)

evelopment of Klaipeda railway junction, stage I. ehabilitation of Rimkai station tracks	It is planned to extend 4 existing tracks up to 1050 m functional length in both directions, reconstruct old obsolete tracks and level-crossings	Klaipeda	Klaipeda	-	-	-	-	-	Design	2011	2013	8,0	
evelopment of Klaipeda railway junction, stage II. ehabilitation of Klaipeda station tracks	It is planned to carry out the reconstruction of Klaipėda railway station marshalling yard (extension of 8 tracks of the main marshalling yard up to 1050 m of the functional length, as well as the reconstruction of 6 arrival and departure tracks of the marshalling yard, reconstruction of 4 hummock tracks and railway junction tracks, retaining the existing length), also the construction of the accoustic wall (on the railway section of approximately 679 m)	Klaipeda	Klaipeda	-	-	-	-	-	Design	2011	2015	34,6	
evelopment of Klaipeda railway junction, stage II. ehabilitation of the pedestrian bridge at Klaipeda ation	It is planned to construct a new pedestrian bridge instead of the existing obsolete bridge and dislodge old props interfering with the reconstruction of Klaipeda station marshalling yard	Klaipeda	Klaipeda	-	-	-	-	-	Construction	2009	2010	4,2	
evelopment of Klaipeda railway junction, stage II. ehabilitation of Pauostis track area	It is planned to extend the 3 tracks of Pauostis marshalling yard to the functional length of 1050 m, and to reconstruct obsolete tracks, as well as to construct the extractive track	Klaipeda	Klaipeda	-	-	-	-	-	Design	2012	2014	25,8	
C installation on second track and in the emunas track area	It is planned to design technical project and carry out EC reconstruction works	Klaipeda	Klaipeda	-	-	-	-	-	Design	2011	2013	6,4	
onstruction of second track on Telsiai–Lieplauke ction	It is planned to construct the second track on the railway section of approximately 13 km, a track bed, a bridge, nine passes, protective accoustic walls, measures for migration of animals, etc.	Siauliai	Klaipeda	13	10**	12	28**	73	Design	2012	2014	21,3	
onstruction of second track on Plunge–Sateikiai ction	It is planned to construct a second track (approximately 13 km), widen the track bed, construct bridges, protective accoustic walls, measures for animal migration, install proper road-side signalling equipment, additional power supply equipment, etc.	Siauliai	Klaipeda	13	10**	12	28**	73	Design	2012	2014	21,9	
onstruction of second track on Telsiai–Duseikiai ction	It is planned to construct the second track (approximately 4 km), widening of track bed, installation of drainage system, replacement of switches, renovation or construction of bridges (where necessary), extension and renovation of passes, installation of required road-side signalling equipment along the new track between Telšiai and Duseikiai, adjust automatic blockage system, install additional power supply equipment, construct protective accoustic walls, measures for migrations of animals, etc.	Siauliai	Klaipeda	4	10**	12	28**	73	Design	2012	2014	7,9	
evelopment of the technical documentation for the stallation of the Vilnius public logistics centre	It is planned to make a feasibility study (analysis of present situation, project proposals, cost/benefit analysis, evaluation of environment impact), formation of land sites, preparation of terms of reference	Vilnius	Vilnius	-	-	-	-	-	Planning	2011	2012	0,9	
frastructure construction works of Vilnius public gistics centre	It is planned to construct railway tracks, railway switches, container storage site, under-crane railway track, access road for motor vehicles, freight vehicles parking, fencing, water-supply, sewerage, heating supply networks, electric power transmission lines, communication (telecommunication) lines, etc.	Vilnius	Vilnius	-	-	-	-	-	Planning	2012	2014	33,1	
evelopment of the technical documentation for the stallation of the Kaunas public logistics centre	It is planned to make a feasibility study (analysis of present state, project proposals, cost/benefit analysis, evaluation of environment impact), form land sites, prepare of terms of reference	Kaunas	Kaunas	-	-	-	-	-	Planning	2011	2012	0,9	
frastructure construction works of Kaunas public gistics centre	It is planned to construct railway tracks, railway switches, container storage site, under-crane railway track, road vehicles access road, parking for freight vehicles, fencing, water-supply, sewerage, heating supply networks, power transmission lines, communication (telecommunication) lines, etc.	Kaunas	Kaunas	-	-	-	-	-	Planning	2012	2015	26,4	

INW

DESCRIPTION (Project and Section Names)	PROJECT LOCATION			YEARLY VESSEL TRAFFIC		CURRENT STATUS	TIME PLAN		TOTAL COST (in mio euro)	TOTAL COST (in mio$)	EXPENS so far(in of total co
	Start point/node/ city	End point/node/city	Total Length (km)	Existing	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year			
Hydraulic structures ('m) the reconstruction of international importance E41 section of the waterway Kaunas-Atmata mouth. Technical documentation: A previously planned to build a water'm E41 road section from Kaunas to Atmata mouth reconstruction of the technical documentation	Kaunas	Klaipėda				Design	2009	2010	0,1	0,1	
Hydraulic structures ('m) the reconstruction of international importance E41 section of the waterway Kaunas-Atmata mouth. Reconstruction works: The planned reconstruction of previously built buna E41 section of the waterway from Kaunas to Atmata mouth. This will ensure the necessary dimensions of the waterway to improve navigation conditions and to protect river banks from erosion	Kaunas	Klaipėda				Construction	2010	2012	3,8	5,1	
New Marvele cargo pier construction in Kaunas. Preparation of Technical Documentation: It is planned to develop a new cargo berths Marvele Kaunas, the construction of technical documentation	Kaunas	Kaunas				Design	2010	2011	0,1	0,1	
New Marvele cargo pier construction in Kaunas. Works: It is planned to build a new pier Marvelėje load. Wharf to the integration of inland waterway transport in multi-modal freight transport system	Kaunas	Kaunas				Design	2011	2012	2,8	3,7	

<u>Ports</u>

DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ANNUAL THROUGHPUT (tones and TEUs)		CURRENT STATUS	TIME PLAN		TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EXPENSES far(in % of cost)
	Start point/node/ city	End point/node/city	Total Length (km)	Existing	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year			
Construction of infrastructure for Klaipeda Public Logistic Centre: Planned the construction of access roads and railroads, communications and other infrastructure necessary to arrange	Klaipeda	Klaipeda	on planning process			Planning	2011	2014	29,0	38,7	
Arrangement of access roads to multimodal cargo terminals in the southern part of the port: Planned the reconstruction of about 4,5 km access roads and 1 road bridge over Klaipeda Channel	Klaipeda	Klaipeda	road - 4,5			Construction	2010	2012	14,8	19,7	
Construction of infrastructure for Passenger and cargo Ferry terminal: Planned the construction of about 950 m useful length of quays modernizing infrastructure for cargo and passengers services	Klaipeda	Klaipeda	quays - 0,95			Construction	2010	2013	50,8	67,7	
Deepening and widening of the port entrance channel: Planned the deepening of the part of the port entrance channel up to depth of 14 m and widening up to width of 150 m	Klaipeda	Klaipeda	width of port entrance channel - 0,15			Planning	2011	2012	20,8	27,7	
Preparation of technical documentation for the cons	Sventoji	Sventoji	breakwaters - 1,0			Planning	2011	2013	3,8	5,1	
Construction of marina for small and leisure boats a	Klaipeda	Klaipeda	breakwaters - 0,68; quays - 0,47			Construction	2010	2012	4,5	6,0	

MONGOLIA

Rail

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio $)	EXPENSES so far (in % of total cost)	% F
		Start point/node/ city	*End point/node /city*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Programmig, Planning, Design, Construction (please select one)*	*Start year*	*End year*			*Nati Fu*
-RLW-01	Dalanzadgad-Tavantolgoi-Sainshand-Baruun-Urt-Choibalsan	Dalanzadgad	Choibalsan	1100						2011	2013	1760		

MOLDOVA

Road

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio $)	EXPENSES so far (in % of total cost)
		Start point/node/ city	*End point/node/city*	*Total Length (km)*	*Motorway, Expressway, Ordinary Road or Class No for AH (please select one)*	*Existing Average Annual Daily Traffic (AADT)*	*Forecasted*	*Indent./Planning, Study/Design, Tendering, Construction (please select one)*	*Start year*	*End year*		
A-ROD-01	Improvement of a 217-km Road Chişinău – Cimislia – Comrat – Vulcăneţti – Giurgiuleşti – the border with Romania	Porumbrei	Cimislia	25						2020	33,3	
		Comrat town bypass		18						2020	22,4	
		Bypass of three villages		22						2020	36,3	
A-ROD-02	Rehabilitation of a 136-km road Bălţi – Criva	Bălţi	Criva						2015	2017	137	

Rail

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Average Daily Train Traffic (ADTT) Passenger Trains		Average Daily Train Traffic (ADTT) Freight Trains		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio $)
		Start point/node/ city	*End point/node/city*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Indent./Planning, Study/Design, Tendering, Construction (please select one)*	*Start year*	*End year*	
A-RLW-01	Electrification of a 211-km railway line the border with Ukraine – Bender – Chişinău – Ungheni – the border with Romania	Border with Ukraine – Bender	Ungheni – the border with Romania							2010	2015	317
A-RLW-02	Construction of a 54-km railway line Cahul – Giurgiuleşti	Cahul	Giurgiuleşti							2015	2018	74,5

Inland Waterway

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Yearly Vessel Traffic		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio $)	EXPENSES so far (in % of total cost)
		Start point/node/city	*End point/node/city*	*Total Length (km)*	*Existing*	*Forecasted*	*Indent./Planning, Study/Design, Tendering, Construction (please select one)*	*Start year*	*End year*		
DA-INW-01	territory of the Republic of Moldova in the mouth of the Danube river, including the terminal of oil product							2005	2012	250	

PAKISTAN

Road

	PROJECT ID		DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EXPENSES so far (in % of total cost)	% FUNDING SECURED (or possibl			
				Start point/node/city	*End point/node/city*	*Total Length (km)*	*Motorway, Expressway, National Road (please select one)*	*Existing Average Annual Daily Traffic*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*				*National Funds*	*EU Funds*	*Bank Loans*	
ongang-Bangkok-on Dehli-ad-l-Kandar-anbul		-	Wagha Border-Lahore	Wagha Border	Lahore	35											Provincial Road		
	PAK-ROD-01	M-2	Lahore-Islamabad	Lahore	Islamabad	367	Motorway	21798	-	Operation	-	-	223,77	297,61	-	-	-	-	
	PAK-ROD-02	M-1	Islamabad-Peshawar	Islamabad	Peshawar	154	Motorway	34011	-	Operation	-	-	224,46	298,54	-	-	-	-	
	PAK-ROD-03	M-1	Peshawar-Takhta Baig	Peshawar Northern Bypass		34	National Highway	23208	-	Operation	-	-	86,27	114,73	-	-	-	-	
	PAK-ROD-04	N-5	Takhta Baig-Torkham	Takhta Baigh	Torkham	51	National Highway		-	Operation	-	-	20,62	27,43	-	-	-	-	
arta-mpur-ar)-Siliguri abhitta -Multan-amadan-	PAK-ROD-05	N-5	Lahore-Sukkar	Lahore	Sukkur	775	National Highway	50000	-	Operation	-	-	452,67	602,05	-	-	-	-	
	PAK-ROD-06	N-65	Sukkur-Sariab	Sukkur	Sariab	385	National Highway	7855	-	Operation	-	-	155,68	207,06	-	-	-	-	
	PAK-ROD-07	N-40	Lakpass-Taftan	Lakpass	Taftan	610	National Highway	1816	-	Operation	-	-	246,67	328,07	-	-	-	-	

Road (continued)

ngolia)- unjerab- -Karachi	PAK-ROD-08	N-5	Karachi-Hassanabdal	Karachi	Hassan abdal	1584	National Highway	55000	-	Operation	-	-	925,20	1230,52	-	-	-	-
	PAK-ROD-09	N-35	Hassanabdal-Mansehra	Hassan abdal	Mansehra	94	National Highway	8498	-	Operation	-	-	38,01	50,55	-	-	-	-
	PAK-ROD-10	N-35	Mansehra-Thakot	Mansehra	Thakot	97	National Highway	5216	-	Operation	-	-	39,22	52,17	-	-	-	-
	PAK-ROD-11	N-35	Thakot-Sazin	Thakot	Sazin	161	National Highway	1341	-	Operation	-	-	65,10	86,59	-	-	-	-
	PAK-ROD-12	N-35	Sazin-Raikot	Sazin	Raikot	120	National Highway	1208	-	Operation	-	-	48,52	64,54	-	-	-	-
	PAK-ROD-13	N-35	Raikot-Khunjrab	Raikot	Khunjrab	335	National Highway	1804	-	Operation	-	-	135,46	180,17	-	-	-	-
	PAK-ROD-14	N-25	Kalat-Chaman	Kalat	Chaman	247	National Highway	3265	-	Operation	-	-	99,88	132,84	-	-	-	-
	PAK-ROD-15	N-25	Kararo-Wad	Kararo	Wad	96	National Highway	5247	-	Operation	-	-	38,82	51,63	-	-	-	-
	PAK-ROD-16	N-50	D.I Khan-Mughalkot	D.I Khan	Mughalkot	124	National Highway	1532	-	Operation	-	-	50,14	66,69	-	-	-	-
	PAK-ROD-17	N-50	Mughalkot-Zhob	Mughalkot	Zhob	78	National Highway	3369	-	Operation	-	-	31,54	41,95	-	-	-	-
	PAK-ROD-18	N-50	Zhob-Muslim Bagh	Zhob	Muslim Bagh	211	National Highway	9827	-	Operation	-	-	85,32	113,48	-	-	-	-
	PAK-ROD-19	N-50	Muslim Bagh-Khanozai	Muslim Bagh	Khanozai	23	National Highway	9827	-	Operation	-	-	9,30	12,37	-	-	-	-
	PAK-ROD-20	N-50	Khanozai-Kuchlac	Khanozai	Kuchlac	23	National Highway	9827	-	Operation	-	-	9,30	12,37	-	-	-	-
	PAK-ROD-21	N-55	D.I Khan-Sara e Gambila	D.I Khan	Sara e Gambila	117	National Highway	6544	-	Operation	-	-	47,31	62,92	-	-	-	-
	PAK-ROD-22	N-55	Badabher-Dara Adam Khel	Badabher	Dara Adam Khel	29	National Highway	10182	-	Operation	-	-	11,73	15,60	-	-	-	-

Rail

E)	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION Start point/node/ city	End point/node/city	Total Length (km)	ADTT (passenger) Existing	Forecasted	ADTT (freight) Existing	Forecasted	CURRENT STATUS Programming, Planning, Design, Construction (please select one)	TIME PLAN Start year	End year	TOTAL COST (in mio $)	EXPENSES so far(in % of total cost)	% FUNDING SECUR National Funds	EU Funds	Ba
	PAK-RLW-01	Up Gradation of Quetta-Koh-i-Taftan	Quetta	Koh-i-Taftan	732	52 per day	1329 per day	1388 tons per day	4611 Tons per day	Awaiting funds							
	PAK-RLW-02	Linking Gwadar Port with Mastung	Gwadar	Mastung *	901	0	500 Per day	0	306 TEU per day	Awaiting funds			2120				
	PAK-RLW-03	Extension of rail link: Mirjaveh (border Iran)-Koh-i-Taftan (border Pakistan)-Dalbandin-Spezand-Rohri-Hyderabad-Karachi(port)	Koh-i-Taftan	Karachi						Awaiting funds			665,57				
	PAK-RLW-04	Extension of rail link: Karachi-Rohri-Lahore-Rawalpindi-Islamabad-Peshawar	Karachi	Peshawar						Awaiting funds							
	PAK-RLW-05	Linking of Chaman with Spinboldak (Afhanistan)	Chaman	Spinboldak (Afhanistan)						Awaiting funds							
	PAK-RLW-06	Linking of Peshawar with Jalalabad (Afghanistan)	Peshawar	Jalalabad (Afghanistan)						Awaiting funds							

Maritime

RK	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Annual Throughput (tones and TEUs)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio M)	EXPENSES so far (in % of total cost)	% FUNDIN	
			Start point/node/ city	End point/node/ city	Total Length (km)	Existing	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year			National Funds	F
	PAK-MAR-01	GWADER DEEP WATER PORT				720 TEUS/day	3% increase		2002	2006	300	399	50	
	PAK-MAR-02	Port Qasim Authority	Karachi				7% increase							

ROMANIA

Road

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EXPE far (in c
		Start point/node/ city	End point/nod e/city	Total Length (km)	Motorway, Expressway, National Road (please select one)	Existing Average Annual Daily Traffic (AADT)	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year			
U-ROD-01	Targu Mures – Iasi – Ungheni Motorway	Targu Mures	Ungheni	307,202	Motorway	8000	1	Study/Design	2011	2015	6918	9200,94	

Inland Waterway

Project ID	Description (Project and sections name)	PROJECT LOCATION			Yearly vessel traffic		Current status	TIME PLAN*		Total cost (mio euro)	Total cost (mio $)	Expenses so far (in % of total costs)	% FUNDIN
		Start point/node/	End point/nod	Total Length (km)				Start year	End year				National f
ROU-INW-01	Banks protection on the Sulina Canal. Signaling and topohydrographic measurement systems on Danube	Mm 26+500	Mm 11+834	15			construction	2004	2012	30	40	1	1
ROU-INW-02	Improvement of the Conditions for navigation on the Danube, km 375 - 175, Calarasi - Braila sector	km 375	km 175	200			construction	2009	2012	40	53	0	1
ROU-INW-03	Improvement of the conditions for navigation on the Danube, km 875 - 375, Romanian - Bulgarian common sector	km 863	km 375	488			planning	2014	2020	184	245	0	0
ROU-INW-04	Implementation of the VTMIS (Vessel Traffic Management and Information System) on the Danube, Romanian sector	km 1075	km 0	1075			construction	2010	2012	14	18	0	0

Maritime

Project ID	Description (Project and sections name)	Project location			Annual throughput (tones)		Current status Programming, Planning, Design, Construction	TIME PLAN*		Total cost (mio euro)	Total cost (mio $)	Expenses so far (in % of total	% FUND
		Start point / node / city	End point / node / city	Total length (km)	Existing	Forecasted		Start year	End year				National f
U-MAR-01	Extension of the North Breakwater in Constanta Port	Constanta Port	Constanta Port	1	n/a	n/a	design	2011	2014	121	161	0	0
U-MAR-02	Development of the river - maritime sector in Constanta Port	Constanta Port	Constanta Port				programming			94	125	0	0

RUSSIAN FEDERATION

Road

	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio rubles)	TOTAL COST (in mio $)
			Start point/node / city	End point/node/city	Total Length (km)	Motorway, Expressway, National Road (please select one)	Existing Average Annual Daily Traffic (AADT)	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year		
ROD-01	Construction and reconstruction of the road M-1 "Belarus" - from Moscow to the border with the Republic of Belarus (in the direction of Minsk, Brest)	construction and reconstruction of road sections of total length of 97 km (560 linear meters of constructive works) to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the road within the Moscow transportation hub between km 33 - km 114, building of access to the connecting road under construction from km 33 of M-1 "Belarus" to the Moscow ring road, construction of a road interchange at different levels at km 382	Moscow	Border with Belarus						2010	2015	64891	2336,07
ROD-02	Construction and reconstruction of the road M-3 "Ukraine" - from Moscow via Kaluga, Bryansk to the border with Ukraine (in the direction of Kiev)	construction and reconstruction of road sections of total length of 51 km (554 linear meters of constructive works) to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the road sections km 51 – km 107, km 172 – km 194, and of access to Bryansk between km 107 - km 116	Moscow	Border with Ukraine						2010	2015	18453	664,30
ROD-03	Construction and reconstruction of the road M-4 "Don" - from Moscow via Voronezh, Rostov-on-Don, Krasnodar, Russia to Novorossiysk	construction and reconstruction (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the road sections of total length of 1521 km (19868 linear meters of constructive works) to be implemented in stages, including construction and renovation in view of the further use on a fee paid basis of the following road sections : km 21 -	Moscow	Novorossiysk						2010	2015	884057	31826,05
ROD-04	Construction and reconstruction of the road M-5 "Ural" - from Moscow via Ryazan, Penza, Samara, Ufa to Chelyabinsk	construction and reconstruction of the road sections of total length of 1,155 km (8,017 linear meters of constructive works) to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the	Moscow	Chelyabinsk						2010	2015	203189	7314,80

Road (continued)

ROD-05	Construction and reconstruction of the road M-6 "Caspian" - Moscow (from Kashira) via Tambov, Volgograd to Astrakhan	construction and reconstruction of the road sections of total length of 86 km (77 linear meters of constructive works) to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the	Moscow	Astrakhan						2010	2015	16780	604,0
ROD-06	Construction and reconstruction of the road M-7 "Volga" - from Moscow via Vladimir, Nizhny Novgorod, Kazan to Ufa	construction and reconstruction of road sections of total length of 668 km (4052 linear meters of constructive works) to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project	Moscow	Ufa						2010	2015	122203	4399,30
ROD-07	Construction and reconstruction of the road M-8 "Kholmogory" - from Moscow via Yaroslavl, Vologda to Archangelsk	construction and reconstruction of road sections of total length of 44 km (700 linear meters of constructive works) to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the following road sections: bypass around Tarasovka village in the	Moscow	Archangelsk						2010	2015	33058	1190,08
ROD-08	Construction of a high-speed highway Moscow - St. Petersburg	construction of a 1st class highway of total length of 626 km (550 linear meters of constructive works) with a 4 - 8-lane carriageway, with construction of bypasses around built-up areas to organize a 10-lane traffic flow at the exit of Moscow, a 8-lane traffic flow in	Moscow	St. Petersburg						2010	2015	567499	20429,96
ROD-09	Construction of a high-speed highway "Central Ring Road of Moscow Region"	construction of the Central Ring Road of Moscow Region of total length of 520 km with 4 – 8 lane traffic, estimated speed of 140 km per hour, to be implemented in stages which will be	Moscow							2010	2015	469908	16916,68
ROD-10	Construction and reconstruction of the road M-10 "Scandinavia" - from St. Petersburg via Vyborg to the border with Finland	construction and reconstruction of road sections of total length of 37 km (286 linear meters of constructive works) to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the section km 48 – km 80, and reconstruction of road access to	St. Petersburg	Border with Finland						2010	2015	8040	289,4
ROD-11	Reconstruction of the road M-18 "Cola" - from St. Petersburg via Petrozavodsk, Murmansk, Pechenega to the border with Norway (international automobile border crossing point "Borisoglebsk")	construction and reconstruction of road sections of total length of 39 km (388 linear meters of constructive works) to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the following road sections: km 1009 - km 1075 and km 1590 - km 1592, construction and reconstruction of bridges over the rivers Kanda-Bay at km 1137 + 995, Pechenga at km 1517, Shirokaya Salma at km 1197 + 346	St. Petersburg	Border with Norway (international automobile border crossing point "Borisoglebsk")						2010	2013	2440	87,8

Road (continued)

ROD-12	Construction and reconstruction of the road M-20 Saint-Petersburg - Pskov - Pustoshka - Nevel to the border with the Republic of Belarus	construction and reconstruction of road sections of total length of 47 km (1650 linear meters of constructive works) to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the road section km 31 – km 56, completion of construction of a bypass around Luga, reconstruction of road access to the multilateral automobile border crossing point of the Russian Federation "Lobok"	St. Petersburg	Border with the Republic of Belarus						2010	2015	7670	276,
ROD-13	Construction and reconstruction of the road M-21 Volgograd - Kamensk-Shakhtinsky to the border with Ukraine (in the direction of Kiev, Chisinau)	construction and reconstruction of road sections of total length of 33 km (372 linear meters of constructive works) to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the road sections km 24 – km 59 and km 366 – km 378	Volgograd	Border with Ukraine (in the direction of Kiev, Chisinau)						2012	2015	5570	200,5
ROD-14	Construction and reconstruction of the road M-23, Rostov-on-Don - Taganrog to the border with Ukraine (in the direction of Kharkov, Odessa)	construction and reconstruction of road sections of total length of 38,6 km (172 linear meters of constructive works) to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the road sections km 20 - km 28, km 29 - km 58 + 300, reconstruction of road access to the multilateral automobile border crossing point of the Russian Federation "Veselo-Voznesenka"	Rostov-on-Don - Taganrog	Border with Ukraine (in the direction of Kharkov, Odessa)						2011	2015	5648	203,32
ROD-15	Reconstruction of the road M-32 Samara - Big Chernigovka to the border with the Republic of Kazakhstan (Uralsk, Aktyubinsk, Kyzyl-Orda, Chimkent)	construction and reconstruction of road sections of total length of 37 km to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the road section km 8 - km 24, reconstruction of road access to the multilateral automobile border crossing point of the Russian Federation "Kurlin" (Mashtakovo)	Samara	Border with the Republic of Kazakhstan (Uralsk, Aktyubinsk, Kyzyl-Orda, Chimkent)						2011	2013	1102	39,67
ROD-16	Construction and reconstruction of the road M-51, F-53, M-55 "Baikal" - from Chelyabinsk via Kurgan, Omsk, Novosibirsk, Kemerovo, Krasnoyarsk, Irkutsk, Ulan-Ude to Chita	construction and reconstruction of road sections of total length of 92 km (860 linear meters of constructive works) to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the following road sections: km 49 - km 77 (Step 2 of the 1st stage of construction of the northern bypass around Novosibirsk from the town Prokudskoe to the village Sokur with a bridge across the river Ob near the village Krasny Yar), km 1161 - km 1165, km 1251 - km 1261, km 1296 - km 1320, km 1438 - km 1466, of a bypass around Irkutsk between km 0 - km 24, reconstruction of the road access to the multilateral automobile border crossing points of the Russian Federation "Petukhovo" and "Isilkul"	Chelyabinsk	Chita								13713	493,66

Road (continued)

ROD-17	Construction and reconstruction on the road M-60 "Ussuri" - from Khabarovsk to Vladivostok	construction and reconstruction of road sections of total length of 263 km (4392 linear meters of constructive works) to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the following road sections: km 36 - km 59 , km 93 - km 98, km 105 - km 118, km 141 - km 182, km 209 - km 223, km 240 - km 252, km 290 - km 366, km 376 - km 381, km 663 - km 688, km 733 - km 750, of a bypass around Ussuriisk between km 639 - km 664, reconstruction of the bridge over Awan at km 135 + 860, reconstruction of the rail and road overpass at km 227, km 258, km 591	Khabarovsk	Vladivostok						2010	2015	27641	995
ROD-18	Reconstruction of the highway A-229 Kaliningrad - Chernyakhovsk - Nesterov to the border with the Republic of Lithuania (in the direction of Vilnius, Minsk, road "Belarus")	construction and reconstruction of road sections of total length of 41 km to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the road sections between km 67 - km 69, km 84, of a bypass around Chernyakhovsk	Kaliningrad	Border with the Republic of Lithuania (in the direction of Vilnius, Minsk, road "Belarus")						2011	2012	7508	270
ROD-19	Reconstruction of sections of the road 1P 242 Perm – Yekaterinburg	construction and reconstruction of sections of the road 1P 242 Perm – Yekaterinburg of total length of 106 km (1591 linear meters of constructive works) to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the following sections: km 13 - km 21, km 128 - km 136 and of the section Perm - the border with Sverdlovsk region	Perm	Yekaterinburg						2010	2015	13927	501
ROD-20	Construction and reconstruction of the road from St. Petersburg via Priozersk, Sortavala to Petrozavodsk	construction and reconstruction of the road sections of total length of 161 km to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities). The names of the designed items and their characteristics shall be determined after the engineering survey is completed.	St. Petersburg	Petrozavodsk						2011	2015	19963	718
ROD-21	Construction and reconstruction of the road M-52 "Chuysk Tract- from Novosibirsk via Biysk to the border with Mongolia	construction and reconstruction of the sections of the road M-52 "Chuysk Tract- from Novosibirsk via Biysk to the border with Mongolia of total length of 89 km (480,29 linear meters of constructive works) to be implemented in stages, including construction and renovation (including engineering survey and elaboration of project documentation and its appraisal by the state authorities) of the following road sections: km 183 - km 202, km 428 + 304 - km 495, reconstruction of road access to the multilateral automobile border crossing points of the Russian Federation "Tashanta"	Novosibirsk	Border with Mongolia						2011	2012	4320	15

Rail

OJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		URRENT STATU	TIME PLAN*		TOTAL COST (in mio euro)	TOTAL COST (in mio $)
		Start point/node/ city	*End point/node/ city*	*Total Length (km)*	*Existing*	*Forecasted*	*Existing*	*Forecasted*	*Programmig, Planning, Design, Construction (please select one)*	*Start year*	*End year*		
RLW-01	Construction of third track in passage Lyangasovo - Kotelnich	Lyangasovo	Kotelnich	71							2015	179	238,
RLW-02	Construction of third track in passage Perm - Chaikovskaya	Perm	Chaikovskaya	13							2015	31	41,2
RLW-03	Construction of third track in passage Tumen - Voinovka	Tumen	Voinovka	8							2010	10	13
RLW-04	Construction of side tracks in passage Buy - Paprikha	Buy	Paprikha	21							2010	44	58,5
RLW-05	Construction of second bridge over Unzha river Sharya – Nikolo Poloma	Sharya	Nikolo Poloma								2010	45	59,8
RLW-06	Reconstruction of Saint Petersburg railway junction	Saint Petersburg railway junction								2010	2015	400	53
RLW-07	Construction of side track in the passage Vyborg-Pass. - Buslovskaya	Vyborg-Pass	Buslovskaya	18							2015	1176	1564,
RLW-08	Construction of a new line Petyayarvi - Kamennogorsk	Petyayarvi	Kamennogorsk	64							2015		
RLW-09	Construction of side track in the passage Vyborg-Tov. - Kamennogorsk	Vyborg-Tov	Kamennogorsk	40							2015		
RLW-10	Electrification of Sosnovo – Kamennogorsk – Vyborg passage (Primorsk, Vysotsk)	Sosnovo	Vyborg passage (Primorsk, Vysotsk)								2015		

Rail (continued)

RLW-11	Electrification of Obozerskaya – Arkhangelsk passage	Obozerskaya	Arkhangelsk								2015	193	256,6
RLW-12	Complex reconstruction of Mga-Gatchina-Veymarn-Ivangorod passage and railway approaches to the ports located in the southern coast of Finnish Bay	Mga-Gatchina-Veymarn-Ivangorod passage									2015	364	484,1
RLW-13	Construction of by-road around Saratov junction	Saratov junction								2010	2015	80	106
RLW-14	Construction of side track in Saratov – Petrov Val passage	Saratov	Petrov Val	80							2010	116	154,2
RLW-15	Construction of side track in the passage Volgograd – Tikhoretskaya	Volgograd	Tikhoretskaya	428							2010	523	695,5
RLW-16	Construction of side track in the passage Tikhoretskaya – Korenovsk	Tikhoretskaya	Korenovsk	60							2015	75	99,7
RLW-17	Construction of side track in the passage Enem – Krivenkovskaya	Enem	Krivenkovskaya	24						2010	2015	36	47,8
RLW-18	Construction of side track in the passage Timashevskaya – Krimskaya	Timashevskaya	Krimskaya	112							2010	150	199
RLW-19	Construction of side track in the passage Enem (Afipskaya) – Krimskaya	Enem	Krimskaya	23							2010	31	41,2
RLW-20	Complex reconstruction of 9km - Yurovskiy - Anapa – Temruk passage	Yurovskiy	Temruk							2010	2015	241	320,5
RLW-21	Construction of by-road around Krasnodar junction	Krasnodar junction									2015	168	223,4
RLW-22	Construction of a new station Razyezd 9 km	Razyezd station									2015	89	118,3
RLW-23	Construction of by-road around Yaroslavl junction	Yaroslavl junction									2015	67	89,1

Rail (continued)

RLW-24	Construction of third rail-tracks in the passage Voskresensk – Ryazan	Voskresensk	Ryazan	91						2010	2015	222	295,2
RLW-25	Construction of third track in the passage Likhaya – Rostov	Likhaya	Rostov	127							2010	312	414,9
RLW-26	Electrification of Rtishevo – Kochetovka passage	Rtishevo	Kochetovka	244							2015	149	198,1
RLW-27	Construction of side track in the passage Akhtuba – Trubnaya	Akhtuba	Trubnaya	83							2010	99	131,6
RLW-28	Electrification of Trubnaya-Aksarayskaya passage	Trubnaya	Aksarayskaya	365							2015	185	246,0
RLW-29	Construction of third rail-tracks in the passage Bekasovo – Nara	Bekasovo	Nara	8							2010	22	29,2
RLW-30	Restoration of crossing points in Dno – Novosokolniki passage	Dno	Novosokolniki							2010	2015	2	2,6
RLW-31	Construction of special passenger high-speed backbone Moscow – St. Petersburg	Moscow	St. Petersburg										
RLW-32	Reconstruction of line Moscow – Krasnoye for organization of high-speed passenger traffic	Moscow	Krasnoye										
RLW-33	creation of the end-to-end railway connection Perm – Syktyvkar – Archangelsk and development of a big industrial area specialized in production of potassium fertilizers, deep processing of timber, manufacturing of titanium and titanium based products, oil and gas processing, production of cement and building material using the principles of public-private partnership	first section: Karpogory, second section: Yazel	first section – Vendiga, second section – Solikamsk	712					Tendering			11962	15909,4

Rail (continued)

RLW-34	construction of the third main track in the section Kosulino – Bogdanovich	Kosulino	Bogdanovich	65								14115,16	18773,162
RLW-35	construction of the second main track in the section Kharanor – Zabaykalsk	Kharanor	Zabaykalsk	13									
RLW-36	construction of the second main track in the section Muslyumovo – Kamensk-Uralskiy	Muslyumovo	Kamensk-Uralskiy	43									
RLW-37	construction of the second main track in the section Volgograd – Akhtuba	Volgograd	Akhtuba	36									
RLW-38	construction of the second main track in the section Murmansk – Apatity, Segeja – Medvejia Gora	Murmansk; Segeja	Apatity; Medvejia Gora	62									
RLW-39	construction of the second main track in the section Krymskaya – Vyshesteblevskaya	Krymskaya	Vyshesteblevskaya	62									

Maritime and Intermodal

	PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Annual Throughput (tones and TEUs)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio rubles)	TOTAL COST (in mio euro)
			Start point/node / city	*End point/node/city*	*Total Length (km)*	*Existing*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*		
-MAR-01	Ust-Luga Sea Port					31,6 million TEU	increase 500%					
-MAR-02	St. Petersburg Sea Port					86 million and 3 million	increase 10%					
-MAR-03	Murmansk Sea Port					22 million	increase 20%					
-MAR-04	Vostochny Sea Port					26 million and 650 thousand	increase 25%					
-MAR-05	Novorossiysk Sea Port					152 million and 652 thousand	increase 18%					
ALS												
-INM-01	The Comprehensive Development of Murmansk Transport Hub Project	Project Description: creation of a year-round deep-water maritime hub for handling of containerized and oil cargo, transshipment of coal and general cargo, integrated into the international transport corridor "North – South". The project involves construction of coal, oil and oil products transshipment terminals, further equipping of hydrotechnical constructions.					62 million tons by 2015, 84 million tons by 2020.	Study/Design	2015	2015	117391,9	4226,108
-INM-02	The Comprehensive Development of Vostochny – Nakhodka Transport Hub Project						new port container terminals – up to 10 million TEU per year, port-connected logistic container terminal, new coal terminal – 20 million tons per year (plus phase 3 construction of the existing coal terminal with the capacity of 6 million tons of coal per year), grain transshipping complex – 3.5 million tons of grain per year.	Study/Design	2015	2015	111963,5	4030,686

Maritime and Intermodal (continued)

-INM-03	The Comprehensive Development of Novorossijsk Transport Hub Project (Krasnodar region)	implementation of a comprehensive infrastructure development project in the South of the Russian Federation, which shall include Novorossijsk port infrastructure, creation of logistics facilities for Novorossijsk transport hub management and evaluation of synergy effect of all transport components of the project. The project involves creation of 17 transport infrastructure facilities, grouped by industry branch					expected throughput of the port – 16 million tons of freight per year, including container handling volume – at least 550 thousand TEU per year		2015	2015	117676,1	4236,34	
-INM-04	The multimodal transport and logistics hub "Rostov Universal Port" development project	construction on the left bank of the Don river (in "Zarechnaya" industrial area in Rostov-na-Donu) of the port and logistics facilities complex and of the rail and road access infrastructure							2015	2015	19900	716,4	
-INM-03	Construction of the Sviyajsky interregional multimodal logistics center (Republic of Tatarstan)	set up of cargo acceptance, temporary storage, handling, distribution, processing of documents and shipment of cargo to the destination point by different transport means using logistics technology, international cargo flow handling through the corridors "West – East" and "North – South", interregional cargo flow handling					new port container terminals – up to 10 million TEU per year, port-connected logistic container terminal, new coal terminal – 20 million tons per year (plus phase 3 construction of the existing coal terminal with the capacity of 6 million tons of coal per year), grain transshipping complex – 3.5 million tons of grain per year.		2015	2015	111963, 5	4030,686	

TAJIKISTAN

Road

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio $)	EXPENSES so far (in % of total cost)
		Start point/node/ city	*End point/node/ city*	*Total Length (km)*	*Motorway, Expressway, National Road (please select one)*	*Existing Average Annual Daily Traffic (AADT)*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*		
TJK-ROD-01	Construction of the tunnel Istiqlolon the road Dushanbe-Khujand	Dushanbe	Khujand						2004	2010	39	
TJK-ROD-02	Reconstruction of the road Dushanbe- border with Kyrgyzstan, Phase 2	Dushanbe	Border with Kyrgyzstan						2007	2010	37,9	
TJK-ROD-03	Reconstruction of the road Dushanbe- border with Kyrgyzstan, Phase 3	Dushanbe	Border with Kyrgyzstan						2007	2012	76,5	
TJK-ROD-04	Reconstruction of the road Dushanbe-Chanak (asphalt pavement, installation of drainage pipes, protective walls)	Dushanbe	Chanak						2006	2009	146,36	
TJK-ROD-05	Construction of the road tunnel Shahriston and power lines	Shahriston							2006	2010	84,3	

<u>Road (continued)</u>

TJK-ROD-06	Construction of avalanche galleries on the road Dushanbe-Chanak, in the section Husheri-Mayhura	Husheri	Mayhura						2006	2010	30		
TJK-ROD-07	Reconstruction of the road Dushanbe-Kulma, section Dushanbe-Dangara	Dushanbe	Dangara						2009	2011	51,578		
TJK-ROD-08	Reconstruction of the road Dushanbe-Kulma, section Dushanbe-Dangara, Phase 2	Dushanbe	Dangara						2009	2011	151,5		
TJK-ROD-09	Construction of the road Shagon-Zigar Phase 2	Shagon	Zigar						2007	2010	15,9		
TJK-ROD-10	Construction of the road Shagon-Zigar Phase 3	Shagon	Zigar						2010	2012	17		
TJK-ROD-11	Construction of the road Kulyab-Kalaihumb	Kulyab	Kalaihumb						2010	2012	85,5		

<u>Road (continued)</u>

TJK-ROD-12	Completion of construction of the bridge Yangolik in Rasht district	Rasht district							2008	2010	2,3699	
TJK-ROD-13	Construction of a bridge over the Panj River in Vanj area	Panj River in Vanj area							2008		3,2	
TJK-ROD-14	Reconstruction of the road Kurgantyube - Dusti	Kurgantyube	Dusti						2009	2012	32,7551	
TJK-ROD-15	Reconstruction of the road Dusty-Nizhniy Panj Phase 2	Dusty	Nizhniy						2009	2010	12,2143	
TJK-ROD-16	Reconstruction of the road Dushanbe - border with	Dushanbe	Border with Uzbekistan								151	
TJK-ROD-17	Reconstruction and restoration of the road Aini-Penjikent- border with Uzbekistan	Aini	Border with Uzbekistan								28,95	

<u>Road (continued)</u>

TJK-ROD-18	Reconstruction and restoration of the road Kulyab-Kalaihumb	Kulyab	Kalaihumb								105	
TJK-ROD-19	Construction of the road Shagon-Zigar Phase 3	Shagon	Zigar								13,3	
TJK-ROD-20	Restoration of the road Gulistan - Parhar - Panj-Dusti	Gulistan	Dusti								28	
TJK-ROD-21	Construction of the bridge over the Panj River in village Kokul of Parharskiy region	Panj River in village Kokul of Parharskiy region									9,67	
TJK-ROD-22	Construction of the bridge over the Panj River in Shurabad region	Panj River in Shurabad region									4,75	
TJK-ROD-23	Construction of the tunnel Chormagzak	Chormagzak							2009	2011	64	

Rail

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio $)	EXPE ES so (in % tota cost
		Start point/node/ city	End point/node/ city	Total Length (km)	Existing	Forecasted	Existing	Forecasted	Programmig, Planning, Design, Construction (please select one)	Start year	End year		
TJK-RLW-01	Construction of the railway Wahdat-Javan	Wahdat	Javan							2009		165	
TJK-RLW-02	Construction of a new railway line Kalhazabad-Nizhniy Pyand-Kunduz (IRA)	Kalhazabad	Kunduz									124,57	
TJK-RLW-03	Construction of a new railway line Dushanbe-Dzhirgital -Osh	Dushanbe	Osh									3200	
TJK-RLW-04	The acquisition of 2000 wagons and spare parts for them											11	
TJK-RLW-05	The acquisition of 100 passenger wagons											88	
TJK-RLW-06	Improving the railway section Bekabad-Kanibadam	Bekabad	Kanibadam									53,9	
TJK-RLW-07	Establishing an information-analytical center of the transport complex of RT.											2,6	
TJK-RLW-08	Modernization of the cargo terminal railway station Dushanbe 1.	Dushanbe										16,4	

Intermodal Terminals

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			Annual Throughput (tones and TEUs)		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio $)	EXPE ES sc (in % tota cos
		Start point/node/ city	End point/node/ city	Total Length (km)	Existing	Forecasted	Programming, Planning, Design, Construction (please select one)	Start year	End year		
TKJ-INM-01	Creation of logistic centers in RT									20	

THE FORMER YUGOSLAV REPUBLIC OF MACEDONIA

Road

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EXPENSES so far (in % of total cost)
		Start point/node/city	*End point/node/city*	*Total Length (km)*	*Motorway, Expressway, National Road (please select one)*	*Existing Average Annual Daily Traffic (AADT)*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*			
ROM-ROD-01	Construction of: Corridor 10 Tabanovce-Kumanovo motorway	Tabanovce	Kumanovo	7.62	Motorway	3524 (2008)	13066 -2028	Construction	2008	2011	15,5	20,615	
ROM-ROD-02	Construction of: Corridor 10 Demir Kapija-Smokvica motorway	Demir Kapija	Smokvica	28.1	Motorway	3937 (2008)	8081 -2028	Construction	2011	2015	245	325,85	
ROM-ROD-03	Construction of new highway	Kriva Palanka (border with Bulgaria)	Romanovce	60	Highway						272,7	362,691	
ROM-ROD-04	Construction of new highway	Gostivar	Struga (border with Albania)	128	Highway						489,4	650,902	
ROM-ROD-05	Reconstruction of part of the highway	Katlanovo	Veles		Highway				2012	2014	7,22	9,6026	
ROM-ROD-06	new modern traffic signalisation								2012	2013	5,5	7,315	

Rail

CT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION *Start point/node/ city*	 *End point/node/city*	 *Total Length (km)*	ADTT (passenger) *Existing*	 *Forecasted*	ADTT (freight) *Existing*	 *Forecasted*	URRENT STATU *Programming, Planning, Design, Construction (please select one)*	TIME PLAN *Start year*	 *End year*	TOTAL COST (in mio euro)	TOTAL COST (in mio $)	EXPEN ES sc far(in % of tota cost)
DM- -01	Construction of: Corridor 8 Renewal Kumanovo-Beljakovce railway	Kumanovo	Beljakovce	29	N/A	N/A	N/A	N/A	Construction	2012	2013	45	59,85	
DM- -02	Construction of: Corridor 8 Beljakovce-Kriva Palanka railway	Beljakovce	Kriva Palanka	60	N/A	N/A	N/A	N/A	Construction	2013	2017	219	291,27	
DM- -03	Construction of: Corridor 8 Kriva Palanka-Deve Bairrailway	Kriva Palanka	Deve Bair	18	N/A	N/A	N/A	N/A	Construction	2014	2018	198	263,34	
DM- -04	Construction of: Corridor 8 Kicevo-Lin railway	Kicevo	Lin	70	N/A	N/A	N/A	N/A	Construction	2016	2020	300	399	
M- 5	Renewal and reconstruction	Bitola	Kremenica (border with Greece)									9	11,97	

TURKEY

Road

PROJECT ID	DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYPE	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN		TOTAL COST (in 1000 euro)	TOTAL COST (in mio $)
		Start point/node/ city	*End point/node/city*	*Total Length (km)*	*Motorway, Expressway, National Road (please select one)*	*Existing Average Annual Daily Traffic (AADT)(2008)*	*Forecasted*	*Programming, Planning, Design, Construction (please select one)*	*Start year*	*End year*		
TU-ROD-01	ANKARA-EREĞLİ JUNCTION MOTORWAY	Ankara	Ereğli Junction	272	Motorway	7869-12597		Study-design	2011	2015	1500	1995
TU-ROD-02	İZMİT-İZMİR MOTORWAY	İzmit	İzmir	377	Motorway	11025-32929		Tendering	2010	2014	3850	5121
TU-ROD-03	NORTH MARMARA MOTORWAY	Kınalı/İstanbul	Izmit Connection Road	244,4	Motorway	17340-90813		Study-design	2011	2016	3500	4655
TU-ROD-06	Koyulhisar-Niksar Junction	Koyulhisar	Niksar Junction	87	National Road	2859	-	Construction	1992 / 2009	2014	222875	296,424
TU-ROD-07	Niksar Junction - Amasya	Niksar Junction	Amasya	106	National Road	4177	-	Construction	1992	2014	87295	116,102
TU-ROD-08	Gerede-Atkaracalar	Gerede	Atkaracalar	78	National Road	7481	-	Construction	2005	2014	44038,9	58,5705
TU-ROD-09	Atkaracalar-Kargı	Atkaracalar	Kargı	121	National Road	5990	-	Construction	1997 / 2008	2014	162861	216,605
TU-ROD-10	Kargı-Merzifon	Kargı	Merzifon	112	National Road	6372	-	Construction	2008	2014	81443,9	108,321

<u>Rail</u>

[redacted]

[1]For further clarification on the subject please consider official communications received by the governments of the Russian Federation and Turkey as well as the extract of document ECE/TRANS/SC.2/GEURL/2011/9 of the Working Party on Rail Transport Group of Experts towards Unified Railway Law, Report of the Group of Experts on its second session Geneva, held on 7 October 2011 (this can be found at the end of this document).

Port

[redacted]

UKRAINE

Road

JECT ID		DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ROAD TYI	TRAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio $)	TOTAL COST (in mio $)	EXPENSES so far (in % of total cost)
			Start point/node/ city	End point/no de/city	Total Length (km)	Motorway, Express way,	Existing Average Annual Daily	Forecasted	Programming, Planning, Design, Construction	Start year	End year			
-ROD-01	Reconstruction of highway M-04 Znamenka - Lugansk - Izvaryne in area Dnipropetrovsk - Izvaryne	Reconstruction of highway M-04 Znamenka - Lugansk - Izvaryne planned Concept of the State Target Program of public highways in the years 2012-2016. Direction road coincides with the European motorway road route E 40 - the longest European roads, 8,500 km long, connecting the French city of Calais through Belgium, Germany, Poland, Ukraine, Russia, Kazakhstan, Uzbekistan, Turkmenistan and Kyrgyzstan from the Kazakh town of Ridder near the border with China and E 50 (5100 km) - France (Brest) - Germany - Czech Republic - Slovakia - Ukraine (Uzhgorod - Vinnitsa - Dnipropetrovsk - Donetsk - Dovzanskiy) - Russia (Makhachkala - Caspian Sea).	Dnipropetrovsk Donetsk Lugansk	Donetsk Lugansk Izvaryne	82,3 85 43,2						2012 2012 2012	706	938,98	
-ROD-02	Construction and exploitation of highway checkpoint "Scherbakivka" to the highway Kyiv-Kharkiv-Dovzanskiy	Construction of new highway from the border with Russia (checkpoint "Scherbacivka") to the highway Kyiv - Kharkiv - Dovzanskiy planned Conception of the development program of public highways in the years 2012-2016. Direction road coincides with the European motorway road route: E 105 - Kirkenes - Murmansk - Petrozavodsk - St. Petersburg - Moscow - Orel - Kharkiv - Simferopol - Alushta - Yalta – Sevastopol and adjoins the E 40 - the longest European motorway, 8500 km long, connecting the French city of Calais through Belgium, Germany, Poland, Ukraine, Russia, Kazakhstan, Uzbekistan, Turkmenistan and Kyrgyzstan with the Kazakh town of Ridder near the border with China.	Scherbacivka	Dovzanskiy	48,8					2010	2012	304,3	404,719	
-ROD-03	Construction of new highway Lviv - Krakovets	The direction of the road route designed to bypass towns and simultaneous construction of the northern bypass of the Lviv city. Construction of new highway Lviv - Krakovets planned Conception of the development program of public highways in the years 2012-2016. Direction road coincides with the Third Pan-European transport corridors: Brussels - Aachen - Köln - Dresden - Wrocław - Katowice - Kraków - Lviv – Kyiv and the European motorway road route E 40.	Lviv	Krakovets	84,4				Programming	2012	2014-2016	464,4	617,652	

Rail

PROJECT ID		DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		RENT ST	TIME PLAN*		TOTAL COST (in mio euro)	TOTAL COST (in mio$)	EXSE far of c
			Start point/node / city	End point/node/city	Total Length (km)	Existing	Forecasted	Existing	Forecasted	Programmig, Planning, Design, Construction (please select one)	Start year	End year			
-RLW-01	Transhe B - Building new double-track railway tunnel on the distillation Beskyd – Scotarske which is on the line Lviv – Chop	Building a tunnel on the distillation Beskyd – Scotarske (part Stryi – Mukatcheve) which will be able to abolish breakdown and dangerous place on the international transport corridor # 5. It is one single-track on the line Lviv – Chop.									2004	2014	134,5	178,885	

UZBEKISTAN

Road

PROJECT ID		DESCRIPTION (Project and Section Names)	PROJECT LOCATION			OAD TYP	RAFFIC VOLUMES		CURRENT STATUS	TIME PLAN*		TOTAL COST (in mio $)	EXPENSES so	FU
			Start point/node/city	End point/node/city	Total Length (km)	Motorway, Expressway,	Existing Average Annual	Forecasted	Programming, Planning, Design, Construction	Start year	End year			Nat / Fu
ZB-ROD-01	Program of multi-tranche financing. «Project of development of regional roads. Phase I» with ADB	Reconstruction of A-380 Guzar-Bukhara-Nukus-Beyneu road (sections 490-581 km and 876-916 km)	Khazarasp district (Khorezm region)	Kungrad district (Republic of Karakalpakstan)	131				Construction	2009	2013	182,5		X
ZB-ROD-02	Program of multi-tranche financing. «Project of development of regional roads. Phase II» with ADB	Reconstruction of A-380 Guzar-Bukhara-Nukus-Beyneu road (sections 315-490 km and 581-628 km)	Gazli city (Bukhara region)	Beruniy city (Republic of Karakalpakstan)	222				Construction	2010	2016	600		X

Rail

PROJECT ID		DESCRIPTION (Project and Section Names)	PROJECT LOCATION			ADTT (passenger)		ADTT (freight)		RENT ST.	TIME PLAN*		TOTAL COST (in mio$)	EXPENSES so far (in % of total cost)
			Start point/node/city	End point/node/city	Total Length (km)	Existing	Forecasted	Existing	Forecasted	Programmig, Planning, Design, Construction (please select one)	Start year	End year		
ZB-RLW-01	Electrification of the railway line between Tashkent and Angren	Railway Facilities Electrification completion at railway line "Tukumachi-Angren"	Tukumachi	Angren	113,9					Feasibility Study Completed			85,4	
ZB-RLW-02	Construction of railway line "Navoi-Uchkuduk-Sultanuizdag-Nukus".	Navoi-Uchkuduk-Sultanuizdag-Nulus", implemented at the expense of UTY	Nukus	Navoi	340							2010	40,46	
ZB-RLW-03	New railway line "Tashguzar-Boysun-Kumkurgan" - investor "JICA"	construction of the railway line "Tashguzar-Boysun-Kumkurgan	Tashguzar	Kumkurgan						construction			447,5	
ZB-RLW-04	UTY Passenger locomotives fleet upgrade.	Procurement of 15 passenger electric locomotives									2009	2012	75	

Rail (continued)

ZB-RLW-05	Marokan – Karshi	Electrification	Marokan	Karshi	140					Study/Design	2012	2014	210,2	
ZB-RLW-06	Karshi - Tashguzar – Boysun – Kumkurgan-Termez	Electrification	Karshi	Termez	325					Study/Design	2012	2017	388,3	
ZB-RLW-07	Marokand – Navoi – Bukhara	Electrification	Marokand	Bukhara	250					Study/Design	2014	2018	443,9	
ZB-RLW-08	Organization of high-speed passenger trains traffic on Tashkent-Samarqand route		Tashkent	Samarqand	344					Construction	2010	2012	76,7	
ZB-RLW-09	Construction of fiber-optic line on Navoi-Uchkuduk 2-Misken-Nukus-Kungrad-Karakalpakiya route		Navoi	Naimankul	1142					Construction	2009	2012	9,2	
ZB-RLW-10	Installation of centralized control and auto-lock equipment of stations on the Navoi-Uchkuduk 2-Sultanuizdag-Nukus-Karakalpakiya route		Navoi	Karakalpakiya	721					Construction	2009	2012	10	
ZB-RLW-11	Construction of double-track electrified railway line Yangiyer-Djizzakh		Yangiyer	Djizzakh	187					Construction	2009	2011	334,3	

ANNEX IV

Application of the Methodology Results

CHINA

EVALUATION

1. Answers (based on country's input)

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
CH-ROD-04	A	A	A	B	A	A
CH-ROD-05	A	A	A	B	A	A
CH-ROD-06	A	A	A	B	A	A
CH-ROD-07	A	A	A	B	A	A
CH-ROD-10	A	A	A	B	A	A
CH-ROD-11	A	A	A	B	A	A
CH-ROD-13	B	B	B	B	B	A
CH-ROD-14	B	B	B	B	C	A
CH-ROD-15	B	B	B	B	B	A
CH-ROD-16	B	B	B	B	A	A

2. Raw scores

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
CH-ROD-04	5	5	5	4	5	5
CH-ROD-05	5	5	5	4	5	5
CH-ROD-06	5	5	5	4	5	5
CH-ROD-07	5	5	5	4	5	5
CH-ROD-10	5	5	5	4	5	5
CH-ROD-11	5	5	5	4	5	5
CH-ROD-13	4	4	4	4	4	5
CH-ROD-14	4	4	4	4	3	5
CH-ROD-15	4	4	4	4	4	5
CH-ROD-16	4	4	4	4	5	5

Weights	Criteria A				Criteria B	
	WCA1	WCA2	WCA3	WCA4	WCB1	WCB2
	3,13%	9,38%	19,79%	17,71%	40,00%	10,00%

3. Weighted scores

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
CH-ROD-04	0,16	0,47	0,99	0,71	2,00	0,50
CH-ROD-05	0,16	0,47	0,99	0,71	2,00	0,50
CH-ROD-06	0,16	0,47	0,99	0,71	2,00	0,50
CH-ROD-07	0,16	0,47	0,99	0,71	2,00	0,50
CH-ROD-10	0,16	0,47	0,99	0,71	2,00	0,50
CH-ROD-11	0,16	0,47	0,99	0,71	2,00	0,50
CH-ROD-13	0,13	0,38	0,79	0,71	1,60	0,50
CH-ROD-14	0,13	0,38	0,79	0,71	1,20	0,50
CH-ROD-15	0,13	0,38	0,79	0,71	1,60	0,50
CH-ROD-16	0,13	0,38	0,79	0,71	2,00	0,50

Project ID	Project Total Scores	*Evaluation Categories*
CH-ROD-04	4,82	*II*
CH-ROD-05	4,822916667	*II*
CH-ROD-06	4,822916667	*II*
CH-ROD-07	4,822916667	*II*
CH-ROD-10	4,822916667	*II*
CH-ROD-11	4,822916667	*II*
CH-ROD-13	4,1	*II*
CH-ROD-14	3,7	*III*
CH-ROD-15	4,1	*II*
CH-ROD-16	4,5	*II*

GERMANY (Road Projects)

EVALUATION

1. Answers (based on country's input)

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
DEU-ROD-01	B	E	B	B	D	B
DEU-ROD-02	B	E	B	B	D	D

2. Raw scores

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
DEU-ROD-01	4	1	4	4	2	4
DEU-ROD-02	4	1	4	4	2	2

Weights	Criteria A				Criteria B	
	WCA1	WCA2	WCA3	WCA4	WCB1	WCB2
	3,13%	9,38%	19,79%	17,71%	40,00%	10,00%

3. Weighted scores

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
DEU-ROD-01	0,13	0,09	0,79	0,71	0,80	0,40
DEU-ROD-02	0,13	0,09	0,79	0,71	0,80	0,20

Project ID	Project Total Scores	*Evaluation Categories*	Priorities			
			I	II	III	IV
DEU-ROD-01	2,91875	*IV*	0	-	-	IV
DEU-ROD-02	2,71875	*IV*	0	-	-	IV

GERMANY (Rail Projects)

EVALUATION

1. Answers (based on country's input)

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
DEU-RLW-01	B	E	B	B	B	C

2. Raw scores

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
DEU-RLW-01	4	1	4	4	4	3

Weights	Criteria A				Criteria B	
	WCA1	WCA2	WCA3	WCA4	WCB1	WCB2
	3,13%	9,38%	19,79%	17,71%	40,00%	10,00%

3. Weighted scores

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
DEU-RLW-01	0,13	0,09	0,79	0,71	1,60	0,30

Project ID	Project Total Scores	*Evaluation Categories*	Priorities			
			I	II	III	IV
DEU-RLW-01	3,61875	*III*	-	-	III	-

PAKISTAN

EVALUATION

1. Answers (based on country's input)

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
PAK-ROD-01	A	A	B	B	A	C
PAK-ROD-02	B	B	C	B	A	C
PAK-ROD-03	B	B	C	B	A	D
PAK-ROD-07	B	B	B	C	A	C
PAK-ROD-10	B	B	C	C	A	B
PAK-ROD-11	B	B	C	B	A	C
PAK-ROD-12	B	B	B	B	A	C
PAK-ROD-14	B	B	C	C	A	C
PAK-ROD-16	B	B	B	C	A	C
PAK-ROD-19	B	C	C	B	A	C
PAK-ROD-20	B	C	B	C	A	C

2. Raw scores

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
PAK-ROD-01	5	5	4	4	5	3
PAK-ROD-02	4	4	3	4	5	3
PAK-ROD-03	4	4	3	4	5	2
PAK-ROD-07	4	4	4	3	5	3
PAK-ROD-10	4	4	3	3	5	4
PAK-ROD-11	4	4	3	4	5	3
PAK-ROD-12	4	4	4	4	5	3
PAK-ROD-14	4	4	3	3	5	3
PAK-ROD-16	4	4	4	3	5	3
PAK-ROD-19	4	3	3	4	5	3
PAK-ROD-20	4	3	4	3	5	3

Weights	Criteria A				Criteria B	
	WCA1	WCA2	WCA3	WCA4	WCB1	WCB2
	3,13%	9,38%	19,79%	17,71%	40,00%	10,00%

3. Weighted scores

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
PAK-ROD-01	0,16	0,47	0,79	0,71	2,00	0,30
PAK-ROD-02	0,13	0,38	0,59	0,71	2,00	0,30
PAK-ROD-03	0,13	0,38	0,59	0,71	2,00	0,20
PAK-ROD-07	0,13	0,38	0,79	0,53	2,00	0,30
PAK-ROD-10	0,13	0,38	0,59	0,53	2,00	0,40
PAK-ROD-11	0,13	0,38	0,59	0,71	2,00	0,30
PAK-ROD-12	0,13	0,38	0,79	0,71	2,00	0,30
PAK-ROD-14	0,13	0,38	0,59	0,53	2,00	0,30
PAK-ROD-16	0,13	0,38	0,79	0,53	2,00	0,30
PAK-ROD-19	0,13	0,28	0,59	0,71	2,00	0,30
PAK-ROD-20	0,13	0,28	0,79	0,53	2,00	0,30

Project ID	Project Total Scores	*Evaluation Categories*
PAK-ROD-01	4,425	*II*
PAK-ROD-02	4,102083333	*II*
PAK-ROD-03	4,002083333	*II*
PAK-ROD-07	4,122916667	*II*
PAK-ROD-10	4,025	*II*
PAK-ROD-11	4,102083333	*II*
PAK-ROD-12	4,3	*II*
PAK-ROD-14	3,925	*III*
PAK-ROD-16	4,122916667	*II*
PAK-ROD-19	4,008333333	*II*
PAK-ROD-20	4,029166667	*II*

The former Yugoslav Republic of Macedonia

EVALUATION

1. Answers (based on country's input)

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
FYROM-RLW-01	A	A	A	A	A	A
FYROM-RLW-02	A	A	A	A	A	A
FYROM-RLW-03	A	A	A	A	A	A
FYROM-RLW-04	A	A	A	A	B	A

2. Raw scores

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
FYROM-RLW-01	5	5	5	5	5	5
FYROM-RLW-02	5	5	5	5	5	5
FYROM-RLW-03	5	5	5	5	5	5
FYROM-RLW-04	5	5	5	5	4	5

Weights	Criteria A				Criteria B	
	WCA1	WCA2	WCA3	WCA4	WCB1	WCB2
	3,13%	9,38%	19,79%	17,71%	40,00%	10,00%

3. Weighted scores

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
FYROM-RLW-01	0,16	0,47	0,99	0,89	2,00	0,50
FYROM-RLW-02	0,16	0,47	0,99	0,89	2,00	0,50
FYROM-RLW-03	0,16	0,47	0,99	0,89	2,00	0,50
FYROM-RLW-04	0,16	0,47	0,99	0,89	1,60	0,50

Project ID	Project Total Scores	*Evaluation Categories*
FYROM-RLW-01	5	*iI*
FYROM-RLW-02	5	*II*
FYROM-RLW-03	5	*II*
FYROM-RLW-04	4,6	*II*

TURKEY

EVALUATION

1. Answers (based on country's input)

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
TUR-ROD-01	A	A	A	A	B	A
TUR-ROD-02	A	A	A	A	B	A
TUR-ROD-03	A	A	A	A	B	A

2. Raw scores

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
TUR-ROD-01	5	5	5	5	4	5
TUR-ROD-02	5	5	5	5	4	5
TUR-ROD-03	5	5	5	5	4	5

Weights	Criteria A				Criteria B	
	WCA1	WCA2	WCA3	WCA4	WCB1	WCB2
	3,13%	9,38%	19,79%	17,71%	40,00%	10,00%

3. Weighted scores

Project ID	Criteria A				Criteria B	
	CA1	CA2	CA3	CA4	CB1	CB2
TUR-ROD-01	0,16	0,47	0,99	0,89	1,60	0,50
TUR-ROD-02	0,16	0,47	0,99	0,89	1,60	0,50
TUR-ROD-03	0,16	0,47	0,99	0,89	1,60	0,50

Project ID	Project Total	*Evaluation Categories*	Priorities			
			I	II	III	IV
TUR-ROD-01	4,6	*II*	-	II	-	-
TUR-ROD-02	4,6	*II*	-	II	-	-
TUR-ROD-03	4,6	*II*	-	II	-	-

ANNEX V

Project Maps

1. Afghanistan

2. Armenia


ARMENIA
Rail priority projects
Akhalkalaki
Kazreti
Gardabani
Boyuk Kasik
GEO
Sadakhlo
Kartsakhi
Alaverdi
Ayrum
Kazakh
Akstafa
Uzunla
ARM-RLW-05
Tauz
Tumanyan
Ijevan
Dallyar dzheir
ARM-RLW-03
ARM-RLW-02
ARM-RLW-04
Vanadzor
Dilijan
Gyumri
Dogukapi
ARM-RLW-03
Fioletovo
ARM-RLW-06
Dilmamedli
Kars
Gagarin
Hradzan
Sevan
ARM
ARM-RLW-01
Gavar
Aragats
Kamo
TUR
AZE
Oktemberyan
Yerevan
Vardenis
Masis
ARM-RLW-01
Ararat
Yeghegnadzor
Euro - Asian Transport Links
Capital City
City/ Rail station
Maritime Port
Inland Port
Rail Route (EATL)
Rail Ferry Links (EATL)
Rail Under Construction/ Planing
Rail Project (on EATL Route)
Rail Project (high national importance)
Inland Water Transport Linkages
River
Goris
IRN
ARM-RLW-01
ARM-RLW-01
Julfa
Jolfa
Meghri

3. Azerbaijan

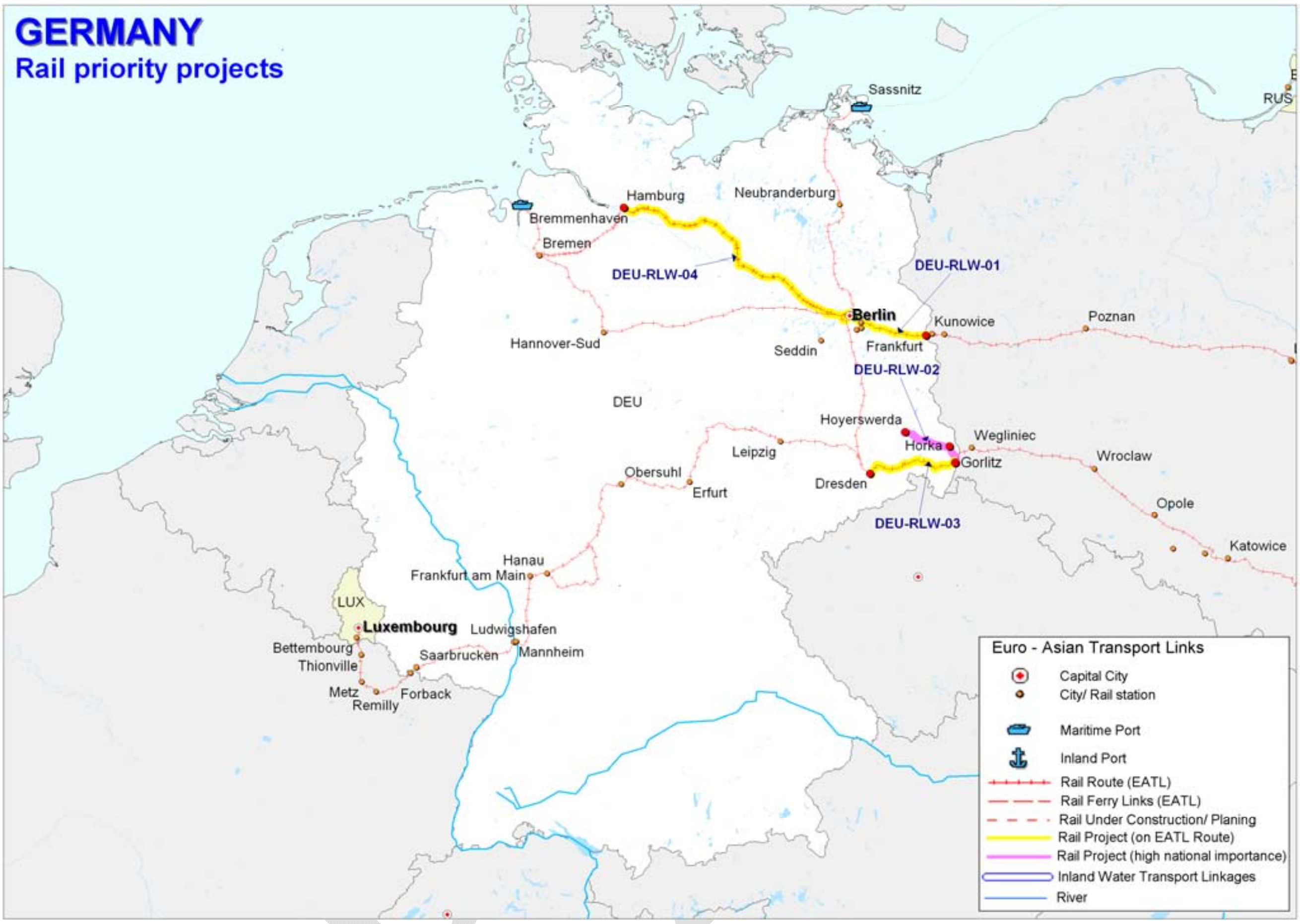
4. Bulgaria


BULGARIA
Rail priority projects
Vidin
Calafat
Lom
Dimovo
ROU
Giurgiu
Rousse
Constanta
BGR-RLW-04
Pleven
Razgrad
Shumen
Kaspican
Gorna Oryakhovitsa
Tirgoviste
Mezdra
Veliko Turnovo
Sindel
Varna
BGR
Dimitrovgrad
Dragoman
BGR-RLW-04
BGR-RLW-02
Voluyak
BGR-RLW-05
Pernik
Sofia
Radomir
BGR-RLW-07
BGR-RLW-07
BGR-RLW-07
BGR-RLW-06
Zimnitsa
Karnobat
Dubovo
BGR-RLW-06
Yambol
Burgas
BGR-RLW-03
BGR-RLW-06
Stara Zagora
Kyustendil
Gueshevo
BGR-RLW-06
Pazardzhik
Plovdiv
Dimitrovgrad
Blagoevgrad
BGR-RLW-01
BGR-RLW-01
BGR-RLW-04
TUR
FYROM
Svilengrad
Kapikule
Edirne
Ormenio
Kulata
Kastanoussa
GRC
Paranesti
Pehlivankoy
Mandira
Gevgelia
Drama
Soufli
Uzunkopru
Idomeni
Serres
Komotini
Stathmos Kalindria
Xanthi
Kristoni
Kavala
Kesan
Alexandroupolis
Thessaloniki
Euro - Asian Transport Links
Capital City
City/ Rail station
Maritime Port
Inland Port
Rail Route (EATL)
Rail Ferry Links (EATL)
Rail Under Construction/ Planing
Rail Project (on EATL Route)
Rail Project (high national importance)
Inland Water Transport Linkages
River

5. Georgia


GEORGIA
Rail priority projects
Euro - Asian Transport Links
Capital City
City/ Rail station
Maritime Port
Inland Port
Rail Route (EATL)
Rail Ferry Links (EATL)
Rail Under Construction/ Planing
Rail Project (on EATL Route)
Rail Project (high national importance)
Inland Water Transport Linkages
River
RUS
GEO
TUR
ARM
AZE
Leselidze
Gantiadi
Sukhumi
GEO-RLW-04
Kulevi
Senaki
Poti
Samtredia
Zestaponi
Kharagauli
Khashuri
GEO-RLW-02
GEO-RLW-01
Avchala
Patara Lilo
Lilo
Tbilisi
Ponichala
Veli
GEO-RLW-01
GEO-RLW-03
GEO-RLW-02
Makhindzhauri
Batumi
Sarpi
Akhalkalaki
Kartsakhi
Gardabani
Boyuk Kasik
Sadakhlo
Alaverdi
Uzunla
Ayrum
Akstafa
Kazakh
Tauz
Dallyar dzheir
Tumanyan
Ijevan
Dilijan
Gyumri
Vanadzor
Dogukapi
Kars
Gagarin
Sevan
Gandja
Dilmam

6. Germany


GERMANY
Rail priority projects
Sassnitz
RUS
Hamburg
Neubranderburg
Bremmenhaven
Bremen
DEU-RLW-04
DEU-RLW-01
Berlin
Kunowice
Poznan
Hannover-Sud
Seddin
Frankfurt
DEU-RLW-02
DEU
Hoyerswerda
Weglinlec
Horka
Gorlitz
Wroclaw
Leipzig
Obersuhl
Erfurt
Dresden
Opole
DEU-RLW-03
Katowice
Hanau
Frankfurt am Main
LUX
Luxembourg
Ludwigshafen
Bettembourg
Thionville
Saarbrucken
Mannheim
Metz
Forback
Remilly
Euro - Asian Transport Links
Capital City
City/ Rail station
Maritime Port
Inland Port
Rail Route (EATL)
Rail Ferry Links (EATL)
Rail Under Construction/ Planing
Rail Project (on EATL Route)
Rail Project (high national importance)
Inland Water Transport Linkages
River

7. Greece


GREECE
Rail priority projects
FYROM
BGR
Kapitan Andreevo
Kicevo
Struga
Lin
Kremenica
Idomeni
Promachon
Paranesti
Kastanoussa
Drama
Serres
Kristoni
Kavala
Xanthi
Komotini
Soufli
Uzunkopru
Istanbul
Alexandroupolis
Thessaloniki
Bandirma-Asagi
Susurluk
TUR
GRC-RLW-01
Ioanina
Igoumenitsa
GRC-RLW-02
Bergama
Soma
Candarli
Aliaga
Menemen
Izmir
Antirrio
Patras
Athens
Piraeus
GRC-RLW-01
GRC-RLW-02
Kalamata
Euro - Asian Transport Links
Capital City
City/ Rail station
Maritime Port
Inland Port
Rail Route (EATL)
Rail Ferry Links (EATL)
Rail Under Construction/ Planing
Rail Project (on EATL Route)
Rail Project (high national importance)
Inland Water Transport Linkages
River

8. Iran


IRAN Rail priority projects
Euro - Asian Transport Links
Capital City
City/ Rail station
Maritime Port
Inland Port
Rail Route (EATL)
Rail Ferry Links (EATL)
Rail Under Construction/ Planing
Rail Project (on EATL Route)
Rail Project (high national importance)
Inland Water Transport Linkages
River
IRN-RLW-01
IRN-RLW-02
IRN-RLW-03
IRN-RLW-04
IRN-RLW-05
IRN-RLW-06
IRN-RLW-07
Tehran
Baku
Yerevan
Ashkhabad
Tebriz
Miyaneh
Astara
Bandar Anzali
Qazvin
Amirabad
Gorgan
Etrek
Jajarm
Neghab
Mashhad
Sarahs
Sang Bast
Torbat-e Heydariyeh
Khawaaf
Sagan
Herat
Garmsar
Qom
Do Roud
Andimeshk
Esfahan
Maybod
Bafqh
Tabas
Kerman
Bandar Emam
Shiraz
Bushehr
Bandar Abbas
Bam
Zahedan
Kuh-i-Taftan
Mirjaveh
Chah Bahar
Gwadar
Karachi
Dalbandin
Zarang
Delaram
Kandahar
Tejen
Mary
Bayram-Ali
Tallimardzhan
Razi
Julfa
Tatvan
Van
TUR
AZE
ARM
TKM
UZB
AFG
PAK
IRN
Navoi
Bukhara
Karshi
Tashguz
Guzar
Aqina
Heyrata
Shiberghan
Spin
Mastur

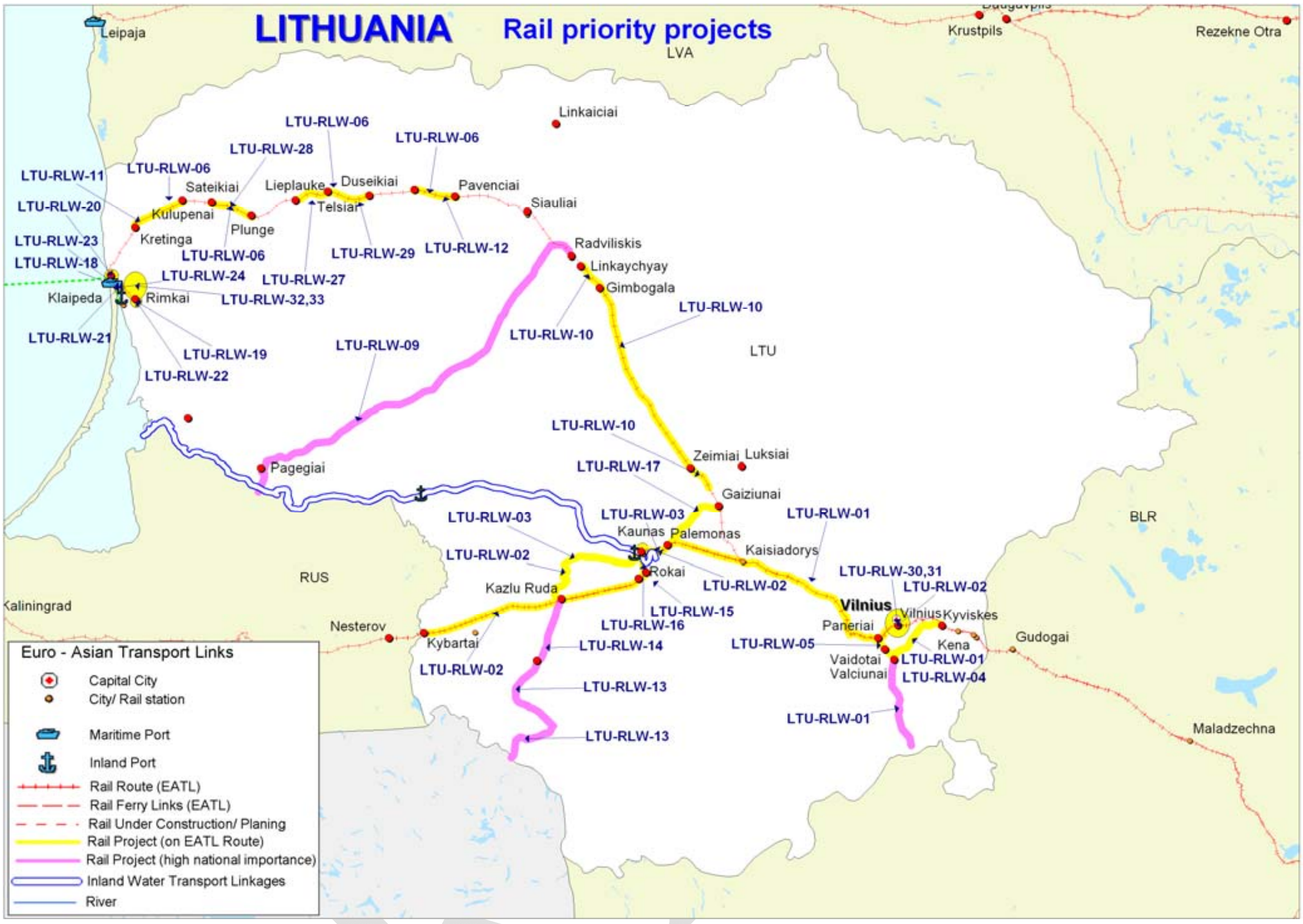
9. Kazakhstan

10. Kyrgyzstan

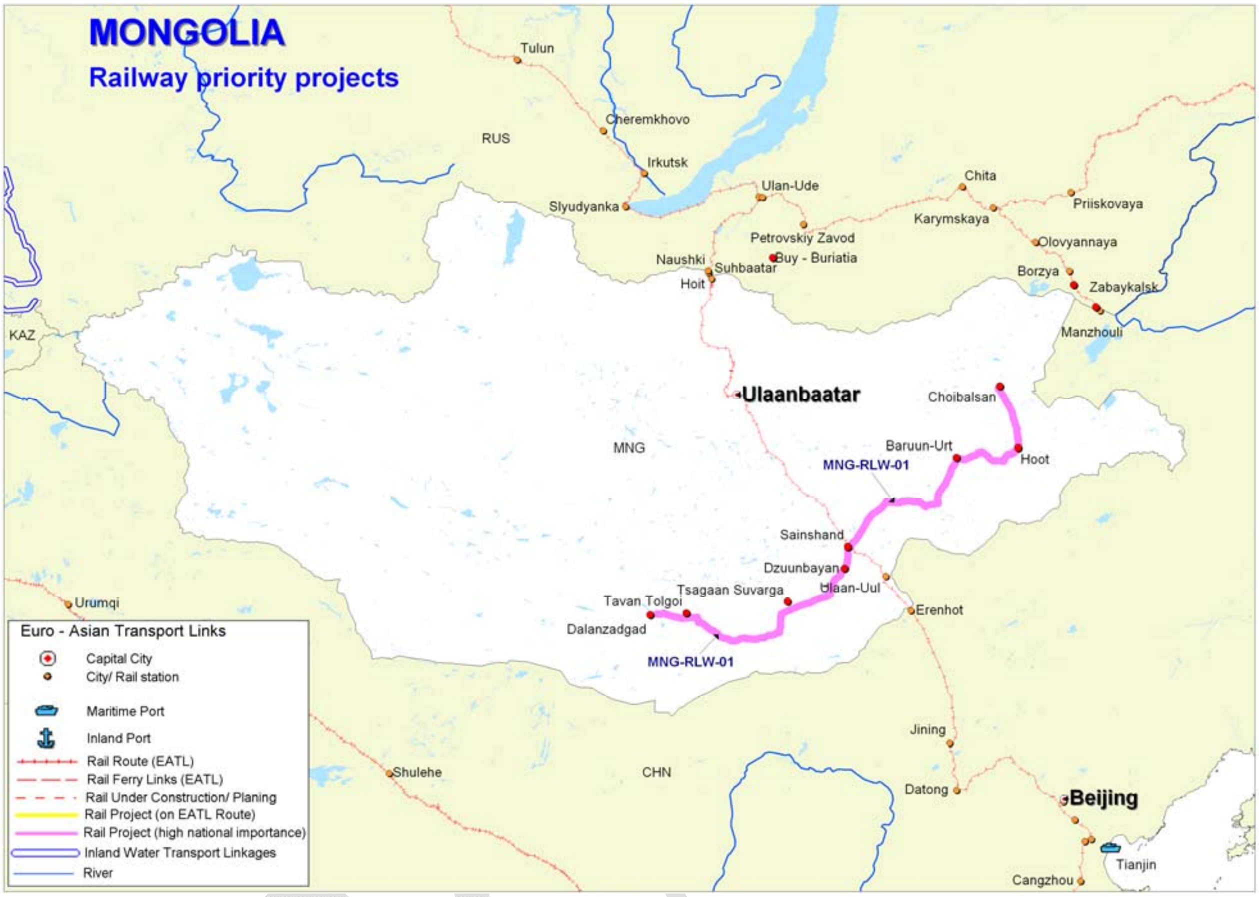
11. Latvia

LATVIA
Rail priority projects
Euro - Asian Transport Links
Capital City
City/ Rail station
Maritime Port
Inland Port
Rail Route (EATL)
Rail Ferry Links (EATL)
Rail Under Construction/ Planing
Rail Project (on EATL Route)
Rail Project (high national importance)
Inland Water Transport Linkages
River
Ventspils
LVA-RLW-02
LVA
Bolderaja
LVA-RLW-01
Riga
Takums II
LVA-RLW-10
Skirotava Marshalling Yard
LVA-RLW-06
RUS
LVA-RLW-07
LVA-RLW-09
LVA-RLW-08
LVA-RLW-10
Jelgava
Skriveri
Leipaja
Daugavpils
Krustpils
Rezekne Otra
Zilupe
Posin'
LVA-RLW-10
Linkaiciai
LTU
Sateikiai
Lieplauke
Duseikiai
Raudenai
Telsiai
Siauliai
Kulupenai
Plunge
Kretinga
Radviliskis
Linkaychyay
Gimbogala
Pauostis
Klaipeda
Rimkai
Indra
Bigosovo

12. Lithuania



13. Mongolia


MONGOLIA
Railway priority projects
Tulun
Cheremkhovo
RUS
Irkutsk
Slyudyanka
Ulan-Ude
Chita
Karymskaya
Priiskovaya
Petrovskiy Zavod
Olovyannaya
Naushki
Suhbaatar
Buy - Buriatia
Borzya
Hoit
Zabaykalsk
KAZ
Manzhouli
Ulaanbaatar
Choibalsan
MNG
Baruun-Urt
Hoot
MNG-RLW-01
Sainshand
Dzuunbayan
Ulaan-Uul
Tsagaan Suvarga
Tavan Tolgoi
Erenhot
Urumqi
Dalanzadgad
MNG-RLW-01
Jining
Shulehe
CHN
Datong
Beijing
Tianjin
Cangzhou
Euro - Asian Transport Links
Capital City
City/ Rail station
Maritime Port
Inland Port
Rail Route (EATL)
Rail Ferry Links (EATL)
Rail Under Construction/ Planing
Rail Project (on EATL Route)
Rail Project (high national importance)
Inland Water Transport Linkages
River

14. Pakistan


PAKISTAN
Rail priority projects
Ashkhabad
Mary
Tejen
Bayram-Ali
Sarakhs
Mashhad
Sarahs
TKM
Sang Bast
Torbat-e Heydariyeh
Khawaaf
Herat
AFG
UZB
Kumkurgan
Kulyab
Parkhar
Heyratan
Sherkhan Bandar
Kulob
Mazar -i-Sharif
TJK
CHN
Kabul
Peshawar
Islamabad
Rawalpindi
Khanewal
Kundian
Kandahar
Lahore
Wagha
Raiwind
Chaman
IRN
Quetta
PAK
Multan
Spezand
Mastung
Lodhran
Zahedan
Bam
Fahrej
Koh-i-Taftan
Mirjaveh
Dalbandin
Samasatta
PAK-RLW-01
PAK-RLW-02
PAK-RLW-02
PAK-RLW-02
Rohri
Chabahar
Gwadar
Karachi
Hyderabad
Euro - Asian Transport Links
Capital City
City/ Rail station
Maritime Port
Inland Port
Rail Route (EATL)
Rail Ferry Links (EATL)
Rail Under Construction/ Planing
Rail Project (on EATL Route)
Rail Project (high national importance)
Inland Water Transport Linkages
River

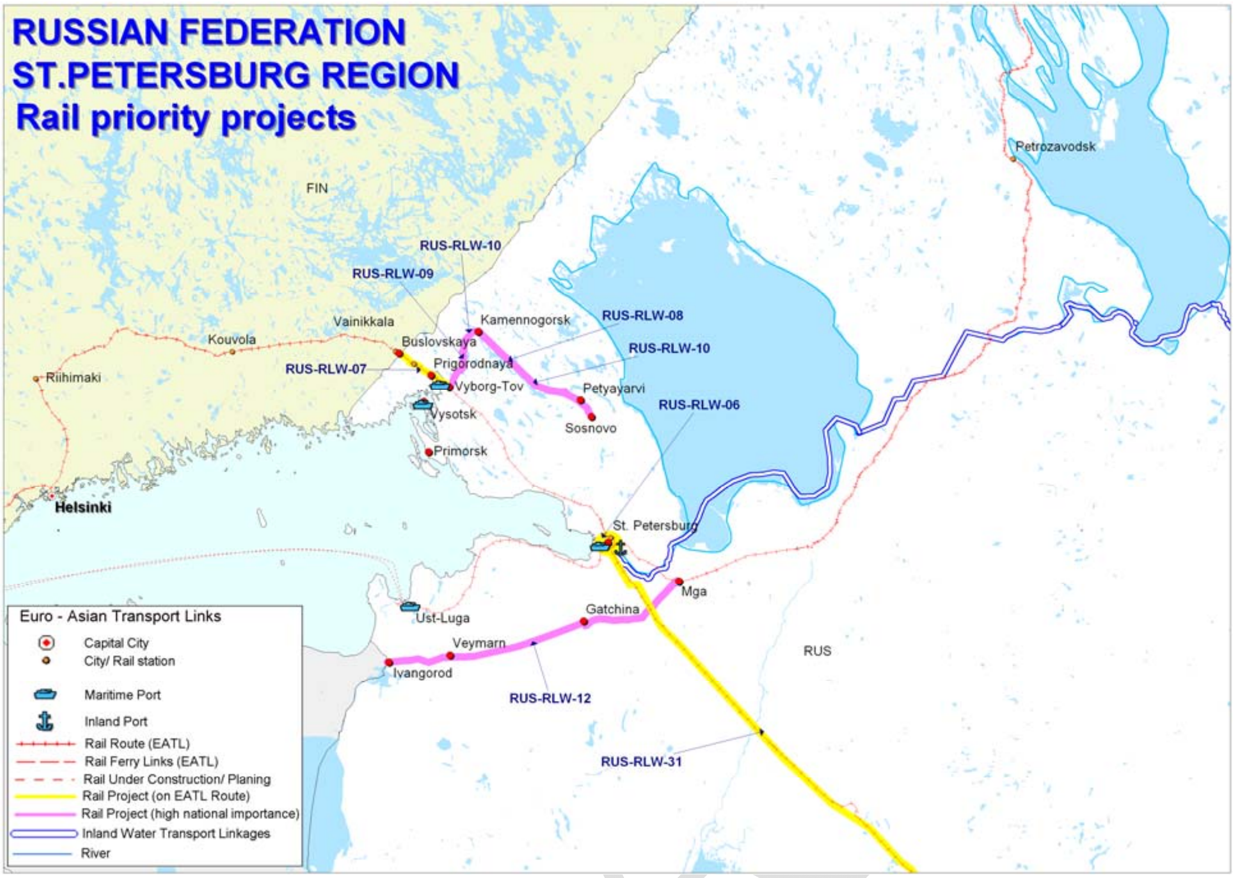
15. Republic of Moldova

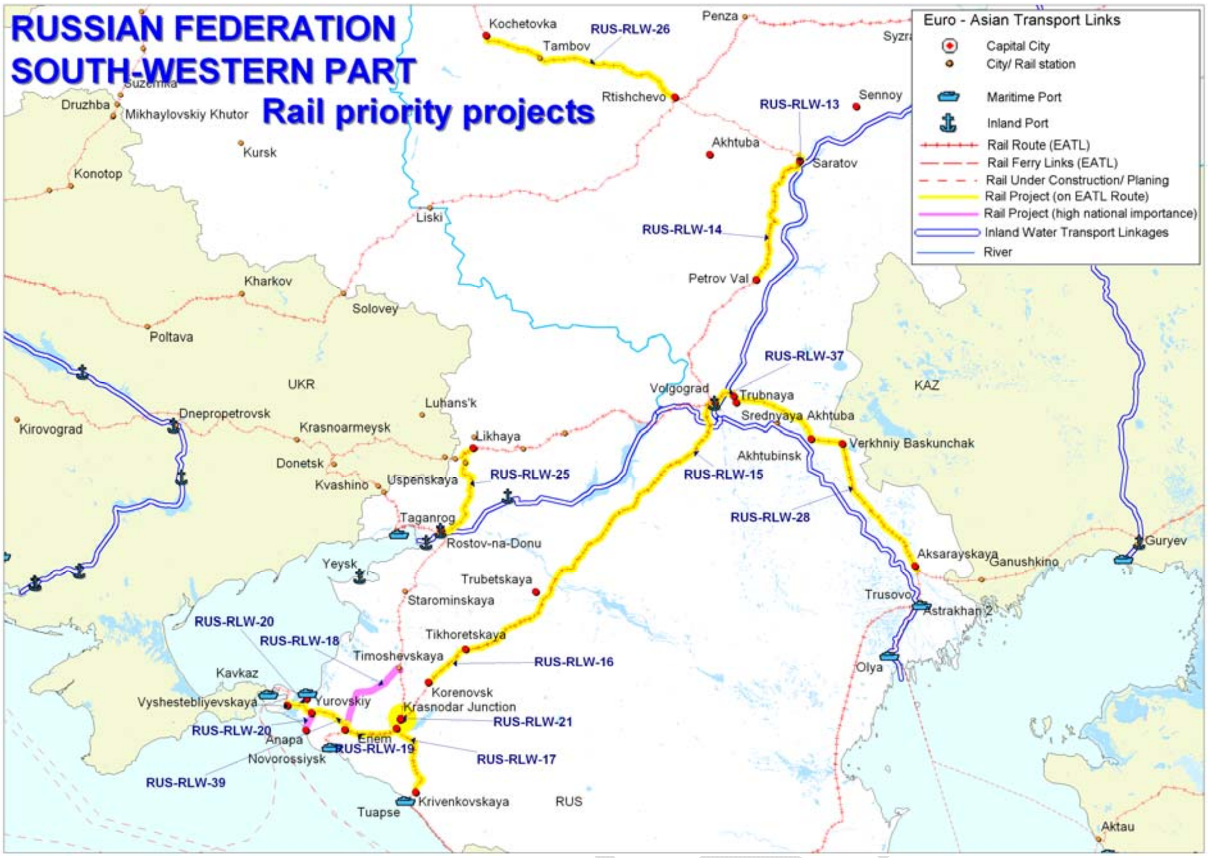
16. Romania


ROMANIA
UKR
MDA
Pascani
Chisinau
ROU
Bacau
Arad
Alba Iulia
Copsa Mica
Vintul de Jos
Simeria
Timisoara
Brasov
Focsani
Galati
Oust-Dunajsk
Braila
Tulcea
Sulina
Buzau
Moldova Noua
Drobeta-Turnu Severin
Bucharest
Craiova
Navodari
Constanta
Calafat
Giurgiu
Russe
BGR

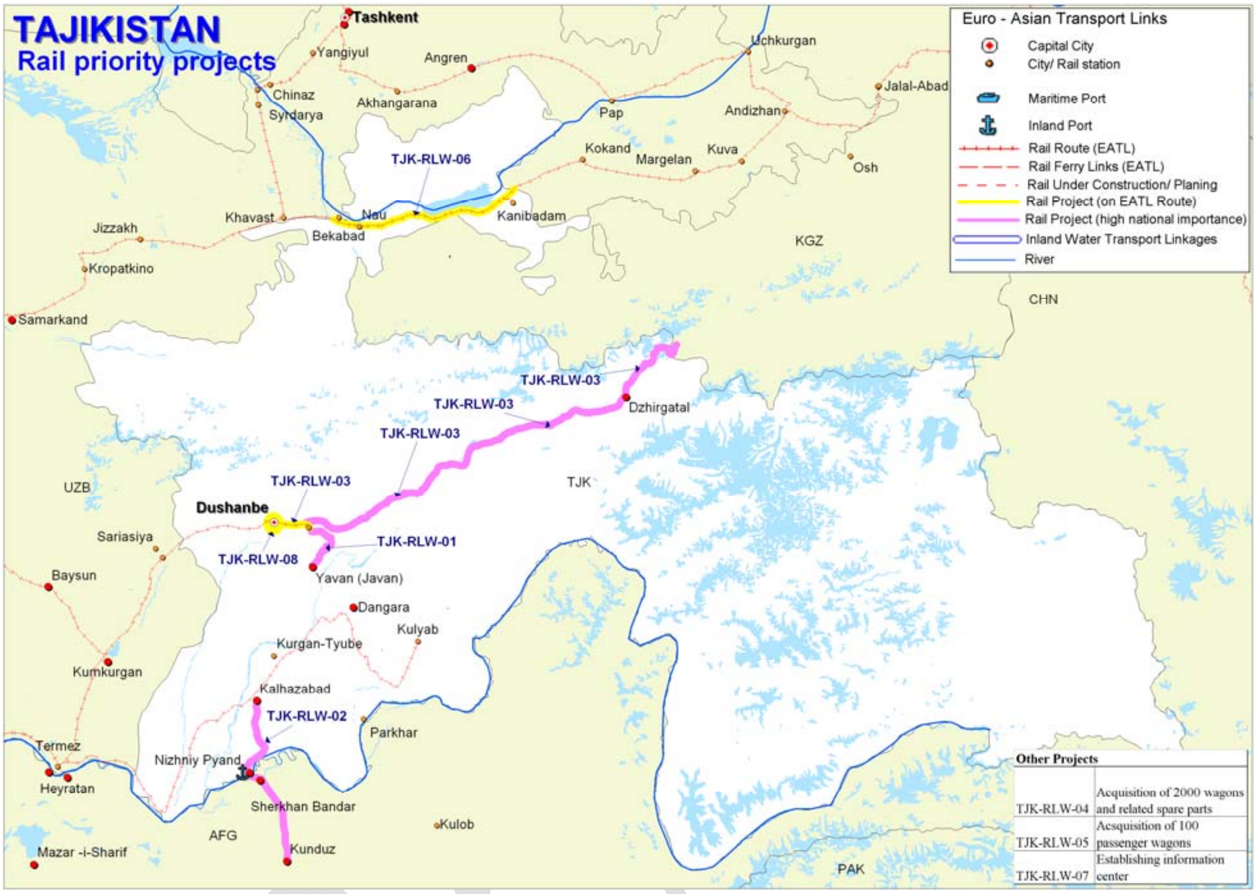
17. Russian Federation


RUSSIAN FEDERATION
NORTH-WESTERN PART
Rail priority projects
Euro - Asian Transport Links
Capital City
City/ Rail station
Maritime Port
Inland Port
Rail Route (EATL)
Rail Ferry Links (EATL)
Rail Under Construction/ Planing
Rail Project (on EATL Route)
Rail Project (high national importance)
Inland Water Transport Linkages
River
RUS-RLW-38
RUS-RLW-33
RUS-RLW-11
RUS-RLW-10
RUS-RLW-07
RUS-RLW-09
RUS-RLW-06
RUS-RLW-04
RUS-RLW-05
RUS-RLW-01
RUS-RLW-31
RUS-RLW-12
RUS-RLW-30
RUS-RLW-23
RUS-RLW-02
RUS-RLW-03
RUS-RLW-34
RUS-RLW-36
RUS-RLW-32
RUS-RLW-24
RUS-RLW-29
RUS-RLW-26
Apatity
Arkhangelsk
Karpogory
Vendinga
Obozerskaya
Segeja
Yazel
FIN
Petrozavodsk
Kouvola
Vyborg
Riihimaki
Helsinki
St. Petersburg
Ust-Luga
Veymarn
Mga
Ivangorod
Gayny
Solikamsk
Kudymkar
Perm
Cheptsa
Paprikha
Buy, Kostroma Oblast
Nikolo Poloma
Sharya
Kirov
Kotelnich
Sukhobezvodnoye
Dno
Boloboe
Tver'
Novosokol'niki
Rzev
LVA
Krustpils
Zilupe
Bigosovo
Vladimir
Kovrov
N. Novgorod
Moscow
LTU
BLR
Vicebsk
Vyaz'ma
Maloyaroslavets
Kaunas
Vilnius
Smolensk
Orsha
Kaluga
Ryazan
Sukhinichi Uzlovyye
Minsk
Ryazhsk
Zlobin
Penza
Tambov
Syzran
Samara
Ufa
Kuzino
Yekaterinburg
Bogdanovich
Kamensk-Ural'skiy
Tumen
Muslyumovo
Chelyabinsk
Kurgan
KAZ
Tobol

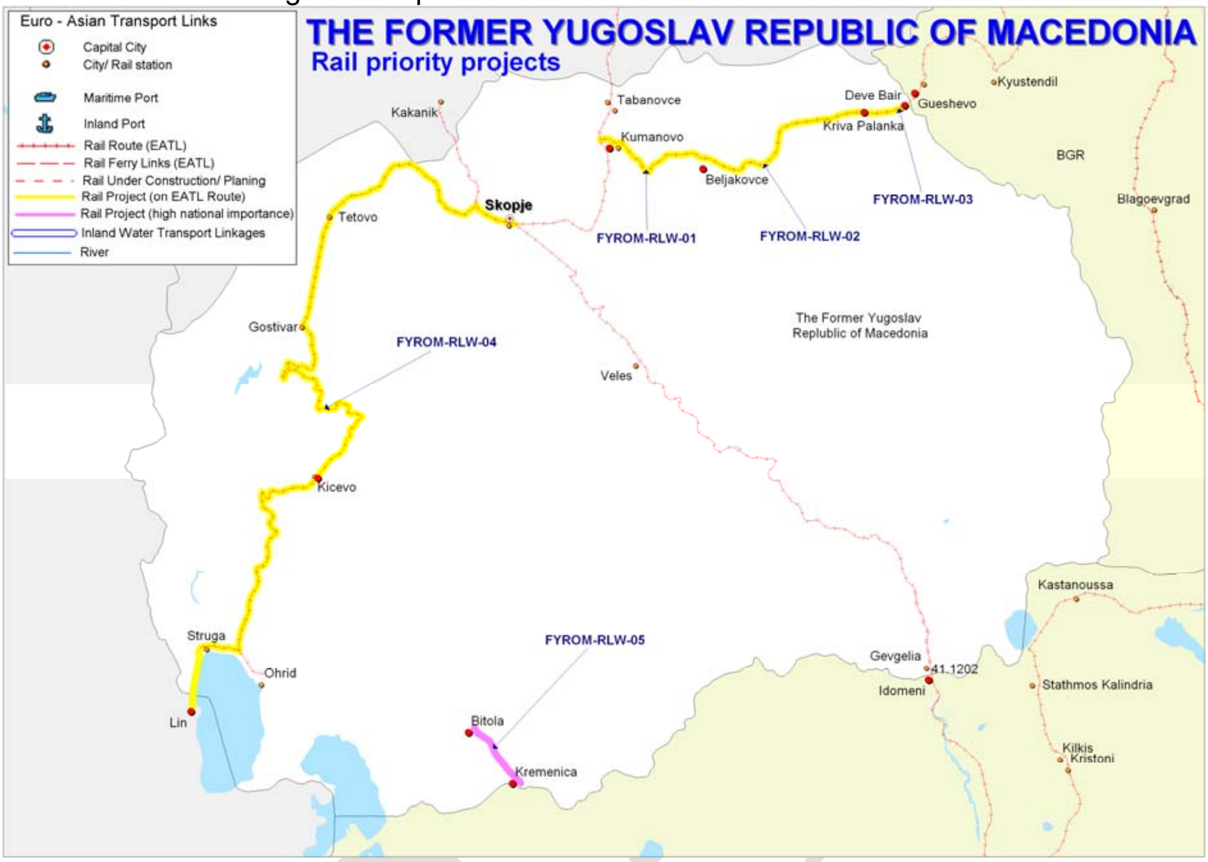

RUSSIAN FEDERATION
ST.PETERSBURG REGION
Rail priority projects
FIN
RUS
Petrozavodsk
RUS-RLW-10
RUS-RLW-09
RUS-RLW-08
RUS-RLW-10
RUS-RLW-07
RUS-RLW-06
RUS-RLW-12
RUS-RLW-31
Vainikkala
Kouvola
Riihimaki
Kamennogorsk
Buslovskaya
Prigorodnaya
Vyborg-Tov
Petyayarvi
Sosnovo
Vysotsk
Primorsk
Helsinki
St. Petersburg
Mga
Gatchina
Ust-Luga
Veymarn
Ivangorod
Euro - Asian Transport Links
Capital City
City/ Rail station
Maritime Port
Inland Port
Rail Route (EATL)
Rail Ferry Links (EATL)
Rail Under Construction/ Planing
Rail Project (on EATL Route)
Rail Project (high national importance)
Inland Water Transport Linkages
River


RUSSIAN FEDERATION
SOUTH-WESTERN PART
Rail priority projects
Euro - Asian Transport Links
Capital City
City/ Rail station
Maritime Port
Inland Port
Rail Route (EATL)
Rail Ferry Links (EATL)
Rail Under Construction/ Planing
Rail Project (on EATL Route)
Rail Project (high national importance)
Inland Water Transport Linkages
River
RUS-RLW-26
RUS-RLW-13
RUS-RLW-14
RUS-RLW-37
RUS-RLW-25
RUS-RLW-15
RUS-RLW-28
RUS-RLW-20
RUS-RLW-18
RUS-RLW-16
RUS-RLW-21
RUS-RLW-19
RUS-RLW-17
RUS-RLW-39
Kochetovka
Tambov
Rtishchevo
Penza
Sennoy
Akhtuba
Saratov
Petrov Val
Kursk
Druzhba
Mikhaylovskiy Khutor
Konotop
Liski
Kharkov
Solovey
Poltava
UKR
KAZ
Dnepropetrovsk
Kirovograd
Krasnoarmeysk
Luhans'k
Likhaya
Donetsk
Kvashino
Uspenskaya
Taganrog
Rostov-na-Donu
Volgograd
Trubnaya
Srednyaya Akhtuba
Verkhniy Baskunchak
Akhtubinsk
Aksarayskaya
Ganushkino
Guryev
Trusovo
Astrakhan 2
Olya
Yeysk
Trubetskaya
Starominskaya
Tikhoretskaya
Timoshevskaya
Korenovsk
Krasnodar Junction
Kavkaz
Vyshestebliyevskaya
Yurovskiy
Anapa
Enem
Novorossiysk
Krivenkovskaya
Tuapse
RUS
Aktau

18. Tajikistan



19. The former Yugoslav Republic of Macedonia



20. Turkey


TURKEY
Rail priority projects
Bucharest
ROU
Constanta
Anapa
Novorossiysk
Enem
Tuapse
Krivenkovskaya
RUS
Varna
BGR
Burgas
Dimitrovgrad
Svilengrad
Edirne
Pehlivankoy
Uzunkopru
Alexandroupolis
Istanbul
Halkali
Gebze
Derince
Arifiye
Karasu
Filyos
Bartin
Gantiadi
Sukhumi
GEO
Senaki
Zestaponi
Poti
Batumi
Makhindzhauri
Sarpi
Tbilisi
Samsun
Merzifon
Trabzon
Kars
ARM
AZE
Yerevan
TUR-RLW-02
TUR-RLW-09
TUR-RLW-07
TUR-RLW-04
TUR-RLW-05
TUR-RLW-08
TUR-RLW-01
TUR-RLW-06
TUR-RLW-03
Bandirma
Balikesir
Soma
Candarli
Aliaga
Manisa
Izmir
Usak
Afyon
Alayunt
Inonu
Eskisehir
Polatli
Ankara
TUR
Sivas
Refahiye
Erzurum
Cetinkaya
Divrigi
Malatya
Yolcati
Tatvan
Van
Kapikoy
Razi
Jolfa
Julfa
Bogazkopru
Bogazkopru (Kayseri)
Nigde
Ulukisla
Yenice
Mersin
Adana
Kopruagzi
Toprakkale
Narli
Fevzipasa
Iskenderun
Konya
IRN
Euro - Asian Transport Links
Capital City
City/ Rail station
Maritime Port
Inland Port
Rail Route (EATL)
Rail Ferry Links (EATL)
Rail Under Construction/ Planing
Rail Project (on EATL Route)
Rail Project (high national importance)
Inland Water Transport Linkages
River

21. Ukraine


UKRAINE
Rail priority projects
UKR-RLW-01
Euro - Asian Transport Links
Capital City
City/ Rail station
Maritime Port
Inland Port
Rail Route (EATL)
Rail Ferry Links (EATL)
Rail Under Construction/ Planing
Rail Project (on EATL Route)
Rail Project (high national importance)
Inland Water Transport Linkages
River
Kiev
Chisinau
Zlobin
Gomel
Navlya
Suzemka
Zernovo
Kursk
Brest
Lukow
Yagodyn
Dorohusk
Kovel
Chernihiv
Nizhyn
Konotop
Yagoten
Liski
UKR
Fastov
Kharkov
Solovey
Przemysl
Mostiska
Liov
Ternopol
Khmel'nyts'kyy
Kazatin
Poltava
Vinnytsya
Stryei
Kremenchuk
Zhmerinka
Chop
Mukachëvo
Vapnyarka
Kirovograd
Dnipropetrovs'k
Luhans'k
Krasnoarmeysk
Krasnaya Mogila
Donetsk
Slobodka
Zaporozhye
Ribnita
MDA
Kvashino
Uspenskaya
ROU
Pascani
Rostov-na-Don
Iasi
Ungheni
Mykolaiv
Azov
Bender
Razdel'naya
Bacau
Novo Kakhovka
Yeysk
Khersonskii
Odesa
Illichivs'k
Belgorod-Dnestrovskiy
Focsani
Kiliia
Izmail
Galati
Reni
Oust-Dunajsk
Braila
Sulina
Tulcea
Kavkaz
Temryukskiy Rukav
Buzau
Krasnodar
Novorossiysk
Lehliu
Constanta

22. Uzbekistan

PART IV

STRENGTHS, WEAKNESES, OPPOPRTUNITIES AND THREATS ANALYSIS (SWOT) ANALYSIS

INTRODUCTION OF SWOT ANALYSIS

A SWOT analysis stands for: Strengths, Weaknesses, Opportunities, and Threats. It is a quick and simple tool to understand the overall big picture of a project, business or initiative. It helps focusing and analyzing strengths, minimize threats, and take the greatest possible advantage of opportunities. SWOT analysis can be used for decision-making enabling proactive thinking, rather than relying on habitual or instinctive reactions. It is, therefore, the starting point of strategic planning.

SWOT analysis could be a useful tool for better understanding a project's status and potential. Carrying out this analysis may be illuminating – both in terms of pointing out what needs to be done, and in putting problems into perspective. However, SWOT analysis can be very subjective. Therefore, it is recommended to use SWOT as guide and not a prescription.

Strengths and weaknesses look internally. They help identifying what a project can do. Many projects are great at looking inward but fail to look outside their area. Threats and opportunities are external, focusing on the conditions of the real-world. This is where a SWOT analysis is most helpful. They held seeing beyond the project walls and determine what opportunities are open for it and how to capitalize on project's strengths.

Strengths should be seen in relation to "competitors" and from "customers' perspective". Anything the market needs that the project can provide and the "competitor" doesn't, can be a possible strength.

Weaknesses may include any existing limitation, including high cost of operation or production, human resources and staff, products or service similar or of less quality to competitors'.

Opportunities, every project or business is influenced by the external environment, such as: legal, political, technological, and cultural factors. Considering what can make your project obsolete, and what will replace it may help act proactively. Threats can become opportunities or vice versa. These may include government regulation softening; development of new technologies; growing trend; and customer base.

Threats may include new substitute services or products emerging; price competition; and economic pressure.

ELABORATION OF SWOT ANALYSIS FOR EATL INLAND TRANSPORT CONNECTIONS

Strengths

The following points are considered as the EATL inland transport connections strengths:

a. EATL inland transport routes in terms of distance are up to three times **shorter** and often **quicker** than maritime routes for the transport of goods between the two mega-regions (the EU and the Asian-Pacific) [64];
b. EATL inland transport routes are an **important transport option** for EATL LLDCs in the region for their access to the international markets and their participation in globalization[65];
c. The main EATL **priority routes and projects** along these routes have been identified[66];
d. There are **unutilized capacities** along some parts of the EATL road and railway routes running east-west and north-south;
e. New transport **infrastructure is being constructed** in some parts of the inland EATL routes;
f. Some EATL routes are currently the **most preferable and most economic** ways for some countries spanning along the EATL to reach their major trade partners;
g. EATL routes are **integral part and physical extensions** of the TEN-T, pan- European Corridors, AGR, AGC, AGTC, AH,TAR, TEM, TER, TRACECA, and other related corridors and networks of high significance for Europe and Asia;
h. There is a **high political commitment** for the development of EATL inland transport routes by concerned governments [67] and various international and sub-regional organizations promoting relevant initiatives[68];
i. **Partnerships are being developed** along the inland EATL routes among key players, including non-governmental organizations and bodies.
j. Since a good part of EATL routes are in the planning and design phase **environmental risks can be better integrated** by some EATL countries.

Weaknesses

The following points are considered as the EATL inland transport connections weaknesses:

[64] Shorter delivery time is critical factor for certain cargoes (perishable goods or urgent door-to-door shipments). In addition, faster delivery means shortened transaction times, thus quicker settlement of payment and less capital investment for trade

[65] The other option being the airfreight transport which is growing rapidly in the course of the last years.

[66] Under EATL Phase I. However, given Russia's lack of participation and rather limited participation of China in the EATL project evaluation exercise, we may assume that less than one half of such projects have been identified in EATL Phase I..

[67] Joint statement of ministers of transport of 19 countries- support by the Inland Transport Committee - Almaty programme of Action, etc.

[68] including, EU and TRACECA, BSEC, EurAsEC, TEM and TER, SPECA, IRU, UIC, OSJhD, Shanghai Cooperation, Hinterland Connection of Seaports, etc.,

a. **Costs of goods transport** by inland EATL is too high compared with maritime. International shipping companies with extensive and cost-efficient fleet can keep their freight rates and port charges low[69];
b. **Quality of services** by inland EATL transport of goods is low compared with maritime. Moreover, maritime transport offers additional quality advantages to shippers, including cargo tracking and tracing, sophisticated logistics networks and guarantees of on-time and secure delivery;
c. Not adequately developed **multimodal transport and logistics** along inland EATL routes, seen from the end-to-end cost efficiency aspect, functioning in a complementary way among different transport modes and potential EATL itineraries, using seaports/Logistic Centres/Freight Villages and being parts of main EATL supply chains,[70]**;**
d. **Imbalance of trade flows** (westbound-eastbound) poses more problems to inland transport modes that to maritime, since unit cost of returning empty wagons, trucks, and containers is higher;
e. **Many physical and non-physical barriers** along the inland EATL render transport operations difficult, costly, time consuming, unpredictable and uncertain. These include:
   - Inadequate, underdeveloped and poorly maintained road and rail networks, and bottlenecks and missing links;
   - Long delays at borders, cumbersome and inefficient controls, together with mandatory transit convoys, multiple cargo checks en route, numerous agencies at borders have to approve documentation and numerous fiscal charges payable in some parts of the routes;

f. Absence of a harmonized **customs transit regime** along all EATL road routes poses serious problems to EATL road transport[71];
g. **High transit tariffs**, fees and fiscal charges that add unnecessary transport costs in some parts of the inland EATL routes[72];
h. **Transport restrictions,** rules and procedures that are frequently changed without notice;
i. There is a wide spread **corruption** along some EATL road routes forcing international operators to illegal payments;
j. There are **safety** concerns in some parts of the EATL road routes and **lack of security** to international operators;
k. Many border posts are **poorly equipped** and some are closed;
l. International **road permit quotas** that reduce competition are adopted along EATL, while granting of visas to professional drivers is cumbersome and costly;
m. In some parts of EATL **rail rates are not competitive,** not published, and have to be negotiated separately. Moreover there are even hidden charges and lack of common through tariffs for container transport;
n. Although many truck hauliers along EATL countries are now private, **transport monopolies** (public or private) are still in place in some counties operating under high tariffs and inadequate level of services;

[69] Maritime transport offer extremely competitive unit cost compared with that of inland transport. In many cases, transport cost is the main consideration for consignors as they strive to minimise transportation component of the price of their products.
[70] Focusing into the development of multimodal transport of goods options (from their production point to their final destination) seems the most suitable approach in developing inland EATL transport.
[71] China and some other EATL countries are not TIR members yet.
[72] The accuracy of all points (from g to n) needs to be verified with the help of the EATL National Focal Points.

o. Due to the high number of transit countries involved in inland EATL routes and many border crossings, **heterogeneous transport and transit** rules and regulations are real barriers to international transport and trade;
p. The heterogeneity of existing transport and transit rules and regulations along the inland EATL routes, makes the **collection, consolidation and update of relevant data** more difficult;
q. Limited institutional and human resource **capacities**;
r. **Inaction, lack of coordinated action or insufficient action** in addressing non physical obstacles persisting in many parts of the inland EATL routes resulting to unnecessary border crossing delays, undue increase of transport costs, prolonged and uncertain time-delivery that discouraging shippers to use inland EATL routes;
s. Non devotion of the **necessary investment** in developing priority transport infrastructure by EATL countries, aggravated by lack of sufficient funds due to other competing urgent needs in a number of EATL countries (health, education, housing, etc.);
t. A **weak part or missing link** in one country can render a whole EATL route economically unviable for international transport;

Opportunities[73]

The following points are considered as the EATL inland transport connections opportunities:

a. Globalization **increase transport** of goods between Europe and Asia **-**Further rapid growth of China & India generates more transport demand, thus new opportunities for inland EATL;
b. The trade between European Union and Asian-Pacific regions is expected to resume **growth**[74];
c. A proportion of **"time sensitive"** transit can be redirected through inland EATL routes[75];
d. The startup of **China's "Go West:** The Xinjang Uigur Autonomous Region (XUAR) development programme"**,** which is designed to increase the manufacture of goods for export to Europe, potentially using inland EATL routes;
e. **Congestion of main ports and hinterland routes** particularly in Western Europe, offer new openings for increased participation of inland EATL in absorbing higher parts of future transport needs[76];

[73] Careful consideration of the elements contained here suggests that these should be seen in the long-term perspective.
[74] According to Eurasian Development Bank sector report on EurAsEC Transport Corridors, of March 2009, the trade between European Union and Asian-Pacific regions reached US $ 700 billion in 2007 and it is expected to raise to US $ 1 trillion by 2013-2015. 17.7 million TEU were transported from Asia to Europe, and 10 million from Europe to Asia, in 2007. By 2015 containerized transportation from Asia to Europe is expected to reach 26.1 million TEU and from Europe to Asia 17.7 million, suggesting enormous transit potential along inland EATL routes.
[75] Some 16 million tones annually according to most conservative estimates. This include: Westbound: Chemicals, foodstuffs, instrumentation, stereo, video and audio systems, mobile communication equipments, TV sets, electrical goods, electric cables, furniture, cloths and shoes, cosmetics. Eastbound: Industrial and agricultural equipment, metals, integrated circuits, various fine chemical products and polymers, consumer goods, foodstuff (meat).
[76] Currently not that serious due to the reduction of freight following the global economic crisis.

f. Creation of the **Customs Union** between Russia, Belarus and Kazakhstan and consequently the expected removal of the internal borders among these countries would offer new opportunities for EATL inland transport along the North EATL routes[77];
g. Accession of **Russia and Kazakhstan in TWO** would also facilitate transit along EATL routes;
h. Further **expanding the coverage of the CIM/SMGS** consignment note along EATL railway routes would facilitate rail EATL transport;
i. Container shipment via **Suez Canal is limited** and soon will reach its maximum capacity for container vessels, while the Cape of Good Hope alternative maritime route will increase ships' operating costs and transit time;
j. Increased **security concerns** along existing EATL maritime routes offer new opportunities for inland transport options[78];
k. Developing inland EATL is an important **tool for socio-economic development,** integration into global economy and prosperity of EATL countries, in particular LLDCs and their transit developing neighbors;
l. **Development of trade amongst EATL countries**, in particular LLDC their transit developing neighbours offer new opportunities;
m. Increased efforts and progress in **regional co-operation and integration** amongst countries offer new opportunities for addressing existing challenges in a coordinated way.

Threats

The following points are considered as the EATL inland transport connections threats:

k. Continued offer of **competitive transport costs by maritime** would keep maritime routes as the most attractive transport option to consignors for goods coming from the most important origins of Euro-Asian trade, i.e. the eastern and southern provinces of China and other Southeast Asian countries to European destinations and vice versa;
l. The recent economic crisis and the consequent **call for more efficient transport** systems may be an additional threat to inland EATL transport[79];
m. The global warming and the expected **opening of the Arctic North-West passage** for container traffic may offer even more competitive maritime routes[80]
n. Cost-reducing **innovation in the air transport** sector;
o. Increasing trend of **economic nationalism, persisting conflicts and political instability** in some parts of the EATL routes.

CONCLUSISONS

[77] This is expected to be realized in the near future.
[78] Pirate attacks on ships in Somalia, Strait o Malacca, etc.
[79] Some believe that it may be also an opportunity to EATL, through better integration of some EATL routes into the global supply chains and more efficient and effective use of EATL intermodal options. .
[80] Some scientists and experts argue that in spite the enthusiasm it seems unlikely that the Arctic North-West passage can be utilized for transit of international container ships for various reasons, including technical, commercial and political, while transport insurance coverage aspects remain still unclear. Further information on the subject might be necessary.

The SWOT analysis for EATL inland transport connections has provided useful information in identifying the strong and weak points of the EATL inland transport connection, their existing potential for further development and their potential threats.

It has also verified that the recommendations contained in the UNECE-UNESCAP Study on Developing Euro-Asian Transport Links, being the outcome of the 5 years work of the concerned countries together with UNECE and UNESCAP secretariat and other bodies involved, are still valid and should be intensively pursued.

It has also confirmed the usefulness of establishment of the Group of Experts on Euro-Asian Transport Links and its work plan of activities, focusing on an enhanced cooperation in the region, a coordinated development of priority transport infrastructure, as well as on intensive efforts for transport and transit facilitation. In order to stress the need for enhanced coordination and cooperation among all countries along the EATL routes, it is enough to highlight the point (s) of the weaknesses mentioned above, "*A weak part or missing link in one country can render a whole EATL route economically unviable for international transport*".

Finally, SWOT analysis has made it clear that the real development potential of EATL inland transport connections lies upon their capacity to become parts of the main EATL supply chains, functioning complementary among various transport modes, focusing on the end-to-end transportation cost-and-time efficiency and reliability and on urgent facilitation and cost/time-reducing transportation measures and reforms that need to be undertaken in the EATL transitions economies involved.

The aggregated table of the SWOT analysis for EATL inland transport connections is illustrated in the annex.

Annex

TABLE of SWOT ANALYSIS FOR EATL INLAND TRANSPORT CONNECTIONS

Strengths

a. Shorter in distance and often quicker than maritime between EU and the Asian-Pacific;

b. Important transport option for LLDCs in the region;

c. Main EATL priority routes and projects have been identified;

d. Unutilized capacities in some parts of EATL road and railway routes;

e. New transport infrastructure is being constructed in some EATL parts;

f. Some inland routes are the most preferable and most economic;

g. EATL routes integral part and physical extensions of important corridors and networks;

h. High political commitment for the inland EATL development;

i. Partnerships are being developed among key players;

j. Environmental risks can be better integrated in some EATL parts.

Weaknesses

a. **Costs of goods transport by inland EATL is too high compared with maritime;**

b. **The quality of services by EATL transport of goods is low compared with maritime;**

c. **Not adequately developed multimodal transport and logistics being parts of main EATL supply chains;**

d. **Imbalance of trade flows (westbound-east eastbound) poses more problems to inland transport modes, that to maritime;**

e. **Many physical and non-physical barriers render transport operations difficult, costly, time consuming, unpredictable and uncertain. These include: Inadequate, underdeveloped and poorly maintained road and rail networks, and bottlenecks and missing links- Long delays at borders, cumbersome and inefficient controls, mandatory transit convoys, multiple cargo checks en route;**

f. **Absence of harmonized customs transit regime creates problems to road transport;**

g. **High transit tariffs, fees and fiscal charges;**

h. **Transport restrictions, rules and procedures changed without notice;**

i. **Wide spread of corruption;**

j. **Safety concerns and lack of security to international operators;**

k. **Some border posts poorly equipped and some closed;**

l. **Road permit quotas reducing competition- cumbersome and costly visas;**

m. **Not competitive rail rates;**

n. **Transport monopolies still in place;**

o. **Heterogeneous transport and transit rules and regulations;**

p. **Difficulty in collection and updating existing rules along the inland EATL routes;**

q. **Limited institutional and human resource capacities;**

r. **Inaction, non coordination or insufficient action in addressing non** physical obstacles;

s. **Non devotion necessary investment in developing priority transport infrastructure;**

t. **Weak part in one country render a whole route economically unviable.**

Opportunities

a. **Globalization increase transport of goods between Europe and Asia -Further rapid growth of China & India offer new opportunities for EATL;**

b. **European Union - Asian-Pacific regions expected resume growth;**

c. **Time sensitive transit can be redirected through inland EATL routes;**

d. **Go West: The Xinjang Uigur Autonomous Region (XUAR) development programme, designed to use inland EATL routes;**

e. **Congestion of main ports and hinterland routes, offer new openings for inland EATL;**

f. **Creation of the Customs Union between Russia, Belarus and Kazakhstan and the expected removal of the internal borders;**

Threats

a. Continued offer of competitive transport costs by maritime;

b. Call for more efficient transport systems due to recent economic crisis;

c. The expected opening of the Arctic North-West passage for container traffic;

d. Cost-reducing innovation in the air transport sector;

e. Increasing economic nationalism, conflicts and political instability.

g. **Accession of Russia and Kazakhstan in TWO;**

h. **Expanding the CIM/SMGS consignment note along EATL routes;**

i. **Container shipment via Suez Canal will reach its maximum capacity - alternative maritime route increase ships costs and transit time;**

j. **Increased security concerns along existing EATL maritime routes;**

k. **Important tool for socio-economic development of EATL countries;**

l. **Development of trade amongst EATL countries, offer new opportunities;**

m. **Increased progress in regional co-operation and integration;**

PART V

REVIEW OF EURO-ASIAN TRANSPORT FLOWS, STATISTICS AND TRENDS

INTRODUCTION

Background

Globalization has led to significant increases in trade and transport between Asia and Europe. While most of the traffic has used – increasingly congested - maritime routes, further development of inland transport routes would provide credible and competitive additional transport options. Once established, these efficient and integrated inland routes could become an effective tool for economic development and integration of the Euro-Asian region, including facilitating greater participation in the globalization process by Central Asia's landlocked countries.

To address issues of inadequate transport infrastructure, internationally un-harmonized transport rules and cumbersome, costly and time-consuming border crossing procedures, the UNECE and UNESCAP worked closely in 2003-2007 with governments of Euro-Asian region as part of a global UN Development Account Capacity-building Project. The following eighteen countries participated: Afghanistan, Armenia, Azerbaijan, Belarus, Bulgaria, China, Georgia, Iran, Kazakhstan, Kyrgyzstan, Moldova, Romania, Russian Federation, Tajikistan, Turkmenistan, Turkey, Ukraine and Uzbekistan. Greece joined the project activities in 2005.

The project's results included the identification of main Euro-Asian inland transport routes, prioritization of infrastructure projects, development of GIS database, first analysis of non-physical obstacles, organization of six national capacity-building workshops and publication of the final study.

The first phase of the Euro-Asian Transport Linkages (EATL) project ended in 2008, with the Ministerial Meting in Geneva, where high level representatives of 19 countries signed a joint statement on future development of Euro-Asian transport links calling for continuation of the EATL project in 2008-2011.

In 2006, the Inland Transport Committee (ITC) had asked the secretariat to present, together with ESCAP, a joint proposal that would ensure the continuation of the project in a new Phase II. In early 2008, the UNECE began establishing an institutional structure to make further EATL work possible. At its 70th session, 19-21 February 2008, ITC agreed to establish a Group of Experts on Euro-Asian Transport Links and adopted its terms of reference. Its duration was set for two years with a possibility of further extension During ITC's 72nd session on 23–25 February 2010, the Committee approved the extension of the mandate of the EATL Group of Experts by two years until February 2012. The primary objective of the Expert Group was to ensure monitoring and co-ordination of the activities related to developing efficient, safe and secure Euro-Asian inland transport links.

The UNECE invited governments to nominate National Focal Points who would actively contribute to the work of the EATL Group of Experts and the EATL

Phase II. Related international organizations and IFIs were also invited to take an active role in the work. In response, 27 governments have nominated national EATL focal points (Armenia, Afghanistan, Azerbaijan, Belarus, Bulgaria, China, Finland, Georgia, Germany, Greece, Iran, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxemburg, Moldova, Mongolia, Pakistan, Romania, Russia, Tajikistan, the former Yugoslav Republic of Macedonia, Turkey, Turkmenistan, Ukraine, and Uzbekistan).

One major issue that has an impact on transport and consequently on the future development of Euro Asian Transport linkages is the growing merchandising trend between Europe and Asia, as well as the social and economic development of transit and landlocked developing countries involved in the EATL list. To this end, the present study explores the flows and trends of both inland and maritime transport routes between Europe and Asia, as well as among the EATL Phase II participating countries themselves, in order to ascertain the current needs for transportation.

Scope of report

The scope of the report is the review, collection and consolidation of existing statistics, flows and trends on EATL routes, for both maritime and inland transport. The information is collected by desk review, as well as in consultation with the secretariat and the involved countries. The purpose of the report is to highlight the repercussions of the growth of merchandise trade between the continents of Europe and Asia, and among the respective countries participating in the EATL Phase II Study, on the transport system, addressing the key issues related to this rise in volumes transported over long distances. The growth and trade acceleration is of particular importance for the volumes transported, the means of transport used and the construction of infrastructure along the proposed EATL Phase II routes. The report focuses on the following topics:

- Europe-Asia transport flows and trends
- Container transport flows and trends
- Landlocked countries trade issues
- Trade analysis of EATL II participating countries
- Conclusions and recommendations

EURO-ASIAN TRAFFIC FLOWS AND TRENDS

Overview of World Trade

International merchandise trade continued to increase rapidly during the first half of 2008 until September 2008, when the impact of the global financial crisis became evident. According to the World Trade Organisation (WTO), the recent crisis brought about a 12% drop in the volume of world trade in 2009, which was the sharpest decline recorded in more than 70 years and significantly higher than most economists had predicted. Table 2.1 presents the annual percentage change in the volume of merchandise trade by selected regions for years 2008 and 2009.

Table 2.1-Growth in the volume of world merchandise trade by selected region and economy, 2000-2009

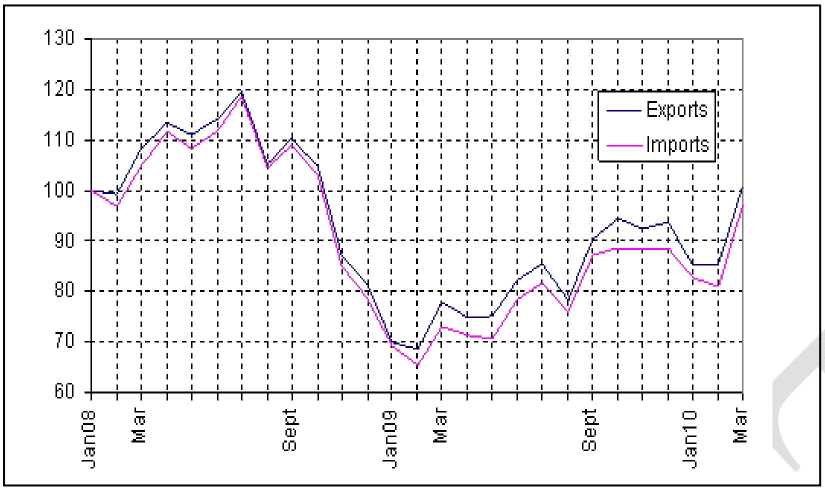
	Exports			Imports		
Annual Percentage Change	2000-09	2008	2009	2000-09	2008	2009
Merchandise						
World	**3**	**2**	**-12**	**3**	**2**	**-13**
North America	1	2	-15	1	-3	-17
Canada	-2	-6	-18	1	1	-17
Mexico	1	1	-15	1	4	-20
United States	2	6	-14	1	-4	-17
South and Central America	4	1	-8	6	13	-17
Europe	**2**	**0**	**-15**	**1**	**-1**	**-15**
European Union (27)	2	0	-15	1	-1	-15
Norway	1	0	-3	3	3	-14
Switzerland	2	2	-15	1	3	-10
Commonwealth of Independent States (CIS)	6	2	-5	11	17	-26
Asia	**8**	**6**	**-11**	**6**	**5**	**-8**
Australia	2	6	-5	7	10	-11
China	17	9	-11	15	4	3
Hong Kong, China	-4	-11	-1	2	-2	-6
India	12	15	-3	13	18	-3
Japan	2	3	-25	1	-1	-13
Six East Asian traders *	6	4	-8	3	4	-13

* Hong Kong, China; Malaysia; Republic of Korea; Singapore; Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu (Taipei, Chinese) and Thailand.

Source: *http://www.wto.org/english/res_e/statis_e/its2009_e/*

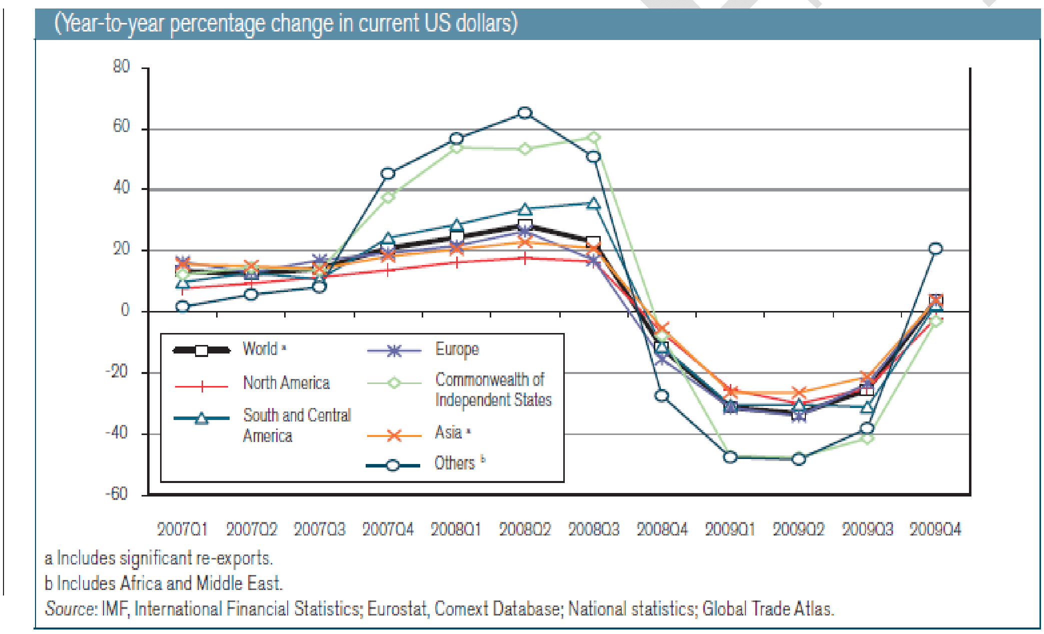
Further to the above, world trade is currently following a faster than expected recovery, with WTO economists predicting to rebound in 2010 by growing at 13.5%. According to WTO figures released on 2 June 2010 of "year-on-year" quarterly comparisons, the value of world merchandise trade was around 25% higher in the first three months of 2010 than in the same period of 2009, global exports rose by 27%, while imports rose slightly less, at 24%. Monthly statistics for 70 economies representing approximately 90% of world trade indicate that merchandise trade declined in January and February 2010, then rose sharply in March, as depicted in Figure 2.1. It should be noted that despite the steep fall in global trade due to the recent economic crisis, Asia outperformed the rest of the world in 2009, with its exports falling down 18% in 2009, the smallest nominal decline of any region. Asia's imports also fell less than the world average (21%), as shown in Figure 2.2.

Figure 2.1-Monthly merchandise trade, aggregate of 70 economies



Source: *WTO*

Figure 2.2- World Merchandise Exports by Region (2007-2009)

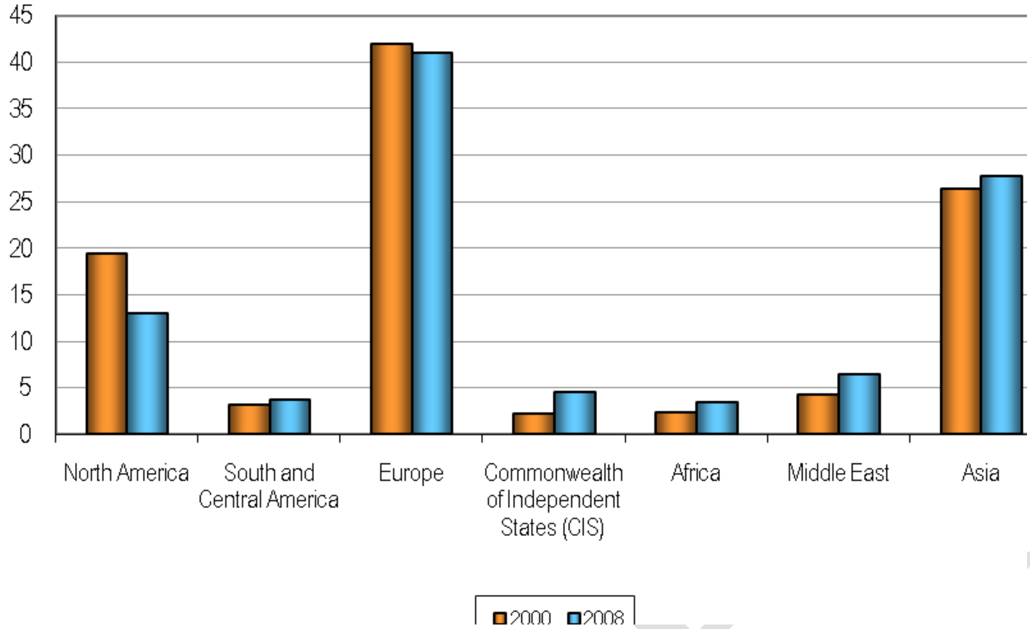


Source: *WTO*

Euro-Asian Trade Flows

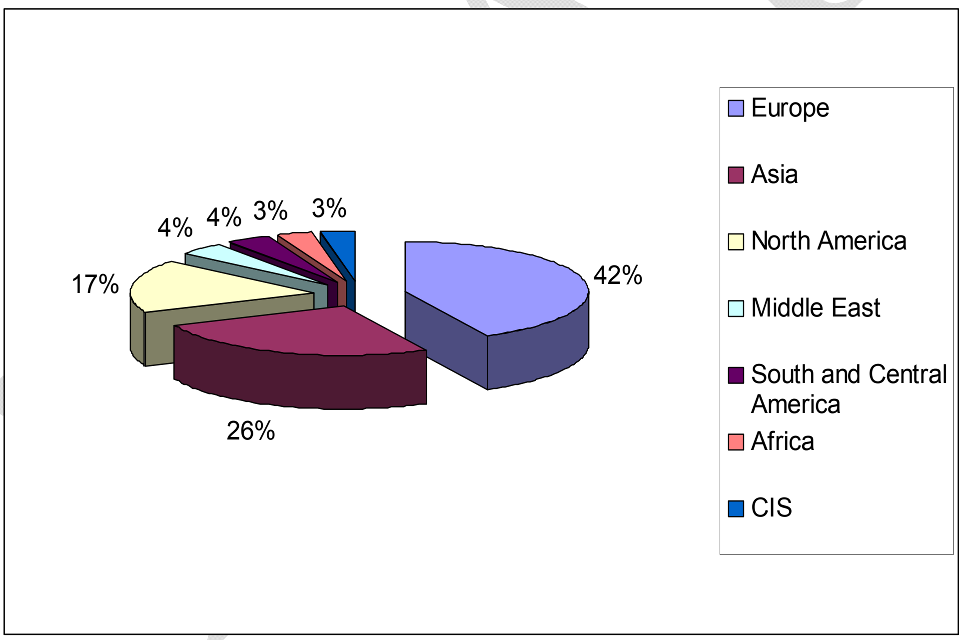
The 60 countries involved in the Euro– Asian trade represent more than the half of the world's GDP, more than 60% of the world's population and approximately 70% of global trade, as illustrated in Figure 2.3 for years 2000 and 2008 (WTO). More specifically, in year 2009, 42% of world merchandise trade exports originated in Europe, 26% in Asia, 17% in North America , 4 % in the Middle East and South and Central America and 3% in CIS countries and Africa (Figure 2.4).

Figure 2.3-Regional share in world merchandise exports 2000-2008



Source: *http://www.wto.org/english/res_e/statis_e/its2009_e/its09_charts_e.htm*

Figure 2.4-World Exports by Destination, 2009



According to World Trade Organization, in year 2009, 72% of Europe's exports went to European countries, 8% to Asia, 7% to North America and only 3% to CIS countries, while 52% of Asian countries' exports went to Asia, 18% to Europe, and North America and only 2% to CIS countries, as shown in Figures 2.5 and 2.6, respectively. Similar figures were recorded for year 2008, as per Table 2.2.

Figure 2.5-European Exports by Destination, 2009

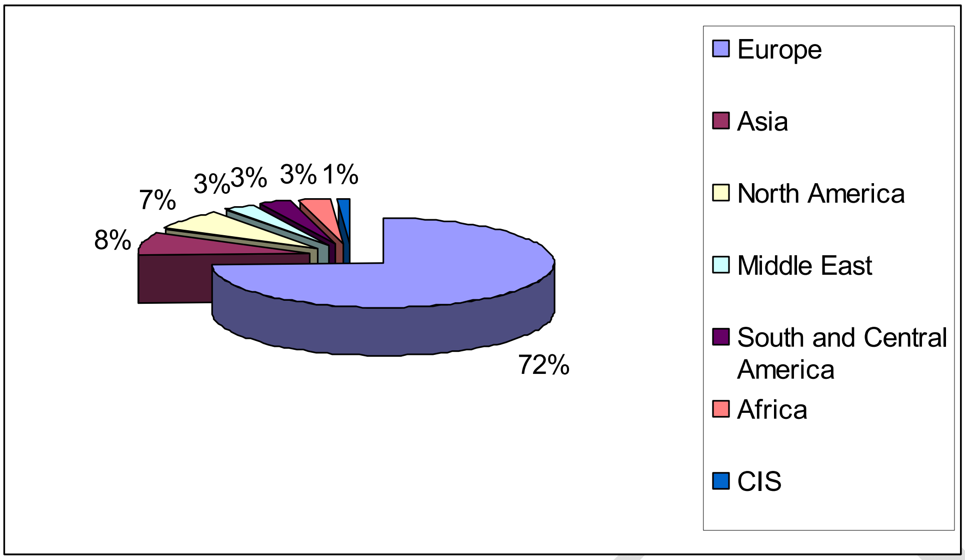
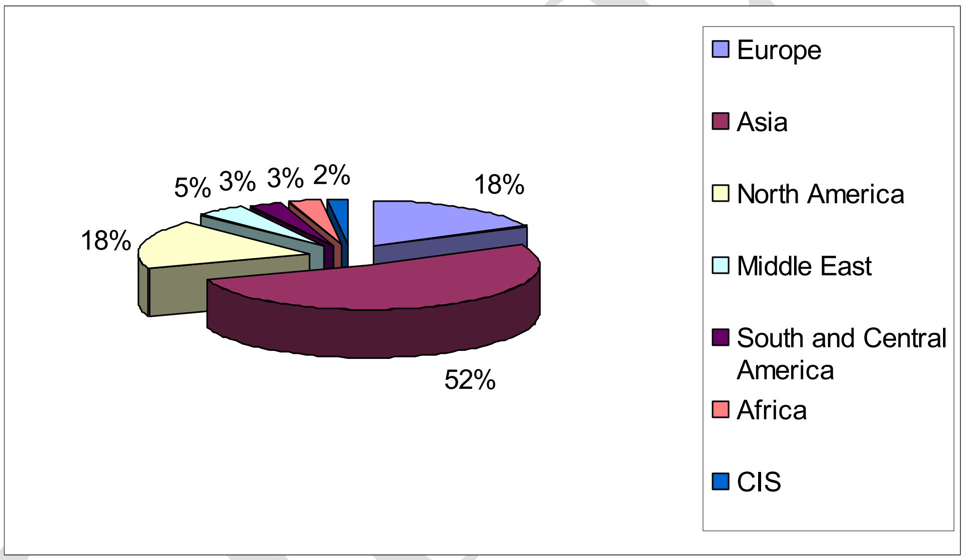


Figure 2.6-Asian Exports by Destination, 2009



Based on the above, Asia contributes one fourth of world trade in goods, after Europe, where about half of Asia's exports are conducted within the region. In parallel to growing intra-regional trade, Asia's inter-regional trade has also grown over time, with Europe and North America becoming the two largest destinations of Asia's exports.

Table 2.2- Intra- and inter-regional merchandise trade, 2008

	Destination							
Origin	North America	South and Central America	Europe	CIS	Africa	Middle East	Asia	World
Value								
World	2708	583	6736	517	458	618	3903	15717
North America	1014.5	164.9	369.1	16.0	33.6	60.2	375.5	2035.7
South and Central America	169.2	158.6	121.3	9.0	16.8	11.9	100.6	599.7
Europe	475.4	96.4	4695.0	240.0	185.5	188.6	486.5	6446.6
Commonwealth of Independent States (CIS)	36.1	10.1	405.6	134.7	10.5	25.0	76.8	702.8
Africa	121.6	18.5	218.1	1.5	53.4	14.0	113.9	557.8
Middle East	116.5	6.9	125.5	7.2	36.6	122.1	568.9	1021.2
Asia	775.0	127.3	801.0	108.4	121.3	196.4	2181.4	4353.0
Share of regional trade flows in each region's total merchandise exports								
World	17.2	3.7	42.9	3.3	2.9	3.9	24.8	100.0
North America	49.8	8.1	18.1	0.8	1.7	3.0	18.4	100.0
South and Central America	28.2	26.5	20.2	1.5	2.8	2.0	16.8	100.0
Europe	7.4	1.5	72.8	3.7	2.9	2.9	7.5	100.0
Commonwealth of Independent States (CIS)	5.1	1.4	57.7	19.2	1.5	3.6	10.9	100.0
Africa	21.8	3.3	39.1	0.3	9.6	2.5	20.4	100.0
Middle East	11.4	0.7	12.3	0.7	3.6	12.0	55.7	100.0
Asia	17.8	2.9	18.4	2.5	2.8	4.5	50.1	100.0
Share of regional trade flows in world merchandise exports								
World	17.2	3.7	42.9	3.3	2.9	3.9	24.8	100.0
North America	6.5	1.0	2.3	0.1	0.2	0.4	2.4	13.0
South and Central America	1.1	1.0	0.8	0.1	0.1	0.1	0.6	3.8
Europe	3.0	0.6	29.9	1.5	1.2	1.2	3.1	41.0
Commonwealth of Independent States (CIS)	0.2	0.1	2.6	0.9	0.1	0.2	0.5	4.5
Africa	0.8	0.1	1.4	0.0	0.3	0.1	0.7	3.5
Middle East	0.7	0.0	0.8	0.0	0.2	0.8	3.6	6.5
Asia	4.9	0.8	5.1	0.7	0.8	1.2	13.9	27.7

Source: *http://www.wto.org/english/res_e/statis_e/its2009_e/*

Euro-ASEM trade

The Asia-Europe Meeting (ASEM), an informal process of dialogue and co-operation bringing together the 27 European Union Member States and the European Commission with 19 Asian countries and the ASEAN Secretariat, has released figures for the evolution of EU's Trade Balance with Asian ASEM Countries, as well as the one of Asian ASEM Countries with the EU, presented in Figures 2.7 and 2.8

respectively. An increase of trade value is observed for both imports and exports of both directions during the period 2005-2008, preceding the steep fall commencing in year 2009 and attributed to the financial crisis. Nevertheless, EU imports from Asian countries are on average twice as much as exports in the opposite direction.

Figure 2.7-EU Trade with Asian ASEM Countries

European Union, Trade with Asian ASEM Countries — millions of euro, %

Period	Imports	Variation (%, y-o-y)	Share of total EU imports (%)	Exports	Variation (%, y-o-y)	Share of total EU Exports (%)	Balance	Trade
2005	362.754	12,2	30,8	186.423	7,7	17,7	-176.331	549.176
2006	418.069	15,2	30,9	208.975	12,1	18,0	-209.093	627.044
2007	463.266	10,8	32,3	228.397	9,3	18,4	-234.870	691.663
2008	475.446	2,6	30,4	237.681	4,1	18,1	-237.765	713.127
2009	399.186	-16,0	33,3	220.607	-7,2	20,1	-178.578	619.793
2009Q1	102.100	-	33,6	48.491	-	19,0	-53.609	150.592
2009Q2	93.330	-	32,5	54.114	-	20,2	-39.215	147.444
2009Q3	99.849	-	33,5	56.312	-	20,6	-43.537	156.160
2009Q4	103.907	-	33,4	61.690	-	20,7	-42.217	165.597
2010Q1	111.121	8,8	33,5	63.872	31,7	21,7	-47.248	174.993
2010Q2	-	-	-	-	-	-	-	-
2010Q3	-	-	-	-	-	-	-	-
2010Q4	-	-	-	-	-	-	-	-
Average annual growth (2005-2009)		2,4			4,3			3,1

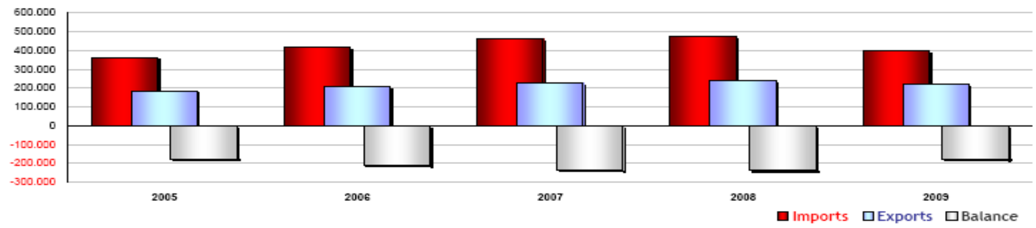
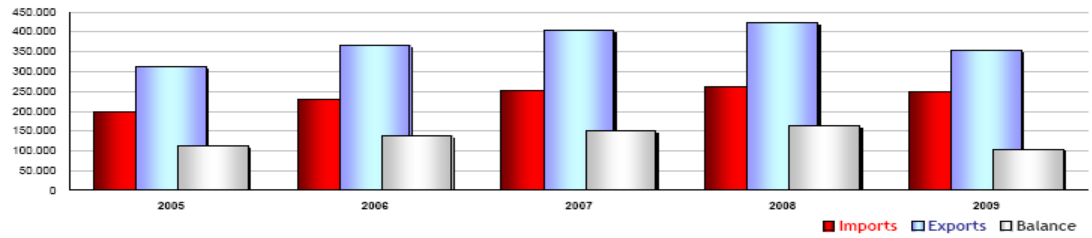


Figure 2.8- Asian ASEM Countries Trade with EU

ASIAN ASEM COUNTRIES, Trade with the European Union — millions of euro, %

Period	Imports	Variation (%, y-o-y)	EU Share of total Imports (%)	Exports	Variation (%, y-o-y)	EU Share of total Exports (%)	Balance	Trade
2005	199.187	8,5	12,1	311.588	16,1	16,7	112.401	510.775
2006	229.279	15,1	11,9	367.020	17,8	16,8	137.742	596.299
2007	252.251	10,0	12,3	403.190	9,9	17,1	150.939	655.441
2008	261.409	3,6	11,2	423.347	5,0	16,8	161.938	684.756
2009	248.864	-4,8	12,1	353.316	-16,5	16,0	104.451	602.180
2009Q1	56.224	-	12,6	81.967	-	16,6	25.743	138.191
2009Q2	61.800	-	12,4	81.346	-	15,5	19.546	143.146
2009Q3	62.612	-	11,1	92.567	-	15,5	29.956	155.179
2009Q4	68.228	-	12,7	97.436	-	16,6	29.207	165.664
2010Q1	-	-	-	-	-	-	-	-
2010Q2	-	-	-	-	-	-	-	-
2010Q3	-	-	-	-	-	-	-	-
2010Q4	-	-	-	-	-	-	-	-
Average annual growth (2005-2009)		5,7			3,2			-1,8



Source: *Asia-Europe Meeting (ASEM), Report, A European Commission foundation*

EU –China trade

Table 2.3-EU 27 Trade Value with China by Transport Mode (in mio euro)

EU 27 with China	Oct. 2009	Nov. 2009	Dec. 2009	Jan.-Dec. 2009	Jan. 2010	Feb. 2010	Mar. 2010	Apr. 2010	May. 2010	Jun. 2010
SEA	11610	9957	10015	126925	11916	11348	12993	11268	12797	15266
RAIL	116	107	88	1239	109	79	124	128	135	147
AIR	3872	4871	3846	43638	3926	3656	4575	4109	4864	4708

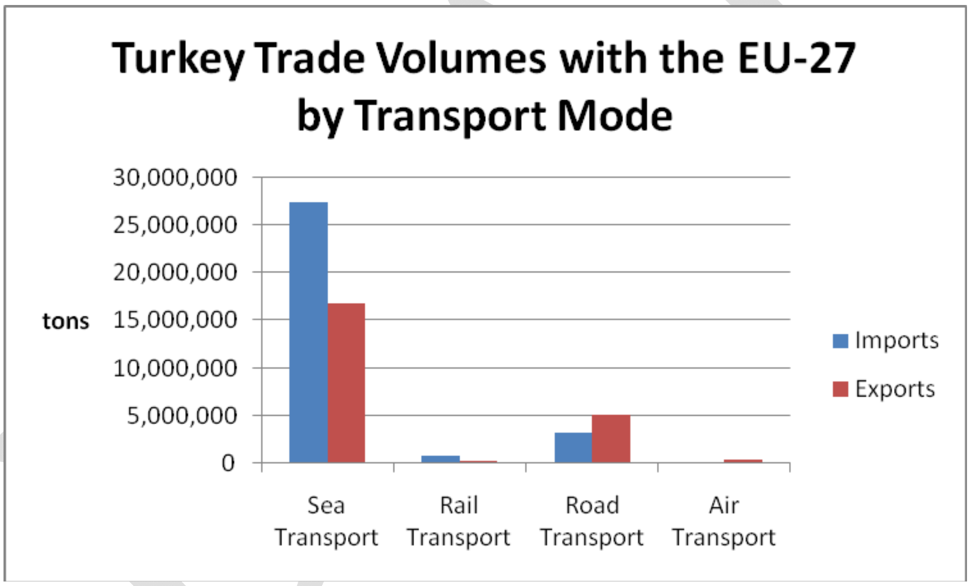
Source: ***EUROSTAT***

Based on data provided by the EU Statistical Agency Eurostat (Table 2.3) for the recent period of October 2009-June 2010, the bulk of EU-27 trade (both imports and exports) with Asia, represented by China, continues to be transported by sea. The second largest share in value corresponds to air transport, while rail accounts for the lowest share.

EU-Turkey trade

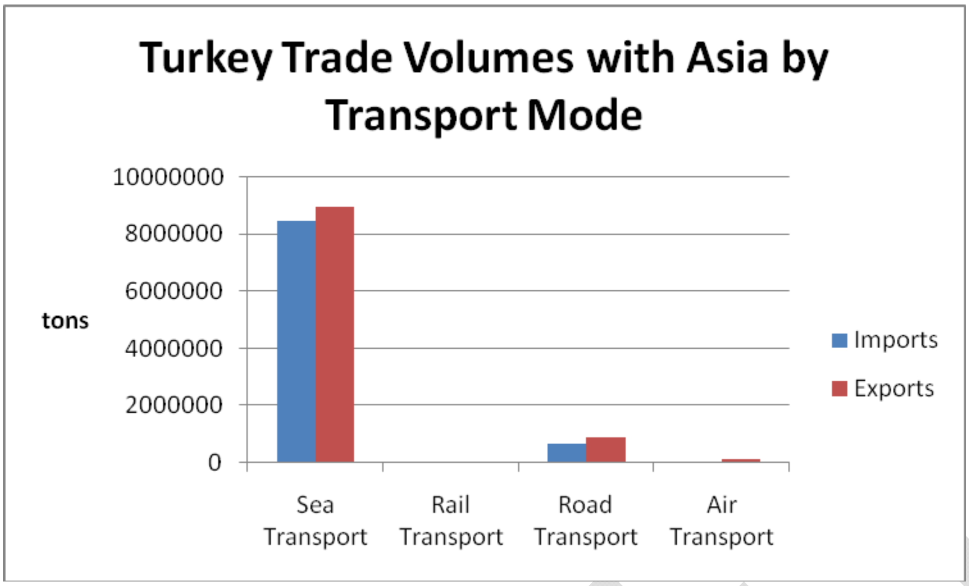
Similar findings are obtained from the analysis of merchandise trade between Turkey and the EU and Asia for year 2009, depicted in Figures 2.9 and 2.10 below.

Figure 2.9-Turkey Trade Volumes with the EU-27 by Transport Mode



***Source**: Turkey NFP*

Figure 2.10--Turkey Trade Volumes with Asia by Transport Mode

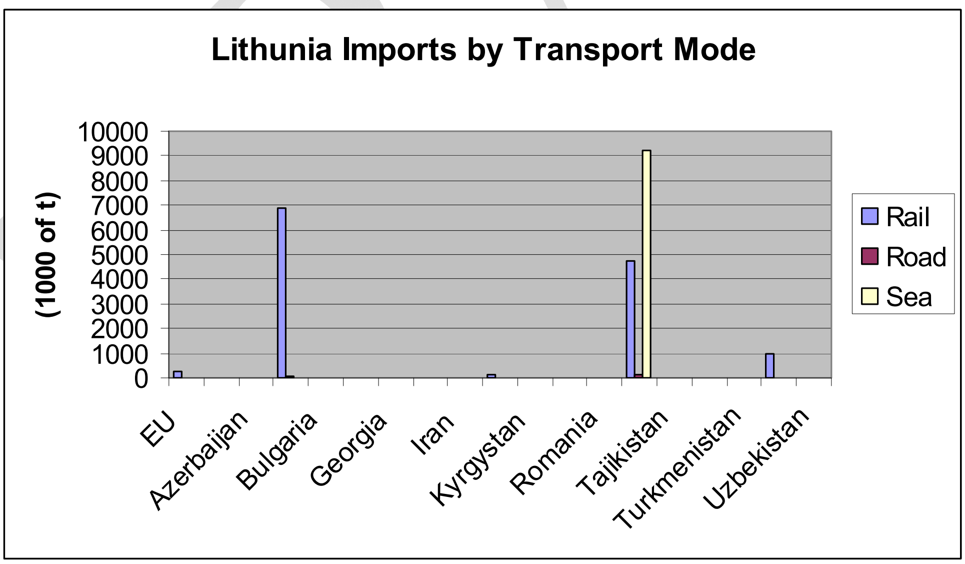


Source: *Turkey NFP*

Lithuanian trade

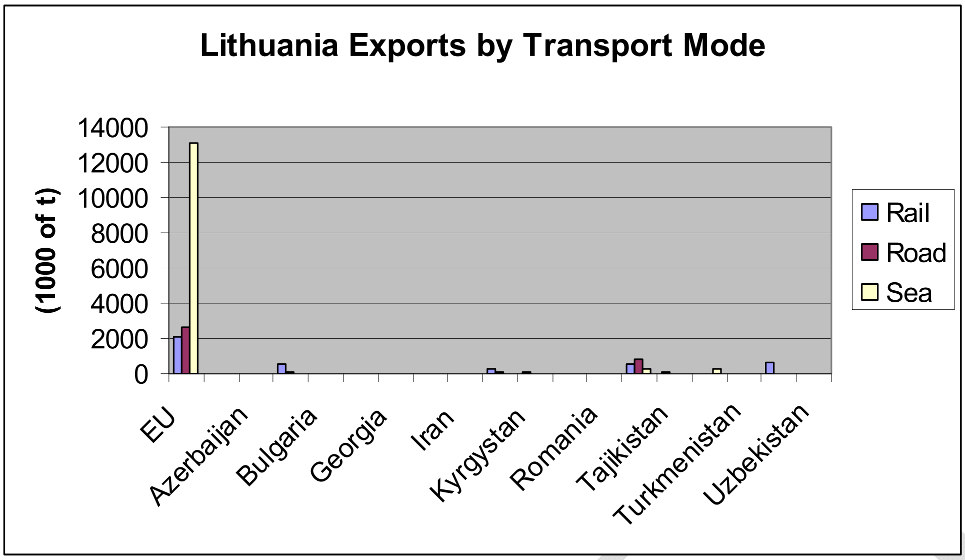
Similarly, Figures 2.11 and 2.12 illustrate the trade imports and exports of Lithuania with the other EU countries and other EATL participating countries by transport mode.

Figure 2.11-Lithuania Trade Import Volumes by Transport Mode



Source: *Lithuania NFP*

Figure 2.12-Lithuania Trade Export Volumes by Transport Mode



***Source** :Lithuania NFP*

Transport of containerised cargo

The volumes of international containerised cargo shipped using rail or road transport between Asia (China) and Europe are currently very limited. Rail transport, in particular, using the Tran Siberian Railway, which with its branches represents the most important railway connection between Europe and Far East Asia, may account for up to 3-4 % of the current volume, mainly from Northern China. The share of railway freight transport in long-distance international transport is modest, but has significant potential in certain connections. Road transport (trucking) accounts for even less.

A very good comparison of "Trans-Siberian" route and all-water route in terms of transport times is presented in Table 2.4 (Oksana *et al*, 2006). It appears that in terms of the time required to get from major ports in Japan, China and the Republic of Korea to Finland, the "Trans-Siberian" route is faster.

Table 2.4-Transport Travel Times from Asian Origins to Finland

Routes	Busan (ROK)	Kobe (Japan)	Shanghai (China)
All-water	35 days	35 days	35 days
Trans-Siberian	18-22 days	24 days	26 days

The Economic Growth of Asia

As described in the previous section, the volume of international trade between Europe and Asia has been growing sharply in recent years. This is mainly driven by the development and emergence of new economies of countries in Asia, particularly that of China. Also, the newly industrialized countries of Asia have experienced their trade flows rebound more strongly than those of developed economies, suggesting that much of their recent growth could be attributed to the trade within Asia.

According to the WTO (Table 2.5), as of 2008, China surpassed Germany to become the world's largest exporter of manufactured goods.

Table 2.5-Merchandise Trade: Leading exporters and Importers (2009)

Rank	Exporters	Value	Share	Annual per cent change	Rank	Importers	Value	Share	Annual per cent change
1	China	1202	9.6	-16	1	United States	1604	12.7	-26
2	Germany	1121	9.0	-22	2	China	1006	8.0	-11
3	United States	1057	8.5	-18	3	Germany	931	7.4	-21
4	Japan	581	4.7	-26	4	France	551	4.4	-22
5	Netherlands	499	4.0	-22	5	Japan	551	4.4	-28
6	France	475	3.8	-21	6	United Kingdom	480	3.8	-24
7	Italy	405	3.2	-25	7	Netherlands	446	3.5	-23
8	Belgium	370	3.0	-22	8	Italy	410	3.2	-26
9	Korea, Republic of	364	2.9	-14	9	Hong Kong, China	353	2.8	-10
						- retained imports [a]	91	0.7	-8
10	United Kingdom	351	2.8	-24	10	Belgium	351	2.8	-25
11	Hong Kong, China	330	2.6	-11	11	Canada	330	2.6	-21
	- domestic exports [a]	15	0.1	-9					
	- re-exports [a]	314	2.5	-11					
12	Canada	316	2.5	-31	12	Korea, Republic of	323	2.6	-26
13	Russian Federation	304	2.4	-36	13	Spain	290	2.3	-31
14	Singapore	270	2.2	-20	14	Singapore	246	1.9	-23
	- domestic exports	138	1.1	-21		- retained imports [b]	114	0.9	-28
	- re-exports	132	1.1	-19					
15	Mexico	230	1.8	-21	15	India	244	1.9	-24
16	Spain	218	1.7	-23	16	Mexico	242	1.9	-24
17	Taipei, Chinese	204	1.6	-20	17	Russian Federation [c]	192	1.5	-34
18	Saudi Arabia [a]	189	1.5	-40	18	Taipei, Chinese	175	1.4	-27
19	United Arab Emirates [a]	175	1.4	-27	19	Australia	165	1.3	-17
20	Switzerland	173	1.4	-14	20	Switzerland	156	1.2	-15
21	Malaysia	157	1.3	-21	21	Poland	147	1.2	-30
22	India	155	1.2	-20	22	Austria	144	1.1	-22
23	Australia	154	1.2	-18	23	Turkey	141	1.1	-30
24	Brazil	153	1.2	-23	24	United Arab Emirates [a]	140	1.1	-21
25	Thailand	152	1.2	-14	25	Thailand	134	1.1	-25
26	Austria	137	1.1	-24	26	Brazil	134	1.1	-27
27	Poland	134	1.1	-21	27	Malaysia	124	1.0	-21
28	Sweden	131	1.0	-29	28	Sweden	119	0.9	-29
29	Norway	121	1.0	-30	29	Czech Republic	105	0.8	-26
30	Indonesia	120	1.0	-14	30	Saudi Arabia [a]	92	0.7	-20
	Total of above [d]	10244	82.2	-		Total of above [d]	10323	81.6	-
	World [d]	12461	100.0	-23		World [d]	12647	100.0	-23

Source: *WTO*

Between 2000 and 2008, China's exports of manufactured goods grew at an annual average rate of 25.2 per cent, twice that of Germany (Table 2.6). While EU exports outside the European Union still remain at the top of the list, the gap with China has been constantly narrowing. On the import side, China remains second in the list of major importers.

Growth prospects for Asia in the next 2 years have improved following the unexpected growth in the second half of 2009. According to figures produced by the Asian Development Bank (Outlook 2010) and presented in Table 2.7, GDP in year 2011 is projected to grow by 5.9% for Central Asia, and by 7.7% for East Asia. The three economies that shrank during 2009 (Hong Kong, China; Mongolia; and Taipei, China) are expected to recover. In addition, growth in all of Central Asia's economies is expected for the period 2010-2011, favored by higher oil prices and recovery in the Russian Federation, the major trade and financial partner country. Kazakhstan's unstable non-oil economy will hold its overall growth down to 2.5%, while the Armenian and Georgian economies are projected to turn around with a slower growth (about 2%). In the Kyrgyz Republic and Tajikistan, expansion is expected to accelerate slightly, to about 4%–6% (Outlook 2010).

Table 2.6-World Merchandise Trade by Region and Selected Country (2009)

	Exports					Imports				
	Value	Annual percentage change				Value	Annual percentage change			
	2009	2005-09	2007	2008	2009	2009	2005-09	2007	2008	2009
World	12147	4	16	15	-23	12385	4	15	16	-24
North America	1602	2	11	11	-21	2177	-1	6	8	-25
United States	1057	4	12	12	-18	1604	-2	5	7	-26
Canada	316	-3	8	9	-31	330	1	9	7	-21
Mexico	230	2	9	7	-21	242	1	10	10	-24
South and Central America [a]	461	6	14	21	-24	444	10	25	30	-25
Brazil	153	7	17	23	-23	134	15	32	44	-27
Other South and Central America [a]	308	6	13	20	-24	311	9	23	25	-25
Europe	4995	3	16	11	-23	5142	3	16	12	-25
European Union (27)	4567	3	16	11	-23	4714	3	16	12	-25
Germany	1121	4	19	9	-22	931	5	16	12	-21
France	475	1	11	9	-21	551	2	14	14	-22
Netherlands	499	5	19	16	-22	446	5	18	18	-23
United Kingdom [b]	351	-2	-2	5	-24	480	-2	4	2	-24
Italy	405	2	20	8	-25	410	2	16	8	-26
Commonwealth of Independent States (CIS)	452	7	21	35	-36	332	11	35	32	-33
Russian Federation [c]	304	6	17	33	-36	192	11	36	31	-34
Africa	379	5	18	28	-32	400	12	23	27	-16
South Africa	63	5	20	16	-22	72	4	12	12	-28
Africa less South Africa	317	5	17	31	-33	328	14	27	32	-13
Oil exporters [d]	204	3	17	34	-40	129	16	29	39	-11
Non oil exporters	113	9	16	23	-17	199	13	27	28	-14
Middle East	691	6	16	33	-33	493	10	25	28	-18
Asia	3566	6	16	15	-18	3397	6	15	21	-21
China	1202	12	26	17	-16	1006	11	21	18	-11
Japan	581	-1	10	9	-26	551	2	7	23	-28
India	155	12	23	30	-20	244	14	29	40	-24
Newly industrialized economies (4) [e]	853	4	11	10	-17	834	4	11	17	-24
Memorandum items:										
Developing economies	4697	7	17	19	-22	4432	8	19	22	-20
MERCOSUR [f]	217	7	18	24	-22	186	13	31	41	-28
ASEAN [g]	814	6	12	14	-18	724	5	13	21	-23
EU (27) extra-trade	1525	4	17	13	-21	1672	3	16	17	-27
Least Developed Countries (LDCs)	125	11	25	32	-27	144	13	24	29	-11

Source: *WTO*

Table 2.7-Asia GDP growth (2007-2011)

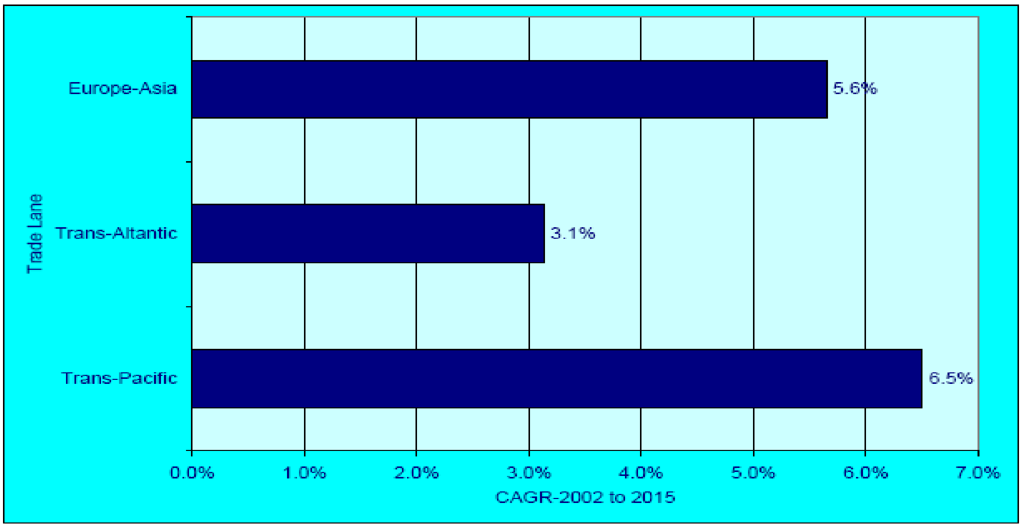
	Table 1 Growth rate of GDP (% per year)					Table 2 Inflation (% per year)				
Subregion/economy	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
Central Asia	12.0	6.1	2.7	4.7	5.9	11.2	16.5	5.9	6.7	6.6
Azerbaijan	25.1	10.8	9.3	9.5	9.7	16.7	20.8	1.5	5.8	6.0
Kazakhstan	8.9	3.3	1.2	2.5	3.5	10.8	17.3	7.3	6.8	6.5
East Asia	10.4	7.3	5.9	8.3	7.7	3.9	5.4	0.0	3.3	3.0
China, People's Rep. of	13.0	9.6	8.7	9.6	9.1	4.8	5.9	-0.7	3.6	3.2
Hong Kong, China	6.4	2.1	-2.7	5.2	4.3	2.0	4.3	0.5	2.2	2.8
Korea, Rep. of	5.1	2.3	0.2	5.2	4.6	2.5	4.7	2.8	3.0	3.0
Taipei,China	6.0	0.7	-1.9	4.9	4.0	1.8	3.5	-0.9	1.5	1.6
South Asia	8.7	6.4	6.5	7.4	8.0	5.6	9.3	5.6	6.0	6.0
Bangladesh	6.4	6.2	5.9	5.5	6.3	7.2	9.9	6.7	7.5	7.8
India	9.2	6.7	7.2	8.2	8.7	4.8	8.3	3.6	5.0	5.5
Pakistan	6.8	4.1	2.0	3.0	4.0	7.8	12.0	20.8	12.0	8.0
Sri Lanka	6.8	6.0	3.5	6.0	7.0	15.8	22.6	3.5	6.5	8.0
Southeast Asia	6.5	4.3	1.2	5.1	5.3	4.1	8.8	2.7	4.5	4.5
Indonesia	6.3	6.0	4.5	5.5	6.0	6.4	9.8	5.0	5.6	6.2
Malaysia	6.2	4.6	-1.7	5.3	5.0	2.0	5.4	0.6	2.4	3.0
Philippines	7.1	3.8	0.9	3.8	4.6	2.8	9.3	3.2	4.7	4.5
Singapore	8.2	1.4	-2.0	6.3	5.0	2.1	6.6	0.6	2.3	2.0
Thailand	4.9	2.5	-2.3	4.0	4.5	2.2	5.4	-0.9	3.5	3.0
Viet Nam	8.5	6.2	5.3	6.5	6.8	8.3	23.0	6.9	10.0	8.0
The Pacific	5.0	5.4	2.3	3.7	5.0	3.6	9.5	5.2	5.1	5.4
Fiji Islands	-0.5	-0.1	-2.5	-0.5	0.5	4.8	7.7	3.7	3.4	3.1
Papua New Guinea	7.2	6.7	4.5	5.5	7.7	0.9	10.6	7.6	7.1	7.7

Source: *Asian Development Bank, Outlook 2010*

Container Freight Transport between Europe-Asia

Currently, maritime transport is the dominant mode of cargo transport between Asia and Europe with an associated steep growth of containerized trade from Asia on the corridor to Europe (and vice-versa). Container ship traffic increased by 71% and average ship-size increased by 55% between 1997 and 2006 (Vallouis, 2010). Container trade volume on the Asia–Europe route reached 13.7 million TEU in 2002. The Asia-Europe maritime trade is projected to grow at an average rate of 5.6 per cent per annum until 2015, as illustrated in Figure 2.13 (UNESCAP). It should be noted, however, that this growth rate covers the whole of the Asia-Europe trade, including some already mature markets such as Northern Europe- Japan, which are expected to grow only slowly. Other trade routes, between East Asia and the Mediterranean, and between India and all parts of Europe are expected to grow more rapidly than the above rate.

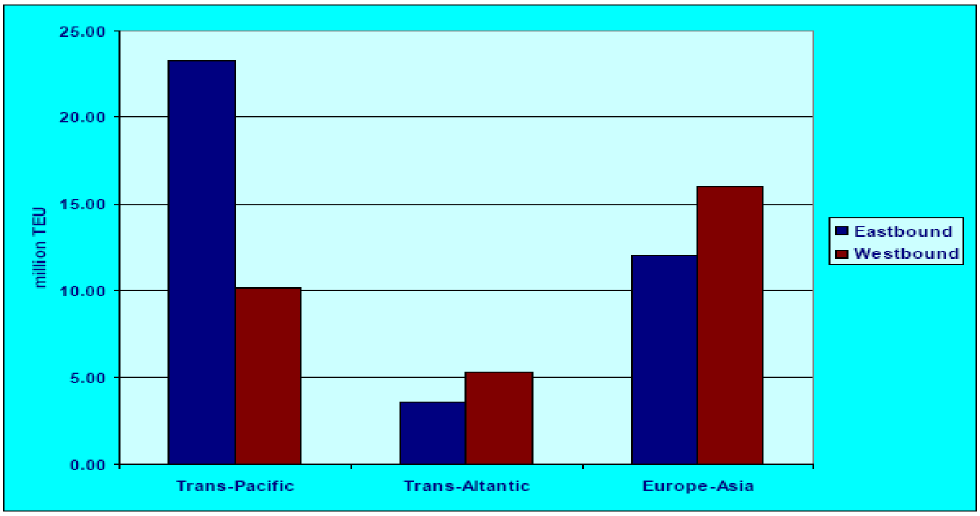
Figure 2.13- East-West Trade Lane Growth (2002 - 2015)



Source: www.unescap.org/ttdw/.../TFS.../pub_2398_ch4.pdf

One of the key features of container trade today is imbalance with more containers leaving Asia full than those coming back. This imbalance has been recorded as early as 1997, particularly with respect to Asian trade with Northern Europe. Current estimates are that westbound TEU numbers now exceed eastbound by approximately 25 %, and according to forecasts, the trade imbalance on the Asia-Europe route will be further increased to around 34% in 2015, as depicted in Figure 2.14. Westbound volumes are expected to increase from 7.6 million TEU to 16.0 million TEU at an average rate of 5.9% per annum over the forecast period, compared to the estimated rate of growth of 5.4% for westbound volumes from 6.1 million TEU to 12.0 million TEU during the same period.

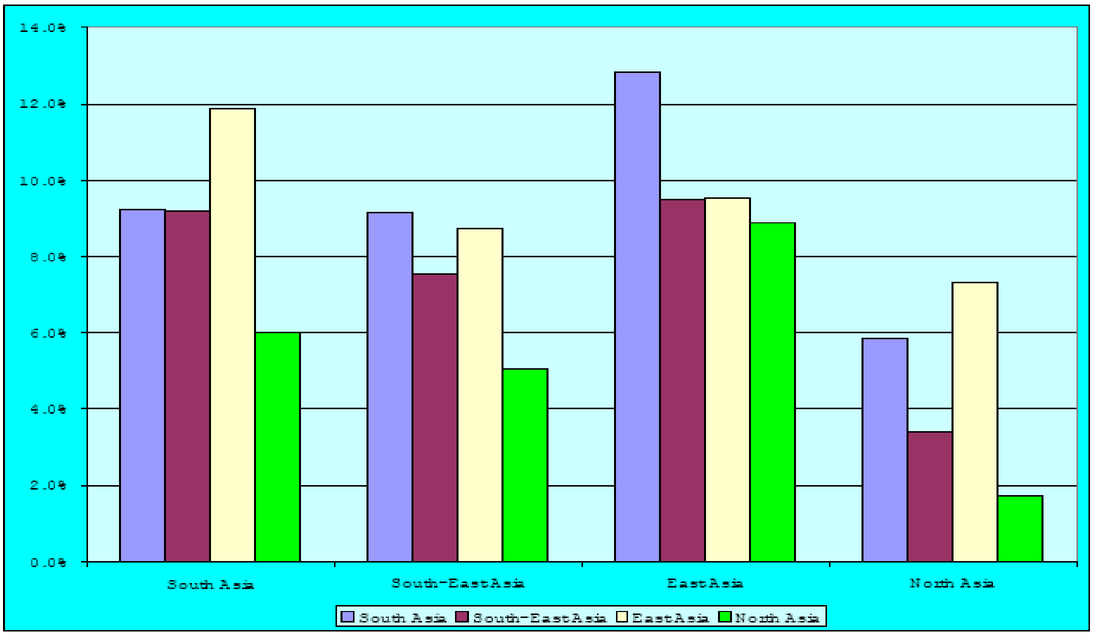
Figure 2.14- Trade Imbalance on East-West Routes (2015)



Source: *www.unescap.org/ttdw/.../TFS.../pub_2398_ch4.pdf*

Within the intra-Asian trade, trade to and from East Asia and South Asia is expected to grow substantially in the future. China, including Hong Kong, China and Taiwan, will continue to dominate the intra-Asian trade with an expected growth rate of 9.3 % per annum during the period 2002-2015. Estimates show that the South Asian countries trade with other Asian countries will increase at an average rate of 10.4 % over the same period. In particular, the trade between these two sub-regions is expected to increase at more than 12% annually.

Figure 2.15- Intra-Asian Trade Growth (2002 - 2015)



Source: *www.unescap.org/ttdw/.../TFS.../pub_2398_ch4.pdf*

The growth of container trade in the Euro-Asian route has fostered the use of larger and more efficient vessels and rates that have fallen to extremely low levels, such as 742 USD per TEU from Europe to Asia, as shown in Table 2.8. The most important repercussion was, however, the emergence of major hubs in the Mediterranean, northern Europe and Asia. To this end, there is growing concern with regard to port congestion and saturation of port land access.

Container throughput for ports of China has increased from 19.4 million TEU in 2000 to 118.3million TEU in 2008, equivalent to an average annual growth of 25.4% for this period, while in South and South-West Asia, port container throughput has almost tripled from 2000 to 2008, as growth averaged some 16 % annually (ESCAP,2009). Figure 2.16 illustrates the forecasted average port capacity utilisation by region, showing that ports in the South East Asia are rapidly approaching full capacity by year 2011.

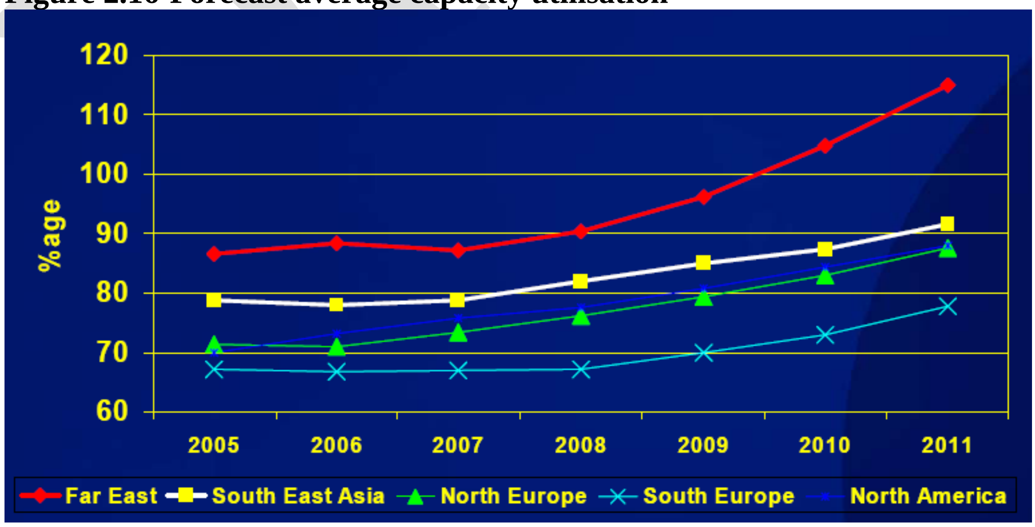
Table 2.8-Freight rates (market averages) per TEU on the three major liner trade routes

($ per TEU and percentage change)

	Trans-Pacific		Europe–Asia		Transatlantic	
	Asia–US	US–Asia	Europe–Asia	Asia–Europe	US–Europe	Europe–US
2007						
First quarter	1 643	737	755	1 549	1 032	1 692
Change (%)	- 2	- 5	- 5	0	- 3	- 4
Second quarter	1 675	765	744	1 658	1 067	1 653
Change (%)	2	4	- 1	7	3	- 2
Third quarter	1 709	780	792	2 014	114	1 667
Change (%)	2	2	6	21	- 89	1
Fourth quarter	1 707	794	959	2 109	1 175	1 707
Change (%)	0	2	21	5	931	2
2008						
First quarter	1 757	845	1 064	2 030	1 261	1 637
Change (%)	3	6	11	- 4	7	- 4
Second quarter	1 844	987	1 104	1 937	1 381	1 610
Change (%)	5	17	4	- 5	10	- 2
Third quarter	1 934	1 170	1 141	1 837	1 644	1 600
Change (%)	5	19	3	- 5	19	- 1
Fourth quarter	1 890	1 196	1 109	1 619	1 731	1 600
Change (%)	- 2	2	- 3	- 12	5	0
2009						
First quarter	1 670	913	853	1 023	1 481	1 325
Change (%)	- 12	- 24	- 23	- 37	- 14	- 17
Second quarter	1 383	802	742	897	1 431	1 168
Change (%)	- 21	- 12	- 13	- 12	- 3	- 12

Source: *"Review of Maritime Transport 2009"*

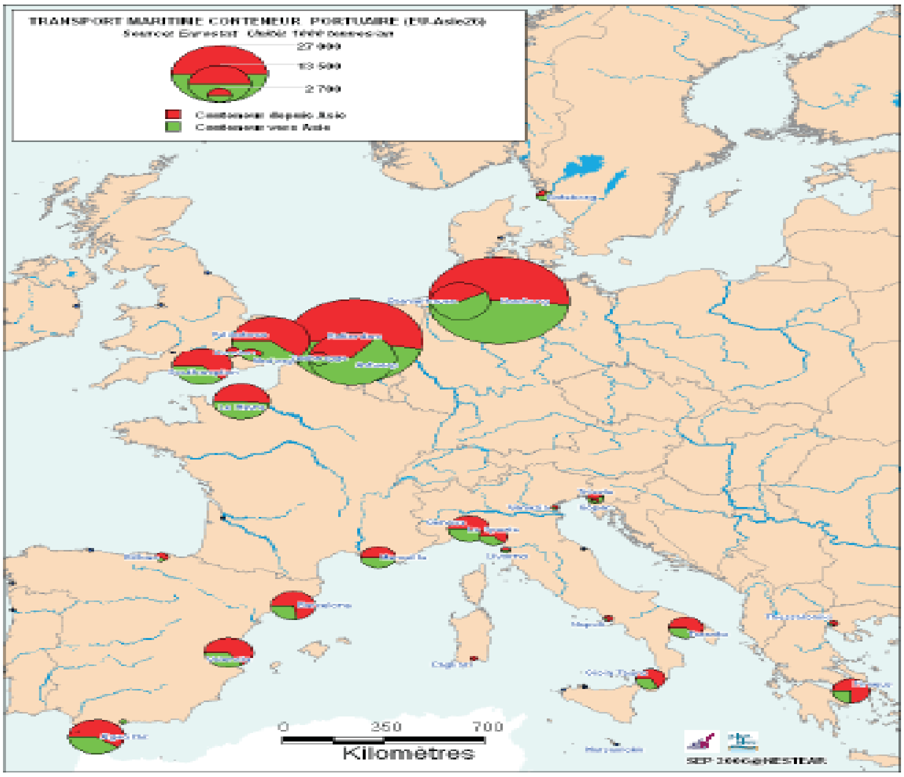
Figure 2.16-Forecast average capacity utilisation



Source*: (Drewry Shipping Consultants Ltd www.drewry.co.uk)*

The growth of trade in Asia triggered the emergence of large main hubs in the Mediterranean, whereas these hubs had previously been located almost exclusively on the northern edge of Europe and once dominated the transatlantic trade, as depicted in Figure 2.17 (Plan Bleu). For the Northern ports, the arrivals of containers loaded in Asia (in red) are slightly higher than the departures (in green). Mediterranean ports clearly receive more from Asia than what they send to thecontinent.

Figure 2.17- Maritime container port transport (EU – Asie-26), 2005 (thousand tons/year)



Source: *Vallouis, Planbleu*

Despite the above, this predominant form of distribution has led to the progressive saturation of ports in Northern Europe, and, thus, many European and Asian logistics operators are gradually beginning to move part of the distribution in Europe towards the South Mediterranean. In addition, distribution from Southern Europe reduces the maritime navigation time of large ships from Asia by three or four days. It is still a slow process, however traffic has been increased in Ports of Barcelona, Marseilles, Genoa.

Landlocked Countries

Of the 31 landlocked developing countries in the world, 12 are located in Asia, while the following 9 take part in the EATL Phase II Study: Afghanistan, Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Mongolia, Tajikistan, Turkmenistan and Uzbekistan.

There has long been evidence that the geographical restraint of lack of access to and great distance from the sea suppressed both per capita income and economic growth. In absolute per capita incomes, the landlocked countries fail to compete against coastal ones, mainly due to their low participation in world trade. Therefore, their dependence on a limited number of commodities for their export earnings, lack of territorial access to the sea and remoteness from world markets makes landlocked developing countries, as a group, among the poorest of developing countries.

For these countries, trade and transport costs relate more to operations than to infrastructure capacity, due to the fragmentation of the supply chain in a poorly regulated transit process. Time-consuming border crossing and customs procedures, complicated non-standard documentation, lack of skills in the transport sector, additional "overheads" for unnecessary services, charges, and bribes, in both the public and private sectors, are some of the factors that can add 50% or more to transport costs between a port and a landlocked country (ESCAP, 2003). As a result, the delivery costs of imports are higher, exports are far less competitive and attraction for foreign investment is significantly reduced.

The Almaty Ministerial Conference in 2003 was the first global venue to specifically address the problems of landlocked developing, launching the Almaty Programme of Action calling for joint efforts by transit and landlocked countries to revise their regulatory frameworks affecting trade movements and to improve their trade-related infrastructure. Since the Almaty Conference, international support to the landlocked countries has increased substantially.

The United Nations General Assembly decided to hold a midterm review of the Almaty Programme of Action in 2008. The midterm review for the Euro-Asian region in particular was held in Bangkok and was attended by 43 participants from landlocked developing countries, transit developing countries, organizations and bodies of the United Nations system, and relevant international and regional organizations. The meeting acknowledged that much work had been undertaken at the national, subregional and regional levels by landlocked and transit developing countries in the implementation of the Almaty Programme of Action. Specific action-oriented recommendations and deliverables aimed at strengthening harmonization of legal regimes, adoption of integrated approach to trade and transport facilitation, elimination of physical and non-physical bottlenecks to transport, and the promotion of integrated training programmes in both public and private sectors, establishing national transit and trade facilitation committees, completing missing links, promoting intermodal transport and developing integrated transport corridors and logistics services, as well as the mobilization of domestic and external resources .

An additional review prepared by the World Bank (2008) concluded that between 2003 and 2007 the export value of landlocked countries more than doubled, while that of transit countries increased rather less, as global exports rose 60%. In addition, per capita incomes increased by about 28 percent, slightly less than the equivalent increase of the transit countries but still well above the global average. Nevertheless, in absolute values, landlocked countries trade and incomes still lag far behind those of the transit countries and the global average.

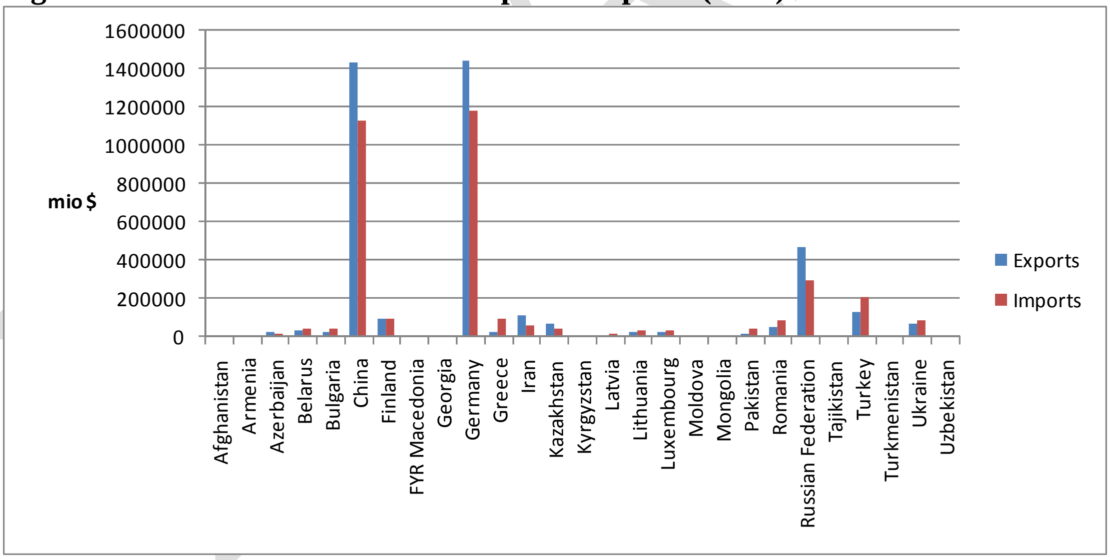
With regard to EATL landlocked countries, recent economic development within Asia, as well as growing intra-regional trade create the demand for these countries to become "land-linking" countries and provide effective transit services to their neighbours. To this end, both landlocked and neighbouring transit countries can benefit from actions taken to increase the efficiency of transit transport and enhance regional cooperation, as is the case of the Euro-Asian Transport links exercise.

MERCHANDISE TRADE AMONG EATL COUNTRIES

Overview

This chapter presents a brief analysis of the merchandise trade volumes amongst the countries participating in the EATL Phase II Study, based on data obtained from the WTO database for year 2008. This data is believed to be a good approximation for representing the general conditions of merchandise trade amongst the EATL countries, since these were collected one year prior to the global economic crisis. Figure 3.1 presents the total merchandise trade of exports and imports of each participating country in millions USD for year 2008. It is evident that China and Germany are the highest exporters/importers within the EATL Phase II participating countries.

Figure 3.1-Merchandise Trade of Exports-Imports (2008)



For the purpose of the analysis, the 27 countries participating in the EATL Phase II Study were grouped in the following three categories:

- *European countries*: Bulgaria, Romania, Finland, Germany, Greece, Latvia, Lithuania, the former Yugoslav Republic of Macedonia, Luxemburg, and Turkey.
- *Asian countries*: Afghanistan, China, Iran, Mongolia and Pakistan.
- *CIS (Commonwealth of Independent States) countries*: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

The European countries participating in the study export among them an average of 90% of goods to other European countries, 4% to Asian countries and 6% to CIS countries. The average import of goods is 78% from other European countries, 12% from Asian countries and 10% from CIS countries. The above are depicted in Figures 3.2 and 3.3. It is evident that the vast majority of the European countries' trade is taking place within the region itself.

Figure 3.2-European EATL Countries Exports

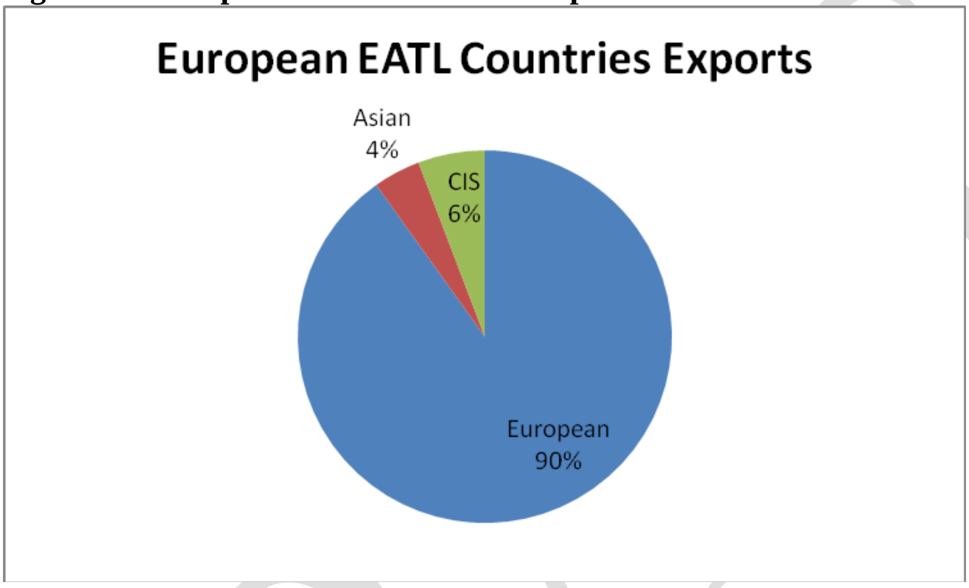
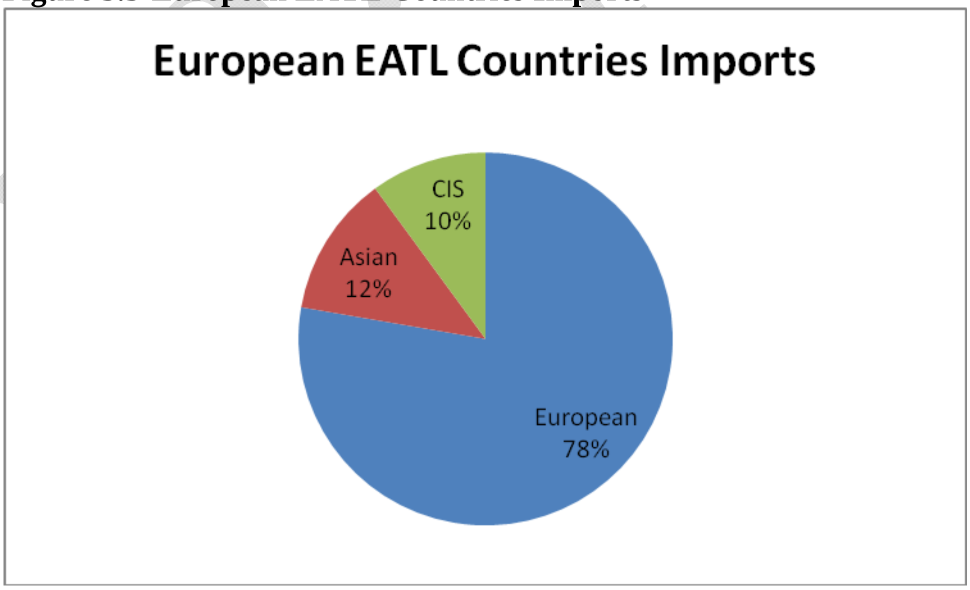


Figure 3.3-European EATL Countries Imports



The Asian countries of the EATL study export among them an average of 99% of goods to European countries, and 1% to other Asian countries. Their average import of goods is 58% from European countries, 42% from other Asian countries and approximately 1% from CIS countries. The above figures are depicted in Figures 3.4 and 3.5. The high percentage of Asian exports to Europe represents mainly China's domination in Asia's trade with Europe. On then other hand, imports are far more balanced between Europe and Asia, stipulating the growth of Asia's intra-regional trade.

Figure 3.4-Asian EATL Countries Exports

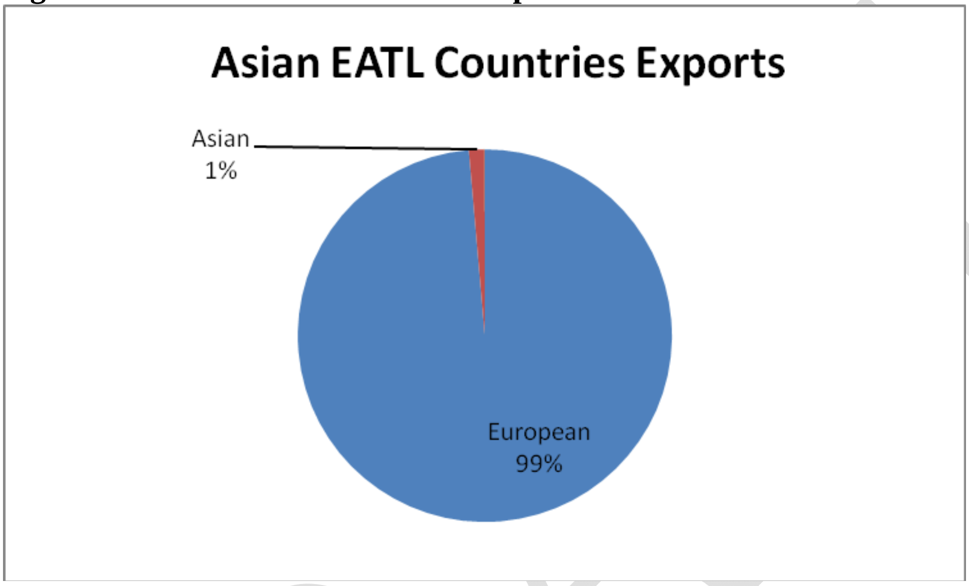
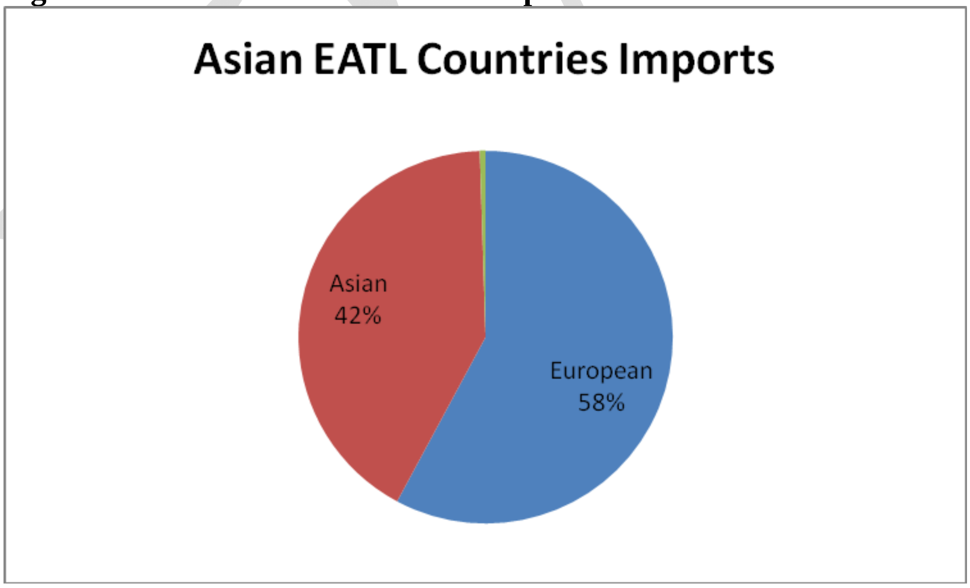


Figure 3.5- Asian EATL Countries Imports



The CIS countries of the EATL study export among them an average of 76% of goods to European countries, 6% to Asian countries and 18% to other CIS countries. Their average import of goods is 55% from European countries, 15% from Asian countries and 30% from other CIS countries, as depicted in Figures 3.6 and 3.7.

Figure 3.6-CIS EATL Countries Exports

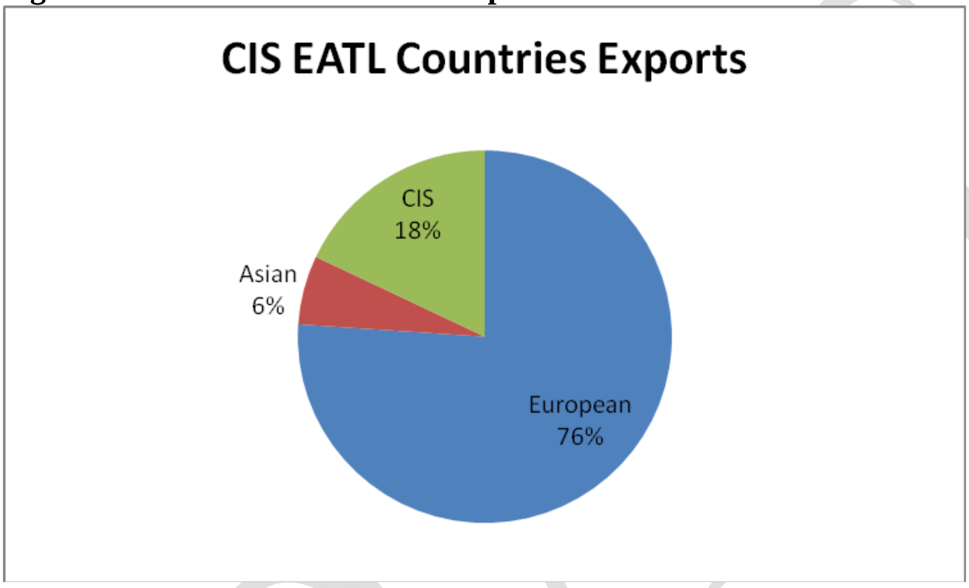
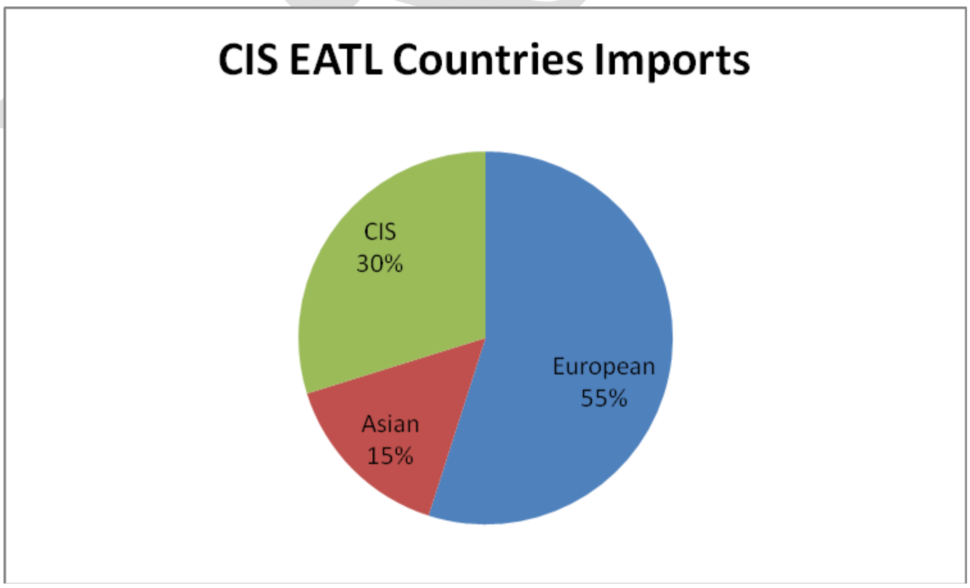


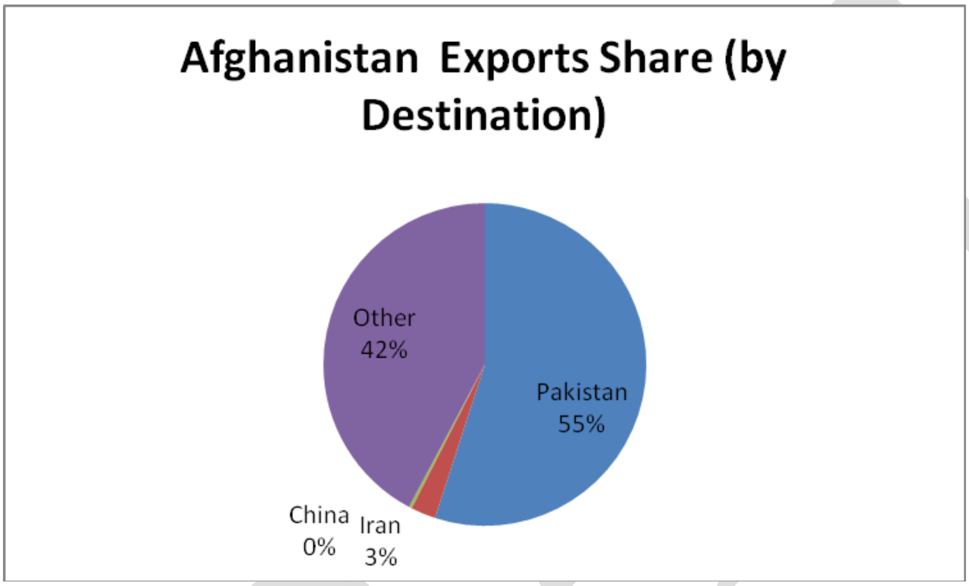
Figure 3.7- CIS EATL Countries Imports

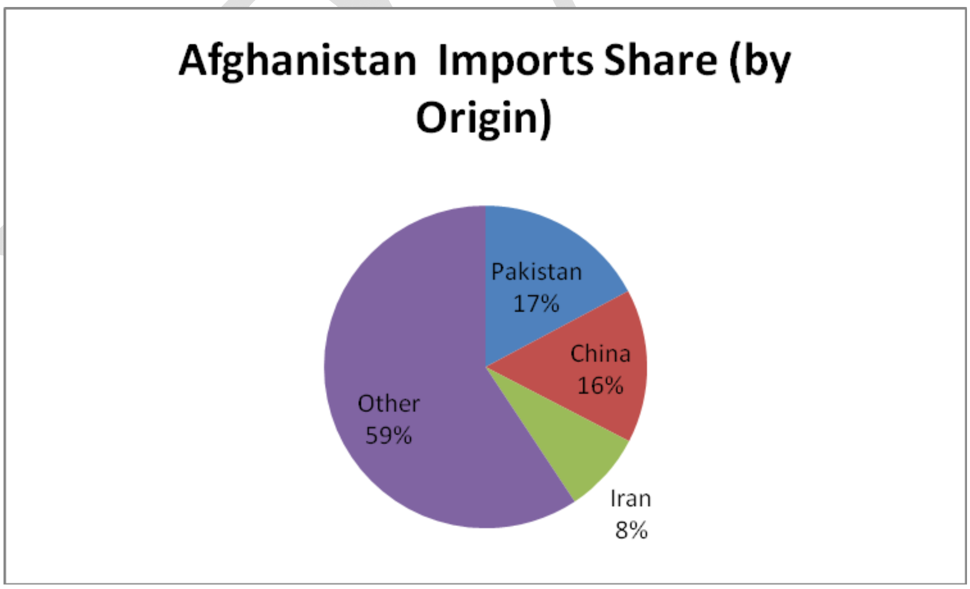


The above illustrate that the highest share of EATL CIS countries' exports and imports is to and from the European countries. Nevertheless, a fair amount of intra-regional trade is taking place within the CIS countries, in the imports domain in particular. Trade with Asian countries has the lowest share, albeit not negligible.

The breakdown of exports share by destination and imports share by origin is presented for each country in the following.

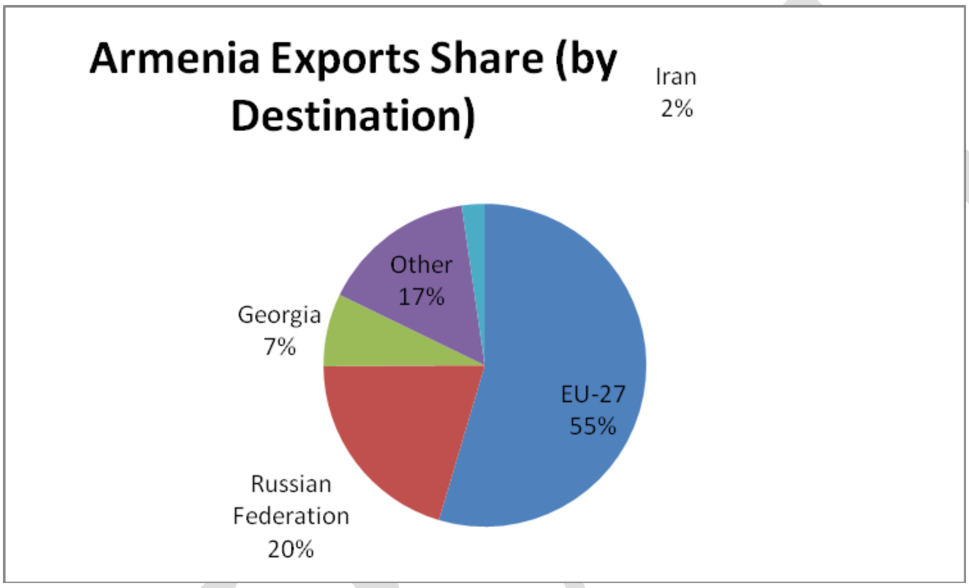
Afghanistan

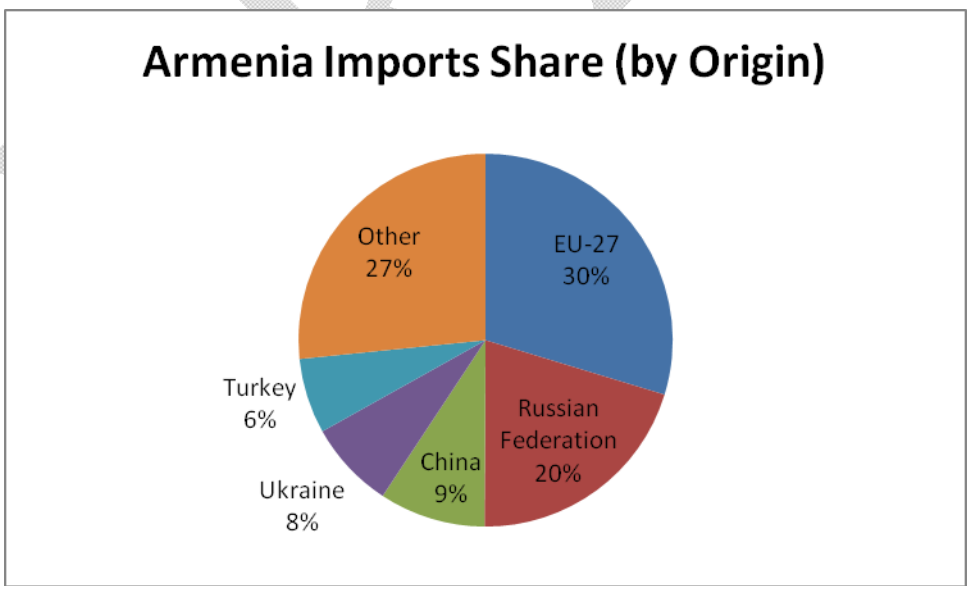




Afghanistan's highest share of exports of goods is to Pakistan, whilst the country's highest share of imported goods is from countries other than those participating in the EATL Phase II Study.

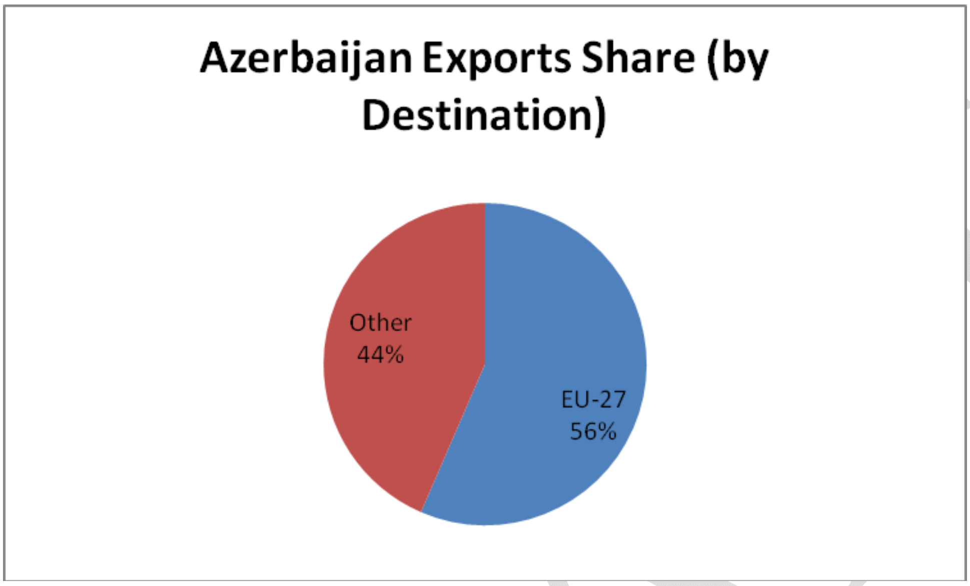
1.1.Armenia

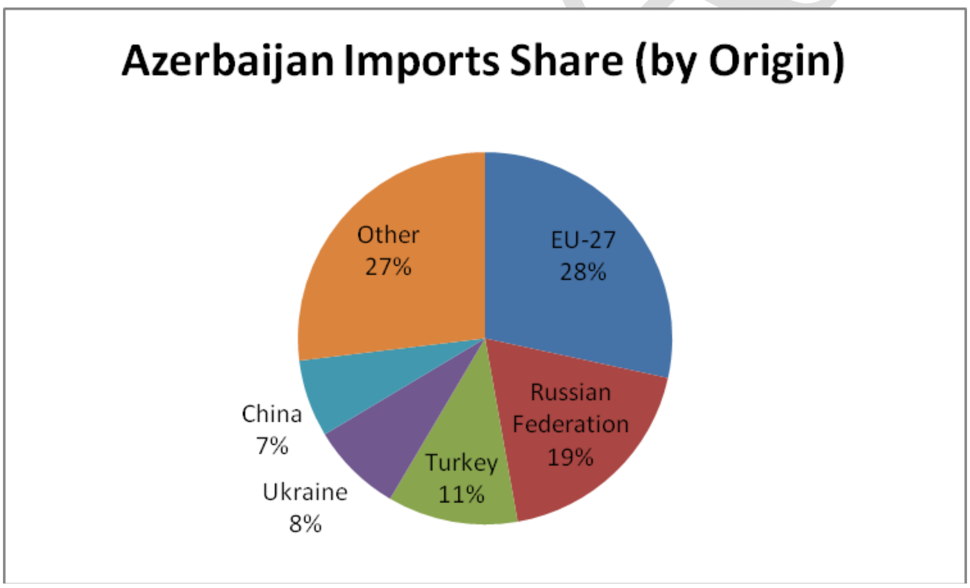




Armenia's highest share of exports, as well as imports of goods is to and from the EU.

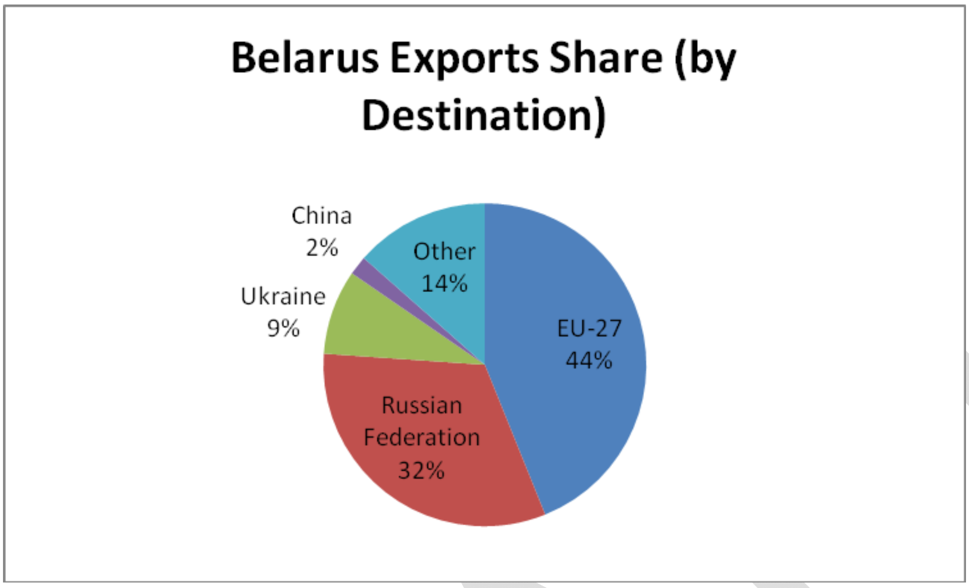
Azerbaijan

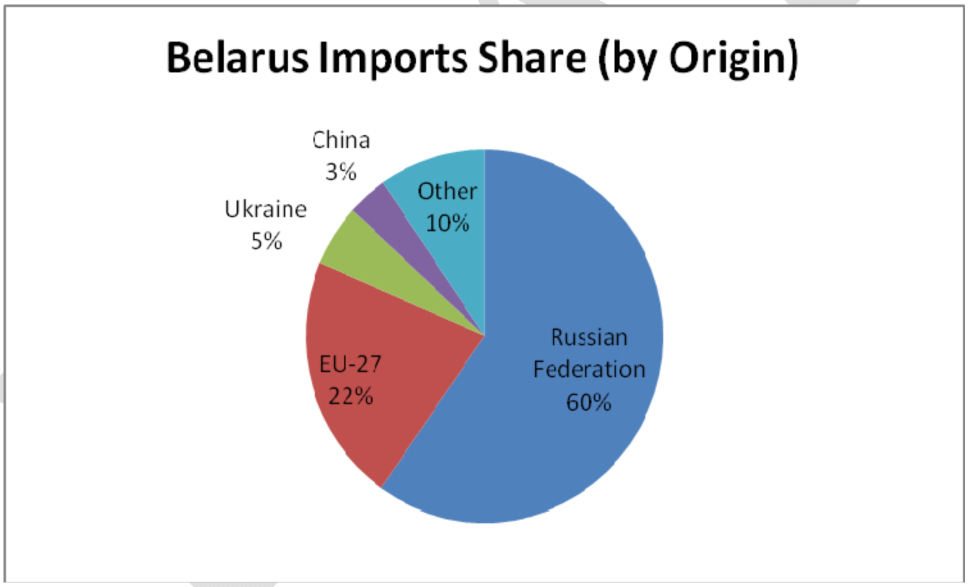




Azerbaijan's highest share of exports, as well as, imports of goods is to and from the EU.

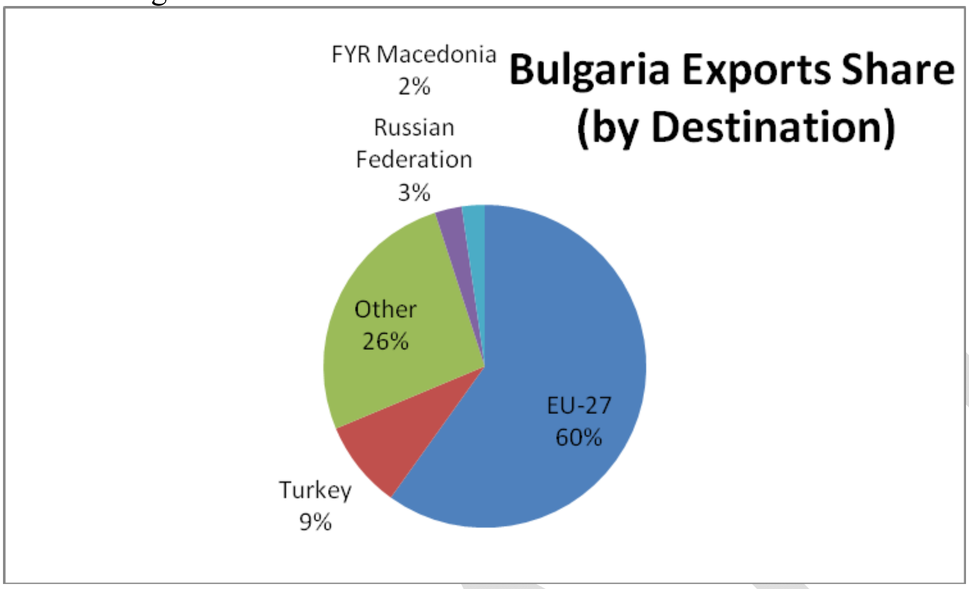
Belarus

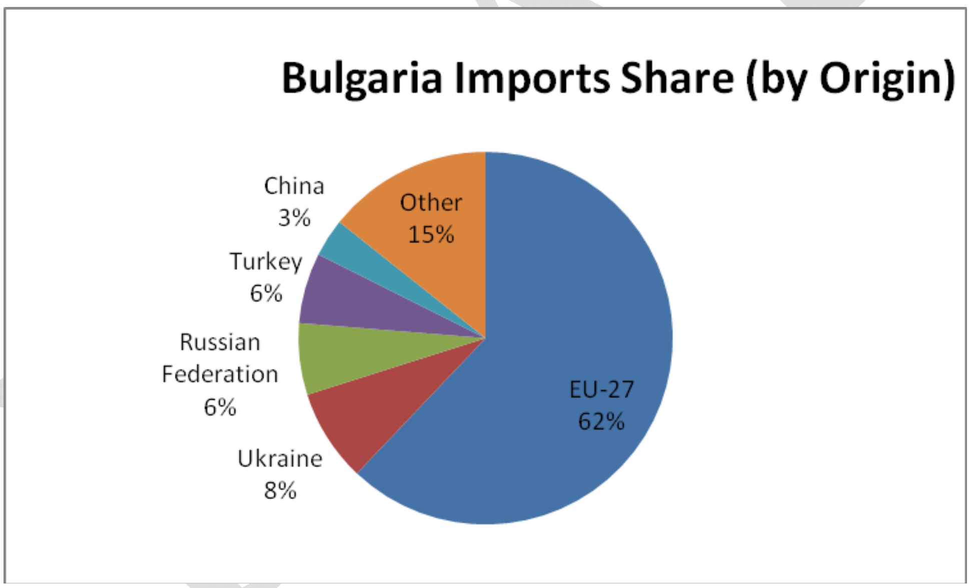




Belaru's highest share of exports of goods is to the EU, whilst its imports' one is from the Russian Federation.

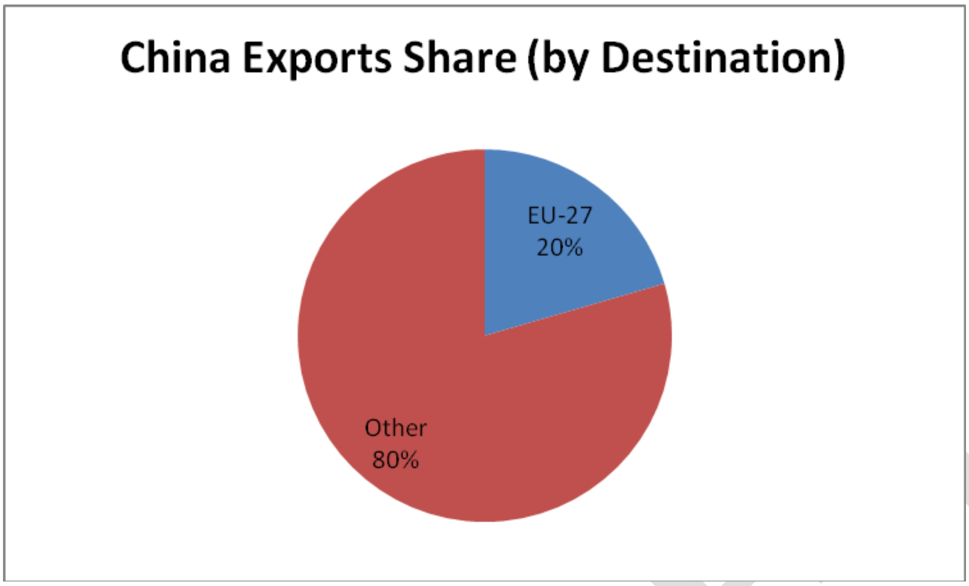
Bulgaria

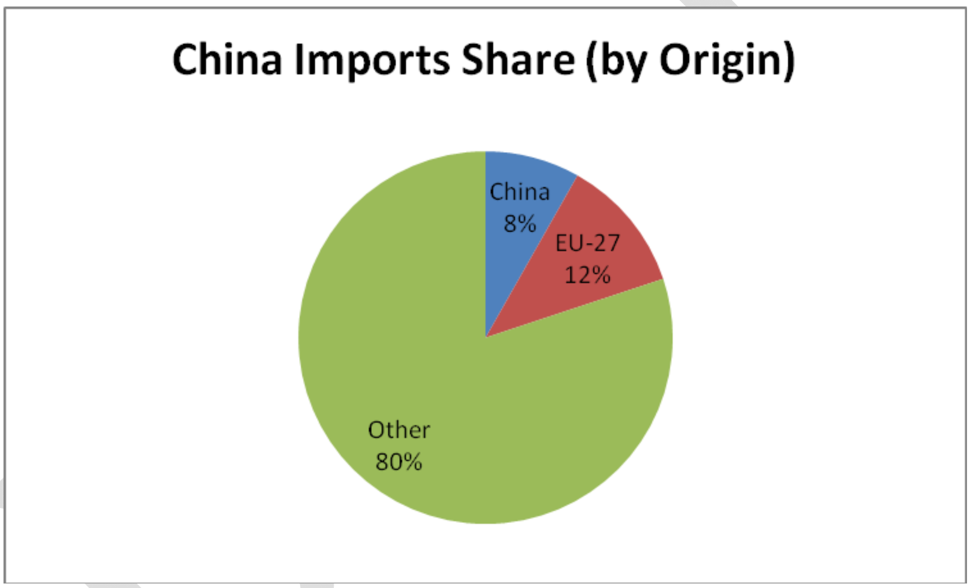




Bulgaria's highest share of exports, as well as, imports of goods is to and from the EU.

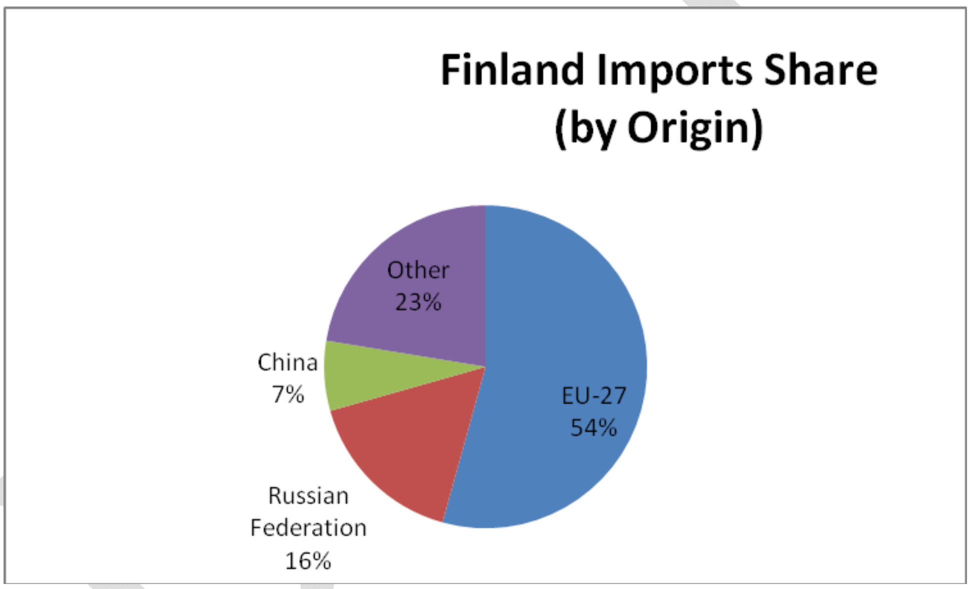
China





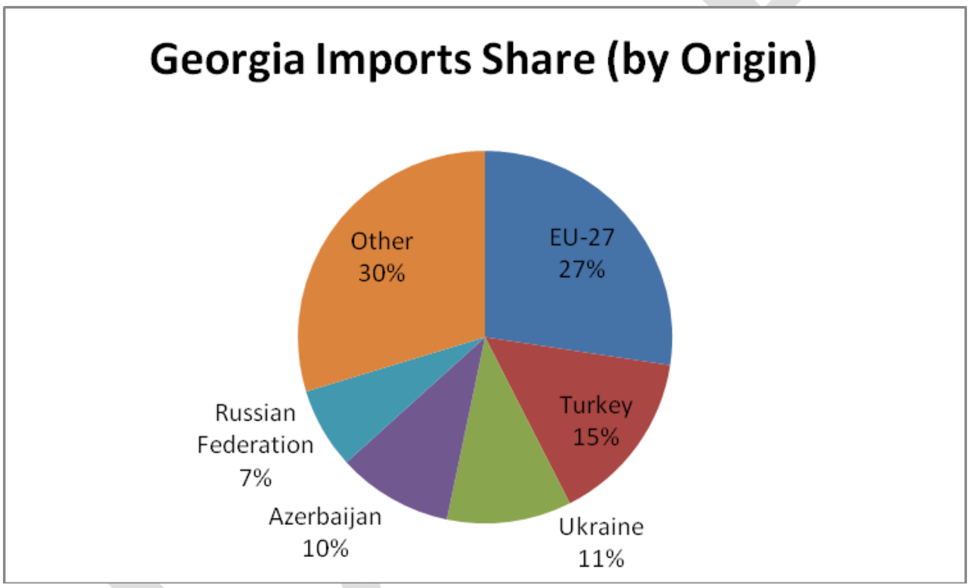
China’s highest share of exports, as well as, imports of goods is to and from countries other than those participating in the EATL Phase II Study (such as the US, Japan, Korea). A fair share represents the country’s trade with the EU.

Finland



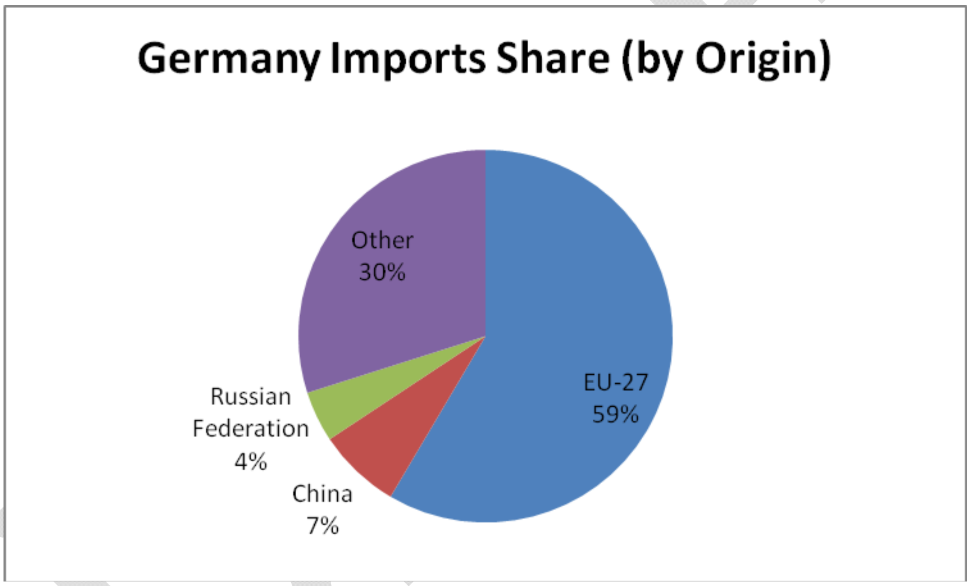
Finland’s highest share of exports, as well as, imports of goods is to and from the EU. It should be also noted the trade with Russian Federation is not negligible.

Georgia



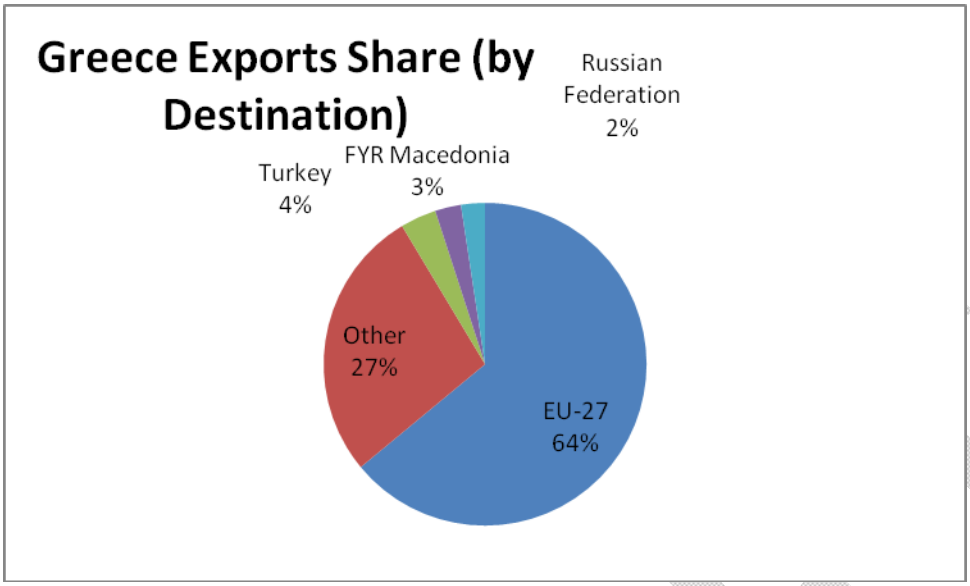
Georgia's highest share of exports, as well as, imports of goods is to and from countries other than those participating in the EATL Phase II Study. Nevertheless, a fair percentage of both exports and imports is between the EU and Turkey.

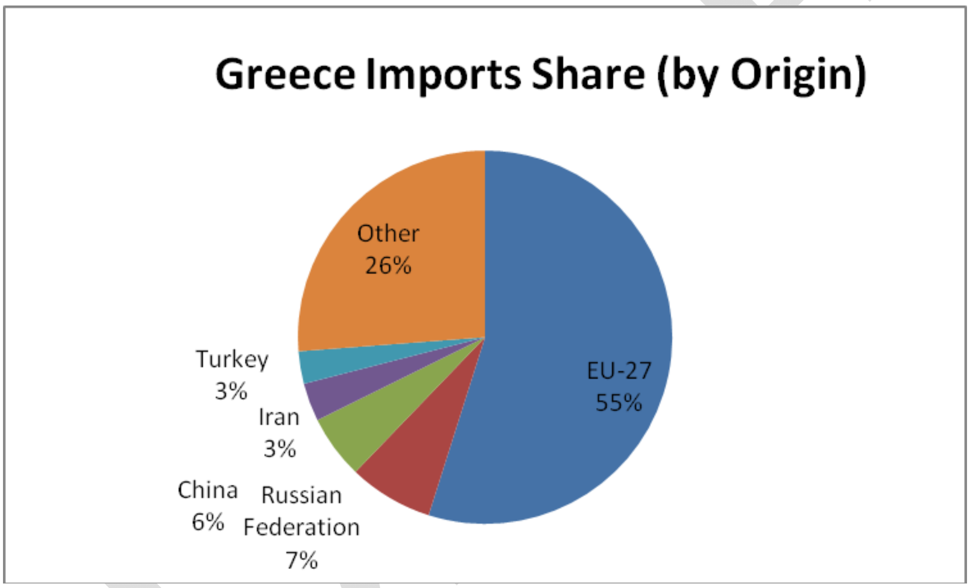
Germany



Germany's highest share of exports, as well as, imports of goods is to and from the EU.

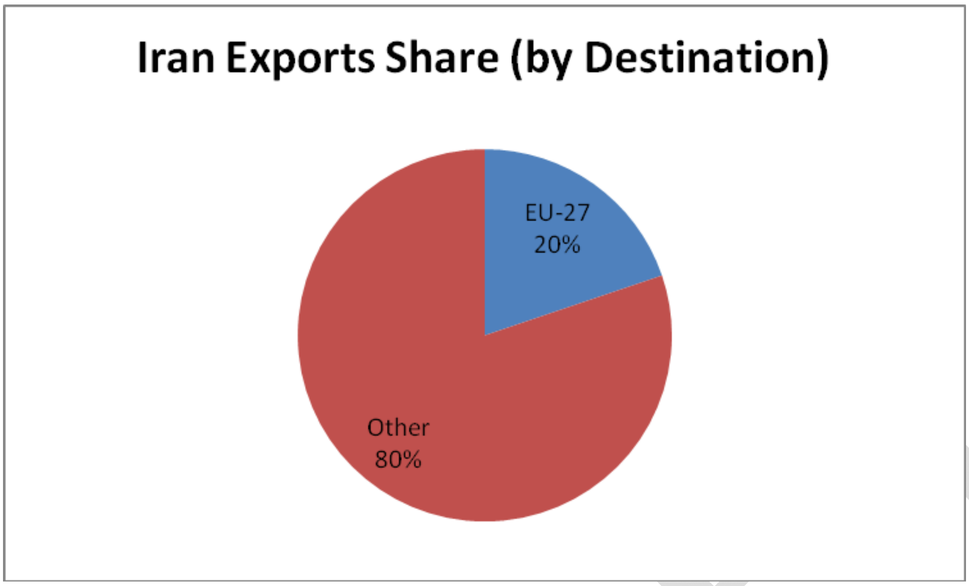
Greece

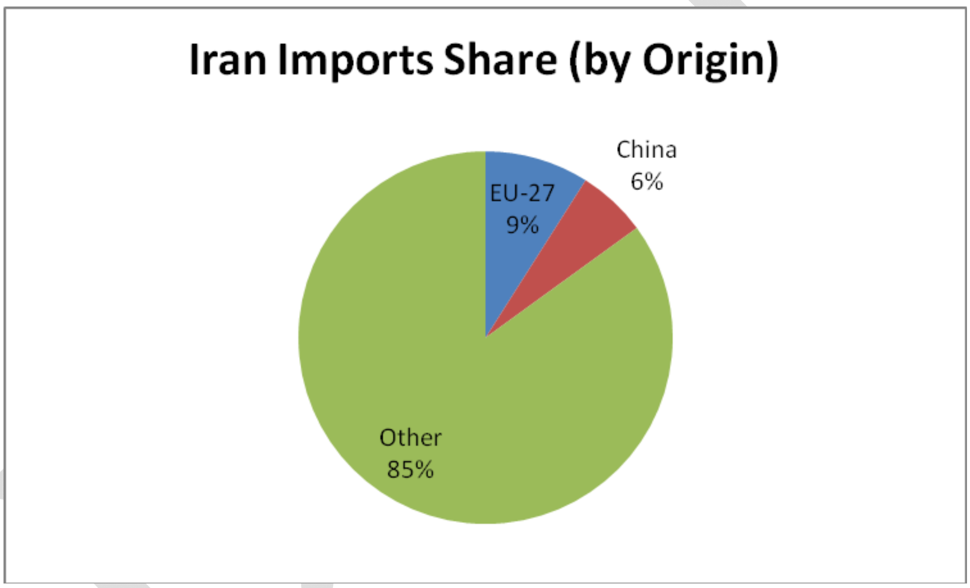




Greece's highest share of exports, as well as, imports of goods is to and from the EU.

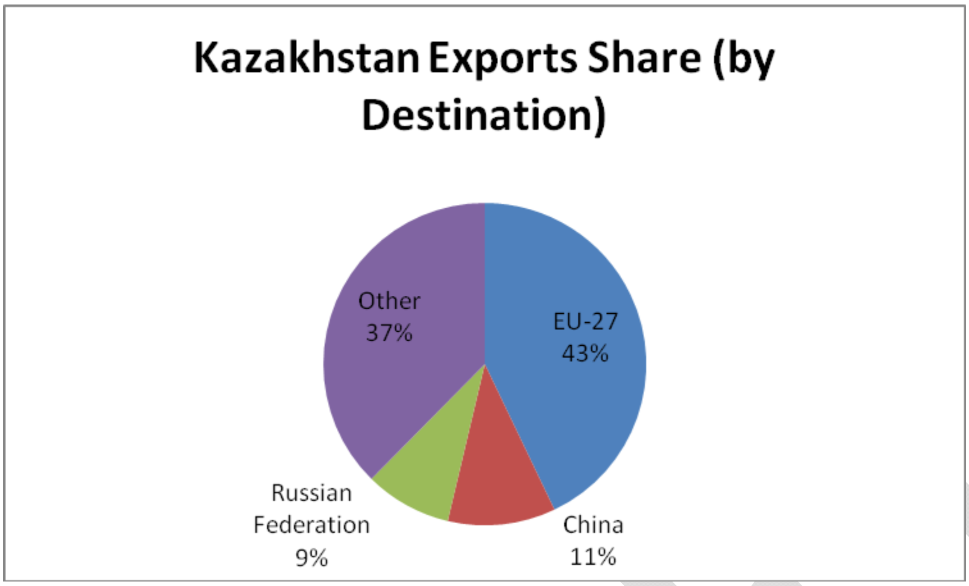
Iran

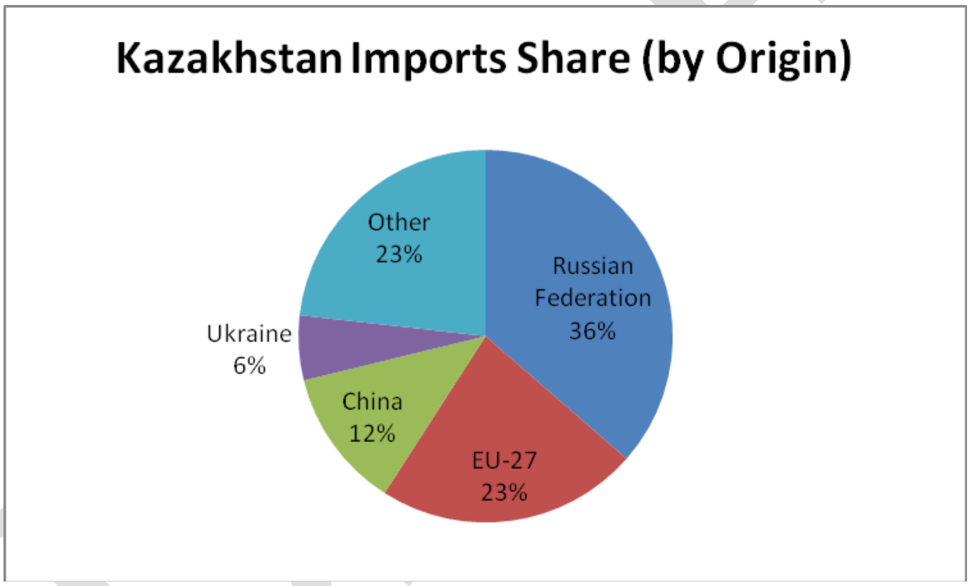




Iran's highest share of exports, as well as, imports of goods is to and from countries other than those participating in the EATL Phase II Study (such as India, Japan, United Arab Emirates). A fair share of trade is, however, conducted with the EU.

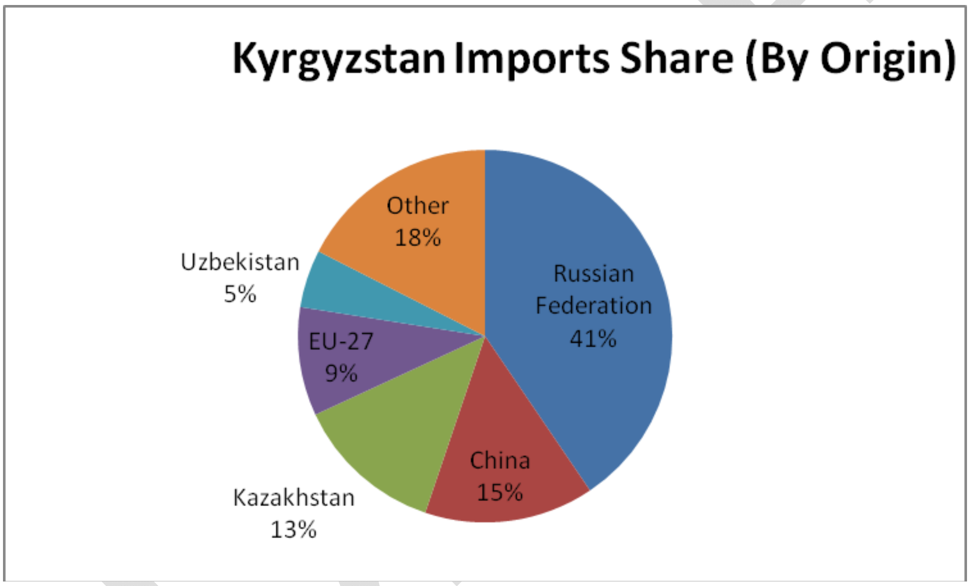
Kazakhstan





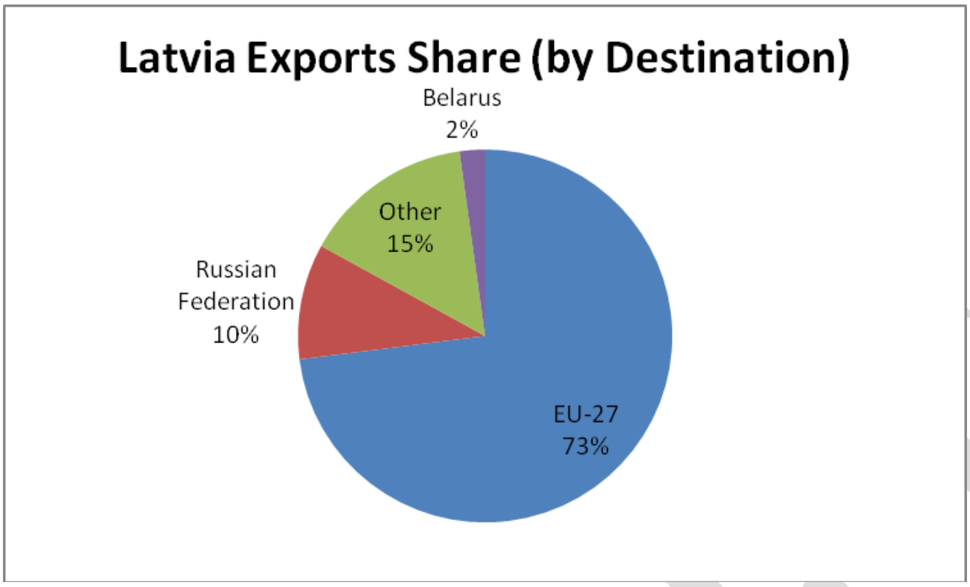
Kazakhstan's highest share of exports of goods is to the EU, whilst the country's highest share of imported goods is from Russian Federation.

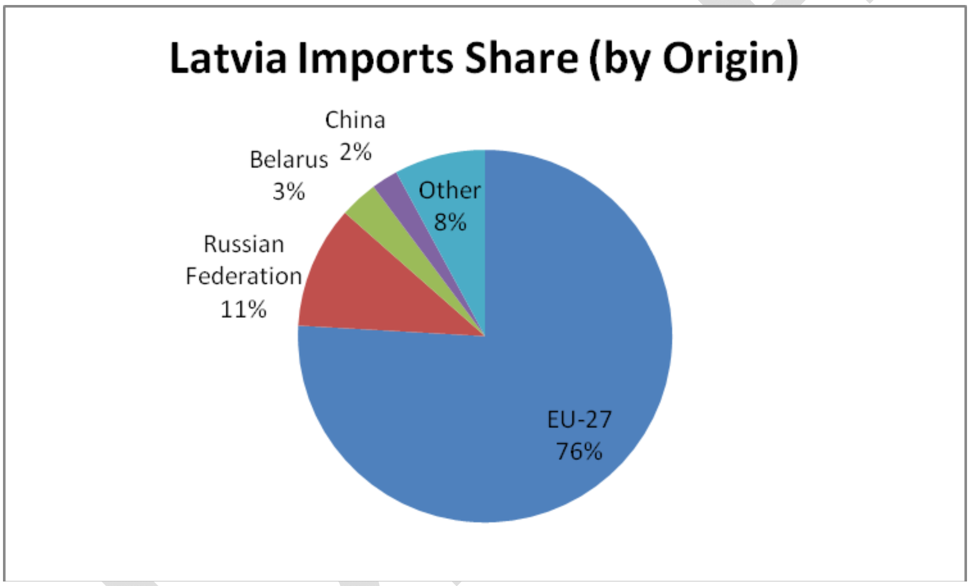
Kyrgyzstan



Kyrgyzstan's highest share of exports of goods is to countries other than those participating in the EATL Phase II Study, whilst the country's highest share of imported goods is from Russian Federation.

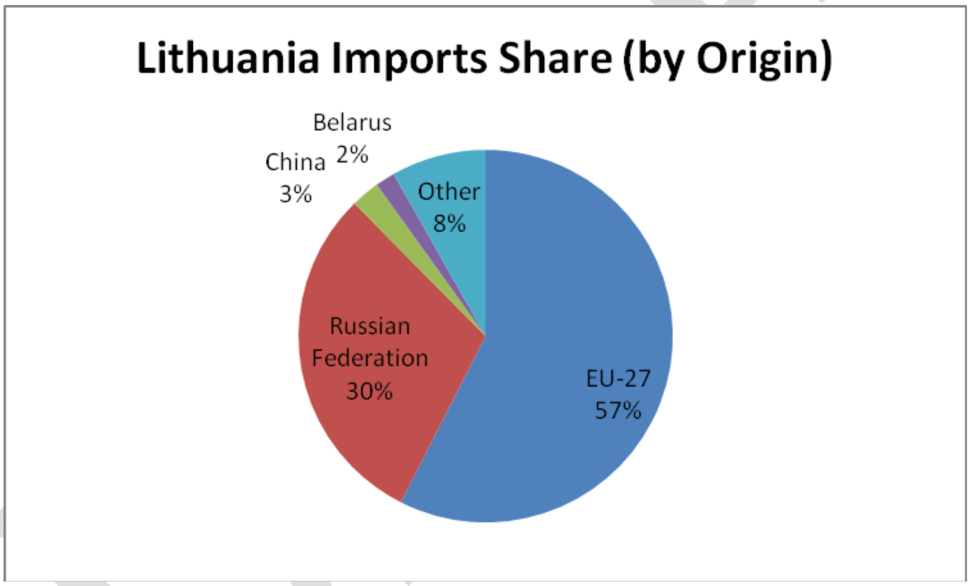
Latvia





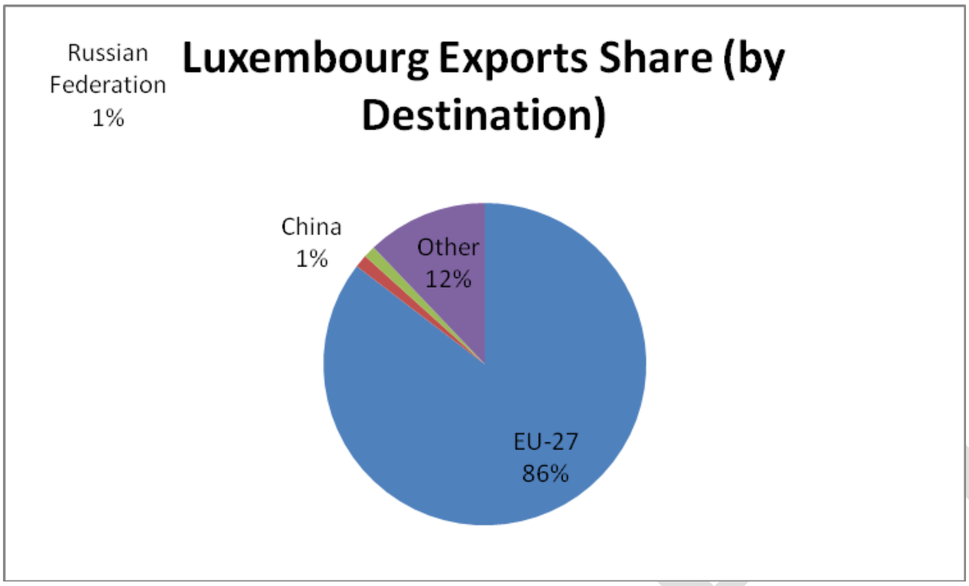
Latvia’s highest share of exports, as well as, imports of goods is to and from the EU. Exports are imports to and from Russian Federation should also be noted.

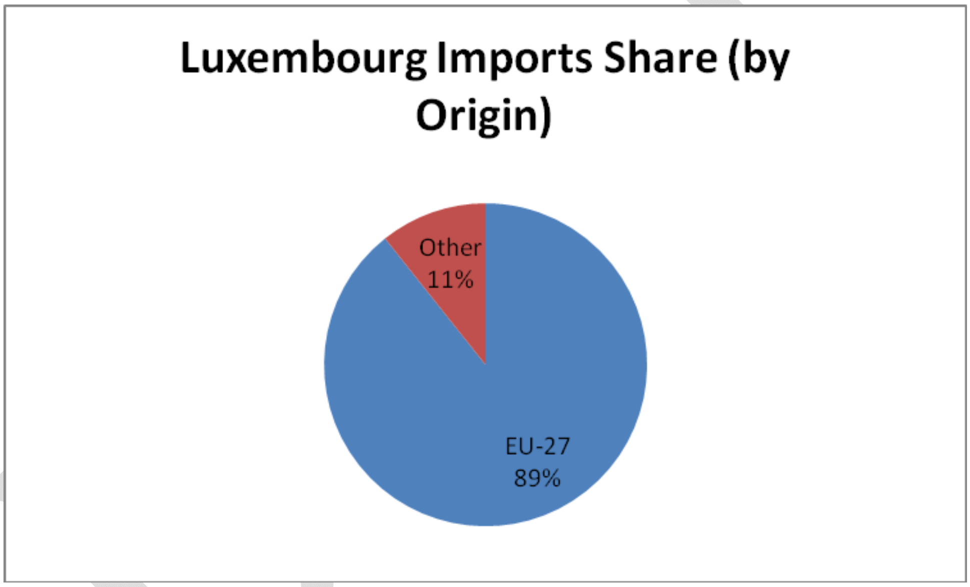
Lithuania



Lithuania's highest share of exports, as well as, imports of goods is to and from the EU.

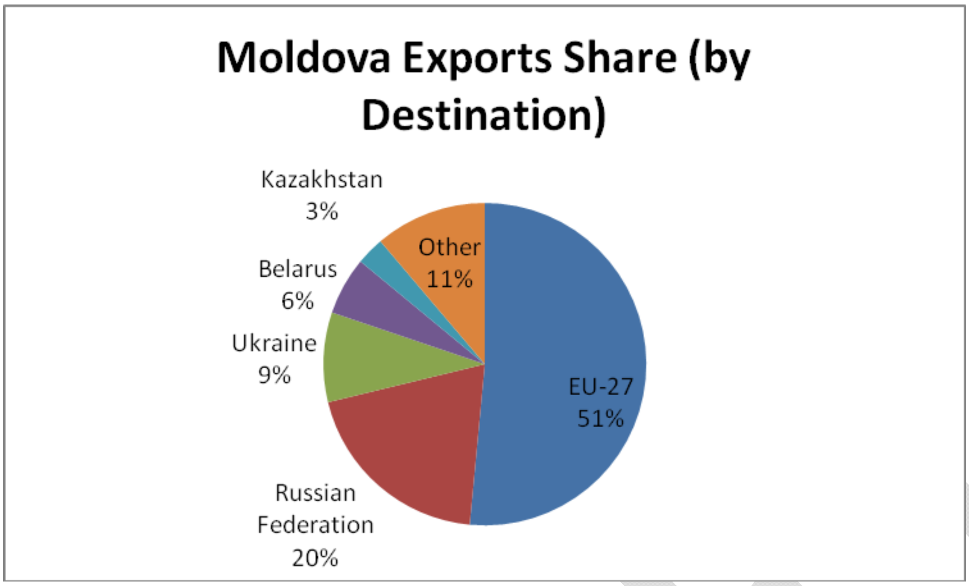
Luxembourg

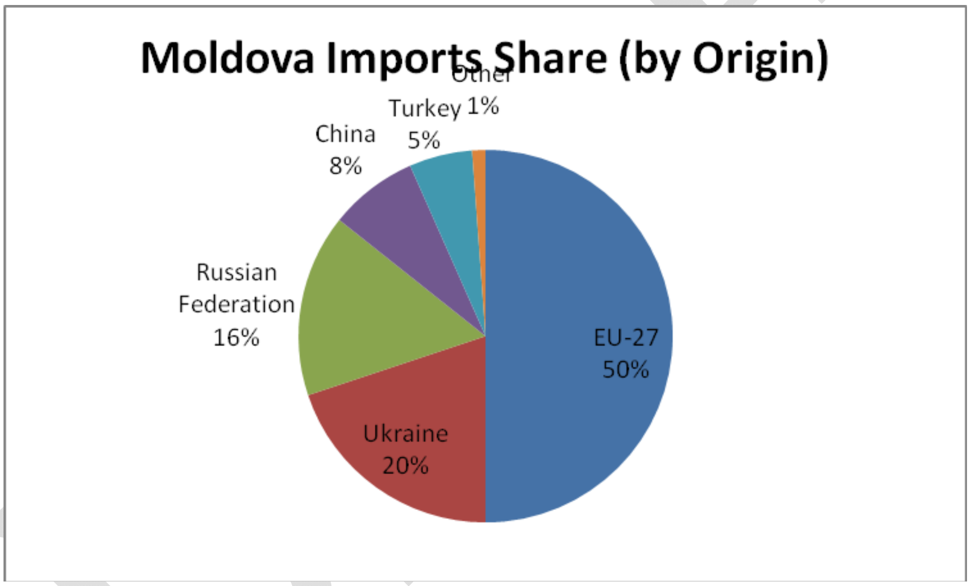




Luxembourg's highest share of exports, as well as, imports of goods is to and from the EU.

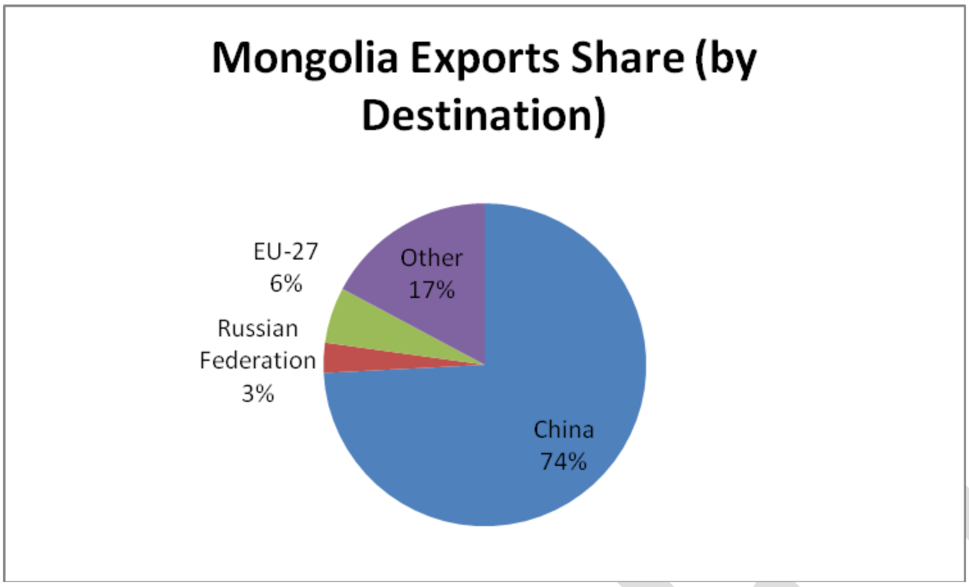
Moldova

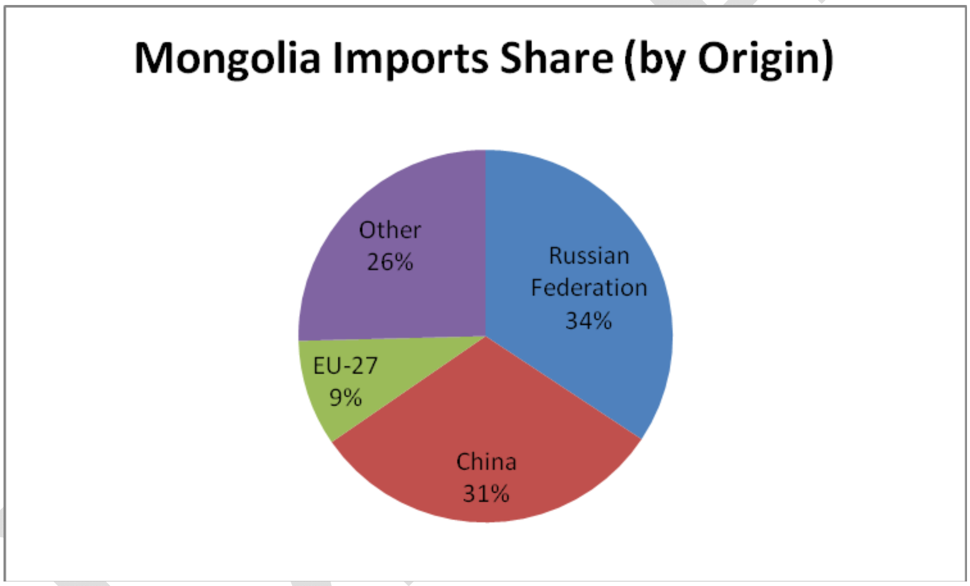




Moldova's highest share of exports, as well as, imports of goods is to and from the EU. Neverthelles, Moldova is trading with other CIS countries, such as the Russian Federation and the Ukraine.

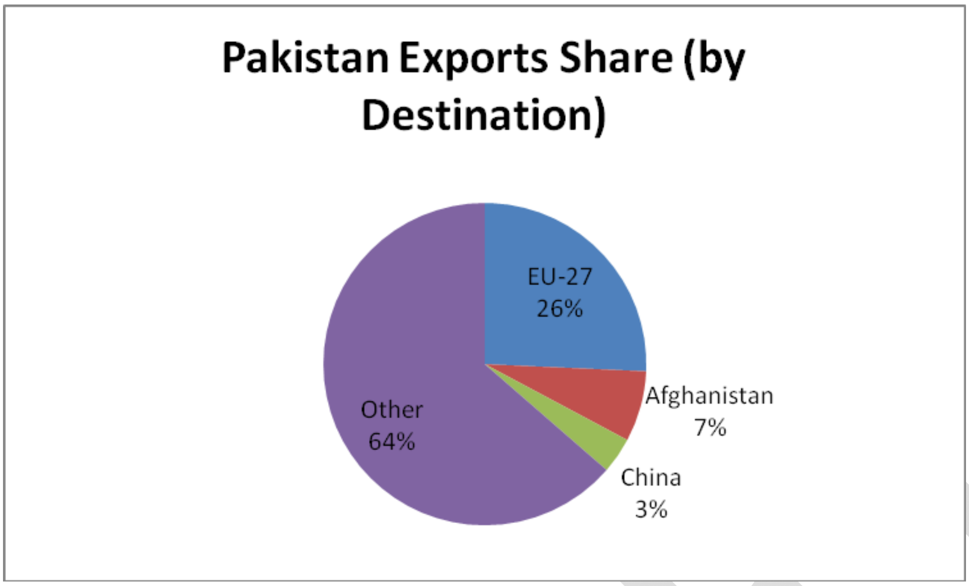
Mongolia

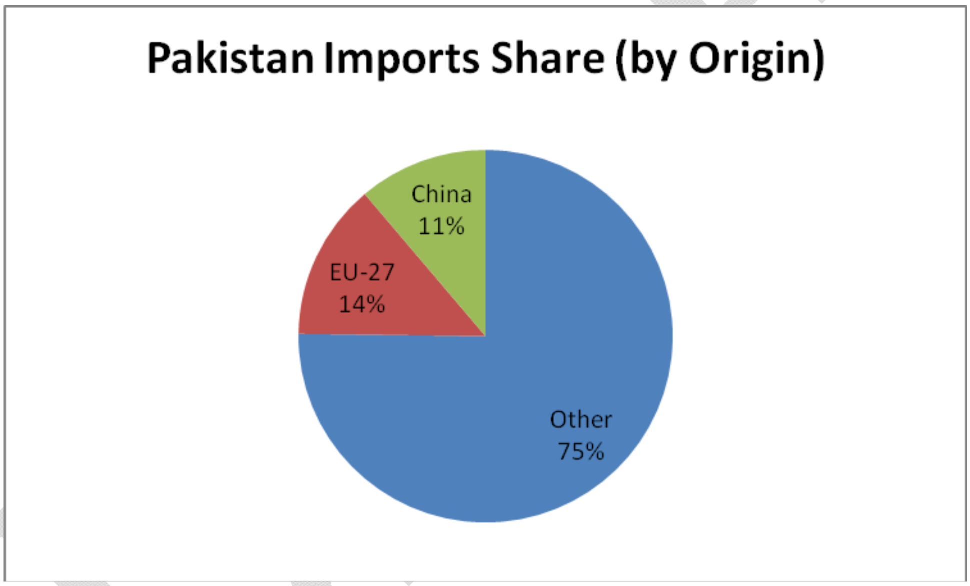




Mongolia's highest share of exports is to China, whilst its highest share of imports from the Russian Federation.

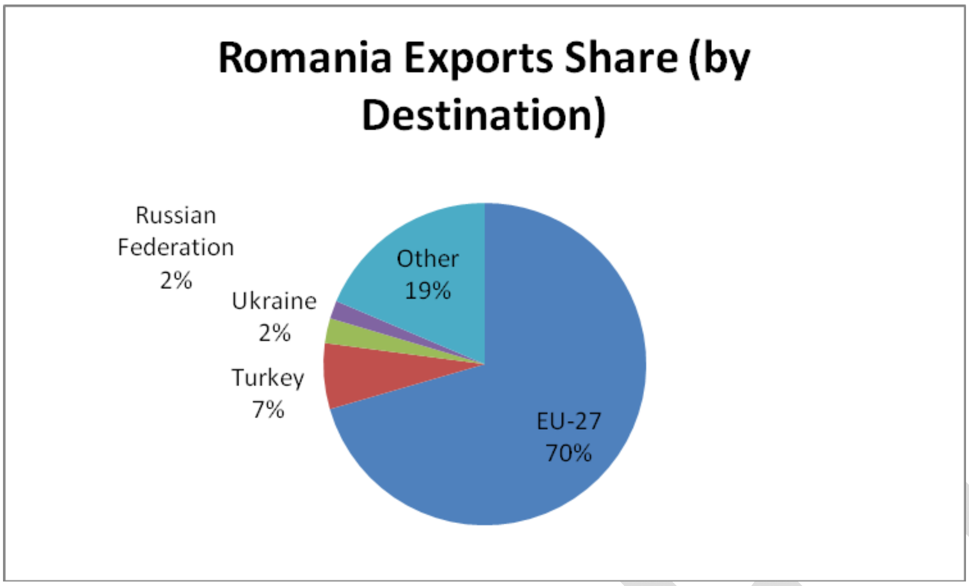
Pakistan

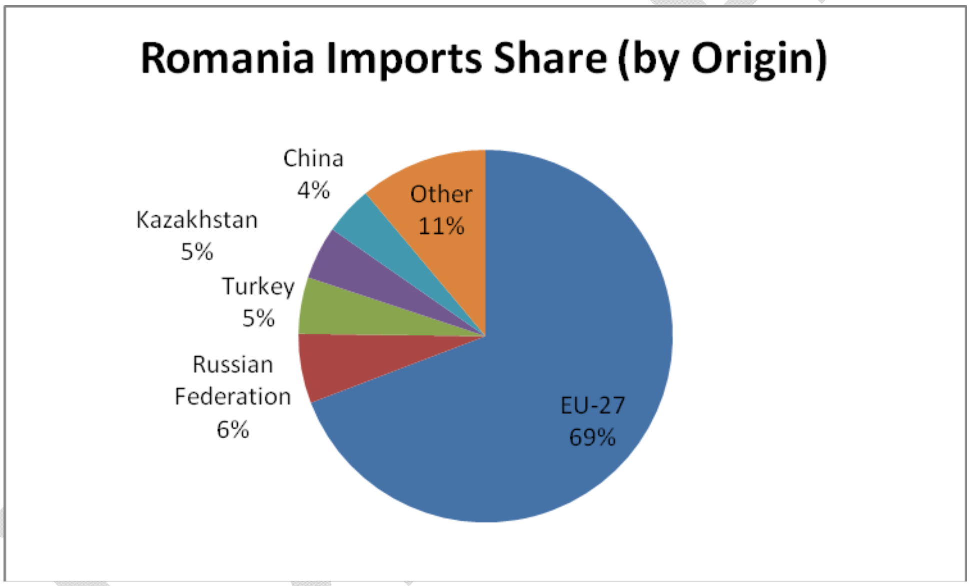




Pakistan's highest share of exports, as well as imports of goods is to and from countries other than those participating in the EATL Phase II Study (such as US and Saudi Arabia, United Arab Emirates). A fair percentage of trade is conducted with the EU too.

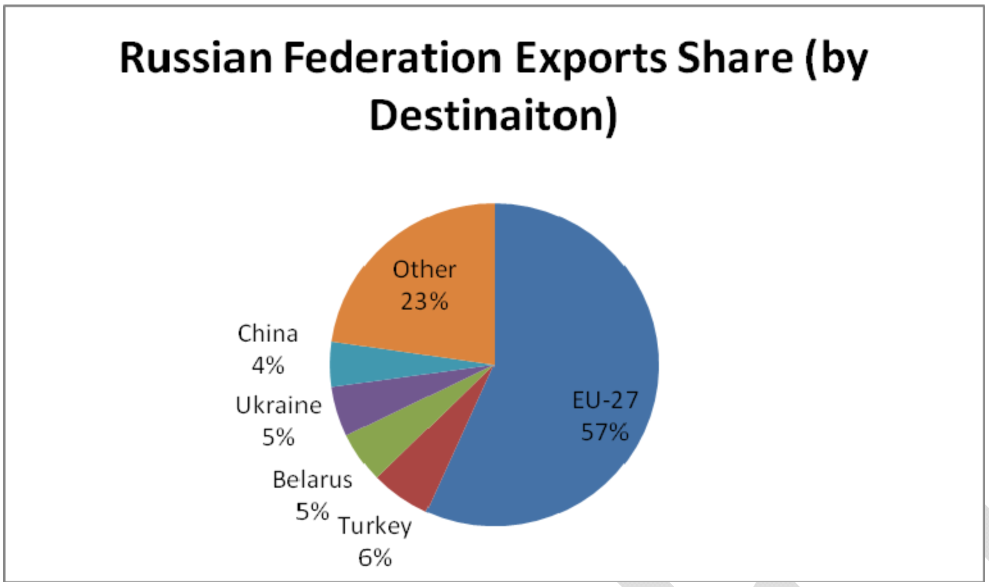
Romania

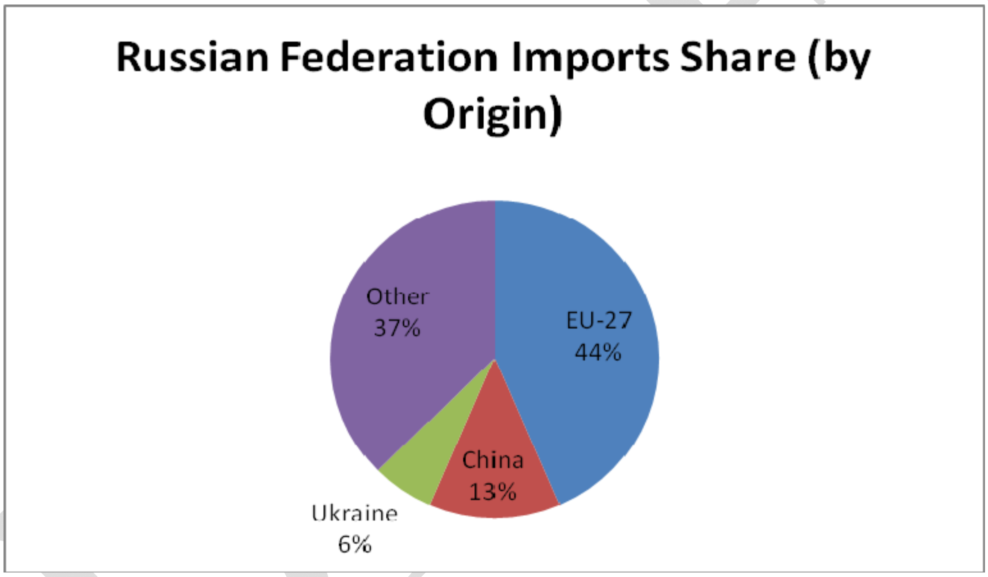




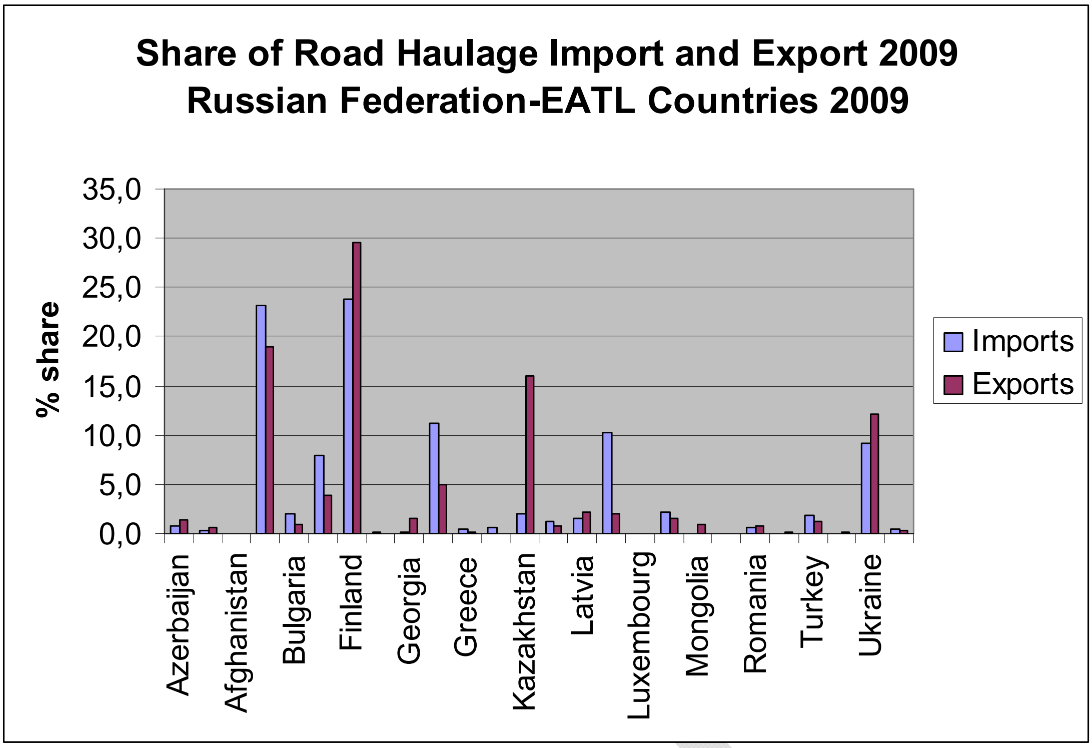
Romania's highest share of exports, as well as, imports of goods is to and from the EU.

Russian Federation



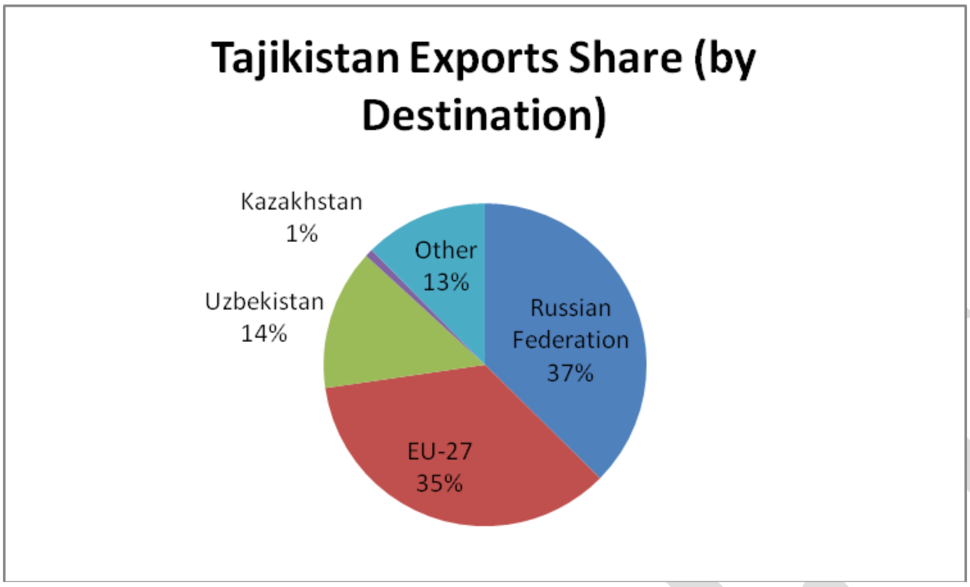


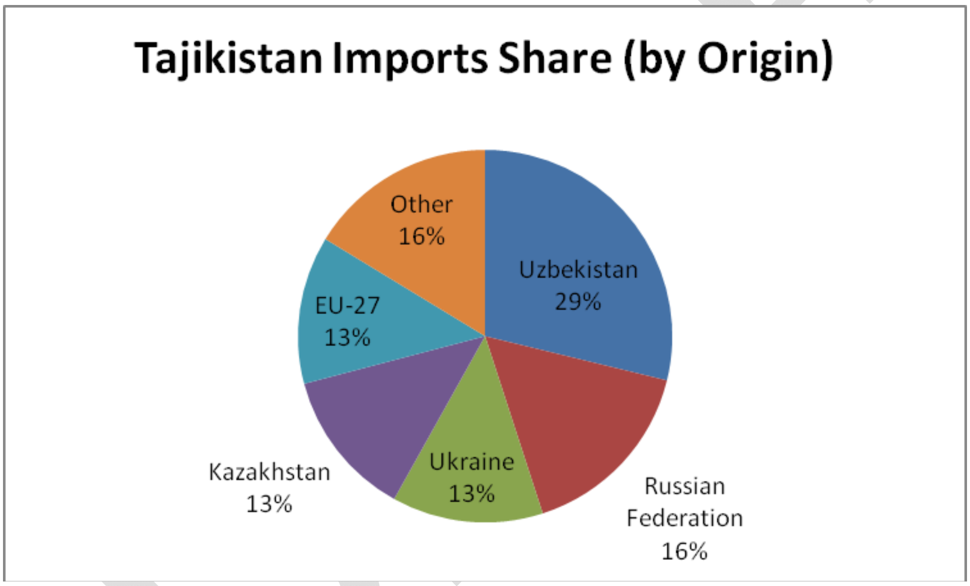
Russian Federations's highest share of exports, as well as, imports of goods is to and from the EU. In addition, the diagram below depicts the percentage share of Russian Federation's imports and exports transported by road to the rest of the EATL countries for year 2009, as these were provided by the national representative. It is evident that the highest share of trade is with Finland, Belarus, China, Germany and the Ukraine.



Source: *National Focal Point*

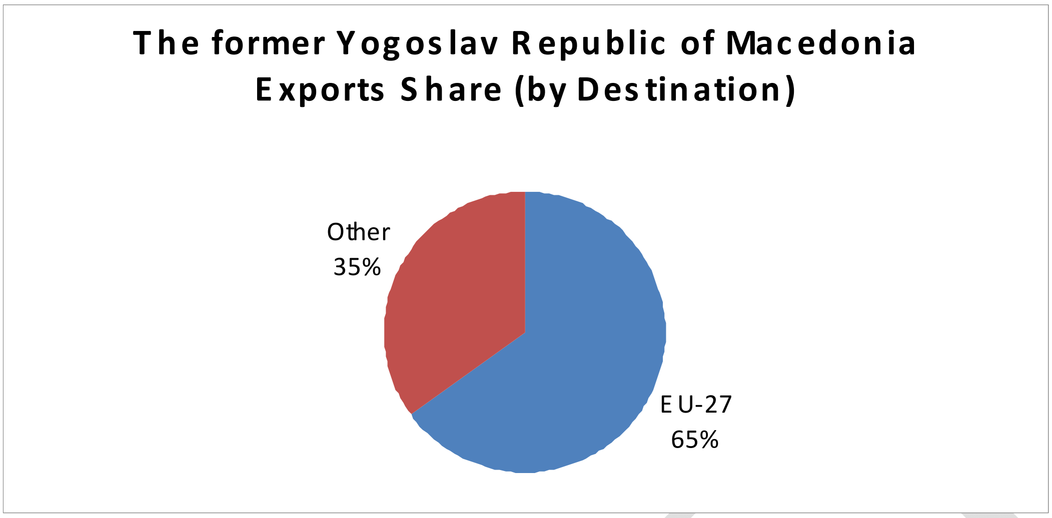
Tajikistan

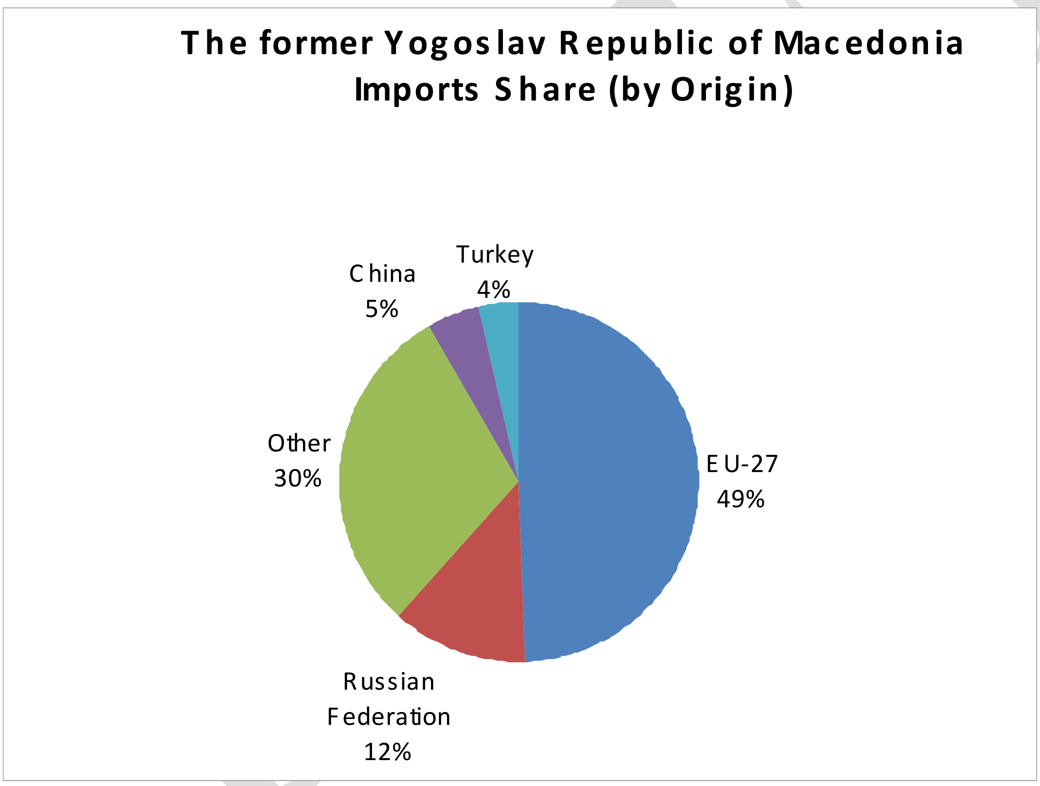




Tajikistan's highest share of exports is to the Russian Federation, whilst its highest share of imports is from Uzbekistan. Also, a fair share of exports are to the EU.

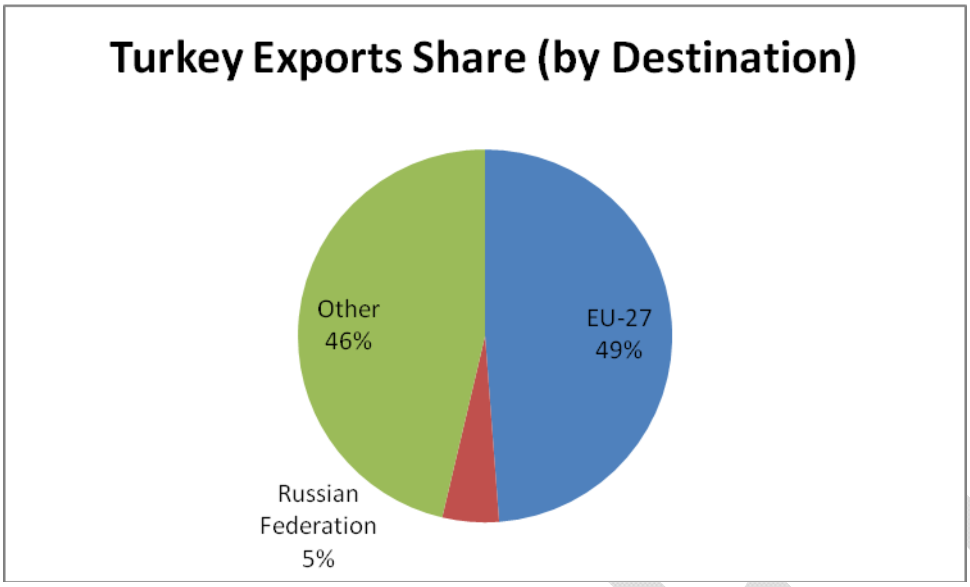
The former Yugoslav **Republic of Macedonia**

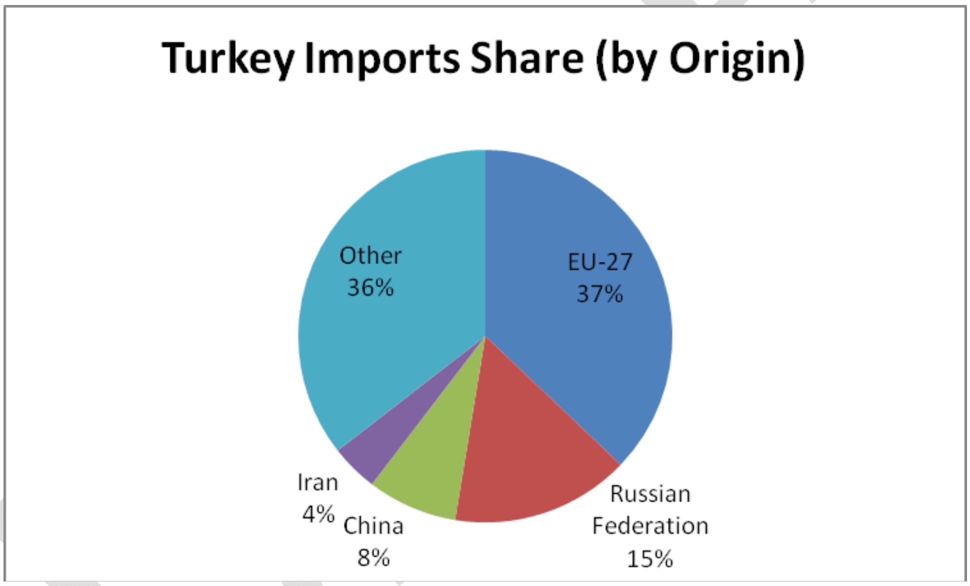




The former Yugoslav Republic of Macedonia's highest share of exports, as well as, imports of goods is to and from the EU.

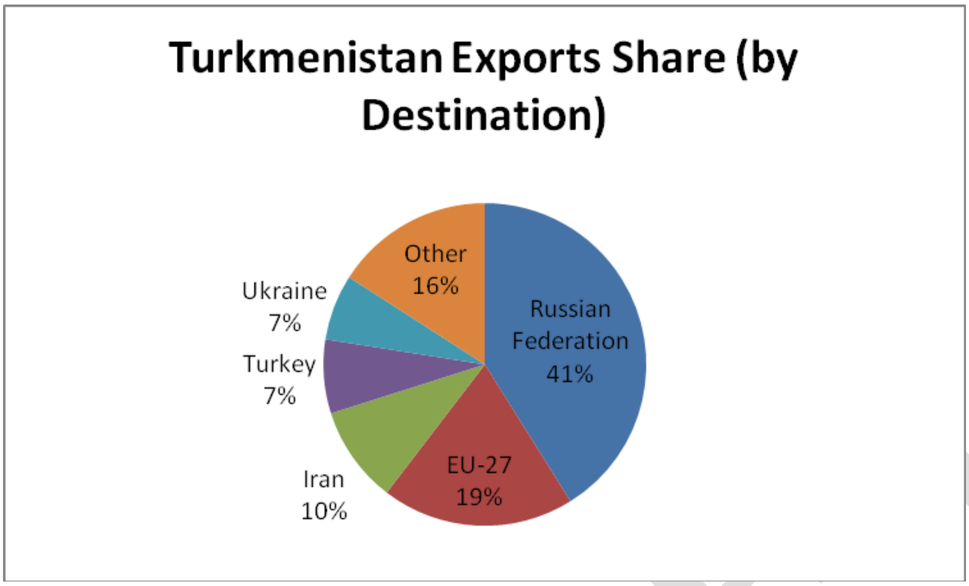
Turkey

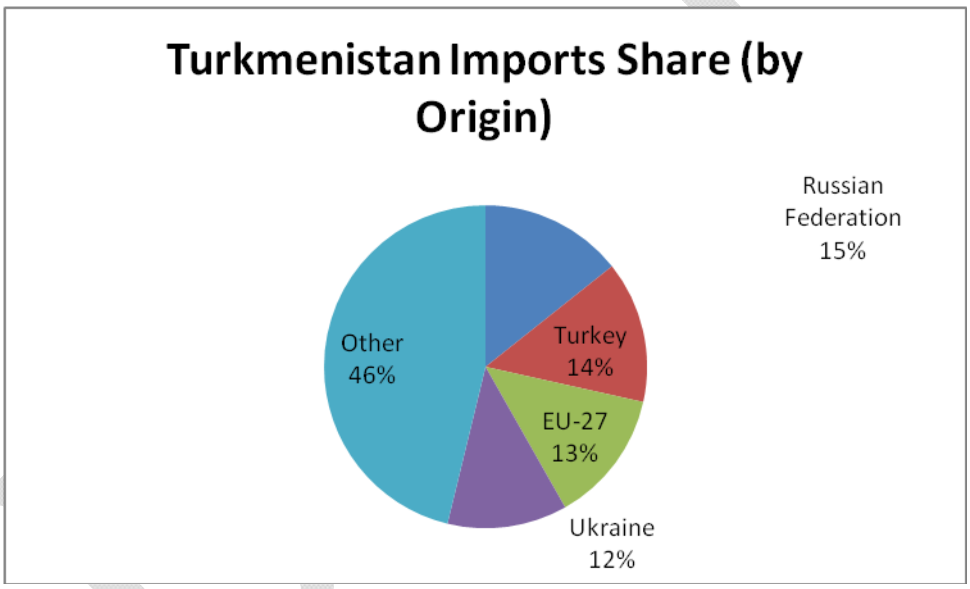




Turkey highest share of exports, as well as, imports of goods is to and from the EU.

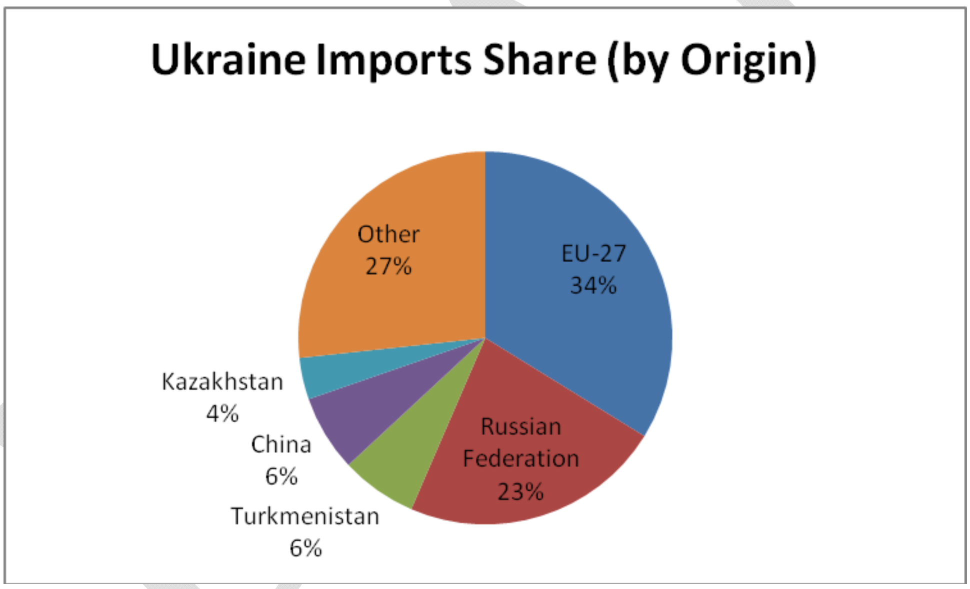
Turkmenistan





Turkmenistan's highest share of exports is to the Russian Federation, whilst its highest share of imports is from countries other than those participating in the EATL Phase II study.

Ukraine



Ukraine's highest share of exports, as well as, imports of goods is to and from the EU. Trade with the Russian Federation is also reported.

Uzbekistan

No data is available for the merchandise trade volumes and shares.

EURO-ASIAN TRADE ANALYSIS

Within the general framework of globalisation and market liberalisation, trade growth between Europe and Asia has accelerated rapidly in recent years, partly as a result of the development of Eastern Asian countries, mainly China, but also due to the emergence of the economies of Russia and Central Asian countries, as well as that of other countries such as Turkey and India. This has resulted in a wider spatial dissemination of trade flows, with flows not just between the extremities of the two continents, but also amongst major centres and hubs within the interior of Euroasia. The latter is, therefore, crucial for defining the main routes for international trade between Asia and Europe. In addition, besides the trade along the Europe-Asia corridors, trade amongst Asian countries themselves is also beginning to develop rapidly.

The impact of economic growth on international transport between Europe and Asia is fundamental, not only on volume, but also on the transportation infrastructure and services offered, for all transport modes involved, maritime, land and even air. Therefore, this growth and trade acceleration is of particular importance for the volumes transported, the means of transport used and the construction of infrastructure along the proposed EATL Phase II routes.

EATL Phase II Countries

An analysis of trade flows carried out for the 27 countries participating in the EATL Phase II study, indicated in general ***a high percentage of Asian exports to Europe,*** representing mainly China's domination in Asia's trade with Europe. Asia's imports are divided between Europe and Asia, stipulating the growth of Asia's intra-region trade. To this end, proposed EATL routes should serve Asian Countries' (Afghanistan China, Iran, Mongolia, Pakistan) connection to European ones, as well as the following connections of intra-regional trade in particular:

- Afghanistan-Pakistan
- Iran-China
- Mongolia-China

Moreover, the highest share of EATL CIS countries' exports and imports is to and from the European countries. Therefore, EATL routes should concentrate on these routes and particularly on Europe's connections with Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Moldova, Russian Federation, Turkmenistan and Ukraine that report the highest shares of trade with Europe.

A fair amount of intra-regional trade is conducted within the CIS countries, regarding mostly Russian Federation' trade with other CIS countries, such as Kazakhstan, Kyrgyzstan, Moldova, Tajikistan, and Turkmenistan. Emphasis should also be given in the following connections:

- Belarus-Ukraine
- Moldova-Ukraine
- Tajikistan-Uzbekistan

Trade with Asian countries has the lowest share, albeit not negligible. More specifically, EATL routes should serve the following connections:

- Kazakhstan-China
- Kyrgyzstan-China
- Russian Federation-China
- Russian Federation-Mongolia

Current Issues and Recommendations

Maritime transport is the dominant transport mode for Euro-Asian trade flows to date, and trade growth is increasingly concentrated-partly because of the increase in vessel size-on a certain number of major maritime hubs in both Europe and Asia. At the same time, push for productivity gains reduce the number of these ports. The implications for port operations and associated hinterland transport connections are, therefore, considerable. As was described in the previous, the existing capacity of ports is insufficient, with several of them rapidly approaching full capacity. There is also growing concern for congestion and saturation problems with regard to land access to ports, as well as safety and security issues from maritime traffic concentrating at certain points along the defined routes between maritime hubs. Traffic concentration, both at port and hinterland level is particularly evident in the case of China, where there are several constraints in access to the hinterland. Moreover, even if good hinterland access is assumed, ports continue to serve limited hinterland, considering the vast distances involved in the trade transported over the entire Eurasia region.

An additional challenge for international transportation operators is trade imbalance, with a large number of empty containers being transported. This phenomenon is particularly evident in Asia.

The above needs call for the diversification of existing routes and the opening up of alternative ones between Europe and Asia or, in some cases, the revival of old trade routes such as the Silk Road and further strengthening of the Trans-Siberian route. To this end, the identification and establishment of EATL routes is of outmost importance.

The most viable additional transport option to that of maritime that meets the needs of the increasing trade volumes would be that of inland haulage, which could absorb considerable parts of the expected increased transport demand in future. Today, land transport is positioned as a link in the chain of maritime transport as means of access to ports, and also as the primary mode of transport over long distances across some parts of Russia and Central Asia to Europe and China. Distances by land between Europe and Asia are generally shorter than distances by sea, especially for origin/destination points that lie deep within the inland of these two continents. In addition, road and rail routes serve several origins/destinations along their alignment, improving thus the accessibility of a large number of remote inland regions within Central Asia in particular, and giving international access to landlocked countries permitting them to participate in the international trade and become part of the worldwide supply chains.

Efficient rail service is becoming the best option for port hinterland extensions. Trans-continental Eurasian land corridors will never be in the same league as sea transportation of trade between the Europe and China. There is, however, a niche market for this trans-continental traffic through Eurasian land corridors (Emerson and Vinokurov, 2009), with railway transportation able to offer competitive tariffs and times of delivery for the high value and low weight categories of goods. Efficient operation of East-West rail lines, such as the Trans- Siberian Railway and the Northern Trans-Asian corridor through China, would make available a significant additional capacity (of several million TEUs). In addition, these corridors will serve the expanding trade of CIS countries with Europe and China, as well as the expanding intra-regional trade within Asia.

The main barrier to the development of rail transport alternative is the price of such services, which would probably be significantly higher than current container transport by sea. Nevertheless, with the improvement of the operating conditions of existing rail infrastructure in terms of line modernisation, longer trains, better utilisation of rolling stock and personnel, together with the development of new missing links, rail costs may well reduce substantially.

Finally, the potential value of road transport should not be ruled out, including long distances, as demonstrated by Turkish freight services to Central Asia (ECTM, 2006). This might be of value for expanding intra-regional trade, since it provides denser coverage to link main inland points of trade concentration. In addition, road haulage substitutes that of rail in the cases where there are geographical barriers to rail operation, as is the case of Turkish haulage services to Central Asia.

Based on the above, the priority routes identified by the EATL Phase II study constitute a promising prospect for transportation on Europe-Asia links, primarily taking into account the vast transit potential of land routes through northern Eurasia, which at present are very much underused. The development of these inland transport routes would provide additional Euro-Asian transport solutions to the existing maritime and at the same time become a development tool for many countries along the Euro-Asian region, including the landlocked countries.

Nevertheless, the investment plan identified within the framework of the study should ensure that the road, rail and maritime modes are combined to their best advantage, and that infrastructure continuity is provided together with removing barriers to the efficient operation of related transport services, in order to achieve high-quality coverage for all the countries involved.

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PART VI

COMPARISON OF EURO – ASIAN INLAND TRANSPORT WITH EXISTING MARITIME

Summary

International trade and production processes are complex. Trade and logistics managers are constantly trying to minimize trading risk, secure delivery and maximize profits. Today, high production and logistics costs result in uncompetitive products. Products must also be placed in the timely manner. Products quality should also be high, compared to what is offered by competitors. Therefore, the decisions "where to produce", "how to transport", "how to distribute" and "which day to release/distribute the products", are not only crucial for the effectiveness of international trade, but also of paramount importance for business success

In efforts to remain competitive or to open new market opportunities, manufacturers are always looking how to minimize production cost, including logistics costs, while responding to customers needs to ensure high level of customers' satisfaction. Over the last decades, the need to reduce production cost has driven many production sites to Asia. This geographic production shift has generated two new management issues: production away from consumption and longer supply chains. It appears that, the higher costs of longer supply chains have been offset by the lower production cost.

To minimize the overall cost of products, manufactures are faced with a new challenge, i.e. how to shrink supply chains costs. Alternative transports solutions are constantly evaluated. Even a product with zero production cost but that with the requirement of three months to reach the market, may be uncompetitive. Therefore, companies are not striving to minimize costs but rather for the most favorable overall combination: t*he right product for the right market at the right time and at the right price.*

Today, maritime transport dominates transport of goods from Asia to Europe. The vast distance of Euro-Asian inland transport combined with political instability, hidden costs, lack of security, delays at borders and unpredictability discourage the use of inland transport. In addition, maritime transport rates are often incorrectly compared with the rates for inland transport modes.

For instance, by comparing only the cost and time required for a container to be moved from Shanghai port to Hamburg port by maritime vs. inland transport, wrong conclusions can be drawn. In reality, products carried by containers are not at ports waiting to be shipped as production and consumption areas are often far away from ports. As a result, logistics managers compare the costs for the entire route which includes truck costs of moving containers to/from the warehouse/port, terminal handling costs and documentation and other administrative costs.

More than 90 per cent of containers arriving at the port of Rotterdam are transported to other countries - many even to South-East Europe. Therefore, to compare maritime and rail transport of a container from some location "A" 1,500 kilometers away from Shanghai to the final destination in a South-East European country "B" via Rotterdam port, cost comparison cannot be limited to only transport cost between Shanghai and Rotterdam. One must compare the route from location "A" ie., the location where the container is loaded with cargo, and the location "B", where the container is delivered/unloaded. If this comparison appears in favor of the rail transport, both in terms of time and costs, then there is an excellent potential for developing alternative transport scenarios using inland and/or combined transport solutions. Trains could be more competitive in both time and cost when production areas are situated relatively far from China's and India's ports and production is destined to the South or East European countries. Needless to say, developing Euro-Asian inland transport would be of great significance to the landlocked countries of Central Asia.

The development of block trains along Euro-Asian inland transport routes could be considered for landlocked countries in Central Asia to what is the blood for the human body. Block trains can change landlocked countries into land-linked countries. This may happen if a neutral, stopover-free, regular rail service is established along the Euro-Asian links, operating under the management of a contemporary and flexible corridor management mechanism, offering similar services to those of the liner shipping companies (inland "shipping line"). The ultimate target is to develop a block train network in Central Asia and beyond, where one train feeds the other with cargo and where, they all together, constitute a modern and efficient transport system. Co-operation, and the principles of how to co-operate, is the main issue to be discussed and analyzed.

The aim of this study is to compare the existing Euro-Asian maritime routes with selected rail routes identified in the EATL project. The methodology used for the analysis strives to be simple and pragmatic. It compares Euro-Asian maritime and rail links from the perspective of a logistics manager of a company that produces in some location and needs to deliver the goods produced to some other location.

As part of this study, custom-made questionnaires for each participating country along its rail and maritime transportation systems were distributed. The response rate to these questionnaires was 14% per cent. This was considered insufficient and additional information had to be sought and used, including published research as well as the author's experience.

It was expected to receive relatively few replies to rail questionnaires. It was so because it is difficult for state rail companies to determine block train time schedules for specific routes and to specify tariff rates. The block train time schedule can be easily obtained as a result of the actual train run. Tariff rates per container or per container kilometer are result of complex calculations, which depend on many parameters and are subject to frequent changes. This complexity was reflected in answers from state rail companies.

Border crossing delays is not the focus of this study. The model used here is "neutral" and it crucially depends on the willingness of governments to minimize stopovers at borders. However, all other possible stopover factors were analyzed and were included in the calculation of the average speed of train. In this way, it was possible to develop realistic time schedules.

The response ration to maritime questionnaires was 5 per cent. There is also extensive published research on terminal handling costs, ocean freight rates and time schedules. Some forwarding companies contributed significantly by providing actual freight rates.

In five out of the nine scenarios analyzed rail transport bests the maritime transport for both cost and time. In all nine scenarios, rail transport performs better than maritime concerning the travel time.

Successful and competitive rail services along the Euro-Asian transport links are not a myth or a future alternative to maritime transport. The study showed that Euro-Asian rail transport and its combination with that of maritime and road transport is a feasible and competitive transport option. The establishment of efficient corridor management, governments' willingness to co-operate as well as rail companies effective responses to market needs are prerequisites that can guarantee regular and efficient rail services along the EATL routes.

The following table summarizes the findings of the study.

Scenarios	Route	Rail		Maritime		Best Transport Means	
		Cost ($)	Time (hrs)	Cost ($)	Time (hrs)	Cost	Time
Scenario 1: EATL Route 1	Khabarovsk (Russia) to Potsdam (Germany)]	6,967	341	6,533	589	Maritime	Rail
Scenario 2: EATL Route 2	Hangzhou (China) to Kaluga (Russia Fed.)	4,714.65	277	6,786	624	Rail	Rail
Scenario 3: EATL Route 3	Tashkent (Uzbekistan) to Varna (Bulgaria)	5,946	165	7,550	529	Rail	Rail
Scenario 4: EATL Route 4	Almaty (Kazakhstan) to Istanbul (Turkey)	5,881	250	4,970	672	Maritime	Rail
Scenario 5: EATL Route 5	Morvarid (Iran) to Pushkin (Russia)	6,390.5	256	3,310	374	Maritime	Rail
Scenario 6: EATL Route 6	Ussuriysk (Russia) to Kiev (Ukraine)	5,857	289	6,290	463	Rail	Rail
Scenario 7: EATL Route 7	Shanghai (China) to Warsaw (Poland)	8,937	446	6,300	569	Maritime	Rail
Scenario 8: EATL Route 8	Krasnodar (Russia) to Kalinigrad (Russia)	1,595	70	5,050	225.2	Rail	Rail
Case Study /Car Manufacturer	Vesoul (France) to Kaluga (Russia)	2,107	101	6,300	163	Rail	Rail

This study is divided into five chapters. The first two, chapters 1 and 2, illustrate and analyze the trade between Asia and Europe and the existing blocks trains in these areas. Chapter 3 presents the Euro-Asian maritime routes and offers a cost analysis with actual data for the complete maritime route, including terminals, administrative and road transport costs. Chapter 4 focuses on rail transport, analyzing the economics of rail transport and the cost structures for complete rail routes. It also presents a detailed analysis of rail routes for each participating country, including distance analysis, time schedule evaluation and tariff structure. In chapter 5 maritime and rail transport for the EATL routes are compared. Selected points of origins (locations A) and points of destination (locations B) across the EATL project routes are used to create different scenarios where maritime and rail transport are compared.

The selection of the points of origin and destination was based on various criteria such as the importance of trade destinations, the importance for landlocked countries and the distance from much frequented ports. A case study for car manufacturers performing transport on Euro-Asian transport linkages is also analyzed.

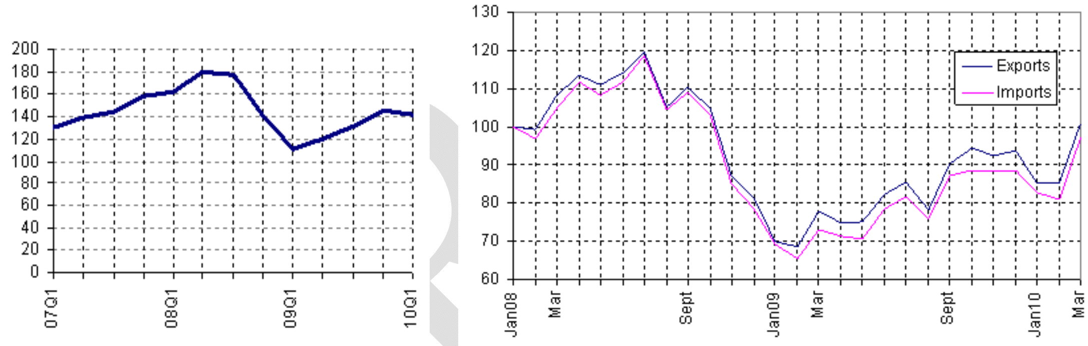
CHAPTER 1: TRADE between Asia and Europe

After the sharpest decline in more than 70 years, world trade is set to rebound in 2010 by growing at 9.5% according to WTO economists (Figure 1). Exports from developed economies are expected to increase by 7.5% in volume terms over the course of the year, while shipments from the rest of the world (including developing economies and the Commonwealth of Independent States) should rise by around 11% as the world emerges from recession?

This strong expansion will help recover some, but by not all, of the ground lost in 2009 when the global economic crisis sparked a 12.2% contraction in the volume of global trade — the largest such decline since World War II.

The value of world merchandise trade was about 25% higher in the first three months of 2010, year-on-year (Figure 1). Global exports rose by 27% while imports slightly less.

Figure 1. World Exports – Imports the 1st Quarter of the year



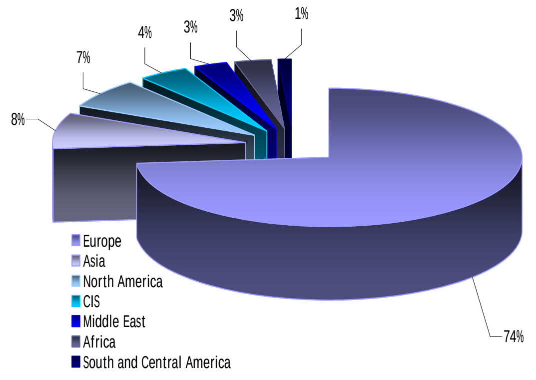
Source: WTO, 2010

Forty-three per cent of world exports originate in Europe, 25% in Asia, 17% in North America and 3% in CIS countries.

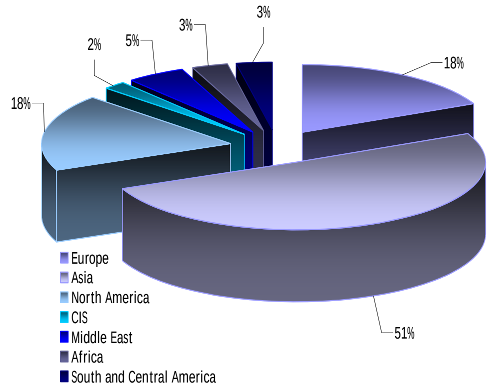
According to the World Trade Organization, 74% of Europe's exports are intra-European 8% are destined for Asia, 7% for North America and 4% for CIS countries (Figure 2). One-half of Asian countries' exports stays in Asia, 18% go to Europe, 18% to North America and 2% go to CIS countries (Figure 3 and 4).

Figure 2 . Exports of Europe

Figure 3. Exports of Asia

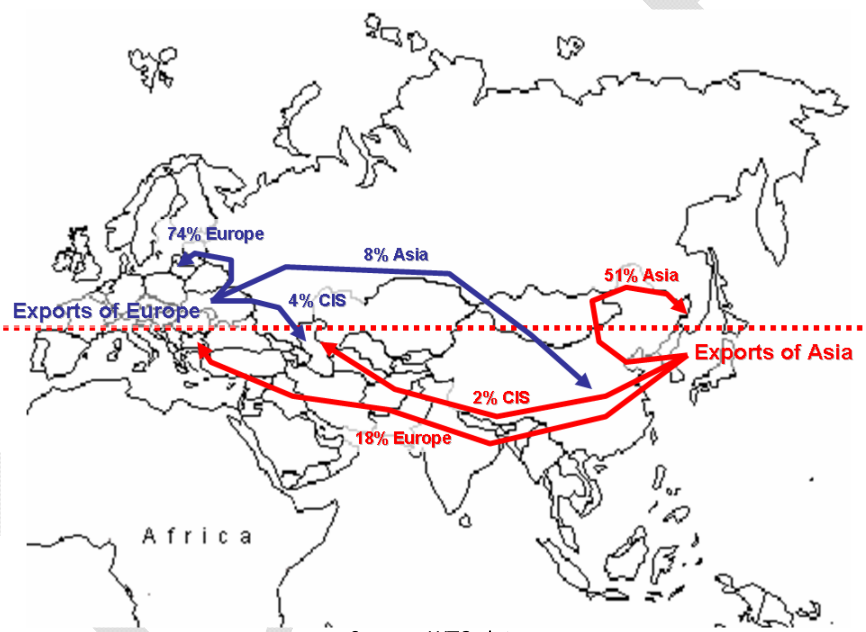


Source: WTO data



Source: WTO data

Figure 4. The Euro - Asian Trade

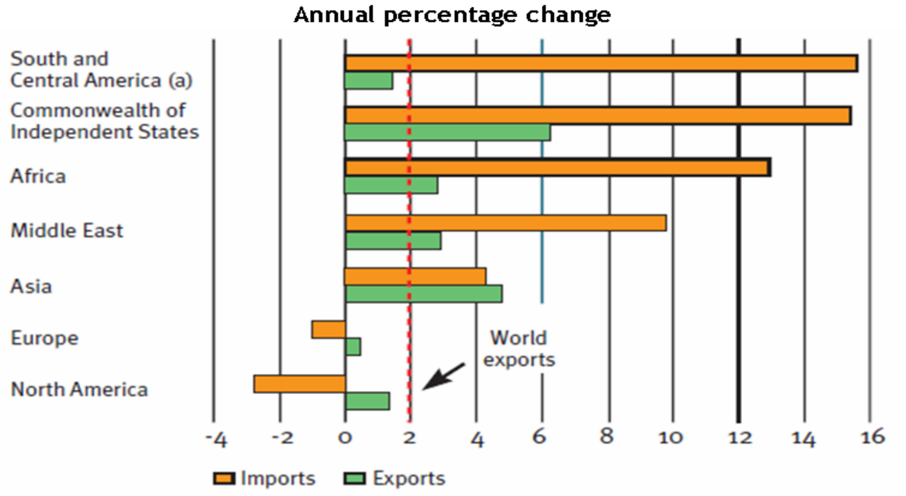


Source: WTO data

Sixty countries involved in Europe–Asia trade represent more than half of the world's GDP, more than 60% of the world's population and 70% of global trade[81]. Figure 5 illustrates the annual percentage change of imports and exports by region (2008 over 2007) - one year before the economic crisis. As indicated, Asia's exports and imports grew by more than 4%, while Europe's imports decreased by 1% and its exports increased by 0.5%.

Figure 5. Real merchandise trade growth by region, 2008 over 2007

[81] Asia-Europe Meeting (ASEM) Report, A European Commission foundation, www.aseminfoboard.org



Source: WTO/ECSA

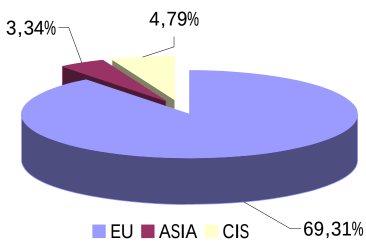
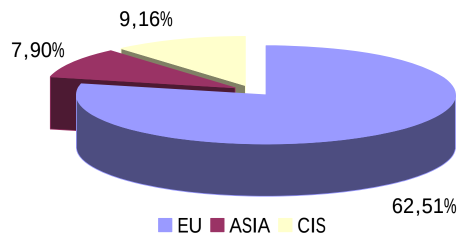
Source: European Community Ship owners Association, Annual Report, 2008-9

There are currently over 20 countries participating in the Euro-Asian Transport Links initiative. They are: Afghanistan, Armenia, Azerbaijan, Belarus, Bulgaria, China, Georgia, Germany, Greece, Iran, Kazakhstan, Kyrgyzstan, Latvia, Moldova, Romania, Russian Federation, Tajikistan, Turkey, Turkmenistan, Ukraine and Uzbekistan.

The seven European countries involved in the EATL project export about 70% of goods to other European countries, 3% to Asian countries and 5% to CIS countries. They import 63% from other European countries, 7% from Asian countries and 9% from CIS countries (Figure 6).

These countries' exports shares are: agricultural products 15%, fuel and mining products 16% and manufacturing products 68%. Imports shares are: agricultural products 10%, fuel and mining products 19% and manufacturing products 69%.

Figure 6. Exports and Imports of the European Countries of the EATL Project

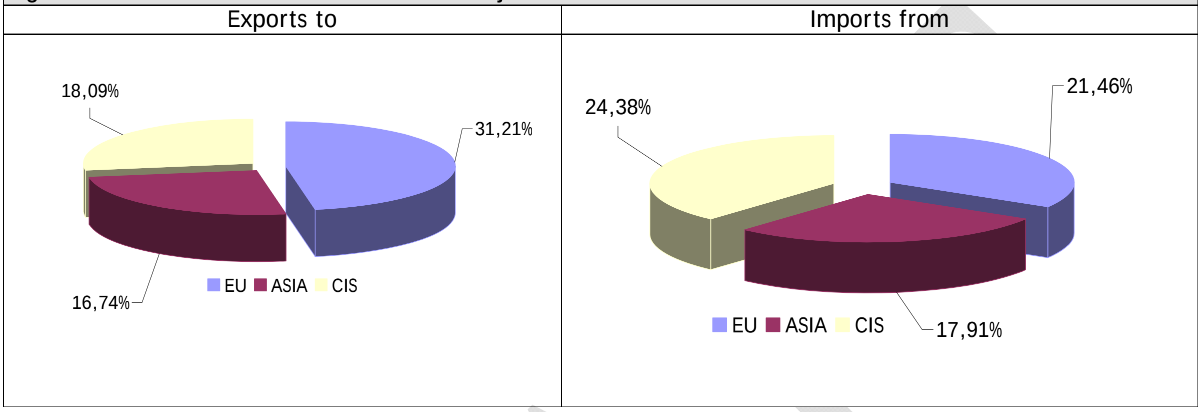
Exports to	Imports from
	

Source: WTO data

The 16 Asian countries of the EATL project export on average 31% of goods to European countries, 17% to other Asian countries and 18% to CIS countries. These countries import 21% from European countries, 18% from other Asian countries and 24% from CIS countries (Figure 7).

Exports of agricultural products represent 11%, fuel and mining products 40% and manufacturing products 34% while imports of agricultural products make up 10% and fuel and mining products 19%.

Figure 7. Asian Countries of the EATL Project



Source: WTO data

The European Conference of Ministers of Transport (ECMT) report on trends in trade between Europe and Asia and consequences for transport[82] shows that trade between the two continents has accelerated sharply in recent years. This is partly because of economic development of East Asian countries, chiefly China, but also as a result of the growth of the economies of Russia and Central Asia. This has caused a wider geographical dispersal of trade flows, a phenomenon that is crucially important for defining the main routes for international trade between Asia and Europe and not just between either extremity of the two continents.

One of the key features of world container trade is an imbalance of incoming/outgoing containers. The fact that more full containers leave Asia than come back has created a major challenge for international transport operators. The industry estimates of these imbalances vary significantly. However, for the three main intercontinental trade lanes: Asia-Pacific, Asia-Europe, and Trans-Atlantic, the imbalances have grown significantly with more than half of the containers on both the Asia-Pacific route and the Asia-Europe route going back to Asia empty. Similar imbalances also existed a decade ago but in the 20-30 per cent range.

Currently, maritime transport dominates cargo shipping between Asia and Europe. The maritime operators have significantly expanded capacity to meet the demand and this has been reflected in the sustained double-digit annual growth. For high value and time-sensitive cargo the use of air transport has seen a similar expansion.

The volumes of international containerised cargo shipped using rail or road transport between Asia (China) and Europe are currently very limited. Rail transport, in particular the Tran-Siberian Railway, accounts for 3-4 percent of the total volume. This volume originates mainly from Northern China and

[82] "Transport links between Europe and Asia", European Conference of Ministers of Transport and OECD, report, 2006.

Korea. The exact quantities and type of cargo is unknown. Road transport accounts for less than 1 percent of the containerised Sino- European trade in volume terms[83].

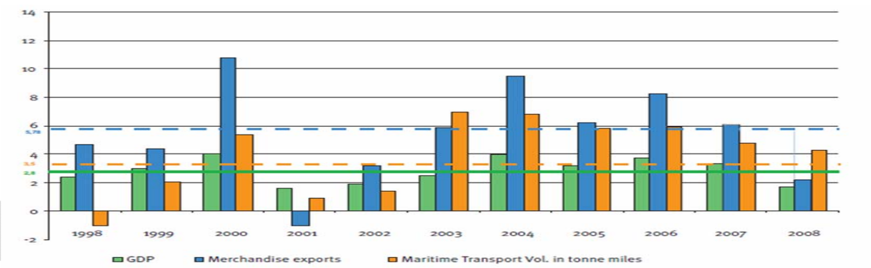
Congestion in transhipment ports is also an issue. Transport operators can address it through the routing of a container and the trimming of their networks. Congestion in ports of origin and destination are much more complex and involve a wider range of factors, including port terminals, customs facilities and operators organizing the pre and onward inter-modal transport of the cargo by truck, rail or barges. Naturally, it does not matter much to the end-customer if a container is delayed because of an issue in a transhipment port or the port terminal at the origin/destination - or if it is caused by bottlenecks pertaining to parts of the inter-modal transport executed by rail or trucking companies[84].

Greater trade between Europe and Asia has resulted in the faster growth of maritime container traffic (6% per year). This phenomenon has been accompanied by the use of larger vessels and by shipping rates that have fallen to very low levels ($700 per TEU from Europe to Asia).

Overall, Europe-Asia trade points towards two factors in favour of diversification of routes and opening up of new inland routes:

- ☑ Maritime transport's virtual monopoly on trade between Europe and Asia is causing increasing problems in land access to sea ports (in addition, the push for productivity gains tends to reduce the number of such ports). Obligatory points of passage between maritime hubs concentrate shipping traffic. This may pose a serious safety problem (risk of accidental pollution) and a serious security problem (vulnerability to attack).
- ☑ The growth in traffic between continental countries, particularly in Central Asia, along the Europe-Asia land routes. Besides trade along the Europe-Asia corridors, trade within the region itself is developing, reinforcing the necessity to improve the corridors.

Figure 8. Annual percentage, in GDP, of world merchandise exports in real value, of Maritime Transport volume, 1998 – 2008



Source: European Community Ship owners Association, Annual Report, 2008-9

Despite efforts to develop efficient inland links, maritime transport will likely remain a dominant player in the Europe-Asia transport market. While shipping companies and ports may be able to cope with the expected increase in the maritime traffic, particularly container traffic (Figure 8), inland transport modes for hauls between ports and their hinterlands will not. The risk of saturation on road networks to these ports is high, while rail and inland waterways often have insufficient capacity. It is therefore important for governments to take the necessary action, particularly in the area of infrastructure, to improve land access to seaports. Developing appropriate rail or inland waterway links and facilitating inter-modal transfer between inland and waterway modes could be considered.

[83] "Land transport options between Europe and Asia: Commercial Feasibility study", 2006, Washington, The Chamber of Commerce of the United States.

[84] European Community Ship owners Association, Annual Report 2008 - 2009

In 2010, UNECE Transport Division published a study about the Hinterland Connections of Seaports. The study examines the ways in which seaports and their hinterland connections can help to improve supply chain performance through the removal of bottlenecks and the improvement in the efficiency and sustainability of port hinterland links in the UNECE region.[85]

Block trains in Europe and Asia

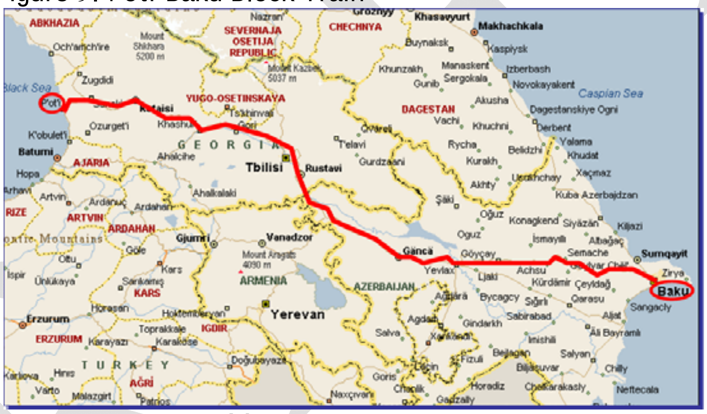
Existing Block Trains in Europe – Asia

This section describes block trains operating along the Euro-Asian links as well as provides a list of demonstration trains that have been recently performed. The major block trains operating with some regularity at present are of the "isolated clients" type. There have been some trials from forwarders as well, but they have not had great success.

6.1.1. Poti – Baku [86]

A container block train between Poti (Georgia) and Baku (Azerbaijan) is operated by POLZUG Intermodal Group. The service carries containers from the Black Sea to the Caspian Sea. The container trains are made up of cars of the same type. With no stopping for assembly and disassembly, the block train offers high-volume customers an economic alternative to rail freight operations or road transport. From Baku onwards, shipment is by feeder across the Caspian Sea to Aktau, Kazakhstan for rail transport to Central Asia.

Figure 9. Poti-Baku Block Train



Source: POLZUG Intermodal Group

6.1.2. Vostochny, Moscow, Novosibirsk, Taganrog (Hyundai), Izhevsk (KIA), Naberezhnye Chelny (Ssang Yong), Uzbekistan (GM Daewoo) and Ulyanovsk (Isuzu) [87]

Mitsui & Co. Ltd. has established a "T rans Siberian Route (TSR) Agent Team" which provides "Cargo Container Express Train Service" utilizing the Trans Siberian Railway to deliver cargo from Asian ports to Russia/CIS city terminals.

Features of these block trains:

[85] http://www.unece.org/trans/publications/other_hinterland.html

[86] Based on Thomas L. Gallagher | Mar 8, 2009 *The Journal of Commerce Online - News Story*

[87] Based on TRANS SIBERIAN RAILWAY, Block Train Service, Mitsui & Co Ltd, http://www.mitsui-tsr.com/en/service/index2.html

- Special trains composed of minimum 31 and maximum 37 x 80-feet (24-meters) wagons (62-74 container capacity, based on 40-feet (12 meters) containers. The maximum formation length for one block train is 1,000 meters in accordance with Russian law.
- Routes predetermined in advance. In case of a conventional train, the train stops are determined by each railway controlling sections, a process which decreases ability to trace. With block trains stops are minimized and the transit station is predetermined. This feature improves ability to trace cargo.
- Wagon formation changes not done resulting in shorter lead times and secured regularity. (Block train running lead time from Vladivostok to Moscow is 11 to 12 days. Efforts to shorten the lead time to seven days are ongoing).
- This service was started by customers in South Korea as a dedicated transport method to supply parts to an assembly factory in Russia.
- Main Block Train Operation Records (July 2007)

Destination	Point of Origin	Frequency per week	Training running days	Rail operator	Freight owner
Taganrog	Vostochny	3	11	**Russkaya Troyka**	Hyundai Motor Company
Izhevsk	Vostochny Nakhodka	7-8	9	**Russkaya Troyka** F.E. Trans	Kia Motors
Moscow	Vostochny	1	11-12	**Russkaya Troyka**	Various unspecified freight owners
Moscow	Vladiostok	1	11-12	**Russkaya Troyka**	Various unspecified freight owners
Saryagach, Uzbekistan	Vostochny	2	14	Trans Container Unico Logistics	GM Daewoo Motor Company
Chelny, Naberezhnye	Vostochny Nakhodka	3	9-10	F.E.Trans	Sangyong Motor Company

**Point of origin for Russkaya Troyka Block Train for various unspecified customers, has shifted to the Vladivostok port from Feb.'09*.

Photo: 80-feet wagon

Two security guards are placed in the locomotive. For 38 wagon formations, a convoy wagon is connected in the centre which normally has two security guards posted (this is compulsory in accordance with Russian law). In the unlikely event of disengaging the wagons, the train driver is made aware of it by a drop in brake pressure.

6.1.3. VW – SKODA AUTO

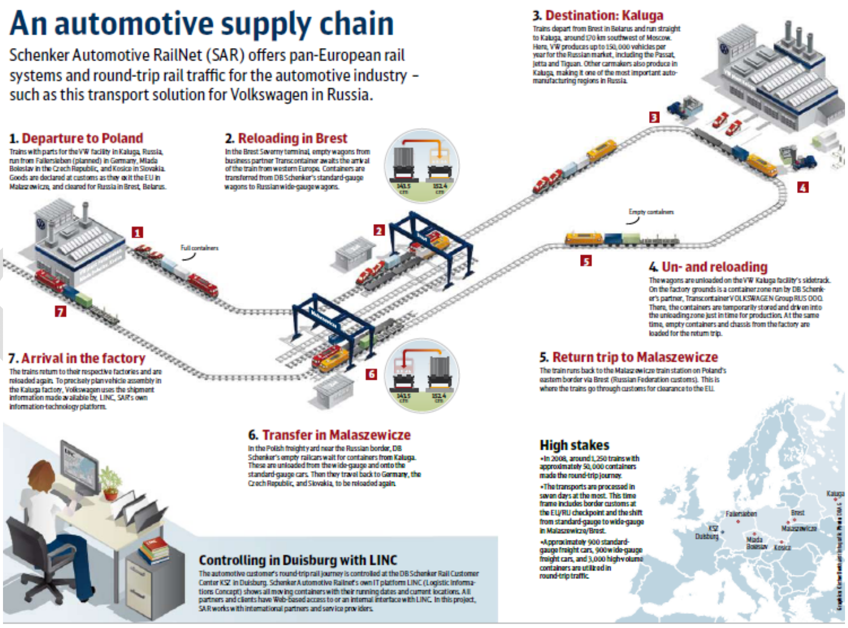
This project of integrated container trains was started in 2002. The route begins from the Czech Republic in the direction of Mladá Boleslav–Kaluga and from the Slovak Republic in the direction of Velká Ida–Kaluga through the border station Malaszewicze (Poland)–Brest (Belarus). It delivers disassembled cars of VW and ŠKODA AUTO brands to an assembly plant in Kaluze (Russia). The size and importance of the project makes it among the biggest in the European Union. There are 14 pairs of trains a week from Mladá Boleslav to Kaluga and 11 from Velká Ida to Kaluga.

6.1.4. Volkswagen (VW)

Volkswagen (VW) operates with Transcontainer (a Russian Railways' intermodal company), container block trains carrying on average 116 TEUs of components from Brest to Kaluga near Moscow.

Since 2008, the trains have brought auto parts made by Volkswagen from the Czech Republic via Brest to the automotive plant in Kaluga (Russia) on the route Brest-Kaluga. In the first half of 2008, 139 trains were launched on the route delivering 15,920 TEU.

Figure 10. The automotive supply chain



Source: DB Schenker

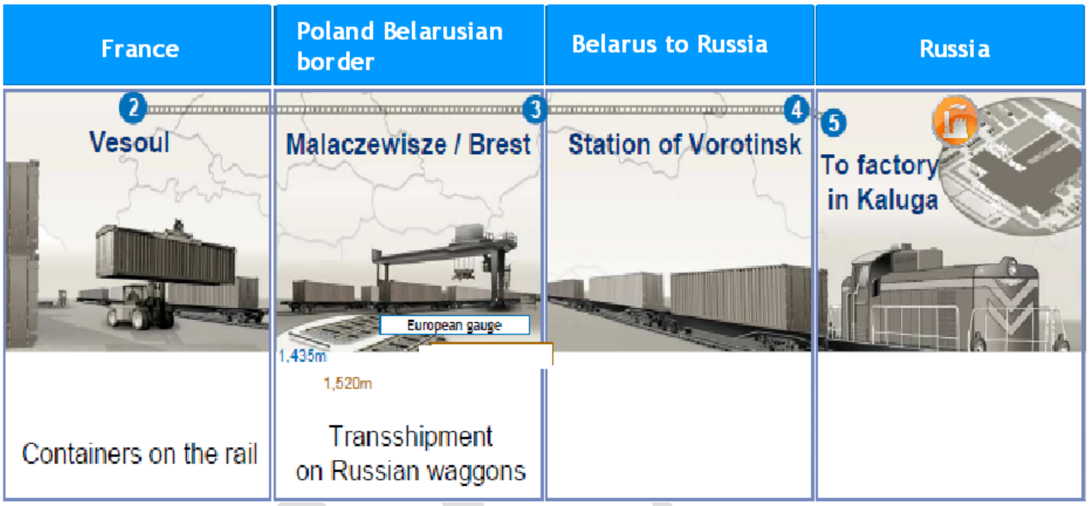
6.1.5. KIA Kazakhstan

Asia Auto's Kazakhstan plant was established in 2003. Currently, it produces models such as Lada Niva, Skoda Octavia and Superb, Chevrolet Captiva, Lacetti and Epica and Cadillac Escalade. An assembly of three new Kia models will begin in 2010. The company has undertaken some block trains from Bandar Abbas (Iran) to Kazakhstan.

6.1.6. PEUGEOT

Over 140 cars are transported per day (models 308 and C4) from Sochaux and Mulhouse and 60 from Zeebrugge (Belgium) to Vesoul for disassembling. Then the bloc train runs from France (Vesoul) to Russia (Kaluga) loaded with SKD (Semi Knocked Down) autoparts to be assembled in Kaluga (Figure 11).

Figure 11. Peugeot block train route



Source : Peugeot

This block train performs 6,000 km roundtrip, uses 400 dedicated wagons, 1,200 dedicated containers for roundtrip and 80 trucks for final deliveries.

6.1.7. CD Cargo Czech Republic

Figure 12. CD Cargo block train

Source: CD Cargo

In 2008, CD Cargo, a Czech Republic-based logistics and forwarding company performed 12 block trains from the Czech Republic to China (Pardubice/Melnik-Shenzen) and four of these trains returned back to Czech Republic.

6.1.8. Trains listed by the Organization for Railways Cooperation (OSJD) in 2008

Every year the OSJD publishes a list of all block/container trains that operate in its region. Following is the list of block trains operating across the Euro-Asia for 2008.

i.d.	Train description	Type of Train	Frequency
1208	Berlin – Kunzevo (Russia), "Ostwind"	Containers	3 times per week
1276	Brest – Ilijezk (Russia) – Arys (Kazakhstan) "Kasachischer Vektor"	Containers	2 times per week
1406	Brest – Nauschki (Russia) – Ulan Bator (Mongolia) – Huh Hoto (China)	Containers	2 times per week
1251 / 1252	Almaty (Kazakhstan) – Dostyk (Kazakhstan) / Alaschankou (China)	Containers	6 times per week
1402/ 1401	Lianyunggang (China)- Alaschankou (China) - / Dostyk Kazakhstan – Assake (Uzbekistan)	Containers	1 time per week
1401 / 1402	Tianjin (China) – Alaschankou (China) / Dostyk (Kazakhstan) – Almaty (Kazakhstan)	Containers	3 times per week

Demonstration train runs

Some international organizations and private companies have performed demonstration block train runs to evaluate their effectiveness. Some of them are presented below:

☑ From Tianjin (China) to Ulaanbaatar (Mongolia) in 3 days 3.5 hours over the 1,691 km distance (November 2003)
☑ From Lianyungang (China) to Almaty (Kazakhstan) in 7 days 6 hours over the 5,020 km distance (April 2004)
☑ From Brest (Belarus) to Ulaanbaatar (Mongolia) in 8 days 21 hours over the 7,180 km distance (June 2004)
☑ From Nakhodka (Russian Federation) to Malaszewicze (Poland) in 12 days and 8 hours over the 10,335 km distance (July 2004)[88]
☑ Beijing-Hamburg container train in January 2008. To demonstrate the potential of container service by rail, the Beijing - Hamburg train was launched from Beijing in January 2008. The train made the 9,780km route in 15 days. It passed through the territory of China, Mongolia, Russia, Belarus, Poland and Germany. On the same day a memorandum of understanding was signed and a joint working group was set up to arrange rail service on the route China - Western Europe89.
☑ ECO demonstration train in 2009, from Islamabad to Istanbul, 6,566 km in 11 days with many restrictions, mainly for night travel on the territory of Pakistan90.

CHAPTER 3 Euro-Asian maritime routes

Port management

The latest data available on world container port traffic, in 63 developing economies with an annual national throughput of over 100,000 TEUs, show that in 2007 there were 487.1 million TEU moves registered.

Singapore retained its lead as the world's busiest port in terms of the total number of TEU moves, growing by 7 per cent. Shanghai had the same growth rate and maintained its position in the second place. Hong Kong remained in the third place.

Congestion is one of the biggest port issues. There are certain vulnerabilities in global supply chains and when the goods move from one mode to another, as they do in the ports, the risk of encountering problems rises. Ideally, when a ship arrives in a port, there will be a berth waiting and the cargo handling facilities will swing smoothly into action. When there is no berth available, and the ship has to swing around its anchor waiting its turn, delays are caused right down the supply chain and costs are racked up.

Port congestion is caused by a number of different factors. Perhaps there has been a period of exceptionally bad weather making it difficult to work cargo with ships delayed both at sea and in port. An unexpected accident may reverberate right down the supply chain[91].

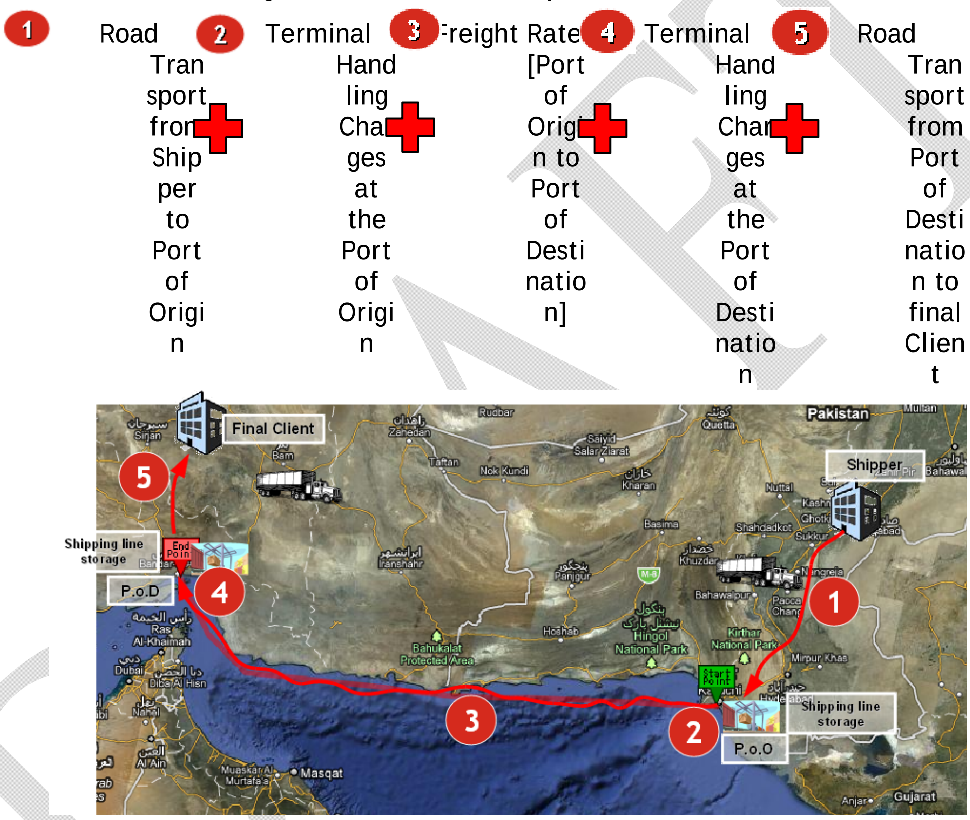
An increase in trade can also cause port congestion as ports have limited ability to quickly adjust to such increases. The extraordinary growth in international trade caused by the surge in Chinese exports has caught much of the port industry napping. Port investment in many countries has lagged behind while years of planning are often required before construction of new port facilities or the dredging of deeper channels for bigger and more productive ships, can even begin. It is not merely the non-availability of berths which causes congestion. The cargo has to be cleared away from a discharging berth before other ships can start to discharge, and there may be landside congestion that is hampering the delivery and on-carriage of goods. Inadequate roads or railways may be a long-standing problem - one that is perhaps even getting worse.

[88] http://www.unescap.org/ttdw/common/TIS/TAR/Container%20Block-trains.asp
[89] DB SCHENKER, http://www.schenker-seino.co.jp/content/view/254/141/
[90] ECO Secretariat, http://www.ecieco.org/Portals/
[91] *In an Australian port, a bulk carrier damaged an iron ore loader. As a result, about half of the port capacity to unload was put out of action for months.*

Maritime transport: cost and time

Maritime transport does not only include sea transport. By its nature, maritime transport is intermodal transport and, often, as many as three means of transport are involved: ship, truck and rail (Figure 13). The maritime transport cost structure is made up by five components: (1) the cost of moving cargo from the shipper to the port of origin (typically) by truck; (2) the terminal handling charges at the port of origin; (3) the freight rate from the port of origin to the port of destination; (4) the terminal handling charges at the port of destination and (5) the cost of transport from the port of destination to the final client (typically) by truck.

Figure 13. Maritime Transport Cost Structure



6.1.9. Terminal Handling Charges (THC)

THC are charged by shipping lines to recover the payments to container terminals for loading and unloading cargo. Shippers at the port of origin are responsible for paying THC at the port of loading. This is defined as the origin THC. The consignees, or buyers, are responsible for paying the freight rate and THC on the discharge at the port of destination, known as the destination charge. This is consistent with the definition of the International Chamber of Shipping. Most shipping lines have introduced separate charges for freight rates and THC.

Figure 14. Split of THC Charges between Shipper and Ship Operator

	ACTIVITY	COVERED BY
01	Delivery MT and receiving full (+all associated clerical work and reporting)	THC
02	Inspection and reporting condition of container/ completion interchange	THC
03	Inspection and reporting of seals and wiring, removal invalid labels, re-sealing	THC
04	Movement of container on/from chassis, barge or wagon	THC
05	Internal transport of container to or from stack	THC
06	Handling container into or out of stack	THC
07	Reporting of chassis, barge and wagon activities in and or out of terminal	THC
08	Storage of full container within time limits defined by Conference	THC
09	Take laden box out of stack	THC
10	Internal transport from stack to ship's side under hook	THC
11	Move of container from ship's side to ship's rail	THC
12	Move of container from ship's rail into ship's cell	Freight rate
13	Opening and closing hatch covers	Freight rate
14	Lashing of container	Freight rate
15	Physical and clerical planning of vessel operation + reporting	Freight rate
16	Overtime	Freight rate
17	Wharfage	Freight rate

Source: PortStrategy, July 2005, Mercator Media.

Given the relative stability of THC, albeit at varying levels according to trade routes, the ratio of THC to sea freight rate varies depending on freight rates.

The following table illustrates THC by port for ten largest shipping operators.

Figure 15. THC by Port for Ten Largest Shipping Operators (April-June, 2009)

		Rotterdam	
		20ft	40ft
1	Maersk/SAF	€ 185	€ 185
2	MSC	€ 175	€ 175
3	CMA CGM	€ 160	€ 160
4	Evergreen	€ 160	€ 160
5	Hapag Lloyd	€ 200	€ 200
6	COSCO	€ 140	€ 140
7	APL	€ 190	€ 190
8	China Shipping	€ 170	€ 170
9	NYK	€ 160	€ 160
10	MOL	€ 200	€ 200

		Hamburg	
		20ft	40ft
1	Maersk/SAF	€ 190	€ 190
2	MSC	€ 180	€ 180
3	CMA CGM	€ 185	€ 185
4	Evergreen	€ 200	€ 200
5	Hapag Lloyd	€ 210	€ 210
6	COSCO	€ 180	€ 180
7	APL	€ 210	€ 210
8	China Shipping	€ 200	€ 200
9	NYK	€ 200	€ 200
10	MOL	€ 210	€ 210

		ST. Petersburg	
		20ft	40ft
1	Maersk/SAF	$ 290	$ 290
2	MSC		
3	CMA CGM	$ 370	$ 370
4	Evergreen	$ 250	$ 250
5	Hapag Lloyd	$ 220	$ 220
6	COSCO	$ 200	$ 200
7	APL	$ 300	$ 300
8	China Shipping	$ 300	$ 300
9	NYK	$ 250	$ 250
10	MOL	$ 220	$ 220

		Barcelona	
		20ft	40ft
1	Maersk/SAF	€ 155	€ 155
2	MSC		
3	CMA CGM	€ 170	€ 170
4	Evergreen	€ 160	
5	Hapag Lloyd	€ 120	€ 140
6	COSCO	€ 125	€ 125
7	APL	€ 255	€ 255
8	China Shipping	€ 150	€ 150
9	NYK	€ 210	€ 210
10	MOL	€ 160	€ 160

		Piraeus	
		20ft	40ft
1	Maersk/SAF		
2	MSC		
3	CMA CGM	Free in	Free in
4	Evergreen		
5	Hapag Lloyd	€ 112	€ 112
6	COSCO		
7	APL		
8	China Shipping	FIO	FIO
9	NYK		
10	MOL		

		Istanbul	
		20ft	40ft
1	Maersk/SAF		
2	MSC		
3	CMA CGM	Free in	Free in
4	Evergreen		
5	Hapag Lloyd	$ 219	$ 219
6	COSCO		
7	APL	$ 100	
8	China Shipping	FIO	FIO
9	NYK		
10	MOL	Free in	Free in

		Constanza	
		20ft	40ft
1	Maersk/SAF	$ 200	$ 245
2	MSC		
3	CMA CGM	$ 75	$ 130
4	Evergreen		
5	Hapag Lloyd	$ 345	$ 418
6	COSCO		
7	APL	$ 90	$ 130
8	China Shipping	$ 130	$ 130
9	NYK		
10	MOL	$ 40	$ 90

		Shanghai	
		20ft	40ft
1	Maersk/SAF	RMB 475	RMB 750
2	MSC	At cost	At cost
3	CMA CGM	RMB 1,297	RMB 1,297
4	Evergreen	RMB 370	RMB 560
5	Hapag Lloyd	RMB 460	RMB 720
6	COSCO	RMB 374	RMB 564
7	APL	RMB 476	RMB 750
8	China Shipping		
9	NYK	RMB 880	RMB 1,300
10	MOL	RMB 480	RMB 720

		Shenzen	
		20ft	40ft
1	Maersk/SAF	RMB 958	RMB 1,849
2	MSC		
3	CMA CGM	RMB 1,297	RMB 0
4	Evergreen	RMB 370	RMB 560
5	Hapag Lloyd	RMB 965	RMB 1,842
6	COSCO		
7	APL	RMB 476	RMB 750
8	China Shipping		
9	NYK	RMB 1,400	RMB 2,300
10	MOL	RMB 965	RMB 1,842

		Pusan	
		20ft	40ft
1	Maersk/SAF	100,000	135,000
2	MSC		
3	CMA CGM	101,000	137,000
4	Evergreen	100,000	136,000
5	Hapag Lloyd	101,000	137,000
6	COSCO		
7	APL	101,000	137,000
8	China Shipping		
9	NYK	150,000	210,000
10	MOL	100,000	136,000

		Hong Kong	
		20ft	40ft
1	Maersk/SAF	HK$2,050	HK$2,750
2	MSC		
3	CMA CGM	HK$2,065	HK$2,750
4	Evergreen	HK$2,065	HK$2,750
5	Hapag Lloyd	HK$2,065	HK$2,750
6	COSCO		
7	APL	HK$1,800	HK$2,650
8	China Shipping		
9	NYK	HK$1,400	HK$2,000
10	MOL	HK$2,065	HK$2,750

		Singapore	
		20ft	40ft
1	Maersk/SAF	SGD 190	SGD 270
2	MSC		
3	CMA CGM	SGD 182	SGD 270
4	Evergreen	SGD 182	SGD 270
5	Hapag Lloyd	SGD 182	SGD 270
6	COSCO		
7	APL	SGD 182	SGD 270
8	China Shipping		
9	NYK	SGD 170	SGD 170
10	MOL	SGD 182	SGD 270

Source: Terminal handling charges during and after the liner conference era, European Commission, 5 October 2009

The handling charges quoted by forwarders are slightly different as they include a profit margin (Figure 16). As indicated in Figure 16, THC costs are $175 and all the other costs are $**530**! Therefore, for this comparison study, THC costs will be increased by 250% to reflect "other costs".

Figure 16. Costanta port THC and other costs

Ports	Unloading of Containers ($)	Loading of Containers ($)	Customs Formalities ($)
Kostanta	70	75	55

Other Costs	P	($)
Entrance cost	☑	35
Parking cost	☑	20
Loading to truck cost	☑	65
Unloading from truck	☑	70
Other documents	☐	45
Other cost/ Specify	☐	
THC CONSTANTA	☑	175
DETENTION FEE	☑	45
DELIVERY ORDER	☑	50

Source: Romanian Forwarders Association 2010

Containers			20' FCL		20' MTY		40' FCL		40' MTY	
1	Handling (from vessel or vice versa)	Unit	USD	85.00	USD	45.00	USD	105.00	USD	55.00
2	Lift on/of	-	USD	20.00	USD	10.00	USD	25.00	USD	15.00
3	Transportation from yard to vessel and vice versa	-	USD	15.00	USD	10.00	USD	25.00	USD	20.00
4	Shifting (hold-hold)	Unit	USD	35.00	USD	20.00	USD	40.00	USD	25.00
5	Shifting (hold-terminal-hold)	-	USD	65.00	USD	35.00	USD	80.00	USD	45.00
6	Lashing/unlashing of containers on vessel	-	USD 6.00							
7	Cleaning of containers	-	USD 6.00							
8	Removing labels (indicating -dangerous cargos) from containers	-	USD 20.00							
9	Bulk cargo loading-unloading into/from container	Ton	USD 9.00							
10	General cargo loading-unloading into/from container	-	USD 12.00							
11	Heavy cargo loading-unloading into/from container (>3 t.)	According to rates specified in the paragraph General Cargo, Item 7								
12	Loading-unloading the transport facilities into/from container	According to rates specified in the paragraph General Cargo, Item 11.2.1.								
13	Inspecting containers loaded with excise cargos	-	USD 85.00							
14	Unloading/Loading of lashing gear box	Unit	USD 130.00							
15	Storage	Unit/ per day	USD	3.00	USD	1.00	USD	5.00	USD	2.00

Containers arrived by maritime transport	one day -free of charge
Containers arrived by land transport	two days- free of charge up to one month basic more than one month- basic increases by 50%

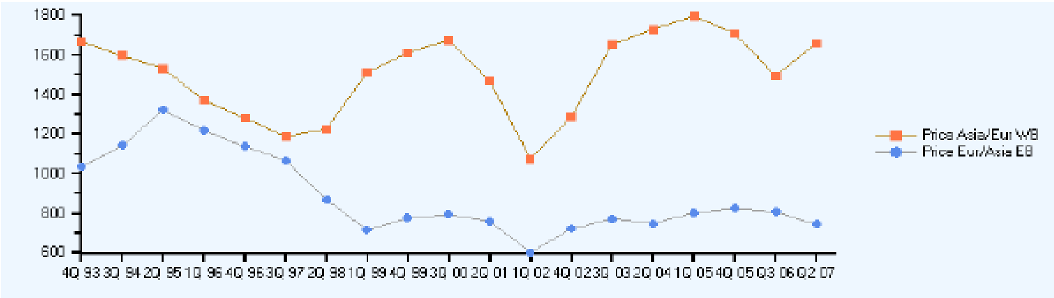
- Surcharge of 100% applied on containers loaded with oversize cargo (in case of using nonstandard spreaders);
- Surcharge of 25% applied on containers loaded with dangerous cargoes.

Source:Port of Poti

Freight Rates

Figure 17 illustrates the freight rates along the Asia-Europe route for 1993-2007. There are significant fluctuations in these freight rates resulting in similar fluctuations in the THC/freight rate ratio. The THC/freight ratio on average has been in the 10 – 15 percent range on the Asia to North Europe route on a destination basis.

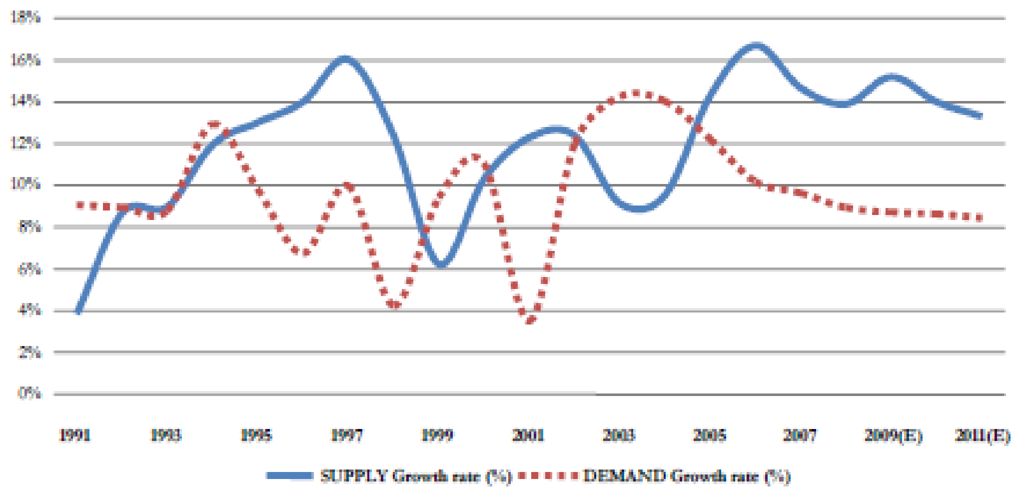
Figure 17. Freight rates for Asia/Europe/Asia



Source: Containerisation International Freight Facts

In the short term, freight rates are driven by the relationship of supply and demand for shipping. In the longer-term, the available capacity also influences freight rates. Figure 18 shows a relationship between demand and supply which translates into freight rate volatility. The 1991 and 2001 recessions with their consequent drop in cargo demand coinciding with excess shipping capacity supply resulted in declining freight rates. Equally, the end of the recession coincided with sharp increases in freight rates.

Figure 18. Supply versus Demand, 2011



Source: Drewry's Annual Container Market Review 2007-2008, supplemented by AXS Liner 2008

Increasingly shippers are negotiating "all-in" rates where the three elements of sea freight, surcharges and terminal handling charges are included. In the recession of 2008-9, freight rates collapsed with spot rates from Asia to North Europe as low as $100.

The following are maritime freight rates in US dollars for 20'' and 40'' containers from Shanghai, Costanta, Varna and Bandar Abbas ports to anywhere in the world, . T (data collected in May–June 2010).

FROM			
Xingang / Qingdao / Dalian [China] (USD$)			
TO			
Middle East	20\` / 40/ 40\`HC[92]		20\` / 40/ 40\`HC
DUBAI / JEBEL ALI	1,500/2,400/2,400	B.ABBAS	1,600/2,500/2,500
ABU DHABI	1,700/2,800/2,800	SHARJAH	1,700/2,800/2,800
DAMMAM	1,600/2,500/2,500	RIYADH	1,800/2,900/2,900
BAHRAIN	1,800/2,900/2,900	DOHA	1,900/3,100/3,100
KUWAIT	1,700/2,800/2,800	MUSCAT	1,800/2,900/2,900
UM QUASER	2,300/3,700/3,700		
India and Pakistan	20\` / 40/ 40\`HC		20\` / 40/ 40\`HC
KARACHI /QASIM	1,500/2,400/2400	NAHVA SHEVA	1,500/2,400/2,400
COLOMBO	1,400/2,300/2300	CHENNAI / MADRAS	1,450/2,400/2,400
CALCUTTA	1,700/2,700/2700	HALDIA	1,700/2,700/2,700
TUTICORIN	1,600/2,600/2600	COCHIN	1,600/2,600/2,600
Red Sea	20\`/ 40/ 40\`HC		20\`/ 40/ 40\`HC
JEDDAH	1,900/3,000/3000	ADEN	1,550/2,600/2,600
AQABA	2,000/3,200/3200	HODEIDAH	2,100/3,400/3,400
SOKHNA	2,000/3,200/3200	PORT SUDAN	2,300/3,800/3,800
Main ports of South East Asia			20\`/ 40/ 40\`HC
SINGAPORE/PORT KELANG/SURABAYA/ JAKARTA/PASIR GUDANG/PENANG/SAMARANG/SURABAYA/BALAWAN			700/900/900

[92] "HC" denotes high cube.

Main ports of West Mediterranean	20` / 40/ 40`HC
BARCELONA/FOS/VALENCIA/NAPLES/LA SPEZIA/GIOIA TAURO/LIVORNO(LEGHON)/VENICE/MARSEILLES	2,100/3,800/3,900
Main ports of East Mediterranean	**20` / 40/ 40`HC**
ISTANBUL/PORT, SAID/GEMLIK/ HYDARPASA/ IZMIR/ MERSIN/ ALEXANDRIA/ DAMIETTA/ BEIRUT/ LATTAKIA	2,500/4,600/4,700
Main ports of Europe	**20` / 40/ 40`HC**
ANTWERP/ HAMBURG/ ROTTERDAM/ LE HARVE /FELEXSTOWE/ SOUTH AMPTON/ BREMEN/BREMEN HARVEN / DUNKIRK	2,150/3,900/4,000
Main ports of Black Sea	**20` / 40/ 40`HC**
CONSTANTA/ODESSA/ILLICHEVSK/VARNA/ NOVOROSSIYSK/ POTI	2,400/4,300/4,300
Main ports of Japan and Korea	**20` / 40/ 40`HC**
Japan and Korea	100/200/200

FROM			
Costanza Port [Romania] (USD$)			
TO			
	20`GP / 40GP/ 40`HC		20`GP / 40GP/ 40`HC
Kaliningrad	2500 / 3700 / -	Busan	900 / 1300 / -
Lianyungang	2600 / 4500 / -	Barcelona	1350 / 2050 / -
Rotterdam	1400 / 2100 / -	Odessa	750 / 1250 / -
Hamburg	1400 / 2100 / -		

FROM			
Varna Port [Bulgaria] (USD$)			
TO			
	20`GP / 40GP/ 40`HC		20`GP / 40GP/ 40`HC
Kaliningrad	1680 / 2769 / -	Busan	1660 / 2920 / -
Lianyungang	2170 / 3880 / -	Barcelona	995 / 1450 / -
Rotterdam	950 / 1590 / -	Odessa	1100 / 2200 / -
Hamburg	1120 / 1670 / -	Shanghai	2060 / 3650 / -
Vladivostok	3060 / 5460 / -		

FROM			
Bandar Abbas			
TO			
	20" / 40"		20" / 40"
Karachi	$400 / $600	Ezmir	$1000 / $1750
Istanbul	$1000 / $1650	Shanghai	$850 / $1550
Rotterdam	$650 / $980	Hamburg	$650 / $980

Time Schedule

A standard container ship speed is about 25 knots while “slow steaming” has container ships move at 20-22 knots. Recently, speeds have been further reduced with the introduction of “extra slow steaming”, i.e. ships operating at speeds of 17-19 knots or less. In 2010, “extra slow steaming” absorbed 554,000 TEUs - about the magnitude of currently laid-up capacity[93].

Figure 19 is the time schedule and distance analysis of the most common maritime routes[94].

Figure 19. Distance and time analysis, common maritime routes

Shanghai - Rotterdam	

[93] *Dynamar: Dynaliners 11/2010, 4 June 2010, reporting data from AXS-Alphaliner.*

[94] These routes have been calculated by using the online maritime calculator http://www.axsmarine.com/public

<table>
<tr><td>Distance: 10,490 nm
Duration: 43.71 days</td><td></td></tr>
<tr><td>Shanghai - Istanbul
Distance: 8,003 nm
Duration: 33.35 days</td><td>
</td></tr>
<tr><td>Bandar Abbas - Hamburg
Distance: 6,368 nm
Duration: 26.53 days</td><td>
</td></tr>
<tr><td>Vostochny - St.Petersburg
Distance: 12,520 nm
Duration: 52.17 days</td><td>
</td></tr>
<tr><td>Vostochny - Murmansk
Distance: 12,808 nm
Duration: 53.37 days</td><td>
</td></tr>
<tr><td>Istanbul - Novorossiysk</td><td></td></tr>
</table>

<table>
<tr><td>Distance: 452 nm
Duration: 1.88 days</td><td></td></tr>
<tr><td>Shanghai - Bandar Abbas
Distance: 5,581 nm
Duration 23.25 days</td><td>
</td></tr>
<tr><td>Rotterdam - St. Petersburg
Distance: 1,245 nm
Duration: 5.19 days</td><td>
</td></tr>
<tr><td>Shanghai - Novorossiysk
Distance: 8,454 nm
Duration: 35.23 days</td><td>
</td></tr>
<tr><td>Novorossiysk - Kaliningrad</td><td></td></tr>
</table>

Distance: 4,444 nm Duration: 9.26 days	

Source: www.axsmarine.com/.

Road Transport Costs

Road transport costs are basic components of maritime shipping. Trucks move containers from the shipper to the port of origin and from the port of destination to the final client. Most of the time, road transport to these destinations is round trip as the truck picks up the empty containers from the storage place of the shipping lines/forwarders – normally close to the port – brings it to the shippers' warehouse, waits for the container to be loaded and finally, moves the loaded container to the port of origin. The same, albeit the other way around, happens in the port of destination/unloading station where the trucks picks up the loaded container from the container freight station of the port/station, brings it to the warehouse of the final client, waits until it is unloaded and then brings back the empty container to the storage place of the shipping line.

Figure 20. Road transport involvement in maritime transport

It is important to know how much it costs, in each country, for a truck to transport containers from the port to a final client or shipper in a 20 km radius of the port. That distance is normally the average distance from a port to logistics or manufacturing areas. Figure 21 provides the flat rates for a truck delivering a container (20’’ or 40’’) in a 20 km radius of the port (data collected in June 2010).

Figure 21. Road transport rates

Country	Cost of road transport (in $)
Afghanistan	150
Armenia	140
Azerbaijan	160
Belarus	180
Bulgaria	195
China	100-200
Georgia	180
Germany	250-350
Greece	250
Iran	50-150
Kazakhstan	120-180
Kyrgyzstan	130
Latvia	230
Moldova	150
Mongolia	120
Poland	200-280
Romania	150-250
Russian Federation	80-200
Tajikistan	130
Turkey	180-300
Turkmenistan	130
Ukraine	150-250
Uzbekistan	100-150

In general, international road transport costs are quite similar. From Istanbul to Western Europe the rate is €0.82–0.92 per km and from Western Europe to Istanbul is €0.9–1. From Istanbul to Almaty Kazakhstan the rate is $1–1.4/km and the other way it is $0.8–1 per km. The rate of $1.4 per km for long distances appears to be the average tariff.

CHAPTER 4: Rail time-costs along Euro-Asian routes

Comparing maritime and rail routes requires a thorough analysis of shipping time and cost per container. The cost per container analysis is easier to perform than the time analysis because railway tariffs are typically available.

Figure 22. Wagon loading scenarios

Source: Author's publications

The time schedule is more difficult to assess. Determining the time schedule of a block train is a complicated task and often requires a simulation or a demonstration run to identify all the issues and make appropriate calculations. (The majority of railways did not reply to questions relating to time in the UNECE questionnaire see Annex I).The maximum loading point, or optimal loading scenario, refers to the number of containers that we can load on a train (Figure 22). The train, including the locomotive's power to pull, and each wagon have weight and loading restrictions that should be respected. Theoretically, one ISO container wagon can hold three 20'' containers or one 40'' container and one 20'' container. Because of the weight restrictions, we normally load one 40'' container or one 20'' container. Sometimes, cargo permitting (cotton, for instance) or when we have empty containers to load, then we can also load two 20'' containers or less frequently one 40'' container and one 20''. These different "types" of containers – 40'', 20''- typically weigh less than 15 tonnes. Also the transport of empty 20'' or 40'' is charged differently.

The cost structure is the most difficult part of this analysis. Normally, rail organizations do not know the cost of their operations. This is mainly because of their organizational structure where investments in infrastructure and operations form part of the same company.

For this comparison study points of origin and points of destination of interest will be identified and these points will "compose" the block train time schedule and cost according to information analysis for each country participating on this route. Figure 27 illustrates the calculation of time–cost analysis for the block trains of the study. This includes three steps: (a) road transport from the shipper to the loading station, (b) rail service, (c) road transport to the final shipper.

Figure 23. Calculation of time and cost for a block train

1	Transport of container by truck from original shipper to main train station to be loaded on the train, loading/documentation expenses
2	Block Train Service: Rail transport of container from Berlin to Vostochny. Composition of time schedule and tariff costs.
3	Delivery of the container by truck from the final unloading station to the final shipper. Unloading / documentation expenses.

Source: Author's publications

Time schedule analysis

The formulation of an integrated time schedule for a block train is a complex task. The number of countries, operating conditions in these countries, stopovers and the reasons for these stopovers all directly influence the time schedule. Regional characteristics are also important and constitute significant factors. For instance, in CIS countries there are transshipment stopovers due to gauge changes and security. In West European countries, there are stopovers because of passenger train priority. All these reasons influence the final time schedule and time schedule operators should analyze all parameters in order to finalize the total traveling time, departure and arrival time.

The timetable of a block train is equally important as its operation. The timetable and its reliability are the most important marketing tools of train operators, even more so than tariffs, and track and trace services. The development of timetable and its reliable implementation is a particularly difficult and laborious task, not only because of the usual factors that influence transportation but also because of the particularities of a specific route.

The gauge issue

The standard gauge of 1,435 mm has been adopted in many parts of the world, across North America and most of Western Europe. It accounts for about 60% of the world's railways. Other gauges have been adopted as well such as the broad gauge (1,520 mm) in the former Soviet Union accounting for about 17% of railways. This makes integration of rail services difficult since both freight and passengers are required to change from one railway system to the other in France and Spain, Eastern and Western Europe, and between Russia and China. The potential of the Euro-Asian land bridge is limited in part by these gauge differences.

6.1.10.

6.1.11.

Field Experience

The author has extensive experience in running demonstration trains, mainly in Central Asia and in the Balkans. The following are actual data for traveling time in different countries.

The speed of the train will be calculated by using the following formula:

$$\text{Average traveling time (km/hr)} = \frac{\text{Total route kilometers}}{\text{Total traveling time (traveling + stopovers)}}$$

id	Country runs	Total km traveled	Total time (hrs)	Avg speed (km/hr)
1	Iran	2,345	112.2	21
2	Turkey	1,995	84	23
3	Turkmenistan	469	32.15	14
4	Kazakhstan	969	27.56	35
5	Bulgaria	174	11	16
6	Greece	170	8	21.25
7	Uzbekistan	670	40.18	17

Published Case Studies

id	Route runs	Total km traveled	Total time (days)	Avg speed
8	Peking - Hamburg[95]	9,992	15	27.75
9	Vesoul - Kaluga[96]	3,000	5	25
10	Tran Siberian [97]	9,349	11	35
11	Tianjin (China) to Ulaanbaatar (Mongolia)	1,691	3	22.4
12	Lianyungang (China) to Almaty (Kazakhstan)	5,020	7	28.8
13	Brest (Belarus) to Ulaanbaatar (Mongolia)	7,180	9	30,7
14	Nakhodka (Russian Federation) to Malaszewicze (Poland)[98]	10,335	12	35
15	Islamabad to Istanbul[99]	6,566	11	24.9

Figure 24 summarizes the average train speed in the three regions.

Figure 24. Average train speed

EU	Asia[100]	CIS
26 km/hour	21 km/hour	34 km/hour

Source: Author's analysis

[95] DB Block Train, Railway Market – GEE Review No 1, 2008
[96] PEUGEOT BLOCK TRAIN, CIT Newsletter, February 2010
[97] Tran Siberian Block Train, presentation of Russian Railways at UNECE
[98] UNESCAP Demonstration Runs
[99] ECO Demonstration Run
[100] Asian countries excluding the ones including at CIS

This is not the actual speed of the train but the speed of the total traveling time, meaning actual traveling time and stopovers.

These average train speeds will be applied to time schedules wherever actual data were unavailable[101]. It should be noted that waiting time at borders is not an important factor for this kind of services - block trains - mainly because these services are result of governments or state-owned railways agreements. In these cases, borders crossings are part of the common consensus concerning the operations of these trains which implies non-stop rail service.

Afghanistan

Afghanistan is a large, landlocked country with movements severely limited by rugged terrain. The country has less than 25 km of railroad track, which is used for shipping goods to/from Turkmenistan and Uzbekistan.

Armenia

Bagratashen – (Georgian border) – Akhuryan (Turkish Border)

id	Route	Distance (km)	Time (hours)
1	Bagratashen – Uzunla	48	
2	Uzunla – Tumanyan - Kirovakan	37.6	
3	Kirovakan – Spitak – Gyumri - Akhuryan	75.5	
	Total	**161**	**8**

Azerbaijan

Astara– (Iranian border) – Beyuk Kesik (Georgian Border)

id	Route	Distance (km)	Time (hours)
1	Astara – Lenkoran - Bal'yany - Quazimamad	235	
2	Quazimamad – Kyurdamir – Udzhary - Yevlakh	276	
3	Yevlakh – Dilmameldi – Tauz	88.2	
4	Tauz – Akstafa - Beyuk Kesik	67.8	
	Total	**667**	**32.25**

Belarus

Redki (Russian border) – Brest (Polish Border)

id	Route	Distance (km)	Time (hours)
1	Redki – Orsha	45.9	

101 When no actual data concerning distance in kilometers between stations or even for the whole length of one country's railroads were available, combined data from Google earth, Autoroute Microsoft GIS software and different maps was used.

2	Orsha – Minsk	221.3	
3	Minsk – Brest	346	
	Total	**613.2**	**18**

Novaya Guta – (Ukranian border) – Brest (Polish Border)

id	Route	Distance (km)	Time (hours)
1	Novaya Guta – Gomel	22	
2	Gomel – Minsk	298.1	
3	Minsk – Brest	346	
	Total	**666.1**	**20**

Novaya Guta – (Ukranian border) – Godogay (Lithuanian Border)

id	Route	Distance (km)	Time (hours)
1	Novaya Guta – Gomel	22	
2	Gomel – Minsk	298.1	
3	Minsk – Gudogay	100	
4	Gudogay – Lithuanian borders	45	
	Total	**465**	**14**

Bulgaria

Kulata (Greek Border) – Ruse (Romanian Border)

id	Route	Distance (km)	Time (hours)
1	Kulata – Sofia	174	
2	Sofia – Mezdra	83.5	
3	Mezdra - Pleven	101	
4	Pleven – Gorna Orjahoviga	119.3	
5	Gorna Orjahoviga – Ruse	13	
	Total	**490.8**	**19.5**

China

Shanghai port (China) – Alataw Shankou (Kazakhstan Border)

id	Route	Distance (km)	Time (hours)
1	Shanghai – Nanjing	269.1	
2	Nanjing – Xuzhou	287.53	
3	Xuzhou – Xian	754.27	
4	Xian – Lanzhou	506.39	
5	Lanzhou – Shulehe	437.21	
6	Shulehe – Urumci	1,199.82	
7	Urumci – Alataw Shankou	430.19	
	Total	**3,884.51**	**185.5**

Georgia

Gardabani (Azerbaijan border) – Poti (Georgian Port)

id	Route	Distance (km)	Time (hours)
1	Gardabani – Vell	34.81	
2	Vell – Tbilisi	13.6	
3	Tbilisi – Kashuri	104.04	
4	Kashuri – Kutaisi	78.32	
5	Kutaisi – Samtredia	32.17	
6	Samtredia – Poti	54.69	
	Total	**317.63**	**9.5**

Germany

Oder (Polish Border) - Hamburg (German port)

id	Route	Distance (km)	Time (hours)
1	Oder – Berlin	114.5	
2	Berlin – Wittenberge	188.5	
3	Wittenberge – Ludwigslust	52.4	
4	Ludwigslud – Hamburg	118.4	
	Total	**473.8**	**18.3**

Greece

Athens - Pireaus (Greek capital) – Promachon (Bulgarian Border)

id	Route	Distance (km)	Time (hours)
1	Athens – Lianokladion	157.07	
2	Lianokladion – Paleofarsalos	45.13	
3	Paleofarsalos – Larissa	37.62	
4	Larissa – Thessalonica	300.18	
5	Thessalonica – Strimon	120	
6	Strimon – Promachon	50	
	Total	**710**	**27**

Iran

Zahedan (Pakistani border) to Kapikoy (Turkey)

id	Route	Distance (km)	Time (hours)
1	Zahedan - Bam	288	

2	Bam - Kerman	225	
3	Kerman- Bafgh	216	
4	Bafgh - Yazd	117	
5	Yazd - Kashan	363	
6	Kashan - Mohammadieh	81	
7	Mohammadieh - Aprin	123	
8	Aprin - Qazvin	144	
9	Qazvin - Zanjan	171	
10	Zanjan - Mianeh	124	
11	Mianeh - Maraqeh	168	
12	Maraqeh - Tabriz	129	
13	Tabriz - Samas	151	
14	Samas - Razi	40	
15	Razi - Kapikoy	5	
	Total	**2,345**	**112.2**

Bandar Abbas (Iranian Port) to Sarakhs (Turkmen Border)

id	Route	Distance (km)	Time (hours)
1	Bandar Abbas – Sirjan	359	
2	Sirjan – Mobarakeh	321	
3	Mobarakeh – Tabas	275	
4	Tabas – Torbat Heydarieh	334	
5	Torbat Heydarieh - Sarakhs	330	
	Total	**1,619**	**52**

Kapikoy (Turkish Border) to Sarakhs (Turkmen Border)

id	Route	Distance (km)	Time (hours)
1	Kapikoy – Razi	5	
2	Razi - Samas	40	
3	Samas – Tabriz	151	
4	Tabriz – Maraqeh	129	
5	Maraqeh – Mianeh	168	
6	Mianeh - Zanjan	124	
7	Zanjan – Qazvin	171	
8	Qazvin - Aprin	144	
9	Aprin – Semnan	223	
10	Semnan – Neyshabur	560	
11	Neyshabur - Sarakhs	257	
	Total	**1,972**	**63**

Kaliningrad

Kaliningrad (Russial) - (Lithuanian border)

id	Route	Distance (km)	Time (hours)
1	Lithuanian Borders - Kalinigrad	145	

	Total	**145**	**4.2**

Kazakhstan

Almaty (Kazakhstan) to Sary Agash (Uzbek Border)

id	Route	Distance (km)	Time (hours)
1	Almaty – Otar	156	
2	Otar – Shu	155	
3	Shu – Taraz	233	
4	Taraz - Tulkubas	31	
5	Tulkubas – Shymkent	187	
	Shymkent – Arys	79	
	Arys – Sary Agash	128	
	Total	**969**	**28**

Ucharal (Chinese border) to Petropavi (Russian Border)

id	Route	Distance (km)	Time (hours)
1	Ucharal – Moynly	494	
2	Moynly – Karaganda	946.23	
3	Karaganda – Astana	1,136.56	
4	Astana – Kokchetav	1,438	
5	Kokchetav - Petropavi	1,657	
	Total	**1,657**	**48**

(Uzbek border) to (Russian Border)

id	Route	Distance (km)	Time (hours)
1	U.B. - Beyneu	78.73	
2	Beyneu - Makat	293.93	
3	Makat – Atyrau	123.56	
4	Atyrau – Russian Borders	226.59	
	Total	**722.81**	**21.5**

Ucharal (Chinese border) to Sary Agash (Uzbek Border)

id	Route	Distance (km)	Time (hours)
1	Ucharal - Almaty	765.97	
2	Almaty – Otar	156	
3	Otar – Shu	155	
4	Shu – Taraz	233	
5	Taraz - Tulkubas	31	
6	Tulkubas – Shymkent	187	
7	Shymkent – Arys	79	
8	Arys – Sary Agash	128	
	Total	**1,734.97**	**53**

Kyrgyzstan

Bishkek (capital) to Batyr (Kazakh Border)

id	Route	Distance (km)	Time (hours)
1	Bishkek – Kara Balta	62	
2	Kara Balta – Batyr	53	
	Total	**115**	**7.5**

Latvia

Zilupe (Russian border) - Riga Port

id	Route	Distance (km)	Time (hours)
1	Zilupe – Rezekne	60,6	
2	Rezekne – Koknese	137,7	
3	Koknese – Aizkraukle	12,4	
4	Aizkraukle – Riga	87,8	
	Total	**298.5**	**12**

Lithuania

(Kaliningrad border) – Godogay (Ukrainian Border)

id	Route	Distance (km)	Time (hours)
1	Gudogay – Vilnious	31.75	
2	Vilnious – Prienai	84.77	
3	Prienai – Vilkaviskis	59.63	
4	Vilkaviskis - Borders	27	
	Total	**203.15**	**6**

6.1.12.

Moldova

Ungheni (Romanian border) – Kuchurgan (Ukranian border)

id	Route	Distance (km)	Time (hours)
1	Ungheni – Chisinau	74.1	
2	Chisinau – Revaka	25.1	
3	Revaka – Bender	34.4	
4	Bender – Kuchurgan	43.1	
	Total	**176.7**	**8.67**

Mongolia

(Chinese Border) – (Russian Border)

id	Route	Distance (km)	Time (hours)
1	Chinese borders – Ulaan Bataar	636.35	
2	Ulaan Bataar – Russian borders	240.61	
	Total	**876.96**	**42.25**

Poland

Terespol (Belarussian border) – Rzepin (German border)

id	Route	Distance (km)	Time (hours)
1	Terespol - Warszawa	191.9	
2	Warszawa – Kutno	123	
3	Kutno – Poznan	183.7	
4	Poznan – Rzepin	163.7	
	Total	**662.3**	**25.8**

(Ukranian border) – Warsaw (capital)

id	Route	Distance (km)	Time (hours)
1	Medyka - Warsaw	373	
	Total	**373**	**14.34**

Romania

Constanta (Port) – Bucarest (capital)

id	Route	Distance (km)	Time (hours)
1	Constanta – Medgidia	37.1	
2	Medgidia – Fetesti	40.1	
3	Fetesti – Bucarest	145.4	
	Total Kilometers	**222.6**	**9**

Giurgiu (Bulgarian border) – Vicsani (Ukranian border)

id	Route	Distance (km)	Time (hours)
1	Giurgiu - Bucarest	62.6	
2	Bucarest – Ploiesti	58.9	
3	Ploiesti – Buzau	70.9	
4	Buzau – Focsani	70.5	
5	Focsani – Adjud	46.3	
6	Adjud – Roman	100	
7	Roman – Pascani	69.8	
8	Pascani – Suceava	69.8	
9	Suceava – Vicsani	20.7	
	Total	**569.5**	**22.5**

Giurgiu (Bulgarian border) – Jijia (Moldovian border)

id	Route	Distance (km)	Time (hours)
1	Giurgiu - Bucarest	62.6	
2	Bucarest – Ploiesti	58.9	
3	Ploiesti – Buzau	70.9	
4	Buzau – Focsani	70.5	
5	Focsani – Adjud	46.3	
6	Adjud – Roman	100	
7	Roman – Pascani	69.8	
8	Pascani – Iasi	21.8	
9	Iasi – Jijia	41.8	
	Total	**542.6**	**21.5**

Russian Federation

Moscow (Russia) to Vostochny (Russia)

id	Route	Distance (km)	Time (hours)
1	Moscow - Kirov	836	
2	Kirov – Yekaterinburg	238	
3	Yekaterinburg - Omsk	1,546	
4	Omsk - Novosibirsk	629	
5	Novosibirsk - Krasnoyarsk	778	
6	Krasnoyarsk - Irkutsk	1,056	
7	Irkutsk - Chita	1,018	
8	Chita – Belogorsk	1,679	
9	Belogorsk - Khabarovsk	661	
10	Khabarovsk - Vostochny	908	
	Total	**9,349**	**275.6**

St. Petersburg (Russian Port) to Moscow (capital)

id	Route	Distance (km)	Time (hours)
1	St. Petersburg – Moscow	860	
	Total	**860**	**25.5**

St. Petersburg (Russian Port) to (Kazakh border)

id	Route	Distance (km)	Time (hours)
1	St. Petersburg – Moscow	860	
2	Moscow – Ryazan	183.89	
3	Ryazan – Tambov	237.11	
4	Tambov – Saratov	344.23	
5	Saratov - Volgograd	330.54	
6	Volgograd – Aksarayskaya	373.78	
7	Aksarayskaya – Kazakhstan borders	85.37	
	Total	**2,415**	**71**

Solovey (Ukrainian Border) to Vladivostok (Russian Port)

id	Route	Distance (km)	Time (hours)
1	Solovey – Liski	135	
2	Liski -Penza	448.26	
3	Penza - Samara	344.44	
4	Samara – Kurgan	1,015.33	
5	Kurgan - Omsk	513.06	
6	Omsk - Novosibirsk	629	
7	Novosibirsk - Krasnoyarsk	778	
8	Krasnoyarsk - Irkutsk	1,056	
9	Irkutsk - Chita	1,018	
10	Chita – Belogorsk	1,679	
11	Belogorsk - Khabarovsk	661	
12	Khabarovsk - Vladivostok	908	
	Total	**9,185.09**	**270**

Gukovo (Ukrainian border) to (Kazakh border)

id	Route	Distance (km)	Time (hours)
1	Gukovo - Volgograd	390.4	
2	Volgograd – Aksarayskaya	373.78	
3	Aksarayskaya – Kazakhstan borders	85.37	
	Total	**849.55**	**25**

Novorossiysk (Russian Port) to Uspenskaya (Ukrainian border)

id	Route	Distance (km)	Time (hours)
1	Novorossiysk - Krasnodar	100.86	
2	Krasnodar - Rostov	250.60	
3	Rostov - Uspenskaya	86.73	
	Total	**438.20**	**13**

Tajikistan

Dushanbe (capital) to Saryasiya (Uzbek border)

id	Route	Distance (km)	Time (hours)
1	Dushanbe – Pahtaabad	44	
2	Pahtaabad – Saryasiya	5	
	Total	**49**	**3.5**

Turkey

Kapikoy (Iranian Border) to Haydarpassa (Istanbul)

id	Route	Distance (km)	Time (hours)
1	Kapikoy - Van	113.961	
2	Van - Tatvan	-	
3	Tatvan - Elazig	335.09	
4	Elazig - Malatya	118.77	
5	Malatya - Bostankaya	223.21	
6	Bostankaya - Kayseri	197.39	
7	Kayseri - Ankara	379.94	
8	Ankara - Haydarpasa	576.61	
	Total	**1,944.97**	**84**

Turkmenistan

Sarakhs (Iranian Border) to Farap (Uzbek border)

id	Route	Distance (km)	Time (hours)
1	Farap – Turkmenabat	22	
2	Turkmenabat – Mary	243	
3	Mary – Sarakhs	204	
	Total	**469**	**32.25**

Ukraine

Krasnaya (Russian border) – Mostiska (Polish border)

id	Route	Distance (km)	Time (hours)
1	Krasnaya – Krasnoarmeysk	252.1	
2	Krasnoarmeysk – fastov	710.8	
3	Fastov – Zhmerinka	262.5	
4	Zhmerinka – Temopol	255.7	
5	Temopol – Mostiska	207	
	Total	**1,688.1**	**50**

Solovey (Russian border) – Kiev (capital)

id	Route	Distance (km)	Time (hours)
1	Solovey – Kharkov	152.41	
2	Kharkov – Poltava	123.57	
3	Poltava – Kiev	302.79	
	Total	**578.77**	**17,14 hrs ?? ??**

Kvashino (Russian border) – Chernihiv (Belarussian Border)

id	Route	Distance (km)	Time (hours)
1	Kvashino – Donetsk	80.14	
2	Donetsk – Dnepropetrovsk	213.83	
3	Dnepropetrovsk - Fastov	410.53	
4	Fastov – Kiev	60.25	
5	Kiev - Nizhym	116	
6	Nizhym - Chernihiv	65.48	
7	Chernihiv- Belarussian borders	67.56	
	Total	**1,013.81**	**30**

Uzbekistan

Sary Agash (Kazakh Border) to Khodjadavlet (Turkmen border)

id	Route	Distance (km)	Time (hours)
1	Sary Agash - Tashkent	10	
2	Tashkent - Khavast	119	
3	Khavast - Marokand	202	
4	Marokand - Bukhara	249	
5	Bukhara - Khodjadavlet	90	
	Total	**670**	**40.3**

(Kazakh Border) to Khodjadavlet (Turkmen border)

id	Route	Distance (km)	Time (hours)
1	Kazakhstan borders - Nukus	395	
2	Nukus -Miskin	175.73	
3	Miskin – Uchkuduk	226.42	
4	Uchkuduk - Navoi	276.33	
5	Navoi - Bukhara	93	
6	Bukhara - Khodjadavlet	90	
	Total	**1,256.48**	**77.3**

Sary Agash (Kazakh Border) to (Kazakh border)

id	Route	Distance (km)	Time (hours)
1	Sary Agash - Tashkent	10	
2	Tashkent - Khavast	119	
3	Khavast - Marokand	202	

4	Marokand – Navoi	143	
5	Navoi - Uchkuduki	276.33	
6	Uchkuduki - Miskin	226.42	
7	Miskin - Nukus	175.73	
8	Nukus – Kazakhstan Borders	395	
	Total	**1,547.48**	**95**

Tariff rates and structure

There are many tariffs used in rail transport - even within the same country. Factors that typically influence tariff structure and their level are:

- ☑ Different tariffs for the same routes are quoted by forwarders and state rail organizations
- ☑ State rail organizations charge different clients differently. A forwarder, a shipper, a small trader with one container or a big manufacturer with 1000 containers per year pay different tariffs
- ☑ The actual – charged - tariffs are different than the published tariffs
- ☑ Tariffs differ depending whether:
    - it is bulk or container cargo
    - it is carried in wagons or by a block train
    - the client is a forwarder or a shipper
    - the amount cargo is large
    - it is long term contract with a guarantee for the quantity
    - terms of payment are favourable or not
    - $/€ per train kilometer or per container, or container kilometers etc

Figure 25 provides tariff rates that are currently applied in some countries. All the actual tariffs have been provided through the questionnaires or directly to the consultant by the rail organizations (and not by forwarders or shippers). These are average rates which could be reduced through further negotiations but will be used here. In general, for the purposes of the project these tariffs are adequate to illustrate the average pricing. Wherever there was not any information about the tariffs in a country, the regional average was used.

Figure 25. Rail Tariffs

	20'' full container (per container)	**40'' full container** (per container)	**20'' full container** (per km)	**40'' full container** (per km)	**20'' empty container** (per km)	**40'' empty container** (per km)
Afghanistan			-	-		
Armenia			0.52	0.64		
Azerbaijan			0.52	0.64		
Belarus			0.48	0.55		
Bulgaria			0.75	0.85		
China			0.40	0.50		
Georgia			0.48	0.55		
Germany			0.75	0.85		
Greece			0.75	0.85		
Iran	747	1,093	0.46	0.68	0.23	0.34
Kazakhstan	614	989	0.64	1.03	0.31	0.48
Kyrgyzstan			0.48	0.55		
Latvia			0.75	0.85		

Moldova			0.48	0.55		
Mongolia			0.40	0,50		
Poland			0.75	0.85		
Romania			0.75	0.85		
Russian Federation			0.48	0.55		
Tajikistan			0.55	0.75		
Turkey	621	822	0.31	0.41	0.23	0.29
Turkmenistan	692	1,254.8	1.4	2.6		
Ukraine			0.48	0.55		
Uzbekistan	462.58	832.24	0.64	1.4	0.38	0.67

Note: Rates in US dollars

CHAPTER 5 Comparison of Rail and Maritime transport along EATL routes

Trans Siberian Railway route[102]

A model has already been developed to compare two alternative transportation routes: the Trans Siberian rail route and the maritime routes. This model does not provide a comparison of the two transport options given same points of origins and destinations but determines the conditions under which the “watershed” or the final destination, should move further west or further east depending on the increase in tariffs of maritime transport or rail transport. Simulation scenarios are also studied to determine the exact location of the “watershed”.

Figure 26. The Trans Siberian Railway case study

a = Maritime freight charges from Japan to Nakhodka (US$)
X = The distance from Nakhodka to the point of destination (km)
b = Railway fees (US$/km)
Y_R = Overall cost of the TSR route (US$)

c = Maritime freight charges from Japan to Saint Petersburg (US$)
K = The distance from Nakhodka to Saint Petersburg (9,713km)
$K - X$ = The distance from Saint Petersburg to the point of destination (km)
d = The truck haulage fees from Saint Petersburg to the point of destination (US$/km)
Y_D = Overall cost of the Deep Sea route (US$)

$$Y_R = a + bX$$
$$Y_D = c + d(K - X)$$

To find the point of destination, X, where $Y_R = Y_D$:

$$a + bX = c + dK - dX$$
$$X = \frac{c - a + dK}{b + d}$$ which gives the watershed.

[102]Tsuji Hisako, The Global Financial Crisis and Trans Siberian Railway Transportation, ERINA REPORT, vol 89, September, 2009.

To find the relationships between the parameters and the watershed:

$$\frac{\partial X}{\partial c} > 0$$

The more expensive the Deep Sea fees, the further the watershed moves to the west.

$$\frac{\partial X}{\partial a} < 0$$

The more expensive the Japan-Nakhodka maritime freight charges, the further the watershed moves to the east.

$$\frac{\partial X}{\partial b} < 0$$

The more expensive the Trans-Siberian Railway fees, the further the watershed moves to the east.

$$\frac{\partial X}{\partial d} = \frac{K(b+d)-(c-a+dK)}{(b+d)^2}$$

$$= \frac{bK-c+a}{(b+d)^2} > 0 \quad \text{If} \quad bK+a > c$$

As long as the cost of transportation via the TSR route to Saint Petersburg $(bK+a)$ is higher than the cost of transportation via the Deep Sea route to Saint Petersburg (c), then a rise in truck haulage fees will move the watershed to the west. Hypothetically, regarding transportation bound for Saint Petersburg, if the TSR route were cheaper than the Deep Sea route, there would be a situation where the watershed ceased to be inside Russia, as it is thought all freight would use the TSR route.

Simulation Results

Case I (Basic Model): Assumes values of US$1,000 for the maritime freight charges from Japan to Nakhodka (a) and US$2,500 for the Deep Sea charges to Saint Petersburg (c). For the railway fees, the 9,314km between Nakhodka and Moscow is taken as costing $4,000, meaning that b= US$0.43/km. For truck haulage fees the 400km between Saint Petersburg and Moscow is taken as costing US$1,500, meaning that b= US$3.75/km. Under these assumptions X= 9,072km and the watershed lies 242km east of Moscow.

Case II: When the maritime freight charges from Japan to Nakhodka (a) are raised from US$1,000 to US$2,000, the watershed moves to a point 481km east of Moscow. Japan-Nakhodka maritime freight charges are widely held to be approximately US$1,000 more expensive than those between the ROK and Nakhodka, and if all other conditions are equal, it can be considered that the watershed for Japan lies further east than is the case for the ROK.

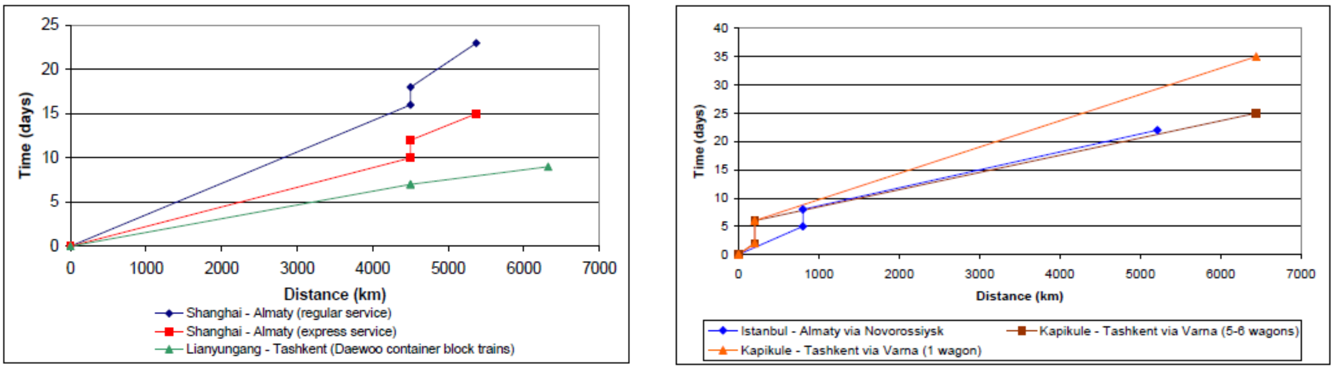
Source: Tsuji Hisako, The Global Financial Crisis and Trans Siberian Railway Transportation ERINA REPORT, vol. 89 2009

The UNESCAP block trains report [103]

United Nations ESCAP performed an analysis concerning the development of block trains for the region of Central Asia, specifically for Kazakhstan and Uzbekistan. This analysis produced the following results.

[103] http://www.unescap.org/ttdw/common/TIS/TAR/operationalization.asp

Figure 27. Time-Cost-Distance analysis, 2006



Source UNESCAP

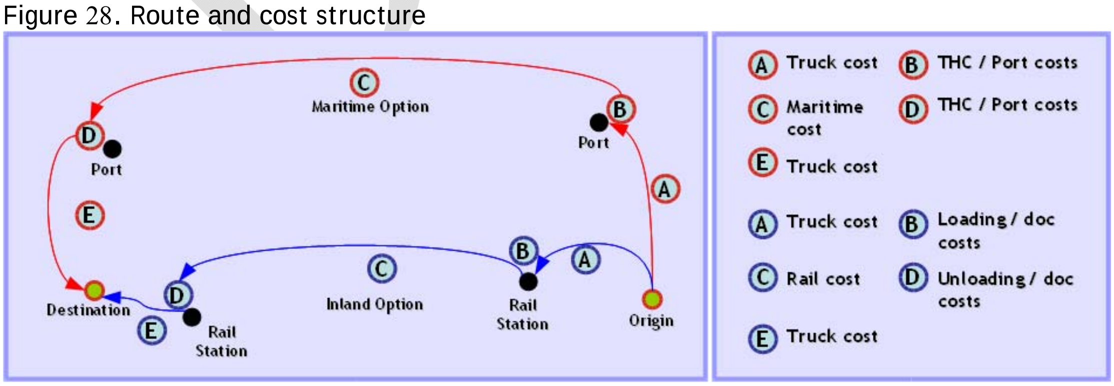
Minimum and maximum transit times for regular and express rail services from ports in China to Kazakhstan are 15 and 23 days respectively (Figure 30). The significant difference of eight days is partly caused by the transfer time at the border between China and Kazakhstan, which includes break-of-gauge, transshipping and processing of customs documentation. Meanwhile, data on the container block trains established for shipments from Daewoo Corporation in the Republic of Korea via the Chinese port of Lianyungang reveal that a transit time of nine days is possible.

The existing break-of-gauge points at Drushba/Alashankou (China/Kazakhstan), Sarakhs (Turkmenistan/Islamic Republic of Iran) and Brest (Belarus/Poland) are operational hindrances, but do not cause exceptional delays compared with the existing institutional barriers which represent the main reasons for long waiting times and delays at border crossing points. Reported transit times for railway transport routes between destinations in Central Asia and various ports vary between 9 and 35 days.

Comparative analysis of EATL rail and maritime transport

The route and cost structure is determined in the way presented in Figure 28.

Figure 28. Route and cost structure



Source: Author's analysis -

- ☑ Identify the origin of the cargo/shipper ("Origin")
- ☑ Identify the final destination where the cargo is to be delivered ("Destination")
- ☑ Identify the maritime and inland route between "Origin" and "Destination"

Maritime transport option:

- ☑ Identify the closest port to "Origin" location
- ☑ Calculate the distance (km) for road transport (by truck) from the "Origin" location to the closest port; calculate the corresponding cost
- ☑ Calculate the port costs such as handling and other costs
- ☑ Identify the closest and most convenient port for the "Destination" location; calculate the traveling time and costs from one port to another
- ☑ Calculate the costs at the port of close to "Destination"
- ☑ Calculate the distance (km) for road transport (by truck) from that port to the "Destination" location B; calculate the corresponding costs

Inland transport option

- ☑ Calculate the distance (km) for road transport from the "Origin" location to the closest the train (loading) station
- ☑ calculate the costs at the loading station such as loading, documentation, customs
- ☑ Determine the time schedule for the rail service and the corresponding cost
- ☑ Calculate the costs at the unloading station
- ☑ Calculate the distance (km) and costs for road transport from the unloading station to the "Destination" location

6.2. EATL ROUTE 1: Khabarovsk (Russia -Origin) - Potsdam (Germany - Destination)

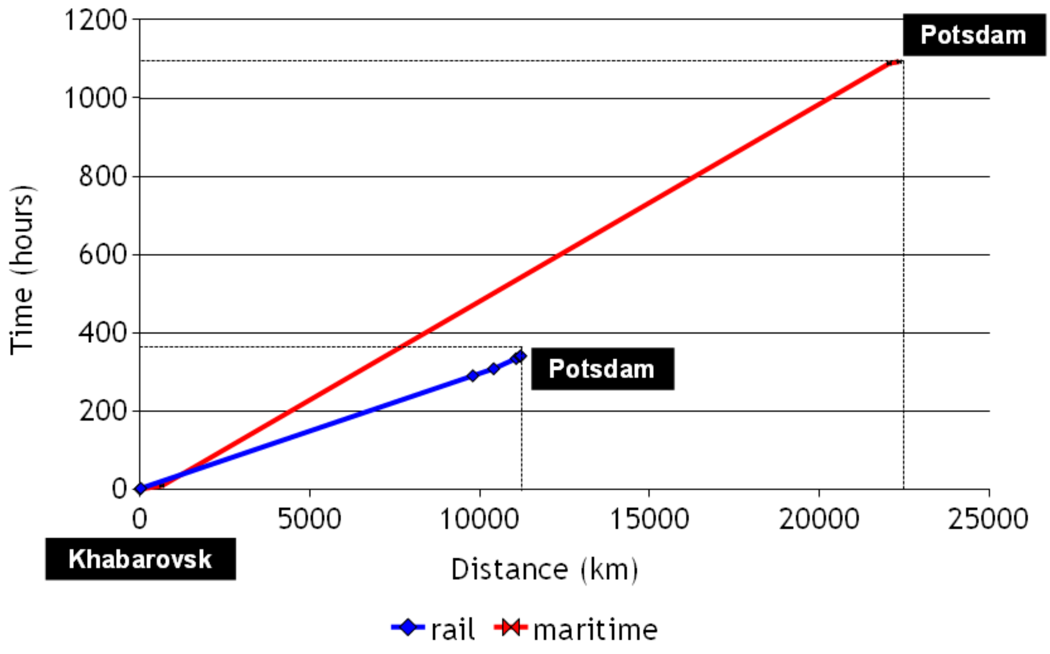
Maritime Transport		Rail Transport	
(A) Truck cost	(D) THC / Port costs	(A) Truck cost	(D) Unloading / other costs
(B) THC / Port costs	(E) Truck cost	(B) Loading / other costs	(E) Truck cost
(C) Maritime cost		(C) Rail cost	

MARITIME TRANSPORT: Khabarovsk (via Vostochny Port) - Potsdam (via Hamburg Port)			
Route	**km**	**Cost($)**	**Time (hrs)**
Khabarovsk – Vostochny port (by road)	653	783	9
Vostochny port THC costs	-	300	-
Vostochny port other costs	-	320	-
Vostochny port – Hamburg port (by sea)	21,414	4,200	1,080
Hamburg port THC costs	-	180	-
Hamburg port other costs	-	250	-
Hamburg port – Potsdam (by road)	282	500	4
Total maritime transport	21,414	5,250	1,080
Total road transport	935	1,283	13
TOTAL	**22,349**	**6,533**	**1,093**
INLAND TRANSPORT: Khabarovsk - Potsdam			
Route	**km**	**Cost($)**	**Time (hrs)**
Khabarovsk – Khabarovsk rail station by road	20	150	2
Khabarovsk rail station loading cost	-	30	-
Khabarovsk rail station other costs	-	40	-
Russia (Vostochny – Redki) by rail	9,779	5,378	288
Belarus (Redki – Brest) by rail	613	337	18
Poland (Terespol – Rzepin) by rail	662	562	26
Germany (Oder – Berlin) by rail	114	100	5
Potsdam rail station unloading cost	-	45	-

Potsdamrail station other costs	-	75	-
Potsdam rail station – Potsdam by road	20	250	2
Total rail transport	11,168	6,567	337
Total road transport	40	400	4
TOTAL	**11,208**	**6,967**	**341**

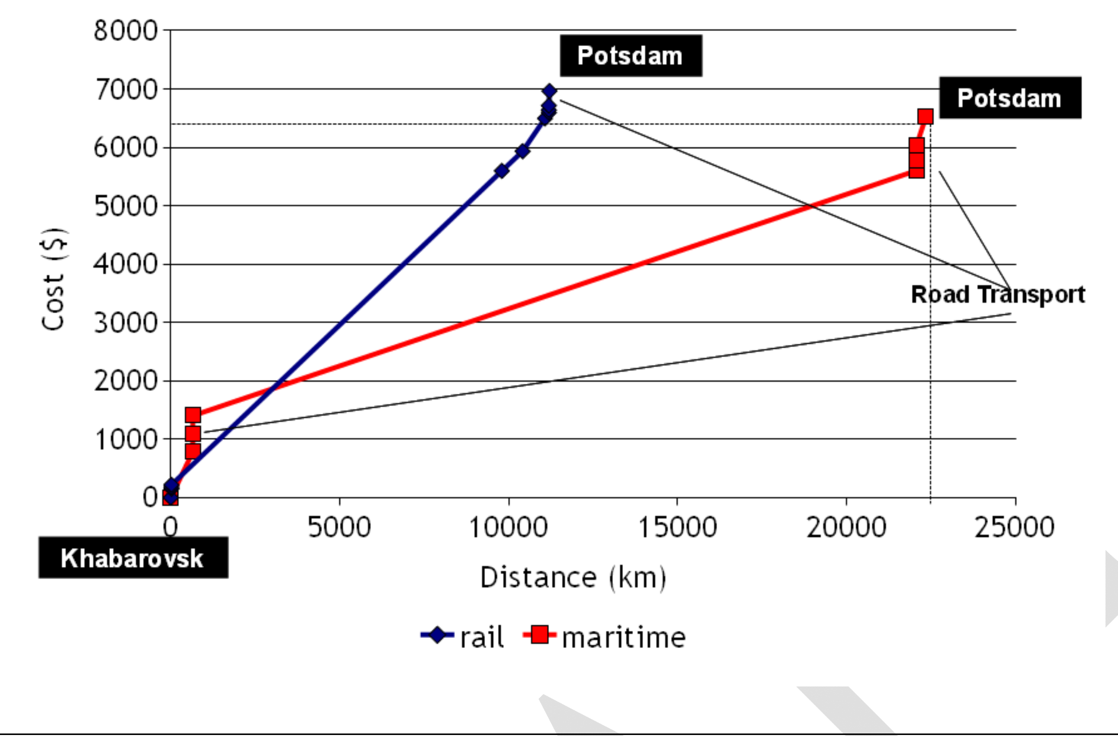
(b)Comparison study by using the Cost/Time/Distance methodology

Time Distance Plot



The total traveling time for the block train is 341 hours, which is 14 days and 5 hours of which 2 hours was the trip by truck in Russia, 2 hours the trip by truck in Germany (Potsdam) and the 14 day and 1 hour trip by train. The total traveling time with ocean transport was 1,093 hours (45 days and 13 hours) of which 9 hours was the road transport in Russia, 4 hours the road transport in Germany and 1,080 hours the maritime transport meaning (45 days). There is a difference of 31 days and 8 hours. It should be noted that the maritime transport traveling time has been calculated as absolute number of nautical miles multiplied by 22 knots (average speed of ship), but normally there are further delays as there are not direct connections among all the ports. The time difference can only be expected to be larger.

Cost – Distance Plot



The train option costs $434 more than the maritime transport option.

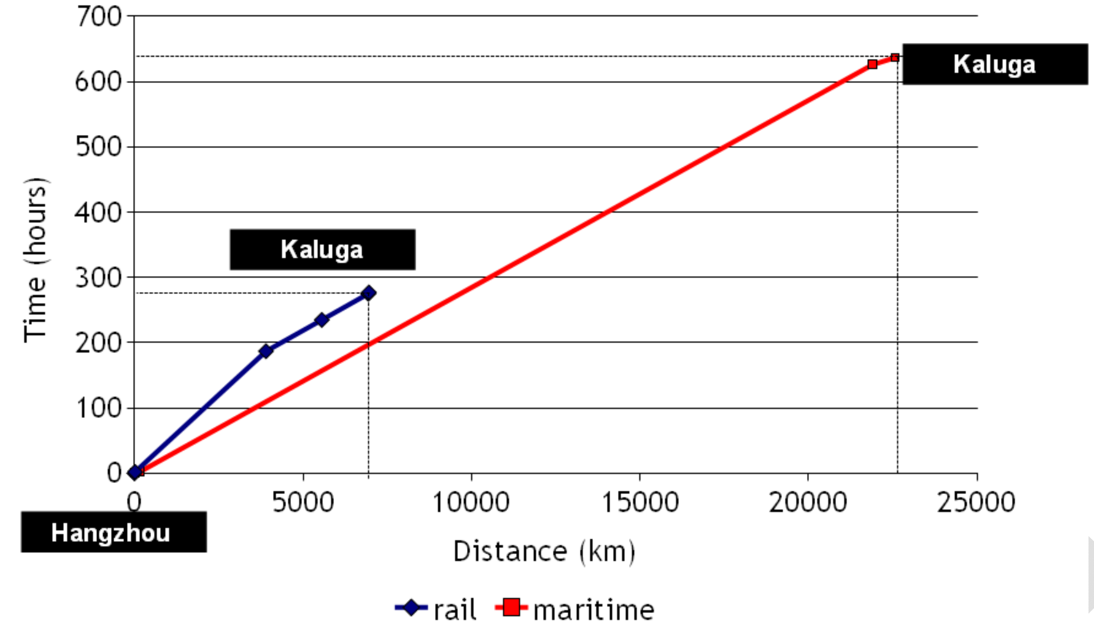
6.3. EATL ROUTE 2 [from Hangzhou (China-Origin) to Kaluga (Russia-Destination)]

Maritime Transport		Rail Transport	
(A) Truck cost	(D) THC / Port costs	(A) Truck cost	(D) Unloading / other costs
(B) THC / Port costs	(E) Truck cost	(B) Loading / other costs	(E) Truck cost
(C) Maritime cost		(C) Rail cost	

MARITIME TRANSPORT: Hangzhou (via Shanghai port) - Kaluga (via Saint Petersburg port)			
Route	**km**	**Cost($)**	**Time (hrs)**
Hangzhou – Shanghai port by road	158	220	2
Shanghai port THC costs	-	100	-
Shanghai port other costs	-	150	-
Shanghai port – Saint Petersburg port by sea	21,733	5,000	624
Saint Petersburg port THC costs	-	250	-
Saint Petersburg port other costs	-	250	-
Saint Petersburg port – Kaluga by road	680	816	11 hrs

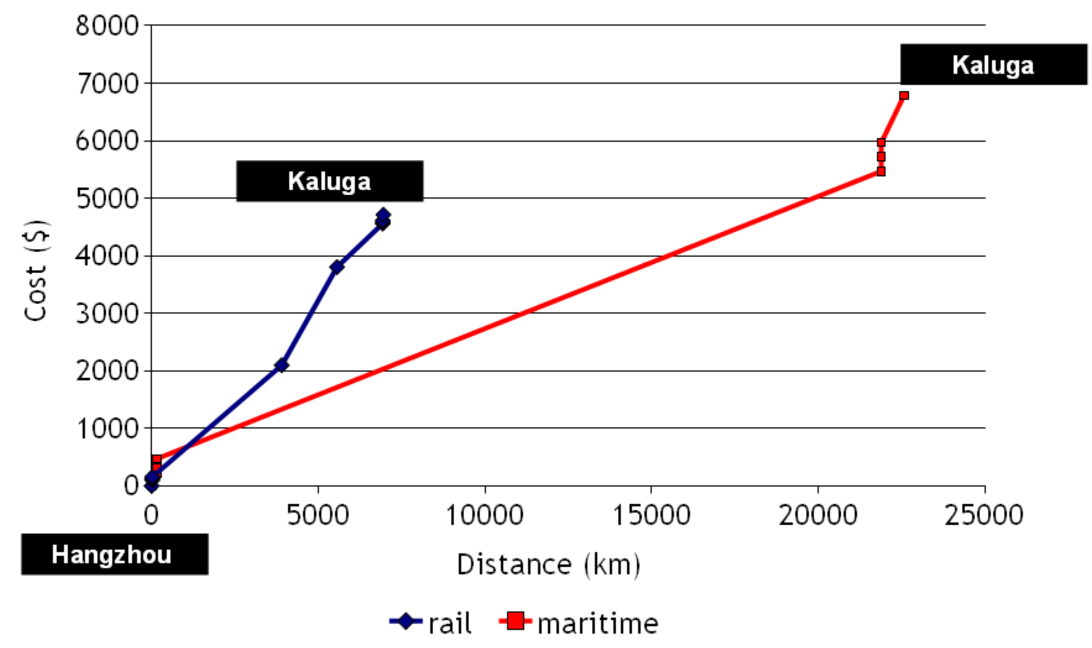
Total maritime transport	21,733	5,750	624
Total road transport	838	1,036	13
TOTAL	**22,571**	**6,786**	**637**
RAIL TRANSPORT: Hangzhou - Kaluga			
Route	**km**	**Cost($)**	**Time(hrs)**
Hangzhou – Hangzhou rail station by road	20	100	2
Hangzhou rail station loading cost	-	25	-
Hangzhou rail station other costs	-	30	-
China (Shanghai – Alataw) by rail	3,884.51	1,942.25	185
Kazakhstan (Ucharal – Petropavi) by rail	1657	1,706.7	48
Russia (Petropavi – Kaluga) by rail	1374	755.7	40
Kaluga rail station unloading cost	-	25	-
Kaluga rail station other costs	-	30	-
Kaluga rail station – Kaluga by road	20	100	2
Total rail transport	6,915.51	4,514.65	273
Total road transport	40	200	4
TOTAL	**6,955.51**	**4,714.65**	**277**

(b)Comparison study by using the Cost/Time, distance methodology
Time – Distance Plot



The ocean freight needs 26 days to reach Kaluga while the rail needs 11 days and 13 hours.

Cost – Distance Plot



The maritime transport is more expensive (by $2,071) compared to the rail transport.

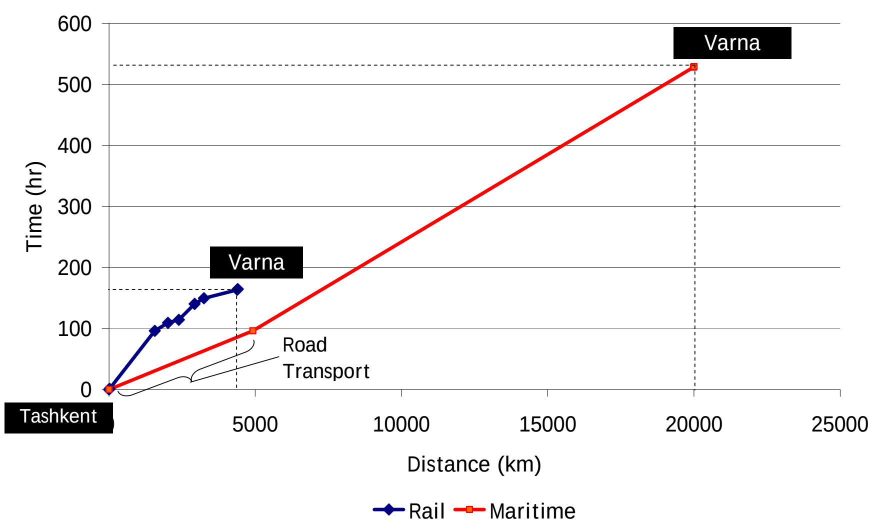
6.4. EATL ROUTE 3 [from Tashkent (Uzbekistan -Origin) to Varna (Bulgaria - Destination)]

Maritime Transport		Rail Transport	
(A) Truck cost	(D) THC / Port costs	(A) Truck cost	(D) Unloading / other costs
(B) THC / Port costs	(E) Truck cost	(B) Loading / other costs	(E) Truck cost
(C) Maritime cost		(C) Rail cost	

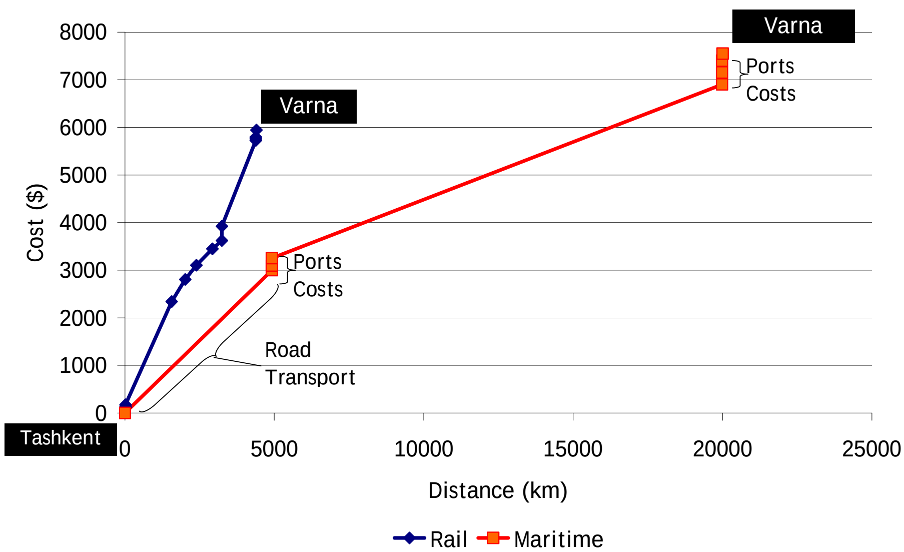
MARITIME TRANSPORT: Tashkent (via Shanghai port) – Varna (via Varna port)			
Route	**km**	**Cost($)**	**Time(hrs)**
Tashkent – Shanghai port by road	4,920	3,000	96
Shanghai port THC costs	-	100	-
Shanghai port other costs	-	150	-
Shanghai port – Varna port by sea	15,066	3,650	432
Varna port THC costs	-	250	-
Varna port other costs	-	250	-
Varna port – Varna by road	20	150	1

Total maritime transport	15,066	4,400	432
Total road transport	4,940	3,150	97
TOTAL	**20,006**	**7,550**	**529**
RAIL TRANSPORT: Tashkent - Varna			
Route	**km**	**Cost($)**	**Time(hrs)**
Tashkent – Tashkent rail station by road	20	120	1
Tashkent rail station loading cost	-	25	-
Tashkent rail station other costs	-	30	-
Uzbekistan by rail	1,547.48	2,166.4	95
Kazakhstan by rail	450	464	13.26
Caspian sea by ferry	375	300	5
Azerbaijan by rail	535.86	343	25.83
Georgia by rail	317.63	175	9.30
Port Poti costs	-	300	-
Black sea by ferry	1135	1,800	14
Varna rail station unloading cost	-	35	-
Varna rail station other costs	-	35	-
Varna rail station – Varna by road	20	150	1
Total rail transport	2,850.97	3,275	144
Total sea transport	1,510	2,400	19
Total road transport	40	270	2
TOTAL	**4,400.97**	**$5,946**	**165**

(b)Comparison study by using the Cost/Time, distance methodology
Time – Distance Plot



Cost – Distance plot



6.5.

6.6. EATL ROUTE 4 [from Almaty (Kazakhstan - Origin) to Istanbul (Turkey - Destination)]

Maritime Transport		Rail Transport	
A Truck cost	D THC / Port costs	A Truck cost	D Unloading / other costs
B THC / Port costs	E Truck cost	B Loading / other costs	E Truck cost
C Maritime cost		C Rail cost	

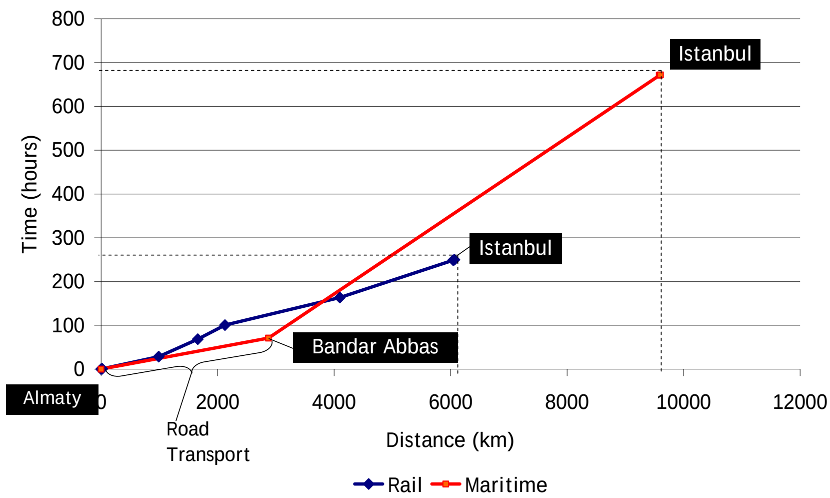
MARITIME TRANSPORT: Almaty (via Bandar Abbas port) - Istanbul (via Istanbul port)

Route	km	Cost($)	Time(hrs)
Almaty – Bandar Abbas port by road	2873	2,300	71
Bandar Abbas port THC costs	-	150	-

Bandar Abbas port other costs	-	150	-
Bandar Abbas port – Istanbul port by sea	6,711	1,650	25 days
Istanbul port THC costs	-	220	-
Istanbul port other costs	-	220	-
Istanbul port – Istanbul by road	20	300	1
Total maritime transport	6,711	2,370	600
Total road transport	2,893	2,600	72
TOTAL	**9,604**	**4,970**	**672**
RAIL TRANSPORT: Almaty - Istanbul			
Route	**km**	**Cost($)**	**Time(hrs)**
Almaty – Almaty rail station by road	20	150	1
Almaty rail station loading cost	-	30	-
Almaty rail station other costs	-	30	-
Kazakhstan by rail	969	998	28
Uzbekistan by rail	670	938	40
Turkmenistan by rail	469	1,220	32
Iran by rail	1,972	1,340	63
Turkey by rail	1,945	800	85
Istanbul rail station unloading cost	-	30	-
Istanbul rail station other costs	-	45	-
Istanbul rail station – Istanbul by road	20	300	1
Total rail transport		5,431	
Total road transport	40	450	2
TOTAL	**6,065**	**5,881**	**250**

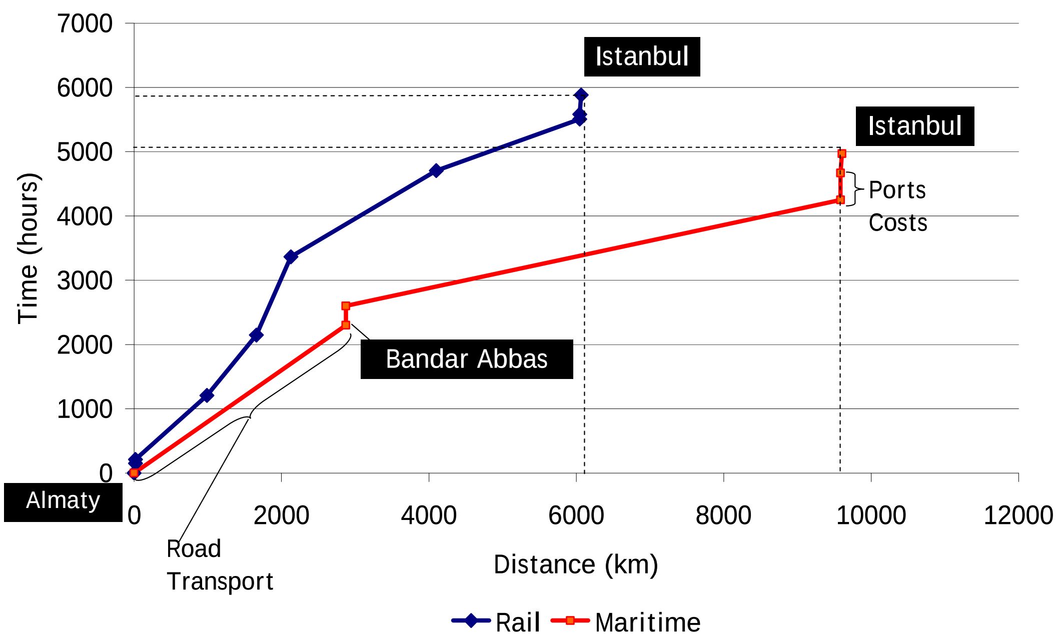
(b) Comparison study by using the Cost/Time, distance methodology

Time – Distance Plot



The ocean freight takes 28 days to reach location B and the rail needs 10 days; a difference of 18 days. This is acceptable as the distance from Almaty to the first port, Bandar Abbas, is long (2,873 km) - a distance that should also be served by train. Kazakhstan is a landlocked country and the location of Almaty makes the logistics challenging. Today, cargo from Istanbul to Almaty is served via Novorossiysk port in Russia and by train to Almaty. Looking at the map only, rail appears to be more competitive than maritime, but the cost analysis shows different results.

Cost – Distance Plot



The cost difference of the two routes is $911. The plot shows clearly the extremely high prices that rail is charged in Turkmenistan and Kazakhstan. Because of the long distance between Almaty and the port of Bandar Abbas in Iran and the high road rates, one would expect that maritime transport would be less competitive than rail, but this is not the case. On the contrary, it is actually cheaper. The non-existence of aligned tariffs in the countries of Central Asia, and the effect this has upon trade, is evident.

6.7. EATL ROUTE 5 [from Morvarid Town (Iran) to Pushkin (Russia)]

Maritime Transport		Rail Transport	
(A) Truck cost	(D) THC / Port costs	(A) Truck cost	(D) Unloading / other costs
(B) THC / Port costs	(E) Truck cost	(B) Loading / other costs	(E) Truck cost
(C) Maritime cost		(C) Rail cost	

MARITIME TRANSPORT: Morvarid (via Bandar Abbas port) - Pushkin (via Saint Petersburg port)

Route	km	Cost($)	Time(hrs)
Morvarid town – Bandar Abbas port by road	16.7	50	1
Bandar Abbas port THC costs	-	150	-
Bandar Abbas port other costs	-	150	-
Bandar Abbas port – Saint Petersburg port by sea	13,621	2,400	372
Saint Petersburg port THC costs	-	250	-
Saint Petersburg port other costs	-	250	-
Saint Petersburg port – Pushkin by road	27.3	60	1
Total maritime transport	13,621	3,200	372
Total road transport	44	110	2
TOTAL	**13,665**	**3,310**	**374**

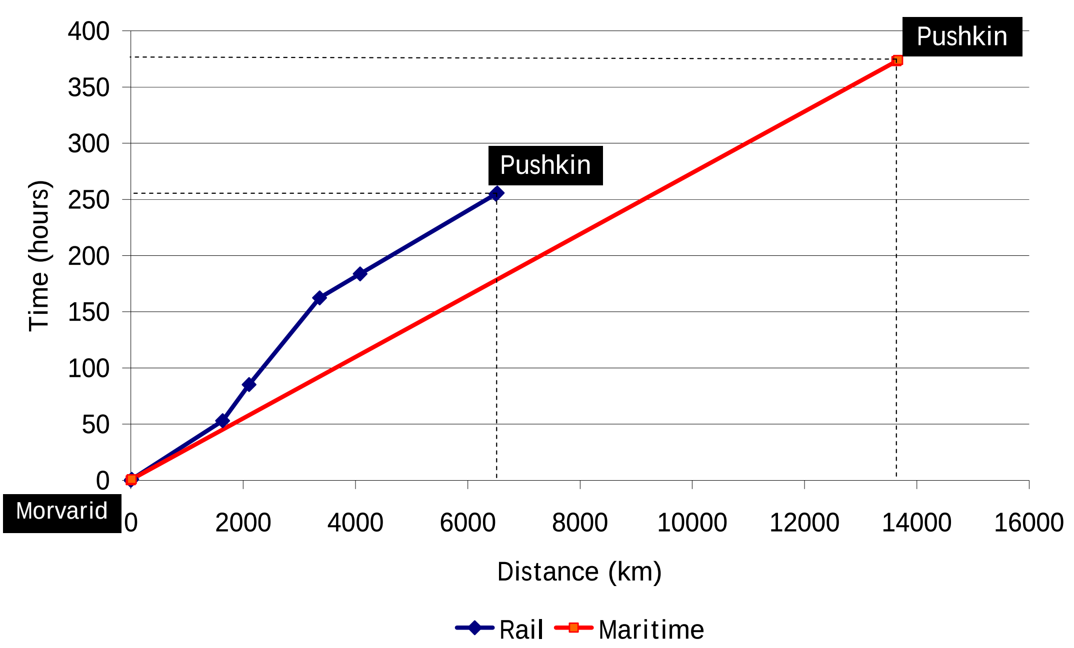
RAIL TRANSPORT: Morvarid - Pushkin

Route	km	Cost($)	Time(hr)
Morvarid to Morvarid rail station by road	16.7	50	1
Morvarid rail station loading cost	-	25	-
Morvarid rail station other costs	-	30	-
Iran by rail	1,619	1,100	52
Turkmenistan by rail	469	1,219	32n
Uzbekistan by rail	1,256.5	1759	77.5
Kazakhstan by rail	722.8	744.5	21.5
Russia by rail	2,415	1,328	71
Pushkin rail station unloading cost	-	30	-
Pushkin rail station other costs	-	45	-
Pushkin rail station – Pushkin by road	20	60	1
Total rail transport	6482,29	6,280.5	254s
Total road transport	36.7	110	2

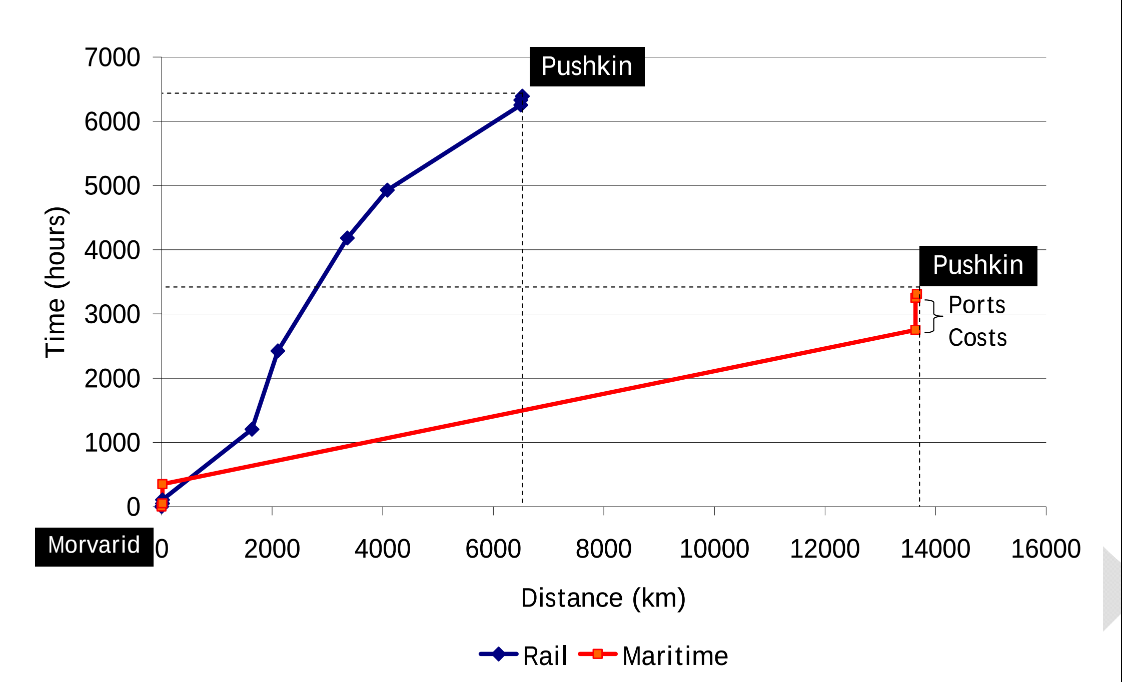
TOTAL	6,519	6,390.5	256

(b) Comparison study by using the Cost/Time/Distance methodology

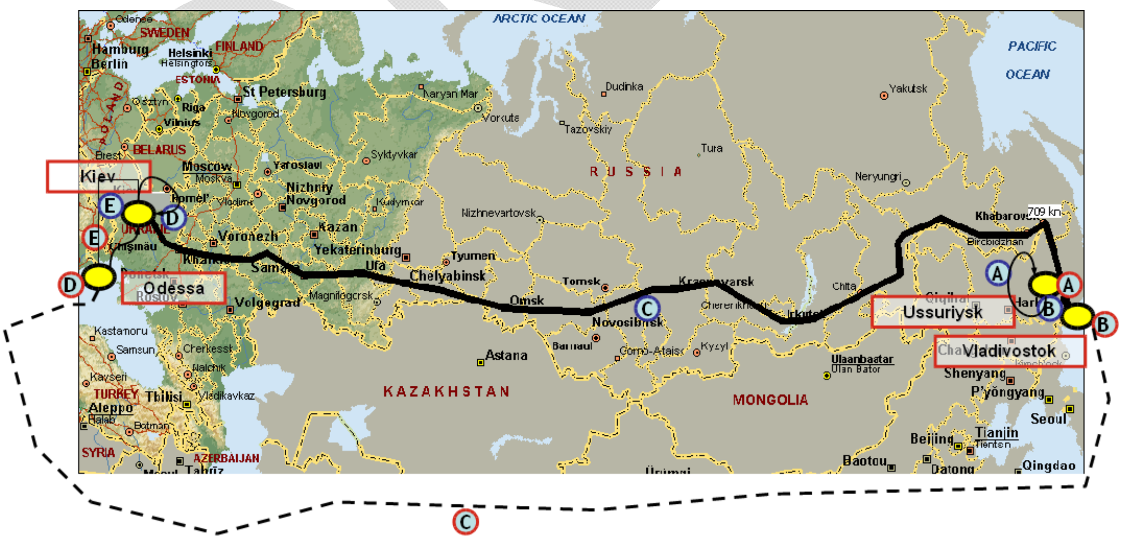
Time – Distance plot



Cost Distance Plot



6.8. EATL ROUTE 6 [from Ussuriysk (Russia Federation -Origin) to Kiev (Ukraine Destination)]



Maritime Transport		Rail Transport	
A Truck cost	D THC / Port costs	A Truck cost	D Unloading / other costs
B THC / Port costs	E Truck cost	B Loading / other costs	E Truck cost
C Maritime cost		C Rail cost	

MARITIME TRANSPORT: Vladivostok port - Odessa port

Route	km	Cost($)	Time(hrs)
Ussuriysk – Vladivostok port by road	118	140	1.5
Vladivostok port THC costs	-	250	-
Vladivostok port other costs	-	250	-
Vladivostok port – Odessa port by sea	16,947	4,900	456
Odessa port THC costs	-	200	-
Odessa port other costs	-	200	-
Odessa port – Kiev by road	436.25	350	6.5
Total maritime transport	16,947	5,800	456
Total road transport	554.25	490	8
TOTAL	**17,501.25**	**6,290**	**463**

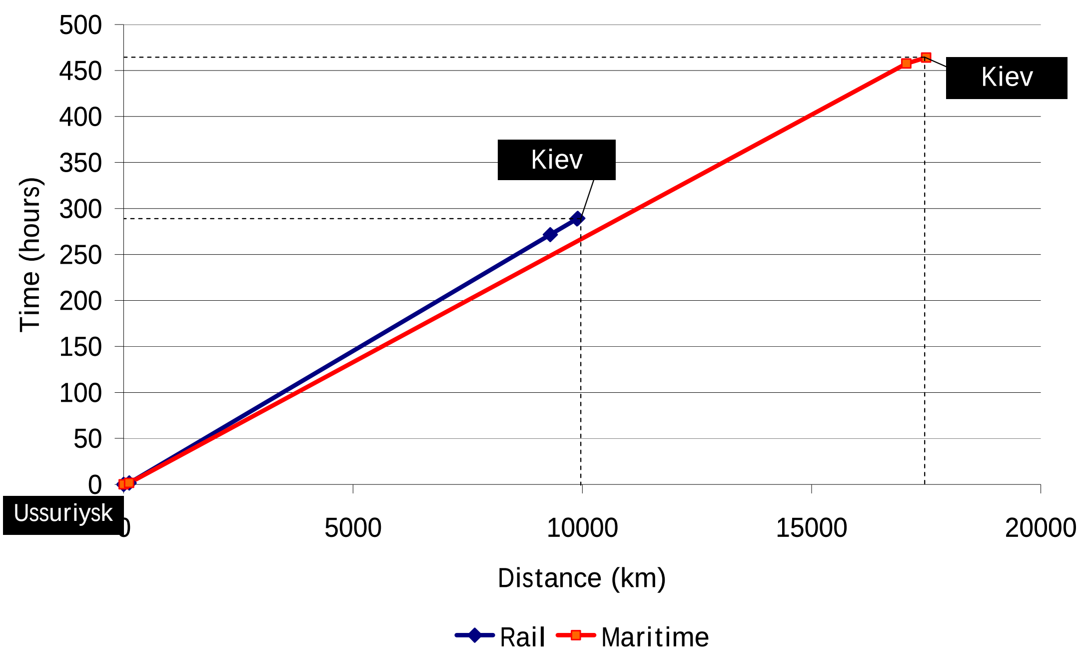
RAIL TRANSPORT: Vladivostok rail station - Kiev rail station

Route	km	Cost($)	Time(hrs)
Ussuriysk – Ussuriysk rail station by road	20	140	1.5
Ussuriysk rail station loading cost	-	35	-
Ussuriysk rail station other costs	-	35	-
Russia by rail	9,185	5,052	270
Ukraine by rail	579	320	17
Kiev rail station unloading cost	-	30	-
Kiev rail station other costs	-	45	-
Kiev rail station – Kiev by road	20	200	1

Total rail transport	9,764	5,517	287
Total road transport	40	$340	2.5
TOTAL	**9,804**	**$5,857**	**289**

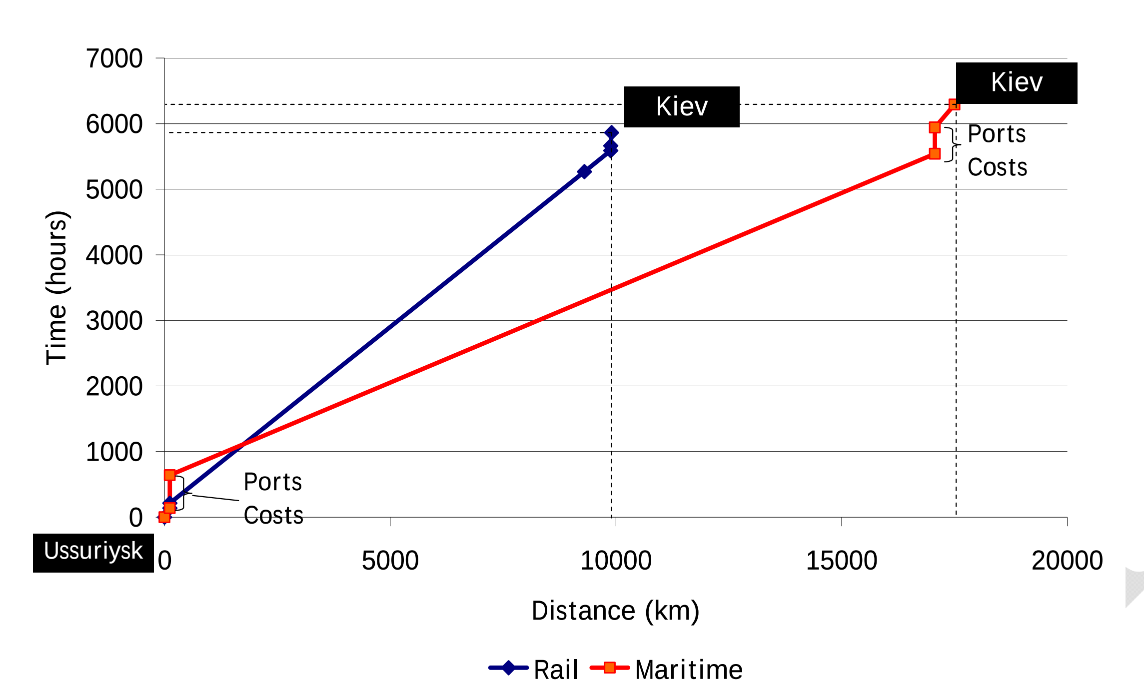
(b) Comparison study by using the Cost/Time, distance methodology

Time – Distance Plot



The time difference between the transportation means is more or less 7 days. In combination with the cost difference, the time difference becomes an advantage. The benefit of this route is that trains have to cross only two countries, both with great railway traditions, with the highest average total traveling speed of 34 kilometers per hour. These conditions make railways in this case study more competitive than maritime transport.

Cost – Distance Plot



The cost difference of $433 is not large, but it is enough to make railways more competitive than maritime transport.

6.9. EATL ROUTE 7 [from Shanghai (China - Origin) to Warsaw (Poland - Destination)]

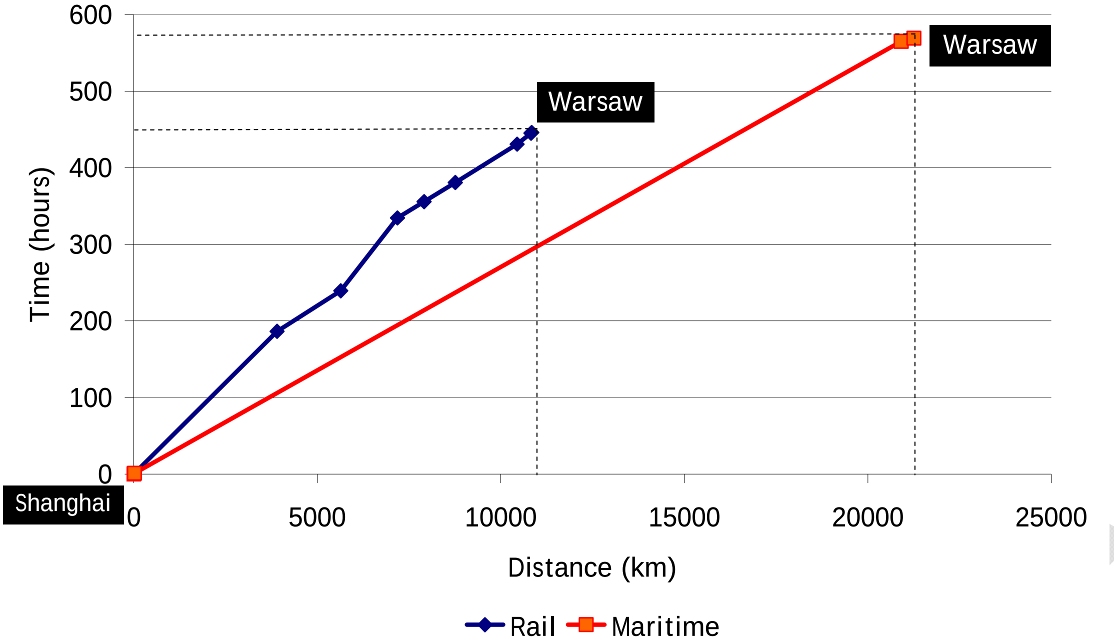
Maritime Transport		Rail Transport	
(A) Truck cost	(D) THC / Port costs	(A) Truck cost	(D) Unloading / other costs
(B) THC / Port costs	(E) Truck cost	(B) Loading / other costs	(E) Truck cost
(C) Maritime cost		(C) Rail cost	

MARITIME TRANSPORT: Shanghai port - Gdansk port

Route	km	Cost($)	Time(hrs)
Shanghai – Shanghai port by road	20	$200	1
Shanghai port THC costs	-	$100	-
Shanghai port other costs	-	150	-
Shanghai port – Gdansk port by sea	20,888	4,900	564
Gdansk port THC costs	-	250	-
Gdansk port other costs	-	250	-
Gdansk port – Warsaw by road	330	450	4

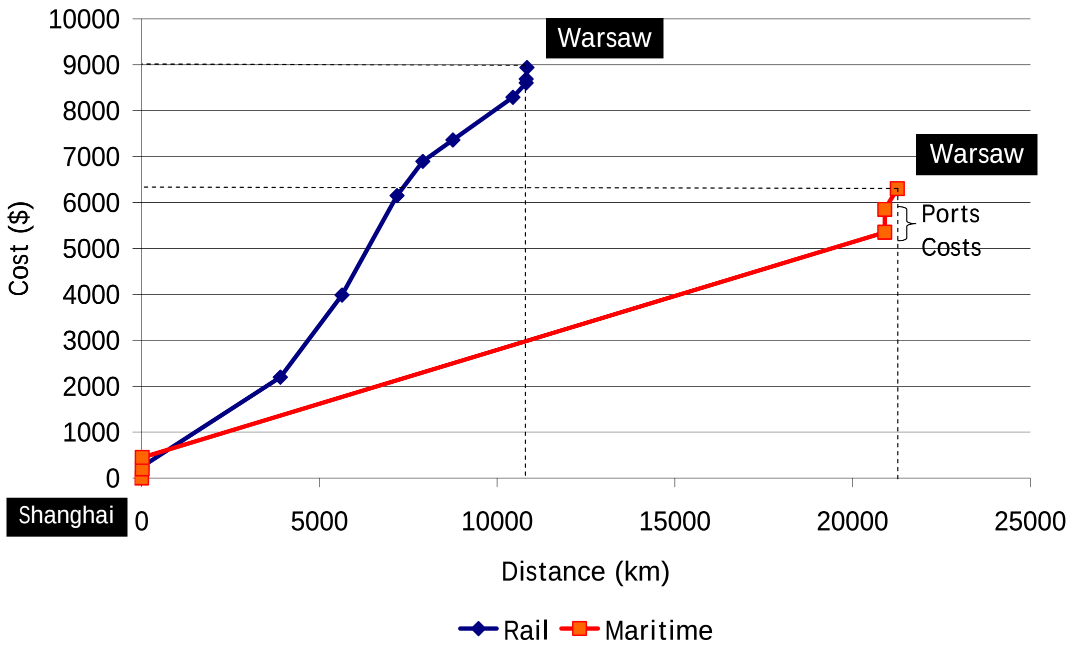
Total maritime transport	20,888	5,650	564
Total road transport	350	650	5 hrs
TOTAL	**21,238**	**6,300**	**569**
RAIL TRANSPORT: Shanghai rail station - Warsaw rail station			
Route	**km**	**Cost($)**	**Time(hrs)**
Shanghai – Shanghai rail station by road	20	200	1
Shanghai rail station loading cost	-	25	-
Shanghai rail station other costs	-	30	-
China by rail	3,884.5	1,942.25	185.5
Kazakhstan by rail	1,735	2532 (total)	53
Uzbekistan by rail	1,547.5	2,166	95
Kazakhstan by rail	723	-	21.5
Russia by rail	849.5	467	25
Ukraine by rail	1,688	928	50
Poland by rail	373	317	14.5
Warsaw rail station unloading cost	-	35	-
Warsaw rail station other costs	-	45	-
Warsaw rail station – Warsaw by road	20	250	1
Total rail transport		8,487	444
Total road transport	40	450	2
TOTAL	**10,800**	**8,937**	**446**

(b)Comparison study by using Cost/Time, distance methodology
Time – Distance Plot



Connecting China with Poland via the countries of Central Asia does not appear competitive for railways. The time difference is only 5 days less for the railways. A block train that operates according to normal conditions (not supported by governments) is likely to waste five days due to the delays at border crossings.

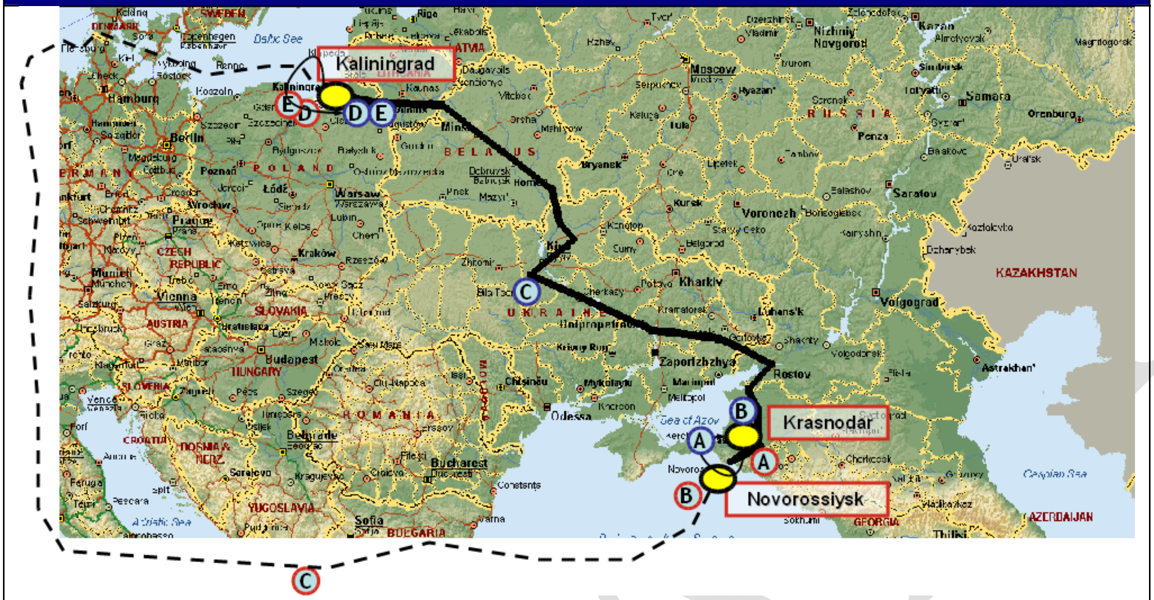
Cost – Distance Plot



The cost difference is large: $2,637. The railway passes through 7 countries (twice in Kazakhstan) and there is 10,840 total rail kilometers, greater distance than connecting

China with Germany.

6.10. EATL ROUTE 8 [from Krasnodar (Russia -Orogin) to Kaliningrad (Russia - Destination)]



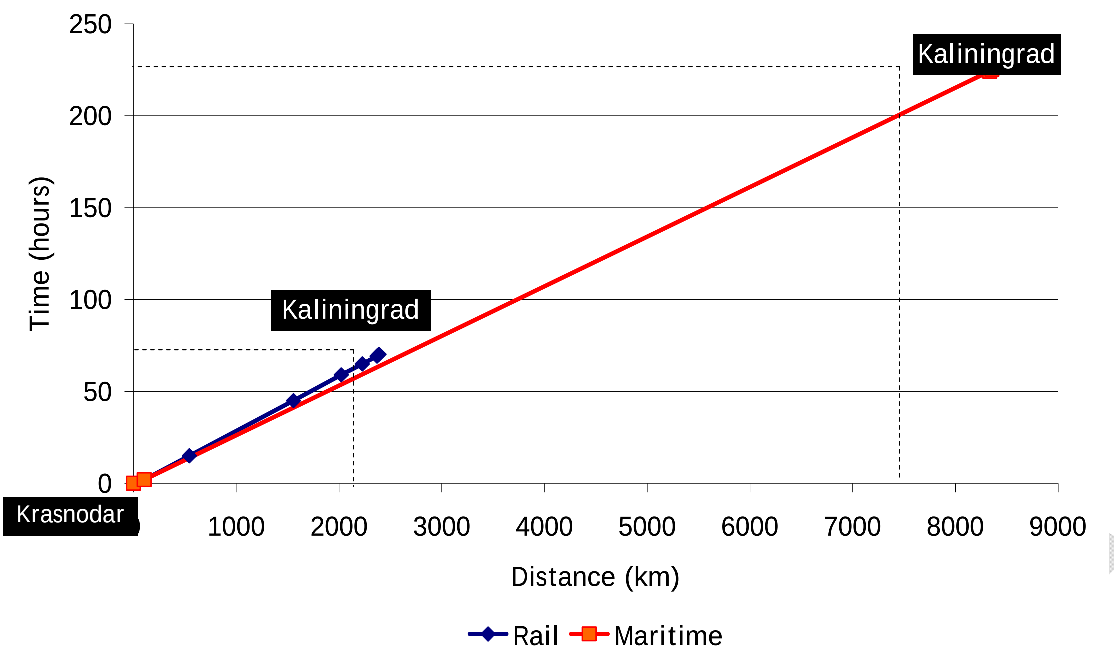
Maritime Transport	Rail Transport
(A) Truck cost (B) THC / Port costs (C) Maritime cost (D) THC / Port costs (E) Truck cost	(A) Truck cost (B) Loading / other costs (C) Rail cost (D) Unloading / other costs (E) Truck cost

MARITIME TRANSPORT: Novorossiysk port – Kaliningrad port

Route	km	Cost($)	Time(hrs)
Krasnodar – Novorossiysk port by road	105	150	2
Novorossiysk port THC costs	-	250	-
Novorossiysk port other costs	-	250	-
Novorossiysk port – Kaliningrad port by sea	8,230	3,900	222
Kaliningrad port THC costs	-	150	-
Kaliningrad port other costs	-	250	-

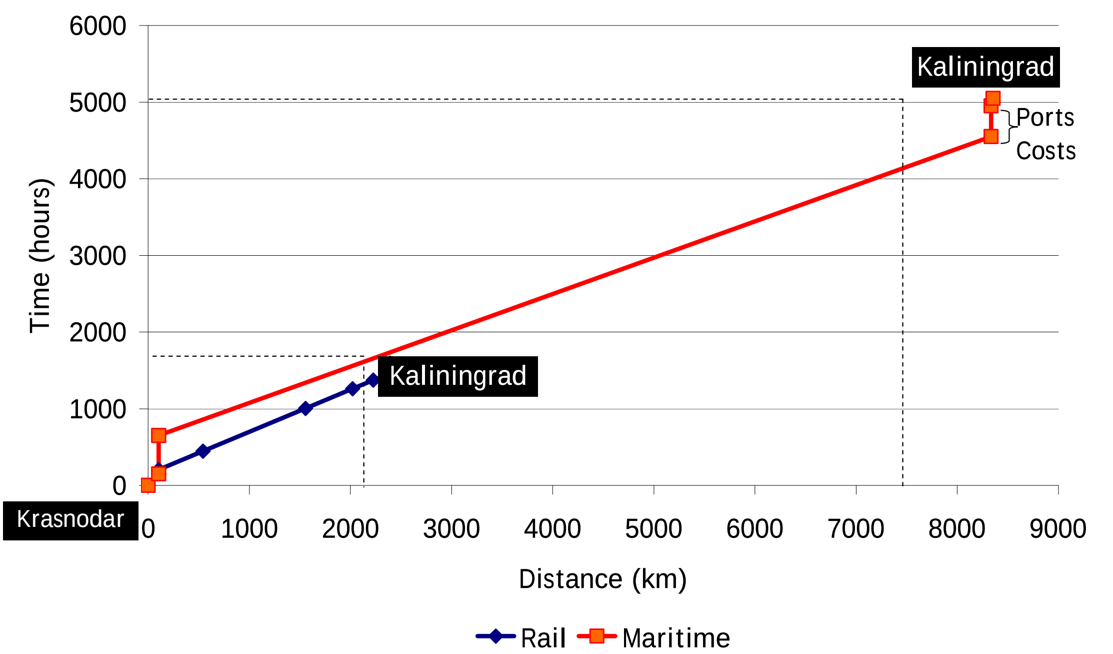
Kaliningrad port – Kaliningrad by road	20	100	1
Total maritime transport	8,230	4,800	222
Total road transport	125	250	3
TOTAL	**8,355**	**5,050**	**225**
RAIL TRANSPORT: Novorossiysk rail station - Kaliningrad rail station			
Route	**km**	**Cost($)**	**Time(hrs)**
Krasnodar – Krasnodar rail station by road	20	150	2
Krasnodar rail station loading cost	-	25	-
Krasnodar rail station other costs	-	30	-
Russia by rail	438	241	13
Ukraine by rail	1014	558	30
Belarus by rail	465	256	14
Lithuania by rail	203	112	6
Kalinigrad by rail	145	78	4
Kalinigrad rail station unloading cost	-	20	-
Kalinigrad rail station other costs	-	25	-
Kalinigrad rail station – Kalinigrad by road	20	100	1
Total rail transport	2,265	1,345	67
Total road transport	40	$250	3
TOTAL	**2,305**	**1,595**	**70**

(b)Comparison study by using the Cost/Time, distance methodology
Time – Distance Plot



This case study is dominated by railways. Rail is very competitive in connecting these 5 countries which are all CIS. The time difference is 7 days.

Cost – Distance Plot



The cost difference is the biggest in all scenarios as railways are $3,455 cheaper than the maritime transport.

6.11. Case Study: Car manufacturers along Euro Asia Transport Links

Peugeot – Citroen – Mitsubishi Automobiles – Kaluga Russia

A Multimodal Project

This multimodal and logistics project includes **6,000 km roundtrip**, **400 dedicated wagons**, **1,200 dedicated containers** and **80 trucks**
. It is used for transport of parts from eastern France to Russia to be assembled in Kaluga.

Step 1: Transport of 144 cars (308 & C4) per day from Sochaux (France) and Mulhouse (France) and 60 from Zeebrugge (Belgium) to Vesoul (France) for disassembling.

Step 2: In Vesoul the containers are loaded on the block train and start their trip to Russia.
Step 3: At the Polish-Belarussian border the containers are transhipped onto wide-gauge trains.
Step 4: The train passes from Belarus to the Russian station of Vorotinsk.
Step 5: The train arrives at the factory in Kaluga.
Step 6: Transport of finished cars from Kaluga to the GEFCO car compound in Bykovo (Moscow).

Analysis of alternative options:

6.12. PCMA RUS LLC – Case Study [from Vesoul (France) to Kaluga (Russia)]


St.Petersburg
Kaluga
Vesoul
Marseille
A
B
C
D
E


St.Petersburg
Kaluga
Hamburg
Vesoul
A
B
C
D
E

Maritime Transport		Rail Transport	
(A) Truck cost	(D) THC / Port costs	(A) Truck cost	(D) Unloading / other costs
(B) THC / Port costs	(E) Truck cost	(B) Loading / other costs	(E) Truck cost
(C) Maritime cost		(C) Rail cost	

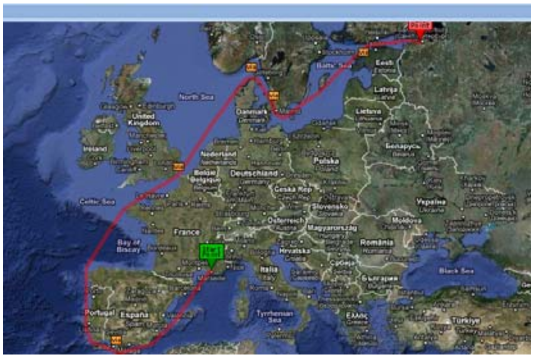
MARITIME TRANSPORT: Vesoul (via Marselle port) – to Kaluga (via SaintPetersburg port)

Route	km	Cost($)	Time(hrs)
Vesoul – Marseille port by road	608	750	9
Marseille port THC costs	-	200	-
Marseille port other costs	-	200	-
Marseille port – Saint Petersburg port by sea	6,098	3,900	163
Saint Petersburg port THC costs	-	250	-
Saint Petersburg port other costs	-	250	-
Saint Petersburg port – Kaluga by road	873	750	36
Total maritime transport	6,098	3,900	163
Total road transport	1,481	1,500	45
TOTAL	**7,579**	**5,400**	**208**

MARITIME TRANSPORT: Vesoul (via Hamburg port) – to Kaluga (via SaintPetersburg port)

Route	km	Cost($)	Time(hrs)
Vesoul – Hamburg port by road	913	1000	12
Hamburg port THC costs	-	200	-
Hamburg port other costs	-	200	-
Hamburg port – Saint Petersburg port by sea	1,150	1,200	120
Saint Petersburg port THC costs	-	250	-
Saint Petersburg port other costs	-	250	-
Saint Petersburg port – Kaluga by road	873	750	36
Total maritime transport	1,150	2,100	120
Total road transport	1,786	1,750	48
TOTAL	**2,936**	**3,850**	**168**

6,8 days or 163,2 hours (3293 nm = 6098km)	608km (9 hours) + 873,8km (1 day & 12 hours)

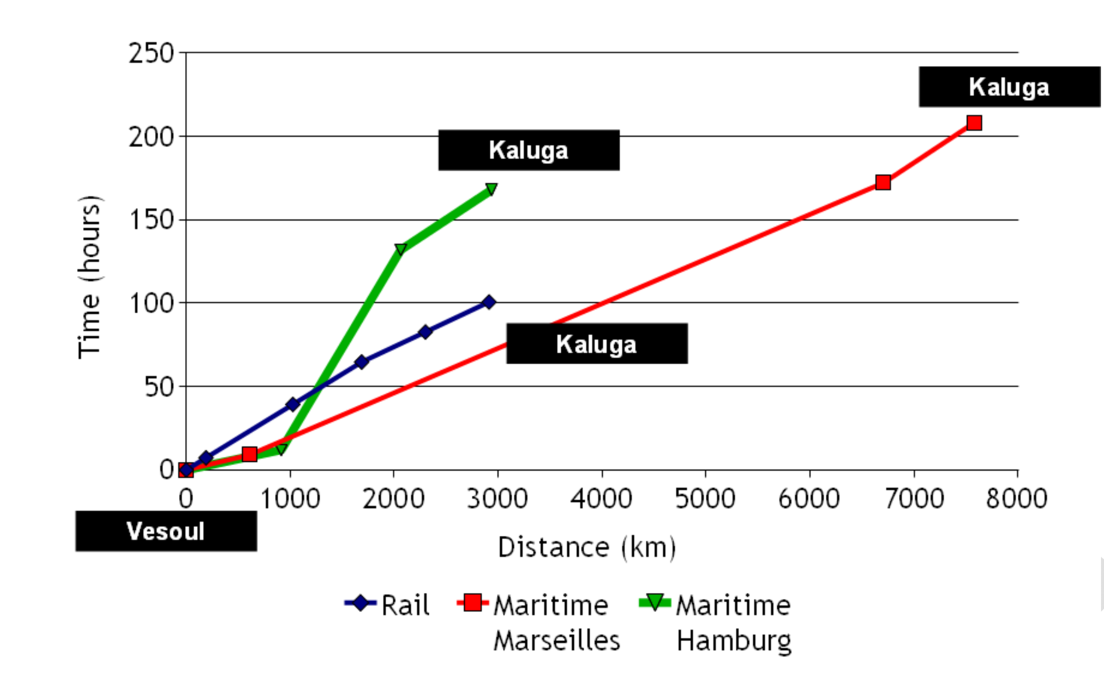


RAIL TRANSPORT: Vesoul rail station - Kaluga rail station

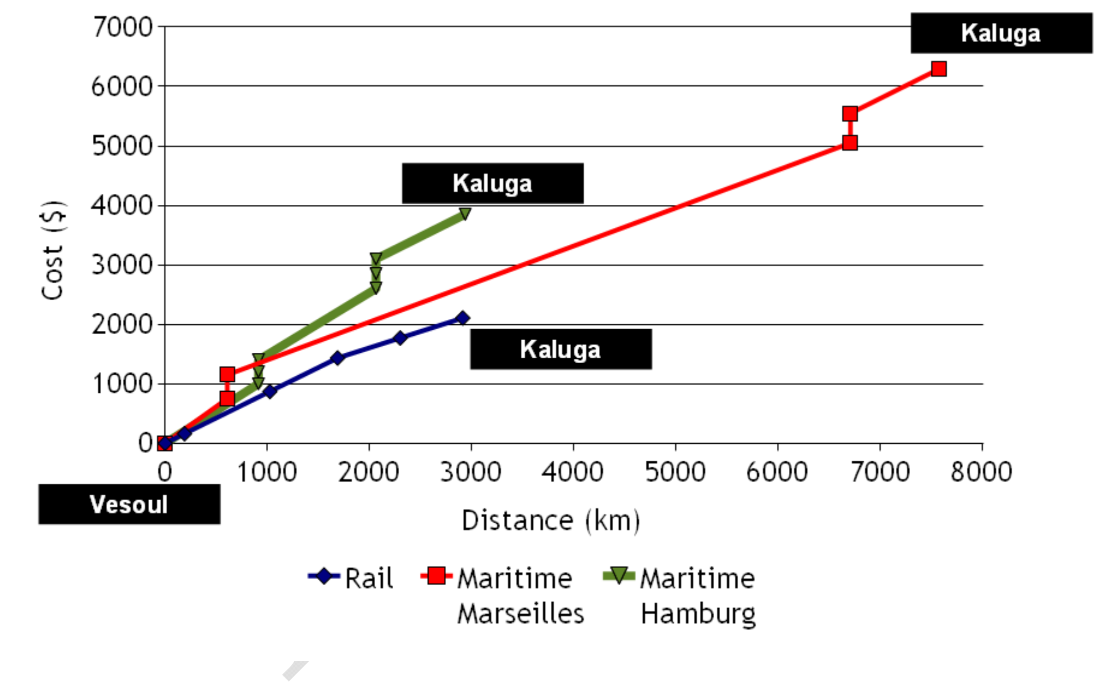
Route	km	Cost($)	Time(hrs)
France: Vesoul – Belfort (*53,88km*) / Belfort – Mulhouse(*37,84km*) / Mulhouse – Strasbourg (*97,30km*) = total 189,02 km, total 7,27 hours;	189	161	7
Germany: Strasbourg – Karlsruhe (*67,85km*) / Karlsruhe – Stuttgart (*85,6km*) / Stuttgart – Nurnberg (*157,55km*) / Nurnberg – Dresden (*259,63km*) / Dresden – Berlin (*165,87km*) / Berlin – Rzepin (*99,17km*) = total 835,67 km, total 32 hours;	836	710	32
Poland: Rzepin (German borders) - Terespol (Belarussian borders) = total 662,3 km, total 25 hours & 47 min ;	662	563	25.5
Belarus : Brest (Polish Borders) - Redki–(Russian borders) = total 613,2 km, total 18 hours;	613	337	18
Russia: Redki – Kaluga = total 611,57 km, total 18 hours;	612	336	18
Total rail transport	2,912	2,107	101
Total road transport	-	-	-
TOTAL	**2,912**	**2,107**	**101**

(b)Comparison study by using the Cost/Time, distance methodology

Time – Distance Plot



Cost – Distance Plot



The results illustrate that the selected transport route for this case study appears to be the optimal one. The train used 5 days less and costs $3,293 less (Marseille) or $1,743 less (Hamburg).

ANNEX I

Survey

As part of the study tailor-made questionnaires (see below) for rail and road and for every participating country were developed and distributed to rail organisations and freight forwarding associations. Forty-four custom-made questionnaires were sent. Six completed questionnaires were received. In addition five unofficial responses were received.

Forwarders Questionnaire.

Questionnaire
UNECE Expert Group on Euro Asian Transport Links (EATL)

Personal Information

Country: Date:

Organization:

The respondent

Name & Surname:

Organization: Position:

Tel: Fax: Email:

Deadline: *Please reply before before the end of March 2010 by e-mail (port@unece.org) or by fax (+41-22-917 0039)*

The information that you provide will be considered as strictly confidential

Objective of the Questionnaire

This Questionnaire aims to compare the performance of EATL (time-cost) routes with relevant maritime-based routes (port to port plus inland sections) and identify conditions under which EATL options would be competitive.

1. Cost / Time analysis of specific maritime routes

Ref	Maritime Route	Time (Days)	Cost ($) (in the parenthesis please indicate the cost for the opposite direction)	
			TEU	FEU
1	Busan - Bandar Abbas		( )	( )
2	Shanghai - Bandar Abbas		( )	( )
3	Vladivostok - Bandar Abbas		( )	( )
4	Bandar Abbas – Rotterdam		( )	( )
5	Bandar Abbas – Hamburg		( )	( )
6	Bandar Abbas – Barcelona		( )	( )
7	Bandar Abbas –Antwerp		( )	( )
8	Bandar Abbas – Riga		( )	( )
9	Bandar Abbas – Tallinn		( )	( )
10	Bandar Abbas – Klaipeda		( )	( )
11	Bandar Abbas –Yokohama		( )	( )
12	Bandar Abbas - Murmansk		( )	( )
13	Bandar Abbas – St. Petersburg		( )	( )
14	Bandar Abbas – Odessa		( )	( )
15	Bandar Abbas – Kaliningrad		( )	( )
16	Bandar Abbas – Thessalonica		( )	( )
17	Bandar Abbas – Varna		( )	( )
18	Bandar Abbas – Costanta		( )	( )
19	Bandar Abbas – Novorossiysk		( )	( )
20	Bandar Abbas - Kavkaz		( )	( )
21	St.Petersburg - Shanghai		( )	( )
22	St.Petersburg - Rotterdam		( )	( )
23	St.Petersburg - Barcelona		( )	( )
24	St.Petersburg - Vladivostok		( )	( )

2. Cost of Delivery to final destinations and to ports by trucks.

(Transportation of empty cntr to shipper, loading and return full cntr back to port of origin and transportation of full container to final shipper, unloading and return of empty container back to port of destination)

Country	30 km radius		100 km radius		Trip per km ($)
	TEU($)	FEU($)	TEU($)	FEU($)	
Kazakhstan					

3. Cost of value added services in ports

Ports	Unloading of Containers ($)	Loading of Containers ($)	Customs Formalities ($)
Bandar Abbas			
St. Petersburg			

Other Costs	P	($)
Entrance cost		
Parking cost		
Loading to truck cost		
Unloading from truck		
Other documents		
Other cost/ Specify		

4. *Please provide information for the following train services that operate on Euro-Asian routes.*

Train	Train Services	Cost per container TEU (FEU)	Total time (days / hours)	Total Km	Capacity in Containers
1406	Brest (Belarus) – Nauschki (Russia), Ulan Bator (Mongolia) – Huh Hoto (China)	( )			
1208	Berlin (Germany) – Kunzevo (Russia) "Ostwind"	( )			
1251/ 1252	Almaty (Kazakhstan) – Dostyk (Kazakhstan) – Alaschankou (China)	( )			
1402/ 1401	Lianyungang (China)- Alaschankou – Dostyk – Saryagasch (Kazakhstan) – Assake (Uzbekistan)	( )			
1401/ 1402	Tianjin (China) – Alaschankou (China)/ Dostyk (Kazakhstan) – Almaty (Kazakhstan)	( )			
	Shenzhen, Alaschankou (China) – Dostyk (Kazakhstan) – Llezk, Susemka (Russia) – Zernovo, Cop (Ukraine) – Hungary	( )			
1418/ 1417	Klaipeda (Lithuania) – Radviliskis – Eglaine (Latvia) – Posinj (Russia) – Sebesh (Russia) – Ozinki (Russia) – Aktobe, Almaty (Kazakhstan)	( )			
1407	Shenzhen (China) – Ulan Bator (Mongolia) – Nauschki (Russia) – Brest (Belarus) – Maleszewicze (Poland)	( )			
1409	Beijing (China) – Ulan Bator (Mongolia) – Nauschki (Russia) – Brest (Belarus) – Maleszewicze (Poland) – Hamburg (Germany)	( )			

6. *Specify reasons for delays or high costs in central Asia when cargoes are being transported by trucks or by trains.*

Reasons for delays or high costs	by truck	by rail
Border crossing: technical operations		
Border crossing: customs procedures		
Border crossing: police controls		
other controls		
Unofficial stopovers		
Safety – Cannot travel during the night		
Unnecessary inspections (provide examples)		
Hidden costs (please specify)		
Documents (CMR – TIR – CIM – SMGS etc)		
Visa procedures		
Other factors (specify)		

Please note any other comment you would like concerning the Euro Asian Transport Linkages.

Rail Organizations Questionnaire

Questionnaire

UNECE Expert Group on Euro Asian Transport Links (EATL)

Personal Information

Country: Date:

Organization:

The respondent

Name & Surname:

Organization: Position:

Tel: Fax: Email:

Deadline: *Please reply before before the end of April 2010 by e-mail (port@unece.org) or by fax (+41-22-917 0039)*
The information that you provide will be considered as strictly confidential.

Objective of the Questionnaire

The overall objective is to compare the (time-cost) performance of EATL routes with relevant maritime-based routes (port to port plus inland sections) and identify conditions under which EATL options would be competitive.

This survey focuses on the information necessary to estimate and compare the duration and costs of the EATL routes using container block trains and competing routes based on deep-sea shipping in combination with road transport to final destination.

These questions aim to collect the following data on operations of block trains: **(1)** time schedule of the specific route (km analysis, stopover analysis, time analysis), **(2)**, main tariffs and any additional charges, **(3)** train capacity (number of wagons), **(4)** information on consignment notes, and **(5)** investment projects that would improve the operation of trains.

1. *Give a detailed time schedule for each EATL Route - Block Train that passes from your country.*

Time Schedule for EATL Route 2 and 3				
Stop Points	**Arrival Time**	**Departure Time**	**Staying Time**	**Kilometers among stopovers**
Dostyk	0			
Ucharal				
Aktogal				
Sayaq				
Moyynty				
Uspenskly				
Karaganda				
Astana				
Makinsk				
Petropavl				
Chistoye				
or				
Aktogat				
Sary Ozek				
Almaty				
Otar				
Shu				
Lugovaya				
Tashkent				
SUBTOTAL		0	0	
TOTAL TIME		0		0

Reasons for stopovers:

Time Schedule for EATL Route 9				
Stop Points	**Arrival Time**	**Departure Time**	**Staying Time**	**Kilometers among stopovers**
Tashkent	0			
Arys				
Turkestan				
Kyzylorda				
Dzhusaly				
Novokazalinsk				
Aralsk				
Oktyabrsk				
Aktyubinsk				
SUBTOTAL		0	0	
TOTAL TIME		0		0

Reasons for stopovers:

2. *Tariffs. Please indicate the tariffs and additional charges for the operations of the block train.*

Use of railroads, wagons and locomotives		*euros per kilometer*
Loading of containers to the train		*euros per movement*
Unloading of containers from the train		*euros per movement*
Fill in of the appropriate papers		*euros per paper*
Ferry Transportation Costs		*euros per container or wagon*
Ferry Loading Costs		*euros per container or wagon*
Ferry Unloading costs		*euros per container or wagon*
Other Expenses		

3. Train Capacity

How many container wagons can one locomotive of your rail organization pull?

Please indicate the maximum length of a train

Please indicate the maximum gross weight of the train (including cargo)

4. Consignment Notes

What kind of consignment notes do you use?	
CIM	
SMGS	
Common CIM/SMGS	
Local	
Other	

5. Investment Projects

Indicate any kind of investments (incl. border stations, marshalling yards, etc) that would facilitate the operations of the block train and could improve its safety, time schedule, tariffs etc.

Description of the project	Budjet	Why will improve operations

PART VII

NON-PHYSICAL OBSTACLES

FORTHCOMING

PART VIII

GEOGRAPHICAL INFORMATION SYSTEM (GIS) INTERNET APPLICATION

GIS in Euro Asian Transport Linkages Project

The Euro Asian Transport Linkages Project has an important geographical feature meaning that it is defining road, rail and inland waterways routes, analyzing and evaluating projects proposed by participating countries. Almost any data collected in the Project framework has a GIS feature. The visual view and analyse is more readable and has a great impact than a text or tabular data. During the process of identification of priority routes, project prioritization the outcome from GIS Project Database it was used.

- Integrate and relate any of its data with a spatial component
- Rather than working to understand data, GIS put the data to work
- Visual tool for decision makers
- Can be exported to other Database Systems

Status

- GIS software product used: MapInfo Professional version 7.5
- Basic layers and data merged.
- Workspaces and maps designed, ready to be published on Internet and electronic or printed documents
- EATL GIS Database is implemented, the data introduction and object localization tasks being fulfilled for most of the data types
- Evaluation of different software solution and architectures was done. The selected solution is in accordance with the project objectives and constraints.
- Design and developed an Internet application for EATL Data visualization and query.

The EATL GIS Database has two data categories:

- Predefined general data types
- EATL specific data types

All the data of same type are grouped together in a “table” named “layer” in GIS.

GIS Layers defined in EATL

- Predefined – from official sources
  - Border Shapes
  - Rivers and Lakes
  - Cities (Capitals, Small Cities, Populated places, Build up areas)
  - Railway Lines – all
  - Railway Stations
  - Road by categories
- EATL Specific
  - Nodes
    - cities and/or railway stations for rail
    - cities/ nodes/ junctions for road
    - nodes (cities/ stations/ etc.) defining road projects
    - nodes (cities/ stations/ etc.) defining rail projects
    - border crossings
  - EATL Rail Routes
  - EATL Road Routes
  - EATL Rail Projects (ongoing and planned) for road
  - EATL Rail Projects (ongoing and planned) for road
  - EAL Inland Waterways
  - EATL Maritime Ports
  - EATL Inland Ports

Sources

The data used to build and populate the EATL database are from various sources:

- Data collected from the member countries, based on reports and predefined questionnaires
- **ADC WorldMap Version 4.0A** - predefined data acquired by the project
- Studies and reports published in Internet from official websites (Government, International Bodies and Projects (CAREC, TRACECA, ESCAP, ADB))
- GIS data from Google Earth, Bing, OpenStreets

Objectives

The GIS Data have the following attributes:

- Precision of GIS data is 1:100000
- Map scale 1:1,000,000
- Projection: category: longitude/latitude WGS 1984
- Coordinates collected in decimal degrees

Intended usage of the EATL GIS Database:

- to be the base for designing maps needed in the project
- to show and to inform the decision makers the routes
- to be used in Internet Application to present the routes, projects and other types of data from their geographical perspective in dynamically online generated maps and views

GIS Database ETL is not intended to be used by contractors and builders for their design support for projects.

The designed maps show the EATL projects

- Per country
- An overview all projects proposed by country
- Projects prioritization
- Project localization and main data
- For all EATL region
- An overview all projects proposed by country

Generated maps were used in Projects prioritization process.

The EATL GIS Database is useful for:

- EATL Member Countries in the framework of the Project
- UNECE EATL
- The large public – Internet users – through an Internet Application

Results

The results of the GIS work are:

3. EATL GIS Database (available for MapInfo, ArcGIS, Google Map)
4. Map Atlas – a collection of predefined generated maps (as individual pictures, CD/DVD, available to be published on Internet).
5. GIS Internet Application Viewer – which allow the presentation of the GIS database in Internet and query data by attributes figures.

Maps Category/ Title	Level	Number
Project Area	Region	8
All Rail Projects	Region	1
All Road Projects	Region	1
Rail Routes	Region	10
Road Routes	Region	8
Rail Routes per Group	Region	18
Road Routes per Group	Region	9
Road Projects	Country	24
Rail Projects	Country	28
Road, Rail and Inland Waterways	Country	30

- Predefined maps generated from GIS Environment by an administrator – included in:
    - Electronic and printed documents,
    - Web pages,
    - Presentations cd's
    - Printed maps (maps atlas)
- Office documents with maps and analytical data tables
- Predefined maps available for desktop freeware GIS viewers – ESRI ArcView, MapInfo (Workspaces (integrated environment of GIS layers) used with MapInfo Viewer, together with the GIS database)

Application

Assumptions

GIS is an expensive business. For large and enterprise GIS databases special GIS software is requested. Due to the computer resources necessary to compute and provide quick responses in such GIS Databases, such special GIS software usually requires multiple servers with multiple processors and large memories.

EATL GIS database is rather a small database, with a low rate of changes.
The solution for the GIS database and GIS application has to consider the following:

- the existing mapping software already achieved is MapInfo 7.5
- there is no available special computer resources for the EATL Project
- expensing GIS Software should be avoided
- the countries provide information and data as office documents

Evaluated Solutions

There were considered 3 software application architecture

1. Web application designed to use GIS Server Dedicated Software
2. Application using GIS Servers and Services provided for the public access based on Google technology (Google Map, Google Earth) or OpenStreets
3. Application using freeware libraries and technologies, not requiring a special GIS software

1. Using Dedicate GIS Server Software

- Cost
  - Basic Software
    - GIS Web Server Software
    - Operating System + Internet Web Server
    - Database System
  - Hardware
    - Hardware Platform for GIS Web Server
    - Server for Database
  - Development and Deployment
  - Help Desk, Support and Maintenance
  - Updating Data
- Advantages
  - Full range of web application technologies
  - Stable environment and applications/ Maximum availability
  - Rapid development
  - Quick answers to web requests
- Issues
  - Initial costs for basic software and hardware platform
  - Costs for Help Desk, support, maintenance
  - Cost for updating data.
  - Require trained personnel to administrate the GIS Web Server and Database

This solution address for large GIS enterprise database, with meaningful number of simultaneous Internet users.

The software considered was ESRI GIS Server. Test application for evaluation designed in .Net 2008.

The project does not have, in this moment the license for GIS server software and the required hardware platform.

2. Application using GIS Servers and Services provided for the public access based on Google technology

- Require
  - GIS data collected
  - Web Server (Microsoft IIS/ Apache/ Zend Server)
  - JavaScript/ HTML Development Environment (MS VS2008, Macromedia Dreamweaver)

- Advantages
  - Reduced costs of implementation
  - No Web GIS Server Required. Only one server platform with Internet Server (not GIS) configured.
  - Some technologies does not require at the web server and client computer to install additional software
  - The results (application) work on most of main browsers
  - No special trained personnel to administrate the web server from the GIS application point of view
  - Easy to publish applications on Internet
- Issues
  - Not suitable for large amounts of GIS data to present
  - Applications possible not stable – freeware software provided as it is without any warranties
  - Execution and results dependant on the availability of GIS Online Server (ArcGIS Online, Google Earth, Google Maps, Bing, OpenStreets, etc.)
  - Need a good Internet connection (stable broadband connection).
  - As much as the end user has a computational powerful computer the result are obtained much faster – User computer performance dependant responses for web GIS applications
  - Slow application responses. Takes time to load GIS data, query and present them.
  - Due to poor documentation and multiples technologies development of the application, require time resource.
  - All GIS data will become public and can be download by anyone.
  - The application has to be non commercial

There were designed two draft test applications:

- One using Google Map technology and JavaScript
- One using Google Earth technology, JavaScript and Dojo library.

The applications are good for presenting on map the data, point and click over a GIS object. If there is the need to make queries that are more complex over the data, the development process requires using special JavaScript libraries. The application is browser dependent. The important issue is that the data have to be available to be accessed in Internet, and the code being JavaScript anybody with computer knowledge can determine the location of data and download them. There is also a dependency on the availability of GIS dedicated public servers and services. The license from Google for the software provided is that the deployed applications have to be non-commercial.

Some conclusions

- Google Maps + JavaScript + KML/ KMZ (**Keyhole Markup Language** (**KML**) is an XML-based language schema for expressing geographic annotation and visualization on Internet-based, two-dimensional maps and three-dimensional Earth browsers)
  - The application can be installed on multiple web server (ex. IIS, Apache, Zend Server). No additional hardware required.
  - Do not require any additional software installation on the client side
  - Do not require special software administration
  - GIS data became public and it is possible to download them
  - Easy to update (just replace some data files)
  - The performance dependant on the client Internet connection, computer performance and the availability of Google GIS servers
- Google Earth + JavaScript + KML/KMZ
  - The application can be installed on multiple web servers (IIS, Apache). No additional hardware required.
  - Require Google Earth plug-in software installation on the client computer to be integrated with the browser used
  - Do not require special software administration
  - GIS data became public and it is possible to download them
  - Easy to update (just replace some data files)
  - The performance dependant on the client Internet connection, computer performance and the availability of Google GIS servers
  - Very good GUI
  - Can manipulate quick enough 10MB of GIS data for an overlay KMZ layer

3. Application using freeware libraries and technologies, not requiring a special GIS software
    - Require
        - GIS data collected
        - Web Server (Microsoft IIS/ Apache/ Zend Server)
        - Development Environment (MS VS2008 Sp1, .Net Framework 3.5 Sp1,Silverlight Toolkit 3.0, ESRI Silverlight SDK, SharpMap v2.0, etc.)
    - Advantages
        - Reduced costs of implementation
        - No Web GIS Server Required. Only one server platform with Internet Server (not GIS) configured.
        - Some technologies does not require at the web server and client computer to install additional software
        - The results (application) work on most of main browsers
        - No special trained personnel to administrate the web server from the GIS application point of view
        - Easy to publish applications on Internet
        - High level of GIS data security. The GIS data not became available to public access or need to be uploaded to external GIS servers.
    - Issues
        - Not suitable for large amounts of GIS data to present
        - Execution and results dependant on the availability of GIS Online Server (ArcGIS Online, Google Earth, Google Maps, Bing, OpenStreets, etc.)
        - Need a good Internet connection (stable broadband connection).
        - As much as the end user has a computational powerful computer the result are obtained much faster – User computer performance dependant responses for web GIS applications
        - Slow application responses in case of large number of GIS object presented on map. Takes time to load GIS data, query and present them.

The test application designed use ESRI Silverlight Client Technology together with Development Environment MS VS2008 Sp1, .Net Framework 3.5 Sp1, Silverlight Toolkit 3.0, ESRI Silverlight SDK, and the GIS services provided by the SharpMap v2.0.

The background layers are required from ESRI Online, OpenStreets or Bing.

The end user has to install Silverlight Runtime. This means that the application is available only for windows platforms. The application requires an Internet Information Server.

The main advantages are:

- Data security
- Application security
- Modern GUI
- No additional cost for GIS Server Software and dedicated hardware platform
- Suitable for future developments

- Technologies examples
    - ESRI GIS Server Online + Silverlight + SharpMap
        - Ask Web GIS Services from ESRI Online
        - Require Silverlight plug-in installation on end user computer
        - Looks great, works fine, sometimes crashes, slow for large amounts of data
        - Takes time to be designed
        - Need a set of libraries to be installed in an Microsoft IIS server of the application publisher (this case UNECE-EATL)

Application Presentation

The technology selected for the development of the Web GIS application was the one using ESRI Silverlight Client Technology together with ESRI GIS Server Online, Silverlight and SharpMap.

The purpose of the web application is:

- Present the GIS data on map
- Allow identifying the “object” placed on map
- Query the visible data

The GIS data types, which can be made visible on map, are:

- Road Routes
- Rail Routes
- Sea Ports
- Inland Ports
- Road Nodes (Cities/ or splitting points)
- Rail Nodes (Railway stations or Cities/ or splitting points)
- Road Projects
- Rail Projects
- Road Projects Nodes
- Rail Projects Nodes

The application allows the following queries:

- Point and click to identify the GIS object
- Mouse over to get the figures of the pointed GIS “object”
- Query the data of selected layer based on the figure of an attribute

There are three types of backgrounds available to be selected:

- Streets view
- Topographic Map
- Worldwide Satellite Imagery Map

The tools implemented are:

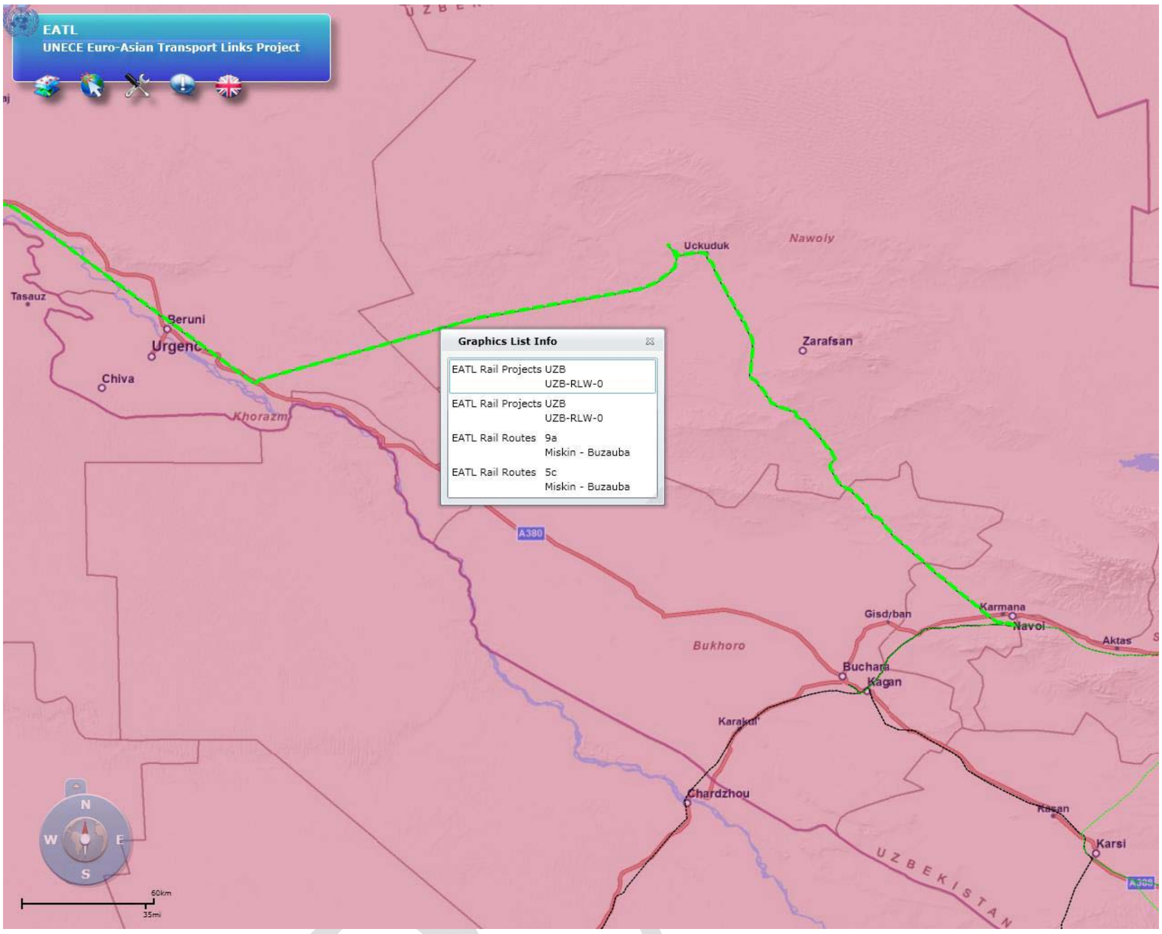
- Toggle visibility of the base map switcher
- Toggle visibility of the overview map
- Toggle visibility of the magnifying glass
- Area object select

The application is fully configurable.
The GIS data layers can be added updating the xml configuration file. For each data GIS layer we can set which are the attributes visible and possible to be queried.

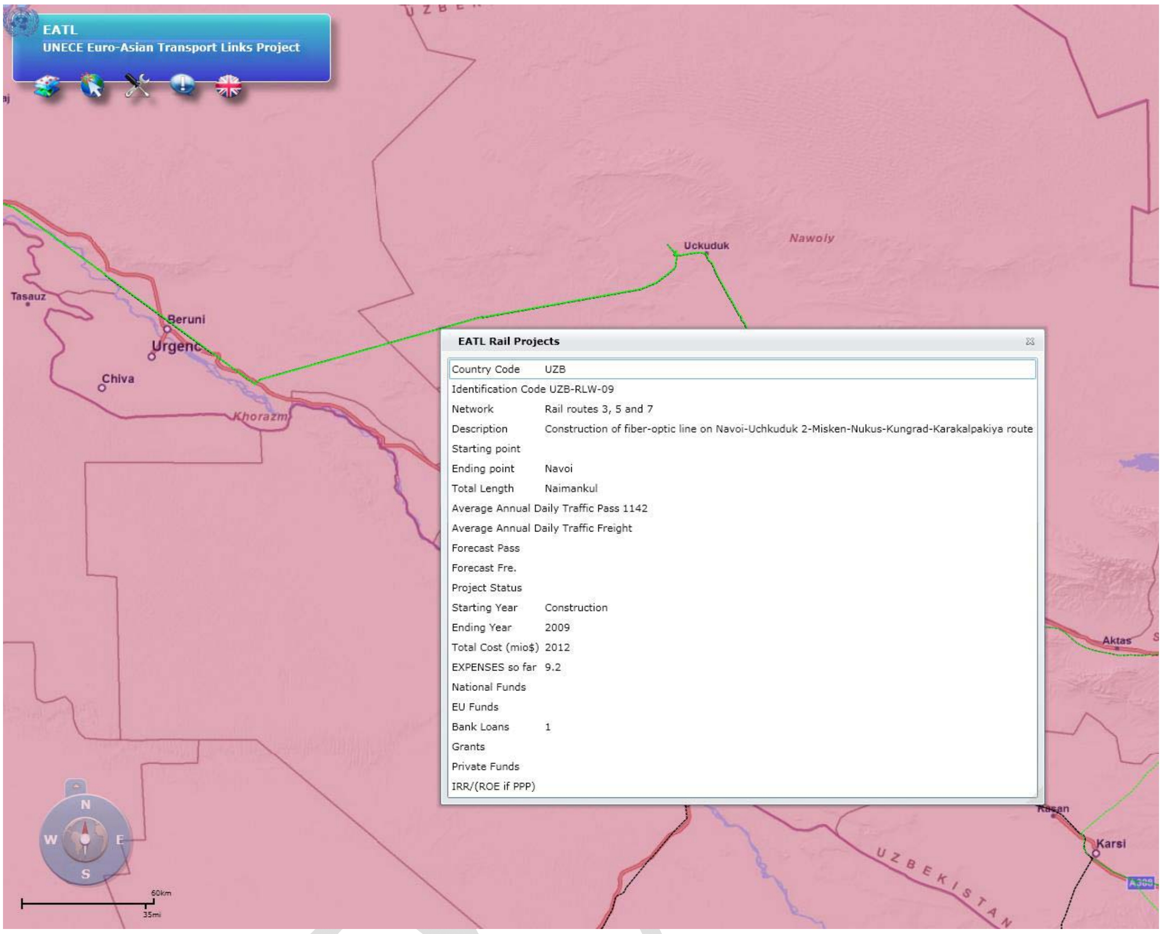
Future Developments

- Improvement of Database contents:
  - Update figures
  - Update Line Sections which are included in routes (rail/ road/ iww)/ or line sections,
  - Add missing data (Freight terminals and other intermodal transport infrastructure)
- Publishing on the web the approved by the countries:
  - Maps Atlas
  - Implement in production the GIS Data Presentation Applications

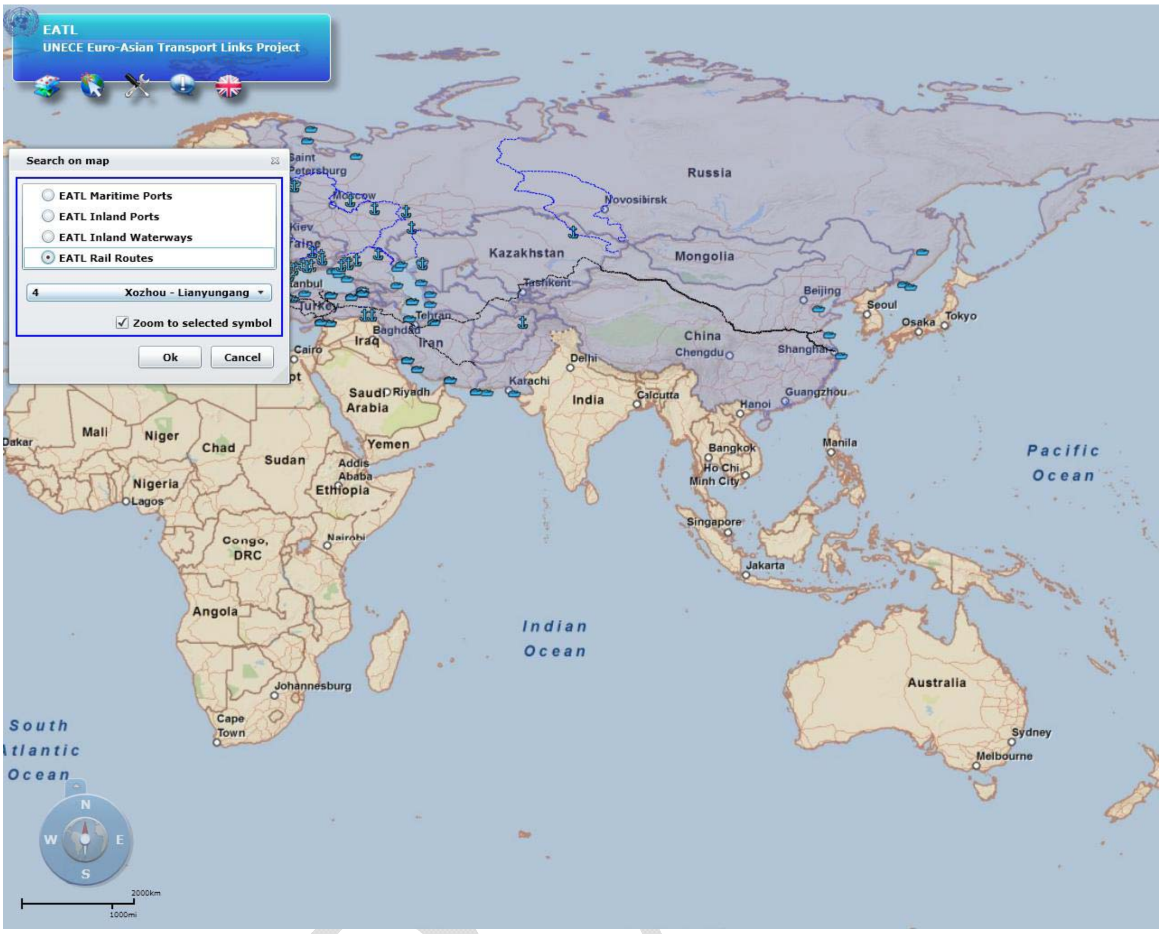
Load the selected rail routes group (black – the rail routes from group 4).



Point and click on Projects. Because there are more projects on the same spot a list is returned. The user has to select one project to see the figures.



Figures for the selected rail project.



Query data on a selected visible layer.

Future Developments

- Improvement of Database contents:
  - Update figures
  - Update Line Sections which are included in routes (rail/ road/ iww)/ or line sections,
  - Add missing data (Freight terminals and other intermodal transport infrastructure)
- Publishing on the web the approved by the countries:
  - Maps Atlas
  - Implement in production the GIS Data Presentation Applications

Acronyms

Acronym	Definition	Meaning/ Explanation
ADB	Asian Development Bank	The Asian Development Bank (ADB) is a regional development bank established on 22 August 1966 to facilitate economic development of countries in Asia.The bank admits the members of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)
ADC	American Digital Cartography	ADC inc. is the company which sells the ADC WorldMap Digital Atlas which provides coverage for the whole Earth GIS basic data. http://www.adci.com/html/worldmap/adc_worldmap_digital_atlas.php
ArcGIS		ArcGIS is a suite consisting of a group of geographic information system (GIS) software products produced by Esri
ArcView		ArcView, software product which allows one to view spatial data, create layered maps, and perform basic spatial analysis
BING	BING is a web search engine from Microsoft	BING used in document with the meaning of BING MAPS
BING MAPS	Bing Maps is a web mapping service provided as a part of Microsoft's Bing suite of search engines and powered by the Bing Maps for Enterprise framework.	Bing Maps (previously Live Search Maps, Windows Live Maps, Windows Live Local, and MSN Virtual Earth) is a web mapping service provided as a part of Microsoft's Bing suite of search engines and powered by the Bing Maps for Enterprise framework.
CAREC	Central Asia Regional Economic Cooperation (CAREC)	The Central Asia Regional Economic Cooperation (CAREC) Program is a partnership of 10 countries and 6 multilateral institutions working to promote development through cooperation, leading to accelerated economic growth and poverty reduction. (http://www.carecinstitute.org/index.php?page=carec-program)
Dojo		Dojo Toolkit is an open source modular JavaScript library (or more specifically JavaScript toolkit) designed to ease the rapid development of cross-platform, JavaScript/Ajax-based applications and web sites. It was started by Alex Russell, Dylan Schiemann, David Schontzler, and others in 2004 and is dual-licensed under the modified BSD license or the Academic Free License (≥ 2.1). The Dojo Foundation is a non-profit organization[1] designed to promote the adoption of the toolkit.

ESCAP	Economic and Social Commission for Asia and the Pacific	The Economic and Social Commission for Asia and the Pacific (UNESCAP or ESCAP), located in Bangkok, Thailand, is the regional arm of the United Nations Secretariat for the Asian and Pacific region. It was established in 1947 (then as the UN Economic Commission for Asia and the Far East - ECAFE) to encourage economic cooperation among its member states.
ESCWA	United Nations Economic and Social Commission for Western Asia	The United Nations Economic and Social Commission for Western Asia (UN-ESCWA), headquartered in Beirut, Lebanon, is one of the five regional commissions under the administrative direction of the United Nations Economic and Social Council. UN-ESCWA promotes economic and social development of Western Asia through regional and subregional cooperation and integration. It devises, promotes, and executes development assistance activities and projects in tune with the needs and priorities of the region of Western Asia.
ESRI		ESRI is a software development and services company providing Geographic Information System (GIS) software and geodatabase management applications. The headquarters of Esri is in Redlands, California.
GIS	Geographic Information System	A geographic information system, geographical information science, or geospatial information studies is a system designed to capture, store, manipulate, analyze, manage, and present all types of geographically referenced data. In the simplest terms, GIS is the merging of cartography, statistical analysis, and database technology.
GUI	Graphical User Interface	In computing, a graphical user interface (GUI, sometimes pronounced gooey) is a type of user interface that allows users to interact with electronic devices with images rather than text commands. GUIs can be used in computers, hand-held devices such as MP3 players, portable media players or gaming devices, household appliances and office equipment . A GUI represents the information and actions available to a user through graphical icons and visual indicators such as secondary notation, as opposed to text-based interfaces, typed command labels or text navigation. The actions are usually performed through direct manipulation of the graphical elements.

HTML	Hypertext Markup Language	Hypertext Markup Language (HTML) is the predominant markup language for web pages. HTML elements are the basic building-blocks of webpages.
IIS	Internet Information Services	Internet Information Services (IIS) – formerly called Internet Information Server – is a web server application and set of feature extension modules created by Microsoft for use with Microsoft Windows. It is the most used web server after Apache HTTP Server. IIS 7.5 supports HTTP, HTTPS, FTP, FTPS, SMTP and NNTP. It is an integral part of Windows Server family of products, as well as certain editions of Windows XP, Windows Vista and Windows 7. IIS is not turned on by default when Windows is installed.
JavaScript		JavaScript is a prototype-based scripting language that is dynamic, weakly typed and has first-class functions. It is a multi-paradigm language, supporting object-oriented, imperative, and functional programming styles. avaScript was formalized in the ECMAScript language standard and is primarily used in the form of client-side JavaScript, implemented as part of a Web browser in order to provide enhanced user interfaces and dynamic websites. This enables programmatic access to computational objects within a host environment.
KML	Keyhole Markup Language	Keyhole Markup Language (KML) is an XML notation for expressing geographic annotation and visualization within Internet-based, two-dimensional maps and three-dimensional Earth browsers. KML was developed for use with Google Earth, which was originally named Keyhole Earth Viewer. It was created by Keyhole, Inc, which was acquired by Google in 2004. KML is an international standard of the Open Geospatial Consortium. Google Earth was the first program able to view and graphically edit KML files. Other projects such as Marble have also started to develop KML support
KMZ	Keyhole Markup Language Zipped	Keyhole Markup Language files when compressed

TRACECA	Transport Corridor Europe-Caucasus-Asia	TRACECA (acronym: Transport Corridor Europe-Caucasus-Asia) is an international transport programme involving the European Union and 14 member States of the Eastern European, Caucasian and Central Asian region. The Intergovernmental Commission (IGC) TRACECA is open for all the initiatives promoting the development of regional transport dialogue and ensuring the efficient and reliable Euro-Asian transport links, promoting the regional economy on the whole. (http://www.traceca-org.org/)
WEB	World Wide Web	The World Wide Web (abbreviated as WWW or W3 and commonly known as the Web) is a system of interlinked hypertext documents accessed via the Internet. With a web browser, one can view web pages that may contain text, images, videos, and other multimedia and navigate between them via hyperlinks.
WGS 1984	World Geodetic System. The latest revision is WGS 84.	The World Geodetic System is a standard for use in cartography, geodesy, and navigation. It comprises a standard coordinate frame for the Earth, a standard spheroidal reference surface (the datum or reference ellipsoid) for raw altitude data, and a gravitational equipotential surface (the geoid) that defines the nominal sea level.
XML	Extensible Markup Language	Extensible Markup Language (XML) is a set of rules for encoding documents in machine-readable form. It is defined in the XML 1.0 Specification[4] produced by the W3C, and several other related specifications, all gratis open standards. The design goals of XML emphasize simplicity, generality, and usability over the Internet. It is a textual data format with strong support via Unicode for the languages of the world. Although the design of XML focuses on documents, it is widely used for the representation of arbitrary data structures, for example in web services. Many application programming interfaces (APIs) have been developed that software developers use to process XML data, and several schema systems exist to aid in the definition of XML-based languages.

PART IX

CONCLUSIONS

Within the general framework of globalisation, fragmented international production and market liberalisation, the volume of international trade between Europe and Asia has been growing sharply in recent years, partly as a result of the development of Eastern Asian countries, mainly China, but also due to the emergence of the economies of the Russian Federation and Central Asian countries, as well as that of other countries such as Turkey and India. In addition, the newly industrialized countries of Asia have experienced their trade flows rebound more strongly than those of developed economies, suggesting that much of their recent growth could be attributed to the trade within Asia. Therefore, the intra-Asian trade flows are increasing and could become as important as the Euro-Asian flows in the coming years. Maritime transport is the dominant transport mode for Euro-Asian trade flows to date, and trade growth is increasingly concentrated on a certain number of major maritime hubs in both Europe and Asia. An additional challenge for international transportation operators is trade imbalance, with a large number of empty containers being transported from Europe to Asia.

The above needs call for the diversification of existing routes and the opening up of alternative ones between the two continents. One direction in which current efforts are moving is towards the development of corridors and, hence, UNECE and UNESCAP have promoted a number of initiatives to improve “Euro-Asian Linkages” along land routes. These efforts are geared to the opening up of the almost untapped traffic capacity potential of land transport infrastructure, as well as to promoting infrastructure development in order to improve transport linkages between Central Asia and Europe, as well as between East Asia and Central Asia.

Building on the results of the work jointly implemented by UNECE and UNESCAP over the period 2003-2007 during the EATL Phase I, the present study is the outcome of the work of designated National Focal Points from 27 participating countries along the Euro-Asian land bridge involved in EATL Expert Group during Phase II (2008-11) with the support of the UNECE secretariat and consultants.

More specifically, the EATL Phase II project achieved the following key results:

- Identified major road, rail and inland water routes as extensions of existing EATL Phase I routes considered for priority development, including new ones in the territory of the newly Phase II participating countries (Finland, Germany, Latvia, Lithuania, Luxemburg, Mongolia and the former Yugoslav Republic of Macedonia).
- Identified a number of key container depots, intermodal terminals and ports along the selected routes.
- Assessed the status of implementation of projects identified under EATL Phase I.
- Developed a new infrastructure investment plan by prioritizing 311 investment projects of total cost of approximately $215 billion.
- Updated and expanded the comprehensive Geographic Information System (GIS) database built during EATL Phase I with new GIS maps prepared for the EATL region and each participating country involved and made it available on the Internet.
- Reviewed the international transport networks and initiatives linking Asia and Europe.
- Reviewed Euro-Asian transport flows, statistics and trends.

- Elaborated a SWOT Analysis specifying the strong and weak points of the EATL land transport links, the potential for their further development, as well as the related threats.
- Elaborated a comparison study of Euro-Asian maritime routes with selected rail routes, showing that in most cases - under certain conditions - rail transport performs better than maritime in terms of both cost and time.
- Identified non-physical obstacles to transport along the Euro-Asian Transport routes, with one thousand questionnaires sent to EATL road, rail and combined transport operators, supply chains managers, forwarders and important shippers seeking inputs on existing problems and potential solutions along the EATL routes used.
- Compared existing Euro-Asian maritime routes with selected rail routes identified in the EATL project.
- Maintained the coordinating mechanism in the form of the Group of Experts appointed by participating Governments.
- Provided recommendations on three strategic areas of action, that is, infrastructure, facilitation and policies.
- Drafted Country Reports for each participating country detailing current conditions on transport infrastructure, as well as National Transport Plans.

The priority routes identified by the EATL study constitute a promising prospect for transportation on Europe-Asia links, primarily taking into account the vast transit traffic capacity potential of land routes through northern Eurasia, which at present are very much underutilised. The review of the EATL Phase I investment plan depicted that half of the infrastructure network has been completed, while 24% of the proposed projects could be considered in the EATL Phase II. Hence, the development of these new and extended EATL transport routes would provide additional Euro-Asian transport solutions to the existing maritime and at the same time become a development tool for many countries in the Euro-Asian region, particularly the landlocked ones.

It is acknowledged that the implementation of EATL Phase II network is a long-term process steered foremost by political will and commitment from all national authorities of the participating countries. Continuous close cooperation amongst the 27 EATL Member Countries, between them and their immediate neighbouring countries, the respective National Focal Points and UNECE, is therefore imperative to achieve the goal of an effective and sustainable EATL network.

Furthermore, the provision of transport infrastructure is not the sole condition for the movement of Euro-Asian traffic flows. Therefore, linking some of the EATL Region countries into the global trading system is further complicated, while they stay outside the 57 legal trade and transport legal instruments, continue to use wooden rail box car wagons instead of containers, continue to choose to purchase rail grain hoppers instead of using international good practice of lined 20 foot containers, and continue to treat TIR trucks the same as CMR trucks when processing export, import and transit trucks at border crossing points. Key steps of the process include removing or minimising non-physical barriers, harmonising regulatory framework, promoting accession and implementation of various international conventions, building institutional and human capacity, as well as improving the business environment in the road, rail, inland waterway and maritime sectors.

To this end, the EATL Phase II study culminates in a set of recommendations, classified into three areas, namely, infrastructure, facilitation, services and policy, as effective means of identifying the impediments to transit traffic, and with the scope to set the ground for developing strategic action plans.

To sum up, inland transport offers shorter geographical distance and faster delivery time than the alternative maritime link between the EU and the Asian Pacific. It offers the advantage of end-to-end transportation, time efficiency and reliability. In this light EATL Phase II identified priority road and rail routes and projects; revealed that transport on certain inland routes is less costly than transport of goods by the sea; encouraged the development of partnership among key players in integrated development of infrastructure and tackling of environmental risks through cooperation among the National Focal Points which was supported by the UNECE secretariat; and there is a high political commitment for the development of EATL.

The globalisation of economic activity and expanding economic relations between Europe on the one hand and China and India on the other offers further opportunities to the EATL project. This is reinforced by economic development of the western part of China; congestion in the principal maritime ports and certain routes (the Suez Canal); economic integration between Belarus, Kazakhstan and the Russian Federation, as well as the expansion of this economic group; and increased economic cooperation among the EATL countries.

Challenges to the development of the EATL appear from a possible offer of competitive prices by the maritime transporters; underutilised possibilities offered by the intermodal transport; political instability; economic crisis and cuts in the public expenditure which may affect infrastructure development and maintenance; and the opening of the Arctic passage for container transport. Non-physical obstacles such as regulation, lack of its coordination and various legal and illegal practices pose serious challenges that policy ought to tackle along the EATL routes.

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PART X

RECOMMENDATIONS

It is acknowledged that the implementation of EATL Phase II network is a long-term process that requires first and foremost political will and commitment from all the countries involved. To see it to fruition will also require continuous close cooperation amongst the 27 EATL Member Countries and their respective National Focal Points, transport related international governmental and non-governmental organizations and UNECE.

Further to the provision of transport infrastructure, there is a greater need to meld together the various physical, non-physical, production, service, governance and social networks. To this end, the EATL Phase II study puts forward a set of strategic actions, classified into three areas, infrastructure, facilitation and policy, with the scope to complement the work carried out during the project, and contribute to the more efficient exploitation of its results.

Finally, the needs and issues that would potentially be addressed in a subsequent third phase of the EATL study are stipulated.

Infrastructure

An important factor in the realization of the EATL- network is the securization of the funds to be used for the implementation of the proposed infrastructure projects. Out of the 27 participating countries, 23 countries have submitted data on the EATL projects for evaluation and prioritization on the basis of the agreed methodology. The latter employed a set of criteria reflecting the societal values, the priorities and the available resources of the countries involved, as well as the viability of the projects and their global/ international character. As a result, submissions have been prioritized in four priority categories:

- With confirmed funding to be implemented in the short-term
- With funding to be confirmed
- Low priority projects to be implemented in the long-term
- Projects requiring additional data before further evaluation.

The overall project costs and the results of the project prioritisation exercise can be summarized as follows:

Out of 311 projects submitted of total cost of approximately $215 billion:

- *Road projects* with an estimated value of $113 billion, representing 53% of the total investment cost.
- *Rail projects* with an estimated value of $75 billion, representing 35 % of the total investment cost.
- *Other projects* (maritime, inland waterway, etc.) with an estimated value of $26 billion, representing 12 % of the total investment cost.

The percentage of secured funding for the total number of EATL Phase II Projects is 33%. Moreover, funding for 60% of the total investment costs ($72 billion) is secured for the implementation of 187 projects expected to be completed by year 2013. Another 21% of planned investment ($102 billion) is associated with 64 high-priority projects that lack secure funding to date. Remaining infrastructure investment planned by the authorities is associated with 3 projects that were classified in a low-priority category (2%) or could not be evaluated due to insufficient data (16%).

Finally, 100 % funding has only been secured for the projects submitted by Azerbaijan, Greece, Kazakhstan, and Lithuania. Given that development of transport infrastructure is the responsibility of the governments concerned, the UNESCAP and UNECE secretariats need to further assist countries on securing remaining investments in the near future. To this end, the eligibility criteria for receiving funds, as well as recommendations on the required procedures per funding institution/ source are among the rest of the recommendations provided for the infrastructure.

Recommendations on Infrastructure

Adoption of identified EATL routes

Considering the fact that the EATL Phase I participating countries have agreed on the routes which formed the "Euro-Asian transport linkages", it is of the outmost importance that they continue to support the development of Euro-Asian transport links and concentrate their efforts in integrating their national transport networks with the extended EATL Phase II identified routes. Newly participating countries in EATL Phase II, should also incorporate their networks with the identified EATL routes in their respective territories. In any case, network expansion should be realised under a satisfactory level of demand, functionality and coherence.

National Master Plans

The development and endorsement of the priority routes and projects identified by the EATL Project Phase II should be based on national Master Plans and funding possibilities, elaborated by the EATL Phase II participating governments, while taking into account the existing sub-regional, regional and interregional agreements on infrastructure.

Other related studies

During the course of the EATL II study, other implementation studies will be carried out either at national level or by International Organisations (e.g. ECO, EURASEC), UN bodies, European Commission, International Financial Institutions (e,g. World Bank, EBRD, ADB, ISDB), etc. The proposals of such related studies should be integrated in the EATL II.

Infrastructure project implementation with secured funding

It is of utmost importance to complete the implementation of those priority projects with secured funding to improve the competitiveness of the EATL Phase II routes and relieve the major infrastructure bottlenecks identified by the Expert Group. Thus, any missing feasibility and bank viability studies must be identified for the priority projects and efforts should focus on their elaboration.

Funding securitization

Finalisation of the funding situation of the EATL network regarding unfunded projects and examination of possible sources of funding is required. In addition, the eligibility criteria for the respective countries to receive funds, as well as analysis of the required procedures should be indentified. Funding sources to be examined are (non-exhaustive list):

- National financing.
- Banks, such as the European Bank for Reconstruction and Development (EBRD), Asian Development Bank (ADB), Islamic Development Bank (IDB) and the World Bank. In addition, any national development banks should be identified that could potentially finance the realisation of infrastructure.
- European Union Transport Corridor Europe-Caucasus-Asia (TRACECA) Programme , the Central Asia Regional Economic Cooperation (CAREC), Organization of the Black Sea Economic Cooperation (BSEC), the Economic Cooperation Organization (ECO), Eurasian Economic Community (EurAsEC).
- Alternative funding schemes, such as Public-Private Partnership (PPP) schemes (i.e. BOT) for infrastructure delivery and operation, as well as PFIs for services/operations delivery.
- Cross-border financing.

A strong political case needs to be made for increased provision of adequate funds for infrastructure implementation. In order to proceed with any type of securitisation of financing, the following characteristics must be met per infrastructure project:

- traffic target
- data related with on-going and expected investment expenditures,
- maturity of the project (under construction, planning, study phase, etc)
- start and completion years
- sources of funding already available
- institutional capacity to carry out the works

Increasing competition and private sector participation

While increased competition can result in increasing the efficiency of resource allocation, competition issues related to the implementation of transport infrastructure in general could be serious challenge for several countries in the region. To this end, institutional arrangements to establish an institutional environment for the development of public-private partnerships need to be promoted in a regional context. While best practices in competition and PPP schemes have been well documented in the industry, each case/project has its own specificities, and, hence models for replication are required that are tailored to the needs of each respective countries in the region, so these can be readily adopted.

Policy recommendations for government and border control agencies for the EATL countries experiencing difficulties attracting private sector participation that will remove some of the barriers to enhance PPP development include, amongst others:

- Removing the lack of awareness/poor understanding of PPPs by politicians/decision makers;
- Removing the lack of institutional capacity in the public and private sectors concerning project development and implementation;
- Removing the absence of/inadequate coverage of PPP legal regime/institutional framework;
- Ensure the PPP process is clearly defined;
- Removing the lack of non-availability of model concession agreements;
- Removing the lack of public sector project development funds;
- Removing the lack of no provision by governments of incentives/subsidies/viability gap funding;
- Removing the obstacles to difficult land acquisition which is time consuming;
- Removing the lack of coordination between central and local governments;
- Removing the contagion effects of domestic/regional economic and political environment.

Data Collection and Monitoring

The main difficulty when presenting the complete shape of the EATL backbone network and related Investment Plan was the lack of adequate information on geographical, technical, traffic/transport, economic/financial and funding issues. In order to ensure/provide realistic information on the actual level of the investment expenditure required to complete the EATL network, the reporting countries with incomplete data and those that did not submit any information are encouraged to timely provide this information so that the evaluation exercise can be completed with the existing resources.

In addition, monitoring of EATL routes performance and programme/projects' implementation is required in terms of a continuous or periodic assessment, identifying problems and recommending remedial actions. More specifically, monitoring through transparent measures should aim at:

- Observing, measuring, recording, collating, processing information for necessary decision/action.
- Providing information on the state of play of programme/project in direct comparison to original plan and costs.
- Identifying constraints to implementation and suggesting solutions.
- Securing the involvement of stakeholders
- Enhancing efficient management of resources, accountability, transparency

Based on the above, it is recommended that national focal points of EATL Phase II participating countries submit data on a continuous basis to UNECE and UNESCAP.

Network monitoring could be presented in a GIS format jointly with a Decision Support System, with a direct graphical display of the progress of the network under operation and the time periods of planned completion, depending on the status of the infrastructure implementation.

Synergies and concerted actions

Synergies and coordinated actions should be explored amongst countries in terms of infrastructure implementation, as well as coordinating implementation time periods in particular, in order to ensure consistency, infrastructure continuity, interoperability, seamless transport and reduce potential risks of marginalization of hinterlands and landlocked countries.

Intermodal routes and transit nodes infrastructure

Most of the identified EATL routes are intermodal. Intermodal transport offers several benefits, with the underlying principle of seamless movement from one mode of transport to another. Consequently, the efficiency of the emerging EATL network lies to a significant extent in the transhipment capabilities of the transport terminals, and hence, a special focus should be placed on the need for efficient intermodal "interfaces", including ports, dry ports, inland container terminals, freight villages, etc. Landlocked countries, in particular, together with their transit neighbours, need to consider the development and maintenance of adequately equipped dry ports, i.e. inland container depots, logistic centres, dedicated warehousing and other related facilities at the interface between different modes of transport. In this context, the use of financial and economic planning models should be promoted in partnership with various organisations. In addition, private sector provision of logistics services particularly for SMEs should be enhanced.

Additional recommendations and actions promoting intermodal integration through the development of dry ports in the region include:

- strengthening transit cooperation between landlocked and transit EATL countries to promote intermodal transport connectivity;
- prioritizing the development of dry ports in each EATLcountry that will constitute a network of dry ports connected with the maritime ports in the EATL region;
- assessing the challenges and opportunities for development of dry ports;
- coordinating the different government ministries/departments and the private sector to create an conducive environment for the development of dry ports; and
- active participation in the negotiation of intergovernmental agreement on the development of dry ports.

"Motorways of the Sea " (MoS)

Motorways of the Sea (MoS) are a European Union initiative aimed at providing improved intermodal freight transport options, relying on the integration of short sea shipping and the respective hinterland connections of the ports served (either in the same country or in two or more countries) into the transport supply chain. To this end, the possibility of implementing an MoS link along an identified intermodal EATL route (linking EATL ports and serving their respective hinterlands) should be explored since more efficient transport through an MoS scheme would help countries attract foreign direct investment, increase their exports and participate in complex cross-border supply-chains.

The development of intermodal Euro-Asian routes that include the maritime transport mode (which could be termed MoS, following the EU definition) requires reliable and efficient services of RO-RO and RO-PAX (termed also ferry lines) at the Black and Caspian Seas. Ferry crossing operations represent one of the important components of the international shipping business. The results of using new policies and greater cooperation must include:

- Provision of predictable and reliable schedule using a timetable of RO-RO and RO-PAX lines; publication of timetables for better planning of transportation by road transporters dealing with export, import and transit cargo operations between Asia and Europe.
- Provision of additional RO-RO and RO-PAX in case of a significant increase of road transport haulage between Europe and Asia.
- Cooperation among the shipping industry and port operations of Azerbaijan Republic, Georgia, Kazakhstan and Ukraine in order to simplify and speed up the administrative procedures at sea ports.
- Cooperation of the shipping industry with the forwarding companies in order to introduce and manage advanced RO-RO and RO-PAX space reservation, which will reduce waiting time for vehicles at sea ports.

Facilitation

The provision of transport infrastructure is a necessary, but not sufficient condition for the movement of international trade and the efficient operation of the Euro- Asian priority axes, since obstacles and bottlenecks occur, particularly at borders, due to the lack of policy and administrative interoperability and harmonisation. It is vital that transport facilitation be addressed in an integrated manner by all the authorities concerned and in direct partnership with the private sector.

UNECE and UNESCAP secretariats put a considerable emphasis on technical and administrative harmonisation when relevant to the efficient operation of the selected identified axes and projects, and will, therefore, continue to work with countries, at their request, to assess the implications of acceding to and implementing international legal instruments.

Recommendations on Facilitation

Simultaneous consideration of both national and international perspectives.

By bearing in mind both perspectives, the aim is to move towards plans that acknowledge shared international needs and goals, while at the same time recognise the reality that national needs are themselves also important to the participating countries.

Accession to international conventions and agreements

Greater and more effective effort is needed to promote, accede to and implement the international legal instruments relating to transport facilitation in general, and in the area of border-crossing facilitation in particular. In order for countries to accede to international conventions, there is a need to understand the implications and benefits of the conventions, and to establish mechanisms in the form of committees and bodies necessary to accelerate the process of accession. There is also a need to monitor and promote the implementation of the agreements at a policy and operational level. This would also contribute to the coordination between the EATL Focal Points and other stakeholders.Various institutional mechanisms for facilitating transit transport need to be explored, and participating countries' governments could consider initiating the following activities:

- formulating national action plans for acceding to the international conventions
- translation of international conventions into national language for wider dissemination and improved understanding
- organization of training programmes for creating awareness and efficient implementation of the conventions
- sharing experiences and best practices in the implementation of conventions cooperation between developing/ neighboring countries
- examining domestic legislation with a view to ascertaining the changes which may be necessary to incorporate the provisions of international road transport conventions.

In order to achieve further expansion of long-haul road shipments between Asia and Europe, the existing system of bilateral agreements runs against the WTO principles of non-discrimination and the Most Favoured Nation (MFN) and is impeding the development of shipments along the Europe Asia routes (e.g the Great Silk Road). To this end, the accession to multi-lateral agreements is recommended. Existing agreements are also in need of modernisation, which would synchronize them with WTO principles and would remove the restrictions which impede mass shipments by road between Asia and Europe, including transit services.

The preparation and conclusion of regional multilateral agreements on international road transportation (with multilateral permits) can become one of the key measures, which will provide a solution to the problem of revising existing bilateral agreements;

Harmonization of rules and regulations

Streamlining of national procedures and harmonization of rules and regulations can lead to major reductions in transport costs. Therefore, facilitation measures should be directed towards standardization, harmonization and simplification of transit policies, regulations, formalities, procedures and documents, as well as institutional issues. This is of vital importance for transit trade and border-crossing, particularly in the case of landlocked countries.

The following issues could be considered:

- simplification and harmonization of documents and procedures for border-crossing and transit Improving customs clearance and border agency inspections
- harmonization and integration of border management procedures and controls could be promoted through the application of Harmonization Convention[104.] This Convention provides a framework for national authorities to establish integrated control procedures and for authorities in neighbouring countries to establish harmonized control procedures and even, in some cases, joint control stations that will reduce the border crossing times

[104] International Convention on the Harmonization of Frontier Controls of Goods 1982

- common standards and certification in such areas as vehicle and operator permits and safety
- measures relating to official control, promotion and use of standards, customs operations, commercial trade practices, payment procedures, insurance, and the use of IT
- Use integrated information systems,as well as electronic Single Window System (SWS), for electronic data submission in order to reduce the number of import and export documents (Georgia with only four export and import documents represents a “best practice” example for the EATL countries).
- Computerizing transit documentation as part of a customs modernization reform can reduce the time spent in initiating transit or in final clearance. ASYCUDA and other systems comprise transit modules technically easy to implement, when border posts are connected to Customs administration headquarters.
- measures that could be incorporated in bilateral and multilateral arrangements.

Finally, regular assessment and monitoring of progress at the major border-crossing points along the EATL Phase II routes, should be a continuous action within the framework of the EATL study.

Customs Procedures

In addition to the above, revision of existing customs procedures and policies are recommended, whose implementation shall increase the effectiveness of international transport, reduce freight costs and increase the volume of shipments:

- Expediting the process of synchronising existing customs procedures in transit countries with international norms, regulations and the documentation required when crossing State borders by implementing Annex 8 of the 1982 UN International Convention on the Harmonization of Frontier Controls of Goods.
- Speeding the process of upgrading border crossing points, equipping them with modern surveillance methods for security (vehicle scanning equipment etc.), as well as the necessary IT infrastructure, to enable them to use contemporary information technology and share data with customs bodies in other countries.
- Adopt a risk-based management approach to inspection, in contrast to the current and prevalent practice of conducting 100% physical inspection on incoming goods.
- Getting Customs authorities in transit countries formalizing measures for pre-declaration of cargoes to be transported along the routes, based on the implementation of the IRU’s TIR-EPD system105.+ eTIR
- Using best practices successfully applied in Georgia, the EU, and customs authorities in transit countries who use this experience and measures to fight corruption and illegal activities.

Furthermore, it is recommended that Customs administrations develop and implement Border Crossing Point Performance Indicators to evaluate the results investment in projects and changes in procedures at border crossing points.

[105] TIR-EPD system: TIR Electronic Pre-Declaration system See: www.iru.org/en_iru_tir_epd and www.iru.org/cms-filesystem-action?file=tir/en_TIR-EPD_HolderUserManual.pdf

Border key performance indicators (KPI) developed by the Trade and Transport Facilitation South East Europe (TTFSE)106 are the following:

1. Total number of inspections
2. Total number of irregularities / number of inspections
3. Average border exit time
4. Average border entry time
5. Surveyed case of corruption
6. Reported case of corruption

These KPIs could be enhanced to better reflect performances related to the transport supply chain.

(a) Time/Distance to Market

It is recommended that Government and border control agencies:

(i) measure time that is required for the product to reach the market for each major export product;

(ii) measure the time that is required to supply import cargo to national companies and foreign direct investors

(iii) implement policies which reduce the number of days to get products to export markets and reduce the number of days to import cargo;

(iv) use the World Bank Doing Business "Trading Across Borders" and "Logistics Performance Indicators" (LPI) as good practice performance targets for the Customs administration and border crossing agencies.

Cross border facilitation specific cases

If specific cases are identified in need of particular attention, the following actions should be considered:

- specific provisions to facilitate trade
- measures relating to official control, promotion and use of standards, customs operations, commercial trade practices, payment procedures, insurance, and the use of ICT
- networking of the committees and bodies involved
- measures that could be incorporated in any bilateral and multilateral arrangements in force

Visa formalities

Visa procedures have a significant negative impact on the shipment of cargoes from Asia to Europe and, therefore, new polices are recommended to reduce long processing times and high consular charges:

- synchronised visa issuing procedures
- simplify visa requirements
- introduce long-term multi-entry visas

[106] TTFSE project funded by The World Bank

Ensuring interoperable systems

Time losses stemming from lack of interoperability between the national systems (in the case of the railway transport mode in particular) become even more evident with reduced customs and passenger controls and in a liberalised transport market. Gradually eliminating interoperability issues at borders, whilst at the same time aiming at efficient controls and security levels, will be crucial for the future competitiveness and viability of the EATL routes.

Build Human and Institutional Capacity

Countries participating in the EATL project should focus on capacity building. It is necessary to ensure that national officials responsible for the day-to-day application of the various conventions, agreements, rules and regulations, are fully aware of their provisions. There is also a need to strengthen the freight-forwarding and logistic industry, particularly at the small and medium-scale level. In the case of the least developed countries, one of the major constraints in implementation or operationalization has been insufficient capacity by institutions, including the private sector.

In addition to the above, driver education in the road transport sector is of significant importance, and hence, it is recommended to develop along professional truck driver training and professional staff training in road transport companies and government institutions responsible for national transportation networks Europe-Asia routes. Traffic increase along identified routes, as well as the introduction of new technologies (e.g. Longer and Heavier lorries (LHVs), commonly called Mega Trucks) will require new quality training systems to future develop and improve driver's skills and knowledge of foreign languages. Protecting the interests of professional drivers includes policies which will:

- Expand the implementation of educational programs aimed at increasing professionalism of the international transport haulage participants, including the teaching process in national transport institutes;
- Utilise the potential of the IRU Academy for training administration staff of road transportation companies and providing advanced training to professional drivers carrying out international road transportation haulage;
- Modernise the selection criteria for employment of professional drivers. Make use of the international experience and recommended practice related to issuance of permits for international driver's profession for the purpose of increasing the quality and safety of transportation.
- Support language skills training for drivers employed for long-distance international transport haulage.

Identification of bottlenecks

It is proposed that the UNESCAP time/cost-distance methodology be used to identify and isolate the bottlenecks, as well as for assessing the success of facilitation measures and the competitiveness of the identified routes with periodic reviews. In addition, modern information and decision-support systems together with corridor studies are effective means of supporting the planning, development and maintenance of infrastructure facilities, facilitate transit traffic, identify bottlenecks, and monitor adherence to agreements.

Analyzing and benchmarking trade and logistics performance

Many Ministries of Economy and Ministries of Trade as well as Chambers of Commerce are not engaged in analyzing and benchmarking their trade and logistics performance, therefore, government and border control agencies are recommended to prepare and implement policies which mandate analyzing and benchmarking trade and transport facilitation performance using amongst others, the following methods:

(i) the World Bank Trade and Transport Facilitation Assessment (TTFA) – A Practical Toolkit for Country Implementation[107]; (ii) World Bank Trade and Transport Facilitation Assessment – A Practical Toolkit for Country Implementation[108]; (iii) The World Customs Organization (WCO) Customs Benchmarking Manual which includes the Time Release Study (TRS)[109].

It might beneficial for EATL countries, if EATL approaches related to time for exports and imports are introduced, which might be different for specific regions, particularly in the case of EU Member States and the Economic Cooperation Organisation member states, such as the following: (i) customs administrations might consider using TRS to measure the performance of: (a) time release of export and import of Authorized Economic Operator (AEO) and non Authorized Economic Operators; (b) TRS of one-stop-shops at border crossing points and at inland clearance depots; and (c) Single Window Systems[110]; (ii) The European Union DG TAXUD "Customs Blueprints Pathways to Modern Customs"[111]; (iiii) the UNECE "Guide To Trade Facilitation Benchmarking"[112]; (IV) the Business Process Analysis Guide To Simplify Trade Procedures[113]; (v) Compendium of Trade Facilitation Recommendations[114]: (vi) Designing and Implementing

[107] www.gfptt.org

[108] Trade and Transport Facilitation Assessment – A Practical Toolkit for Country Implementation, The World Bank www.siteresources.worldbank.org/EXTTLF/Resources/Trade&Transport_Faciltation_Assessment_Practical_Toolkit.pdf

[109] World Customs Organization, Brussels, 2002

[110] The WCO Time Release Study overview, 29-30 March 2011, Tashkent, Uzbekistan, by Shingo Matsuda, Technical Officer, WCO Brussels www.carecprogram.org/uploads/events/2011/CAREC-Time-Release-Study-workshop/WCO-Time-Release-Study-Overview.pdf

[111] Customs Blueprints Pathways to modern customs, European Commission Taxation and Customs Union, 2007 www.bookshop.europa.eu/en/customs-blueprints-pbKP7707173/

[112] Guide To Trade Facilitation Benchmarking, Measuring international trade procedures and practices to enhance competitiveness, reduced costs and improve official control, United Nations Economic Commission For Europe and United Nations Centre for Trade Facilitation and Electronic Business (UNCEFACT), prepared by the International Trade Procedures Working Group TBG15 of UN/CEFACT, July 2008 (ECE/TRADE/366), www.unece.org/cefact

[113] Business Process Analysis Guide To Simplify Trade Procedures, United Nations Network of Experts for Paperless Trade in Asia and the Pacific (UNNexT), United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and United Nations Economic Commission for Europe (UNECE), Thailand, December 2009, www.unescap.org/unnext

[114] Compendium of Trade Facilitation Recommendations, United Nations Economic Commission for Europe (UNECE) and United Nations Conference on Trade and Development (UNCTAD), 2002 www.unece.org/cefact/publica/01comp.pdf

Trade Facilitation in Asia and the Pacific[115]; (vii) Trading on Time[116]; and (viii) SITPRO Cost of Paper in the Supply Chain (2008 SITPRO[117]) in the perishable food supply chain study[118].

Corridor Facilitation Program and Management

A coordinated corridor facilitation program for EATL countries can bring several benefits such as improved border-crossings, better information-sharing, bottleneck identification and solutions finding to address them. Corridor cooperation can also lead to for more in depth re-engineering of the transit systems.

In addition, the use a Trade Corridor Management Toolkit (TCMT)[119] is recommended, which is, however, currently under development by the World Bank. The Trade Corridor Management Toolkit (TCMT) is designed as a comprehensive and holistic tool to help improve the performance of trade and transport corridors. The TCMT will provide a menu based reference for the Bank and other agencies involved in corridor-based projects. Task managers and policy makers will be able to access in a single place, a suite of instruments to assess, improve and manage corridor performance. Hence, such a tool could be adapted for the case of EATL.

Trade facilitation: interest for developing countries

The following list of trade facilitation and border crossing point studies, reports and evaluating methods should assist EATL countries' officials and practitioners improve the image and performance of their border crossing points and further strengthen the operation and efficiency of each supply chain / transport corridor:
- Border Management Modernization[120] handbook
- Customs Modernization Handbook[121]
- Modernization of Border Crossing Points in Turkey[122]

[115] Designing and Implementing Trade Facilitation in Asia and the Pacific, Asian Development Bank (ADB) and United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), November 2009, http://aric.adb.org and www.unescap.org/publications/detail.asp?id=1352

[116] Trading on Time, Simeon Djankov, Caroline Freund and Cong S. Pham, 26 January 2006, www.doingbusiness.org/~/media/fpdkm/doing%20business/documents/methodology/supporting-papers/db-methodology-trading-on-time.pdf

[117] SITPRO, 2008, Cost of Paper in the Supply Chain: "Project Hermes" Perishable Foods Sector Research Report. Available at: www.sitpro.org.uk/reports.pdf

[118] Described in Designing and Implementing Trade Facilitation in Asia and The Pacific, Box 2.4, p.45, Asian Development Bank and United Nations Economic and Social Commission for Asia and the Pacific, November 2009, http://aric.adb.org

[119] Trade Corridor Management Toolkit Overview, by Charles Kunaka, Robin Carruthers and Jonathan Stevens, Conference Edition, The World Bank, www.siteresouces.worldbank.org/EXTTLF/Resources/515433-12749948208/Trade-Corridor-Management-Toolkit.pdf See also "Best Practice in Corridor Management", John Arnold, World Bank, Transport Working Paper, 2007

[120] Border Management Modernization, Editors Gerard McLinden, Enrique Fanta, David Widdowson and Tom Doyle, The World Bank, 2011 www.publications.worldwide.org/index.php?main_page=product_info&products_id=23919 ==> link does not work

[121] Customs Modernization Handbook, Editors Luc De Wulf and Jose B. Sokol, The World Bank, 2004 www.sitesources.worldbank.org/INTEXPCOMNET/Resources/Customs_Modernization_Handbook.pdf

- Separating Release from Clearance Procedures[123] by UNCTAD
- Pre arrival Customs processing[124] by UNCTAD
- International Trade–A blueprint for the future Customs environment[125]
- Simplifying Trade Across UK Borders: A Plan of Action[126]
- High Level Conference on Customs Cooperation at the Eastern Border of the EU[127]
- Strategic Framework of the Annual Work Plan 2011[128] part of the EU Customs 2013
- Measurement of Border Crossing Time[129] method referred to as the “Laufzetell” project
- Guidelines For Land Road Border Stations”[130]
- U.S. Land Port of Entry Design Guide”[131]
- Border Crossing Point Performance Indicators[132]
- Handbook of Best Practices at Border Crossings-A Trade and Transport Facilitation Perspective”[133]

Operation and Services

Apart from the provision of infrastructure, the operationalization of the identified EATL routes and related provision of transport services is of equal importance for the creation of an efficient network, since high transport costs and unreliable service have a significant impact on the market and on the mobility of people and goods. To this end, it is recommended to perform corridor specific operational profiles for the identified EATL routes, which could form the basis for developing action plans, and act as effective means of identifying the impediments to transit traffic. Similarly to the work carried out in comparing Euro-Asian inland transport routes with existing

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[122] See slides: Modernization of Border Crossing Points in Turkey: New prospects for Silk Road Region and Joint Border Crossing Model, by Ahmet Gürlek, Business Operations Manager, Istanbul, 11 November 2009 at www.unece.org/filesadmin/DAM/trans/doc/2009/wp5/ECE-TRANS-WP5-GE2-03-pres18e.pdf

[123] UNCTAD Trust Fund for Trade Facilitation Negotiations, Technical Note No.19, Separating Release from Clearance Procedures, July 2008 www.unctad.org/ttl/technical-notes/TN19_SeparateRelease_fin.pdf. See also http://r0.unctad.org/ttl and http://r0.unctad.org/ttl/technical-notes.htm

[124] UNCTAD Trust Fund on Trade Facilitation Negotiations, Technical Note No. 15, Pre-arrival Customs processing, www.unctad.org/en/docs/TN15_PreArrivalClearance.pdf

[125] International Trade – A blueprint for the future Customs environment, UK HM Revenue and Customs, 2007, http://customs.hmrc.gov.uk/channelsPortalWebApp/channelsPortalWebApp.portal?_nfpb=

[126] Simplifying Trade Across UK Borders: A Plan of Action, HM Revenue & Customs and Department for Business Innovation & Skills (BIS), December 2009 www.hmrc.gov.uk and http://www.bis.gov.uk/

[127] Meeting of the Working Groups on Trade Facilitation and Customs Procedures and on Security and Safety and the Fight Against Fraud, Gdansk, Poland, 4-5 June 2008 http://ec.europa.eu/taxation_customs/resources/documents/customs/policy_issues/conference_events/vienna2008/gdansk.pdf

[128] Part A: Strategic Framework of the AWP 2011, Decision C(2011) 0500 of 2 February 2011 related to the AWP 2011 for the implementation of the Customs 2013 Programme http://ec.europe.eu/taxation_customs/resources/documents/customs/cooperation_programmes/background_papapers/awp_2011_en.pdf

[129] Measurement of Border Crossing Time Report, Baltic Sea Customs Conference Procedures Working Group, “Laufzettel Project”, EST/FIN/PL/RUS, Sept-Oct 2003, Warsaw, February 2004 www.cbss.org

[130] Guidelines For Land Road Border Stations, The World Bank, 16 September 2004 www.worldbank.org/afr/ssatp/Open.aspx?id=542

[131] U.S. Land Port of Entry, Design Guide, Abbreviated (P130), 1 August 2000, GSA Public Buildings Service, Office of the Chief Architect, Border Station Center of Expertise, http://www.gsa.gov/pbs/pc/tc_files/tech_1.htm

[132] www.ttfse.org

[133] www.osce.org/eea

maritime by the EATL Phase II Study, EATL routes studies should indicatively explore, amongst others, the following:

- Operational and technical characteristics along routes (total weight, length of trucks, length of trains, axle weight, gradient, speed, all-weather roads etc.)
- Travel time
- Prices/travel cost
- Frequency of services
- Supply chain and logistic services
- Terminals/Transhipment centres capacity, charges and services

Government and border control agencies are recommended to develop and implement policies, to achieve the largest potential reductions in total logistics costs:

(i) measures that enhance supply chain predictability, thereby reduce hedging costs
(ii) measures (some of which may be part of broader governance reforms) reducing rent seeking activities and, therefore, overhead logistics costs
(iii) reforming market structure by moving from a cartel/syndicate freight organization to an efficient market structure, inducing decreased fixed cost of transportation

Another important issue that should also be examined is the safety and security for each selected transport mode and transit node along the identified routes.

Landlocked Countries

The following recommendations[134] are put forward specifically for the EATL landlocked countries:

i) Policy-related actions: Landlocked countries can demonstrate their commitment to improve the transit process through the formulation and implementation of a clear and consistent national policy. To this respect the EATL study is a main contributor. It is important that landlocked countries coordinate among themselves, ensure representation at international meetings, and articulate their positions with a single voice.

(ii) Improved coordination within and between countries: Multiple agreements on transit transport at a bilateral, trilateral and sub regional level along with international conventions can result, and are resulting, in some countries having overlapping and sometimes contradictory obligations. There is a need to ensure a consistent and harmonized legal regime across the EATL countries, to the extent possible.

(iii) Trade and transport facilitation: Simplification and harmonization of transit transport documentation could lead to immediate benefits in terms of a reduction in transit costs and

[134] Transit Transport Issues in Landlocked and Transit Developing Countries, United Nations Economic and Social Commission for Asia and the Pacific, Landlocked Developing Countries Series, No.1, 2003, sitesources.worldbank.org/INTRANETTRADE/Resources/WBI-Training/UN-Landlocked.pdf

time, particularly at border crossings. With the potential growth in transit transport through landlocked countries, both landlocked and neighbouring transit countries can benefit from actions taken to increase the efficiency of transit transport.

(iv) Promoting competition in the provision of transit transport services: Transport service providers from landlocked countries are sometimes restricted from offering services in the territory of their transit neighbour, even for the carriage of goods in transit to or from their own countries. Limited competition between operators, modes of transport and routes may be resulting in inefficient pricing policies and services.

(v) Better monitoring: Policy makers need accurate information on critical bottlenecks and the tools to monitor the impact of efficiency improvements. The cost/time methodology utilized in the ESCAP case studies can provide EATL countries with a snapshot of the performance of transit transport routes and enable them to make a comparison between routes and border crossings.

(vi) Enhancing transit infrastructure: Development of transport and information and communications technology (ICT) infrastructure and, in particular, completion of the “missing links” in transport networks would improve transit transport and could also enable landlocked countries to provide transit transport services to neighbouring countries. An integrated approach is needed in balancing competing priorities in the development of road, rail and other infrastructure. While alternative transit routes are important, volume and economies of scale contribute to the reduction of unit costs.

Policies

In order to achieve the goal of successfully building and operating an efficient and sustainable EATL transport network, the infrastructure and facilitation measures mentioned in the above need to be embedded in a sound policy framework. Therefore, a number of policy recommendations for the both the participating countries, as well as the international organizations concerned are put forward.

Recommendations on Policies

1. The EATL Phase II project results of both infrastructure and facilitation exercises should be brought to the attention of the appropriate bodies in UNECE and UNESCAP for consideration of potential follow-up actions in the framework of their regular legislative and normative work.

2. The establishment of a suitable mechanism ensuring efficient coordination and monitoring of activities related to the proposed EATL network should be considered.

3. Due to the strong commonalities between various network infrastructures, what should be considered “best practices” on developing transport infrastructure and facilitation of international transport in Europe and Asia from national governments and international organizations should be assembled and disseminated. To this end, it is proposed to identify areas and promote concerted actions with other related parties, such as UNESCAP, OSCE,

BSEC, ECO, IDB, EurAsec, CAREC, TRACECA, SCO, with regard to regional integration transport activities and projects implemented by international regional and sub-regional organizations and concerned bodies. The feasibility for revised road, rail and intermodal transport network agreements (AGR, AGC, AGTC, AH, TAR) should also be examined, subject to available funding.

In addition, and subject to available funding, cooperation should be promoted in support of related ongoing or new initiatives and projects:

- TEM, TER and EU TEN-T with regard to transport corridor and networks
- North South rail – sea route (Russia Federation, Iran, India)
- ECO rail routes / demonstration trains (i) Istanbul -Teheran – Almaty, (ii) Almaty – Bandar Abbas, (iii) Islamabad – Tehran – Istanbul
- BSEC Ring Highway
- Analysis/corridor performance
- DB pilot rail route China-Germany

Finally, information should be obtained and integrated, where possible, from other related programmes/topics:

- The EU High Level Group on the Extension of the major trans-European transport axes to the neighbouring countries and regions.
- The Transport Corridor Europe-Caucasus-Asia (TRACECA) Programme
- The Coordinated Development of the Black Sea Ring Highway
- The Central Asian Regional Economic Cooperation (CAREC) Program
- OSCE/UNECE Handbook of Best Practices at Border Crossings
- The UNESCAP time/cost-distance methodology.
- The development of the intermodal terminals/ freight villages concept.
- The development of the Motorways of the Sea (MoS) initiative.
- The IRU (for road) and TER project (for rail) border crossing monitoring activities.
- The co-financing of the development and upgrading of the AH network.
- The demonstration runs of container block trains.

4. It is indispensable to continue building on the experiences gained from the implementation of both phases of the joint UNECE-UNESCAP Euro-Asian transport linkages project. These experiences include any outcomes of activities linked to the identification of priority routes, project prioritization, application of the time/cost-distance methodology, creation of a GIS database, new IT technologies and capacity.

5. It is recommended to built an EATL Observatory to serve as an information centre for intermodal transport infrastructure investments and operations along the identified corridors, and provide a forum for the exchange of views among all interested stakeholders, related bodies and participating countries. The operating modalities of the observatory could be decided jointly by UNECE and National Focal Points of participating countries. This will be an integrating resource that will allow better use to be made of the study's results and outputs.

6. Promote the dissemination and awareness of the EATL Study by commencing an official dialogue with other international bodies (EC, BSEC, IRU, ECO etc) and International Financing Institutions for endorsing the work and for information exchange.

7. With regard to the alleviation of non-physical bottlenecks, the following policies are recommended:

- Government and border control agencies need to eliminate the mismatch between public and private companies interests and formally create committees, forums and public-private partnership to develop solutions agreed by both parties.

- Government and border control agencies need to develop policies, which link the modernization of transport and border crossing point hard infrastructure with the development and implementation of international good practice procedures and asset management methods;

- Government and border crossing point agencies must use integrated and "whole-of-government" policies, to avoid the potential scenario of one Ministry changing procedures, while another Ministry or control agency is not included in the discussions.

Continuation of the EATL project

The EATL Phase II final Report in its conclusions and strategic objectives indicated clearly that intensive follow up work would be required to increase the awareness for priority EATL network and infrastructure project implementation, to disseminate its results, as well as to obtain the missing information about status and planned progress in some parts of the backbone network.

Hence, there is considerable merit in continuing the work of the EATL study into a **Third Phase**, which could comprise of the following tasks:

- Socio-economic status and scenarios of growth of EATL Phase II participating countries
- Update and/or complete of data related to EATL Phase II proposed projects
- Updating data concerning EATL projects funding securitisation
- Involvement of New Countries in the study
- Identification of new extensions on proposed EATL routes, as well as new infrastructure projects
- Identification of service provision along proposed EATL routes
- Identification of service provision along intermodal transit nodes
- Built EATL Observatory
- Create synergies with/ and integrate results of related programmes.
- Review of border crossing issues and obstacles.
- Review progress of transport facilitation and related technical and institutional actions.
- Review progress on policy recommendations.
- Disseminate EATL Study work and outputs.

In addition to the infrastructure projects located along the identified EATL Phase II Routes, most participating countries proposed projects beyond those specified routes and, thus, these were considered for the purpose of the current study to be of national importance. Depending on the significance and priorities set for such national projects, as well as their potential to impact the established connections with EATL routes, these projects could be considered for inclusion in the potential continuation of the EATL study.

Annex I - COUNTRY REPORTS

Afghanistan

Afghanistan is located at the point where four of the most densely populated and resource-rich regions in the world converge: South Asia, Central and North Asia and the Middle and Far East. The main purpose of the Afghan National Trade and Transport Facilitation Committee (AFPRO), as well as the Afghanistan National Development Strategy (ANDS) is to encourage modernizing trade, transit and transport to international best practice and technology levels in the Islamic Republic of Afghanistan.

Road transport

Afghanistan faces the major challenge of post-war reconstruction. As of 2005, the lengths of roads were 34,782 km with 6.8 per cent of them being paved and representing an overall road density of 53.3 km per 1,000 km^2. Moreover, 3,300 km represent regional highways that foster regional trade and economic linkages with neighbouring countries. The restoration of an efficient transport infrastructure is essential to strengthen the unity of the country and promote economic recovery and development.

The Kabul-Kandahar highway is a 483 km long road that links Afghanistan's two largest cities, and it is a key portion of Afghanistan's national road system known as the "Ring Road". Of 20.6 million Afghans, 13.6 million or 66 per cent, live within 50 kilometres of the Ring Road. Approximately 35 per cent of the population lives within 50 kilometres of the Kabul to Kandahar portion of the Ring Road. In addition, the Kandahar-Herat highway is a 557 km long road that links the cities of Kandahar and Herat. This highway is also part of the larger road network, the “Ring Road”.

Rail transport

At present, there are only two railway links:

(i) Termez (Uzbekistan) to Hairatan (Afghanistan) in the north
(ii) Kushak (Turkmenistan) to Tourghundi (Afghanistan)

Railway links from adjacent countries include the following:

- Iran - no railway link, but nearest railhead at Mashhad – 1,435 mm gauge. Construction of a railway connection between Mashhad and Herat has started;
- Pakistan - no railway, but railhead on border at Chaman – 1,676 mm gauge and railhead on border – 1,676 mm gauge;

Sea ports and inland waterway ports

Afghanistan has no sea ports. Among landlocked developing countries, it has one of the longest distances to a seaport, more than 2,000 km, over harsh terrain. A large proportion of

Afghanistan's inhabitants remain physically cut-off. The main inland waterway is predominantly the Amu Darya (1,200 km, which allows vessels up to 500 DWT). The main river ports are Kheyrabad and Shir Khan.

International border-crossing points (road and rail)

The following road border crossings are operational:

- With Pakistan (2,430 km):
  - Towr Kham,
  - Wesh (or Chaman),
  - Barikot,
  - Torkhan,
  - Husain Nika,
  - Speenboldak;
- With Iran (936 km):
  - Dogharoun (Iran) - Islam Quala (Afghanistan),
  - Zarang;
- With Tajikistan (1,206 km):
  - Ishkashim,
  - Across the Amu Darya from Panj-e Payon (Nizhny Panj) in Tajikistan - Shir Khan (Afghanistan);
- With Turkmenistan (744 km):
  - Serkhetabat (or Gushgy/Kushka) in Turkmenistan - Tourghondi on Afghan side,
  - Imam Nazar;
- With China (76 km): none;
- With Uzbekistan (137 km):
  - Across the friendship bridge at Hairatan (Termez).

The following borders are already employing the ASYCUDA (Automated SYstem for CUstoms Data):

- Torkham – Nangrahar – Kabul (Bordering Pakistan)
- Islamqala – Hirat – Kabul (Bordering Iran)
- Torghundai – Hirat – Kabul (Bordering Turkmenistan)
- Hairatan – Balkh – Kabul (Bordering Uzbekistan)

Future implementation of ASYCUDA is envisioned for the following borders:

- Aqina (Bordering Turkmenistan)
- Sherkhan (Bordering Tajikistan)
- Wesh (Bordering Pakistan)
- Milak (Bordering Iran)
- Ghulam Khan (Bordering Pakistan)

Ongoing and planned transport infrastructure projects of international importance and related investment costs

The Afghanistan National Development Strategy (ANDS), prepared and presented to donors at the end of April 2006, includes the following Transport Sector Strategic Benchmarks over the next five years:

- Afghanistan will have a fully upgraded and maintained ring road, as well as roads connecting the ring road to neighbouring countries by end-2008, and a fiscally sustainable system for road maintenance by end-2007;

- By end-2010: Kabul International Airport and Herat Airport will achieve full International Civil Aviation Organization compliance; Mazar-i-Sharif, Jalalabad and Kandahar airports will be upgraded with runway repairs, air navigation, fire and rescue and communications equipment; seven other domestic airports will be upgraded to facilitate domestic air transportation; and air transport services and costs will be increasingly competitive with international market standards and rates.

With the support of the World Bank a number of projects have been initiated:

- The "Emergency Transport Rehabilitation Project" with focus on roads and highways (80%) and aviation (20%) incurs lending project costs of US$128.8 million plus a supplement grant of US$45 million exclusively for roads and highway reconstruction;
- The "National Emergency Employment Project for Rural Access" focuses on the repairing of provincial and district roads and highways (50%) and on other social service (50%). The project costs amount to US$39.2 million.

The rehabilitation of the Ring Road has been given top priority. The total cost of the project is US$160 million. Afghanistan has initiated a priority road rehabilitation project, which will cost US$ 305 million, and five project sites were identified:

- Kabul to Jalalabad to Turkan (224 km)
- Doshi to Sheberghan (250 km)
- Pul-e Khumri to Mazar-e Sharif (220 km)
- Mazar-e Sharif to Shebergan to Herat (760 km)
- Herat to Dugharan (121 km)

New proposed transport infrastructure projects of international importance and related investment costs

After completion of the regional highways, the following road projects are planned:

- Rehabilitation of the North-South corridor
- Rehabilitation of the East-West corridor
- Hiratan-Mazar-e-Sharif, Iskam Qalam Herat Road
- Sherkhan Bandar-Kunduz-kabul-Jalalabd-Torkham Road (upgrade to 4 lanes)
- Construction of road from Nangarhar kanal to Qarghai in Laghman province 9 km
- Rehabilitation Qaisar–Bala Murghab Road
- Road Rehabilitation Pul-e-Khumri–Doshi

With regard to the railway sector, the following projects are planned:

- Kabul-Jalalabad-Torkham-Peshwar (Pakistan)
- Kandahar –Spin Boldak-Queta (Pakistan)

- Iran – Tajikistan – Peoples Republic of China 630-kilometre railway study estimates US$2 billion cost. Railway crosses Tajikistan border at Shirkhan Bandar
- Torkham (Afghanistan-Pakistan Border) up to one of the Central Asian Countries Border Crossing.

An additional projects involves the route: Kashghar-Irkeshdam (in China)- Saritash-Karamic (Kyrgyzstan)- Jirgatal-Tajikabad-Noorabad-Abigharm-feizabad-Yanghibazar iliyak station-Kurghan Tubeh-Kalkhozabad-Nighnipanj (in Tajikistan)- Shirkhan Bandar-kundoz-Mazari Sharif-Heart-Delaram-Zaranj (in Afghanistan)- Zahedan-chabahar (in Iran). The total length of the route is around 2155 km out of which 215 km is in China, 194km is in Kyrgyzstan, 496 km is in Tajikistan, and 1250 km (from Sherkhan Bandar to Heart) is in Afghanistan.

Challenges

Afghanistan needs to restore and rebuild its physical infrastructure and transport services to promote the country's economic recovery and help its people to avail themselves of new social and economic opportunities. The country faces the following major challenges:

- Weak capacity of relevant ministries (Ministry of Public Works, Ministry of Transport & Civil Aviation, Ministry of Rural Rehabilitation & Development);
- Insufficient and unreliable funding for reconstruction and development of the transport system and inability to mobilize and manage the locally collected funds;
- A poorly developed consulting and contracting industry;
- War-damaged roads and structures and significant deterioration due to lack of maintenance;
- Large-scale deterioration of the civil aviation infrastructure and the shortage of a qualified workforce.

Conflicts and weak security still existing in the country represent major constraints to reconstruction and development of the transport sector.

Sources:
World Bank, USAID, <http://www.ands.gov.af>
Yalda Natiq. National Report on Afghanistan on Transport Sector, UNECE

Armenia

Contribution of transport to the GDP in %

The Ministry of Transport and Communication (in cooperation with the National Statistical Service of Armenia) does not conduct the contribution of transport to the GDP separately from communication. Thus below is the data on contribution of transport and communication to the GDP in %.

Year	Contribution in %

2000	7.2
2001	7.0
2002	6.1
2003	5.9
2004	6.0
2005	6.0
2006	6.3
2007	6.9
2008	6.8
2009	7.2
2010	6.8

Length of roads and rail

The total length of roads in the Republic of Armenia is 7,704 km, out of which:
Interstate roads – 1,686 km
Republican roads – 4,056 km
Local roads – 1,962 km

The total length of railway in the Republic of Armenia is 840 km, out of which 342 km is operating (Yeraskh – Yerevan – Ayrum).

Basic description of principal modes of transport

Road Transport
Infrastructure

Armenia's primary roads are total of 10,818 km, out of which 1,686 km are interstate, 1,747 km are republican, 4,271 km are local and 3,114 km are local. The road network serves as the backbone of country's economic development, providing connectivity within the country, to neighbouring countries, and to mainland Asia and Europe. The Aragatsotn region has the lowest road density disparity (274 meters per square km, m/km²). The government has improved almost 13% (about 988 km) of total road length (7,704 km), has kept 49% (3,811 km) in fair condition, and is planning to improve the remaining 38% (2,905 km). The government has rehabilitated 15% (253 km) of the 1,686 km highway network; roughly 75% of the highway network is in fair condition and 10% (about 169 km) requires rehabilitation. About 62% (about 1,083 km) of the 1,747 km secondary road system, has been improves or is in fair condition, leaving about 1,540 km in need of rehabilitation. Out of about 1,962 km of local roads, about 61% need immediate upgrading.

Railway Transport
Infrastructure

Armenia's railway network plays a crucial role in providing mobility for people and freight. The network includes the metro system that serves commuters in the capital. The Yerevan metro has limited coverage, however, and has lost some of its market share to minibuses. The introduction of integrated ticketing may be an opportunity to reinvigorate the system, enabling the metro to play a more important role in Yerevan's urban transport network.

The network has 23.5-ton axle loads; is wholly electrified; and has a rolling stock of a basic design, with heavy (tare) weight. The infrastructure and fleet of cars are dated, with most of the electric locomotives around 35 years old and in need of repair or replacement. Track speed is often limited to 30 km per hour, with rehabilitated sections allowing 60 km per hour. Some of the infrastructure was damaged during the 1988-1994 conflict with Azerbaijan and the 1988 earthquake. Several lines are little used because of border closures or loss of traffic. About 370 km of the 732 km network are fully operational: the Yerevan-Georgian border line, the Yerevan-Yeraskh passenger line, and sections of the Yerevan-Azerbaijan/Vardenis lines. Much of the main Yerevan-Gyumri-Ayrum (Georgian border) line is in poor condition. The World Bank has rehabilitated 72 km of the track, but the remaining 107 km still need work. In addition, 41 bridges (8 of them are large) are in need of rehabilitation.

The Concession Agreement, signed on 13 February 2008, transferred the management of the Armenian Railways CJSC to the South Caucasus Railways (SCR) which is a subsidiary of the Russian Railways. The concession management is 30 years, with a possibility for a renewal for additional 10 years.[135]

Rail Freight Traffic in Armenia

Year	Import	Export	Local	Total
2005	1,108 (42.40)	426 (16.30)	1,079 (41.29)	2,613 (100.00)
2006	1,274 (46.86)	513 (18.87)	932 (34.28)	2,719 (100.00)
2007	1.537 (51.35)	710 (23.72)	746 (24.92)	2,993 (100.00)
2008	1,374 (49.87)	636 (23.09)	745 (27.04)	2,755 (100.00)
2009	1,350 (44.83)	569 (19.74)	964 (33.44)	2,883 (100.00)

Air Transport
Infrastructure

Armenia has three main airports: Zvartnots, Shirak and Erebuni. Zvartnots International Airport is the principal gateway to the country. Armenian International Airports manages and maintains the airports in Zvartnots and Shirak under a 30-year concession.

Air traffic in Armenia, 2005-2008

Traffic Category	2005	2006	2007	2008
Passengers (‘000)	1,158	1,172	1,406	1,507
Flights (kilometres)	7,397	7,104	8,119	8,791
Freight and mail (tons)	9,268	9,294	10,010	10,839
Overflights (kilometres)	25,937	26,741	29,155	32,282

[135] http://www.yerevanreport.com/3446/reconstruction-of-yerevan-railway-station-underway/

Public Transport Users – Urban and Interurban in Armenia (million passengers)

Transport Mode	2001	2002	2003	2004	2005	2006	2007	2008	% share 2008
Bus and minibus	121.9	128.9	147.5	158.6	174.0	214.0	216.0	207.7	84.0
Taxi	0.0	0.7	1.2	2.8	7.8	10.0	12.5	14.9	6.0
Rail	1.2	1.3	1.1	0.8	0.7	0.7	0.6	0.7	0.5
Air	0.8	0.9	0.9	1.1	1.2	1.2	1.4	1.5	0.5
Metro	15.3	15.1	16.2	16.6	15.8	15.4	17.3	18.9	7.0
Trolleybus, tram, cable car	12.7	9.9	7.1	5.7	4.8	4.1	3.6	3.4	1.5
Total	151.9	156.8	174.0	185.6	204.8	230.7	251.4	247.1	100.00

Border-crossing points (road and rail)

Armenia has 3 roads with Georgia (Bagratashen/Sadakhlo, Gogavan/Guguti and Bavra/Jdanovi), 2 with Turkey (Akhuryan/Dogukapi, Margara/Igdir, both are currently closed), 1 with Iran (Agarak/Tabriz) and 6 with Azerbaijan (Ijevan/Kazakh, Vardenis/Qelbajar, Goris/Lachin, Yeraskh/Sadarak, Meghri/Ordubad and Meghri/Minjevan, all 6 are currently closed).

There are 2 railroads with Azerbaijan (Yeraskh/Sadarak, Ijevan/Kazakh, both are currently closed), 1 with Turkey (Akhuryan/Dogukapi [Kars - Gyumri], currently is closed) and 1 with Georgia (Ayrum/Sadakhlo).

Freight terminals

The major terminal in Armenia is currently Karmir Blur which includes a container facility and a storage and sorting facility for cargo. The terminal has been operating since 2000 and has its branch-terminals in Gyumri, Vanadzor and Ayrum. Currently the administrative and operational functions of the terminal are reserved to "Apaven" LLC (since January, 2011).

The container facility has two 20-tonne overhead cranes and a side loader capable of handling 40-tonne containers. The container terminal handles an average of six containers a day (three inbound and three outbound) and records about 150 to 200-handlings a month. The freight yard at Karmir Blur is used to store excess wagons and wagons for local shippers and is switched by a shunting locomotive and crew operating from the Yerevan Locomotive depot to and from Massis.

The Ayrum terminal is used to marshal wagons for interchange with the Georgian railway. Airum is a busy yard with 12 tracks for chambering inbound and outbound trains. Tracks are 15 to 20 wagon lengths long. Normally, five and six freight trains are interchanged each day with the Georgian railway. Cars are pre-cleared for customs in Ayrum and then proceed to the border crossing point for documents checking and then to a terminal on the Georgian Railway side. A similar process is used for reverse movements. A freight forwarder handles most customs information and one of the AR companies is a freight expediting and forwarding company handling imports into Armenia.

The Gyumri Terminal is a marshalling, originating and terminating location. Primary use of the terminal in current operations is as a staging area for trains operating between Ayrum and Yerevan. Crews and locomotives are changed at Gyumri with VL10 locomotive sets hauling trains north of Gyumri and VL8 locomotive sets working trains to the south of Gyumri. Only a few cars terminate in Gyumri each day the terminal does shunt and form trains to operate through Massis to Yerevan. One shunting assignment works in Gyumri.

Ongoing and planned transport-infrastructure projects of international importance (description and approximate value)

North-South Armenian Road Corridor (Meghri-Yerevan-Bavra – 556 km)

The Republic of Armenia has received a loan from the Asian Development Bank (ADB) towards the cost of the North-South Road Corridor Investment Program, Tranche 1 and Tranche 2 Projects.

Ministry of Transport and Communication of Armenia has invited all interested bidders to place their bids for the rehabilitation and reconstruction works in 3 Sections:

Section 1: Upgrading and widening of the existing M1 Ashtarak - Talin road from 2-lane single carriageway to 4-lane dual carriageway road from Km 29+600 to Km 71+500.
The total length of the Ashtarak-Talin section is 41.9 km.

Section 2: Rehabilitation and improvements of road safety measures of the existing M2 Yerevan - Ararat 4-lane road from Km 9+312 to Km 47+ 400.
Works on the existing M2, Yerevan - Ararat (approx. 38 km) 4-lane section

Section 3: Rehabilitation of the existing M1 Yerevan - Ashtarak road from Km 18+370 to Km 29+773.
Works on the M1, Yerevan - Ashtarak (approx. 12 km) section will reconstruct the existing pavement, improve drainage and shoulders and carry out repairs to existing concrete structures.

The completion periods for the Sections are:

Section 1 - 36 months (1096 days)
Section 2 - 18 months (548 days)
Section 3 – 18 months (548 days)

The completion of the entire Program is anticipated at the end of 2017.

Rehabilitation of the Armenian Railway Infrastructure

The whole project is part of the West –East railway corridor, 180 km (Turkish border-Georgian border-Azeri border)

The works are planned to implement in 3 activities:

Activity 1: Rehabilitation of the existing rail link Yerevan-Tbilisi.

After 12 months of activity, the project has finalized three main studies:

1. The feasibility study for the rehabilitation of the railway line between Tbilisi and Yerevan.
2. The feasibility study for the rehabilitation of the Hrazdan-Ijevan section of the line toward Azerbaijan, where a severe landslide has blocked the traffic.
3. The feasibility study for the rehabilitation of the technology of the main Georgian railway.

The project has also made a preliminary assessment on the possibility of opening a new link between Vanadzor and Fioletovo, shortening the current route between Yerevan and Tbilisi by at around 100 km.

Activity 2: Complete reopening of Hrazdan-Ijevan section.

Was constructed in 1984, partially operating, nearly 2 km of landslide zone.

Complete renewal: € 176,5 million.
Partial renewal in the section with landslide and general overhaul: € 121,85 million.

Activity 3: Construction of new rail link Vanadzor-Fioletovo.
Total estimated cost: € 200 million (€ 5 million per km).
The "South-Caucasus Railways" CJSC intends to make an investment for the designing-research works of the construction of the new rail link Vanadzor-Fioletovo (96 million AMD). The designing-research works will be implemented by the Russian company "Sibgiprotrans" OJSC. The company has already proposed 5 rail routes for Vanadzor-Fioletovo, and one of them is being considered in connection with the land acuqisition of total of 200 hectares for the construction.

INTERNATIONAL LOGISTIC CENTER

Within the TRACECA program the draft on establishing an international logistic center in the territory adjacent to the “Zvartnots” International Airport, as well as its master and business plans were developed. The proposed logistic center will also appear to be a constituent part in the logistic centers' network of the TRACECA Corridor.

The stakeholders of the project are the Government of the Republic of Armenia (is planning on establishing a Free Economic Zone near the cargo complex of the “Zvartnots” International Airport) and the Concessionaire of the “Zvartnots” International Airport.

3 main operational areas have been defined for the Logistic Center:

1, Logistic services (occupying about 60% of the entire territory)
2. Containers terminal (occupying about 20% of the entire territory)
3. Logistic-intensive industry and commerce (occupying about 20% of the entire territory).

The key goal of the planned logistic center is to support the development of intermodal transport other logistic services in the Yerevan region, which will contribute to the export. The ILC of the "Zvartnots" International Airport is anticipated to have 375,000 t. of goods in the first year of its exploitation, and the growth of demand will amount to 4,5%. The annual volume of the cargo in the final year of ILC's development has been evaluated 525,000 t.

The anticipated deadlines for the project of the Logistic Center are:

2011 – Documents processing, including the feasibility study, as well as negotiations with the interested investors.
2012 – Commence of construction.
2013 – Implementation of certain services and providing spaces for rent under privileged conditions, with the purpose of business integration.
2015 – Completion of the project and thorough exploitation.

Investments required to establish the Logistic Center are as follows:

- Preparatory construction works of the site – 8 320 000 Euros
- Infrastructures – 4 287 000 Euros, which includes transport infrastructure – 2 260 000 Euros, utility infrastructure – 2 027 000 Euros
- Warehouse buildings – 450 000 Euros
- Buildings for services – 6 060 000 Euros
- Buildings/equipment for goods loading and unloading – 1 110 000 Euros
- Fencing and security – 334 000 Euros
- Other buildings – 639 000 Euros
- Planning, examination, soil study – 2 120 000 Euros
- Other costs – 1 060 000 Euros
- Total – 24 379 000 Euros

The Armenian Law on the Free Economic Zones was adopted on 25 May 2011. According to this Law the participants of the free economic zones were offered the tax-related privileges. They include exemptions from value-added tax, income tax, property taxes, etc.[136] The main goal of establishing free economic zones is to attract foreign direct investment. Foreign investors are expected to bring and employ advanced technologies, increase export, contribute to sustainable development, as well as to create new jobs.[137]

Challenges that face transport and transport infrastructure

Key Challenges

1. Completing road network rehabilitation
2. Upgrading International railway and road infrastructure
3. Overcoming urban transport problems, particularly achieving a sustainable balance between private and public transport
4. Successfully implementing the railway concession
5. Further developing air services
6. Reducing the negative impact of increased transport demand
7. Achieving long-term sustainability in transport asset management, particularly in the road network.
8. Reducing Transport costs
9. Maintaining road assets
10. Financial issues
11. Traffic safety

[136] http://www.mineconomy.am/am/138/ (in Armenian)
[137] http://www.panorama.am/am/economy/2011/12/28/economics-armenia/ (interview of the Minister of economy Mr. T. Davtyan on 28.12.2011, in Armenian)

Azerbaijan

The key location of Azerbaijan on the crossroad of major international traffic arteries, such as the Silk Road and the South-North corridor, highlights the strategic importance of the transportation sector for the country's economy. Azerbaijan is considered as a door of Europe opening to Asia.

In 2002, the Azerbaijan Government established the Ministry of Transport with a broad range of policy and regulatory functions. The comprehensive Transport Sector Development Strategy for Azerbaijan was prepared at the Ministry of Transport with the assistance of international consultants and financial support from the Asian Development Bank. The Strategy sets the sector's strategic agenda and development priorities and proposes the necessary reforms in transport policies, regulations, and organizational structures.

Road transport

In 2004, the road sector accounted for 33 per cent of transport freight turnover. Azerbaijan has 25,000 km of roads, of which some 92 per cent are paved. According to the World Bank, in early 2006 more than 50 per cent of roads in Azerbaijan were in need of urgent repair. Highways, main and rural roads are being upgraded according to international standards with a view to accommodate growing transit traffic.

The main highways carrying international traffic are the Baku-Alat-Ganja-Kazakh-Georgian Border corridor (Azerbaijani section of TRACECA corridor) with a length of 503 km and the North-South Corridor that stretches out from the Russian to the Iranian border along 521 km.

The EATL network consists of three international roads (E60-AH5, E119-AH8, E002-AH81), stretching 1,551 km. According to the authorities, all three EATL roads are in the need of major reconstruction.

Rail transport

Azerbaijan has 2,125 km of railway lines, excluding several small industrial lines. Most lines are 1.520 metre broad gauge, and the principal routes are electrified (1,278km). About 60% of the length of the railway routes (1126 km) are equipped with full automatic blocks and 479 km with centralized dispatcher.

The rail sector accounted in 2004 for 35 per cent of tonnes-km, significantly less than 71per cent in 1991 and 45 per cent in 1998. The sector experienced major disruptions associated with armed conflicts in the region, including the confrontation with Armenia over the disputed territory in Nagorno-Karabakh and the two Chechnya wars. At present, Azerbaijan has some 2,000 km of railways, of which about 60 per cent are electrified. Much of the track and rolling stock is in need of repair or replacement. The 1,439 km long EATL network consists of three electrified lines within the E-rail system (E60, E595, E694) and a non-electrified stretch (198 km on the E694). A section of the electrified E694 line (Fizuli – Armenian border) is closed to international traffic because of the existing conflict in the South Caucasus region.

Sea ports and inland waterways ports

Sea transport accounted for 32 per cent of transport freight turnover in 2004, up from 21 per cent in 1991 but down from 42 per cent in 1998. Azerbaijan has direct maritime connections to all other Caspian littoral states. The nation's capital, Baku, is the largest port on the Caspian Sea. Although there are maritime routes to Turkmenistan, southern Russia and Kazakhstan, little is exported along them. However, there are some transit earnings from the export of Kazakh and Turkmen oil across the Caspian Sea, through Azerbaijan, to the Black Sea oil terminals in Georgia and Russia.

Freight terminals and other intermodal transport infrastructure

The Baku port has freight, container and oil terminals where the cargoes are loaded on Ro-Ro ferries, dry cargo ships and oil tankers respectively. All terminals operate daily around the clock. There is an ongoing reconstruction of the maritime station in the container terminal.

International border crossing points (road and rail)

Five road border crossings are situated on EATL Routes. All of them are open daily and operate around the clock with the exception of the border crossing with Iran at Astara that operates from 9 am to 8 pm only. Except for the narrow approach at Astara, there are no physical impediments to traffic. Waiting times range from 5-15 minutes for buses to 10-20 minutes for trucks. Three rail border crossings on EATL Routes are open around the clock. Average waiting times amount to 2 minutes for both freight and passenger trains.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

The whole Central Asia Regional Economic Cooperation (CAREC) Corridor 2 road segment (East-West Highway Improvement) has been fully funded by the Government of Azerbaijan and external sources. The Project is proceeding well.

Four ongoing road rehabilitation and reconstruction projects of total cost 939 million USD are to be completed soon, financed from national funds and bank loans, such as the EBRD and World Bank. These are:

- Rehabilitation of section Kurdamir – Ujar
- Rehabilitation of section Yevlakh – Gandja
- Rehabilitation of section Gazakh – Georgian Border
- Reconstruction of the section Russian border – Baku – Iranian Border, E119

The railway line from Baku to Beyuk Kesik at the Georgian border along Corridor 2 carries a significant volume of transit cargo of oil and oil products from Kazakhstan and Turkmenistan to European markets. CAREC 2 railway corridor improvement has started with World Bank financing. The project aims to provide reliable and fast freight and passenger transportation services by rehabilitating the main East-West railway line

Two reconstruction projects at the port of Baku were completed; the related investment expenditure reached some $10 million. The construction of the New Baku International Sea Trade Port project of total cost 400 million USD has been proposed to be completed in year 2015. From 2008 to 2011 the first stage of the construction will be completed, which will allow the increase of cargo transportation volume up to 7-8 million tons a year. The second stage (2011-2013) will increase cargo transportation volume up to 10 million tons and at the third final stage it will reach

15 million tons a year. The port will be commissioned in 2011. In addition, The Government plans to acquire new High-Capacity Ferries and Ro/Ros in meeting transit trade demands between Europe and Central Asia along CAREC Corridor 2 effectively.

A major railway project that should link the Russian Federation, Azerbaijan and Iran was proposed to start following the signing of an official trilateral agreement in June 2006. The project entailed the construction and commissioning of the Gazvin-Rasht-Astara (Iran)- Astara (Azerbaijan) railway. The works were to be completed in Azerbaijan first, followed by the construction of a connecting 400 km rail line in Iran. The project is currently under construction.

New proposed transport infrastructure projects of international importance and related investment costs

A new railway project, the construction of the Baku-Tbilisi-Kars railway connection has been proposed, of an approximate cost exceeding 500 million USD, which has committed funding from national funds, as well as bank loans. According to experts forecast, at the initial stagem the Baku-Tbilisi-Kars will convey about 1mln passengers and 6.5mln tons of cargo. By 2030, this indicator will increase to 3mln passengers and 17mln tons of cargo.

The construction of the Baku-Tbilisi-Kars Railway is expected to be completed during of 2012. The corridor is expected to be in full operation from 2013.[138]

Sources:
CIS Statistical Committee, Economist Intelligence Unit, NFP Country Report.
http://www.abc.az/eng/news/23628.html
CAREC: Azerbaijan, Country Progress Report on the Implementation Action Plan for the Transport and Trade Facilitation Strategy, April 2009

Belarus

The transport sector is an important economic sector in Belarus, contributing 6.7% of GDP in 2008 and 6.6% in 2009. Belarus has been a net exporter of practically all modes of transport services. The country has a strategic geographical location, serving as a transit transport corridor between the European Union (EU) and Russia and potentially between the EU and Asia.

Road Transport

Belarus's road network comprises of a relatively dense "republican" road network (including main roads and regional roads) of about 15,000 km, which carry more than 75 % of the total traffic, and a local road network of about 70,000 km. The overall density of Belarus network of Category 1 roads (Motorways) is 112 kilometers of network per 1 million people. As of 2009, 87% of the total

[138] http://en.trend.az/capital/business/1944251.html

length of its total road network was paved. In addition, while the overall condition of one third of the Republican roads is good and fair, two thirds need major repairs or rehabilitation.

Rail Transport

The density and accessibility of the railway network of 5,514.4 km of railway lines in Belarus is comparable to other Central European countries, and the technical condition of railway infrastructure is satisfactory, however, infrastructure is rather old and requires medium and long-term modernization. Nevertheless, Belarusian Railways has excellent operational performance results and is considered very efficient. The Belarusian railway predominantly operates international freight services and railway transport has a strong position in the transportation market in Belarus, compared to EU-25 countries, carrying 35% of the total volume of freight (in ton-km) in 2008.

Freight terminals and other intermodal transport infrastructure

In recent years, the formation of the transport and logistic system, creation of logistic centers and joint logistic enterprises are of great importance for the Belarusian railroad. To this end, the net of the transport and logistic centers on the basis of the freight economy enterprises of the Belarusian railway and the state enterprise “BELINTERTRANS – transport and logistic center” (hereinafter - BTLC) was created.

BTLC has a net of departments in Minsk, Brest, Gomel, Grodno, Mogiliov, Vitebsk, oriented to the development of the transport-dispatch services, intensification of usage of the storehouse terminals and equipment, improvement of export transportations organization and increase of volumes of transit cargo transportations. There are 16 container terminals for recycling of the large-capacity 20- and 40-foot containers, and 19 stations, recycling medium-tonnage containers with the freight 3 and 5 tons.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

Belarus does have the equivalent of a National Transport Strategy and Action Plan. The *Program for Ensuring Efficient Use of Transit Potential of the Republic of Belarus for 2006 – 2010*, the draft *Program of the Development of Transit Potential of the Republic of Belarus for 2011 – 2015*, and the *Roads of Belarus* Program constitute the three key pillars of such a national transport strategy. In addition, the *Strategy for the Development of Transit Potential of the Republic of Belarus for 2011 – 2015* and the *Concept of Belarus’ Transport System Development until 2025* have recently been approved by the Government. The Concept defines the goal, priorities, tasks, key focuses and parameters of Belarus’ transport system development until 2025 including mitigation of impacts generated by CO and CH^2 emissions.

The *Roads of Belarus* Program activities aim to (i) increase the length of the motorway network; (ii) improve the road traffic operating conditions; (iii) upgrade the capacity of the most heavily used road sections; (iv) improve road traffic safety; and (v) attract private investment. The program includes a list of priority investments with some indicative cost estimates. The main task is to upgrade the sections of the two international transport corridors (corridor II and corridor IX) passing through its territory, which are important West-East and North-South transit routes. In 2009, the program was reviewed jointly by Ministry of Transport and Communications and Ministry of Finance in order to prioritize the proposed major program investments, which are the:

(i) upgrade of a section of the M5 road between Minsk and Gomel (74 km in total)
(ii) upgrade of M4 road from Minsk to Mogilev (97 km in total)
(iii) construction of a bypass around Minsk (85 km in total).

According to the Government's program, the development needs of the road network entail the amount of US$ 756 million) over the period of 2011-2016. These are presented in the table below.

Description	Length	Cost estimate	Possible sources of funding	Implementation timeframe	Status
Upgrade of M4 to Category 1 road (km 79-km 176)	97km	US$ 340 million	Government of Belarus, loans arranged by Chinese government	2011-2012	Under construction
Upgrade of M5 to Category 1 road (km 57-km 131)	74km	US$ 164 million	World Bank loan ($US 131 million), Government co-financing ($US 33 million)	2011-2012	Preparations underway
New ring road around Minsk	70km	US$ 140 million	Government of Belarus, loans arranged by Chinese government	2011-2012	Feasibility study being prepared

Source: Data reported by Belavtodor.

With regard to the railway sector, the development needs of the network entail the sum of approximartely US$340 million on the modernization of Corridor II and IX over the next 25 years. In order to keep its current market position, Belarusian Railway needs to modernize the infrastructure and systems of Corridor II and IX to achieve full interoperability with the network of the EU. This includes the full electrification of lines, increased transport speed, increase in the use of electronic interlocking systems, extension of automatic block systems, and introduction of European train control systems. These are presented in the table below.

Railway Corridors in Belarus	Length (km)	Modernization Cost (US$ million)
Corridor II	611	3,485.29
Corridor IX (Terjukha - Gomel - Vitebsk -Ezerishche)	489	2,789.38
Corridor IX (Gudogai - Molodechno - Minsk - Gomel)	372	2,121.98
Total	**1,472**	8,396.65
Annual Average (25 Years Modernization Plan)	**58.88**	335.87

Source: Data reported by Belarusian Railways. Estimates developed by the Bank's team.

Sources:
http://www.rw.by/en/index.php?option=com_content&view=article&id=297&Itemid=1
"Belarus: Transport Sector Policy Note", Transport Unit, Sustainable Development Department Europe and Central Asia Region December 14, 2010, Document of the World Bank, Report No. 55015-ECA

Bulgaria

Road transport

The road share of inland freight transport increased in recent years up to 2004, when it accounted for 67 per cent of tkm. The infrastructure includes 18,957 km of paved roads (category III or higher), including 308 km of motorways. The motorway-building programme has been considerably slowed by legal disputes in recent years. The length of E-roads on Bulgarian territory amounts to 2,580 km. The EATL road network in Bulgaria is 1,564 km long and consists of the following six arteries: E80 Kalotina-Sofia-Plovdiv-Capitan Andreevo BCP (Bulgaria/Turkey); BCP (Macedonia/Bulgaria)- Gueshevo-Pernik-Sofia (E871)-Plovdiv (E80)-Stara Zagora-Burgas (E773)-Varna (E87); Russe-Veliko Turnovo-Haskovo (E85)-Capitan Andreevo (E80); Sofia-Botevgrad (E79)-Jablanitza (E771)–Veliko Turnovo-Shoumen (E772)-Varna (E70); and Russe-Varna (E70). These routes are within PET Corridors IV, VIII, IX and X.

Rail transport

Rail is still a significant domestic mode of transport for freight, although road transport now accounts for a larger (and increasing) share of the total. The total length of Bulgaria's railway lines is 5923 km. At the end of 2001 the state-owned railway company was split into two firms; one responsible for managing the rail track and the other, Bulgarian State Railways (BSR), for rail operations. In addition, private operators are now permitted to run rolling stock for freight—although the first two such companies were licensed only in 2005 and still account for very small volumes of freight.

The following rail lines, extending over 2,500 km, define the EATL network on the Bulgarian territory: E070 BCP (Serbia/Bulgaria) – Kalotina–Sofia–Plovdiv–Svilengrad-BCP (Bulgaria/Turkey); E680 Sofia-Mezdra-Gorna Orjahovitza-Varna (ferry link to Ilyichevsk (Ukraine) /Poti/Batumi (Georgia); E855 Sofia-Radomir (link with T855); T855 (link with E855) Radomir-Gueshevo; E 720 Stara Zagora (link with E070)-Karnobat – Bourgas; E 095 BCP (Romania/Bulgaria) – Russe – Gorna Orijahovitza – Stara Zagora (link with E070 and E720) – Dimitrovgrad. The track along these lines conforms to the standard gauge (1,435 mm). There is a missing link with the FYR Macedonia on the T855 line. Bottlenecks are imposed by the non-electrified 14 km stretch of the E070 line leading to the Serbian border and by an unfinished bridge project on the T056 line.

Sea ports and inland waterway ports

Bulgaria has two seaports belonging to the EATL network: Varna and Burgas.
Together they account for 60% of the national import and export volumes, the remainder being transported over land. The ports have sufficient capacity for general cargo, solid and liquid bulk cargo, containers, heavy parcels and RORO units.

The network also includes 236 km of Danube and three inland waterway ports on the river: Russe, Lom and Vidin. The biggest port is Ruse, situated on the multimodal crossroad on the Transport Corridors VII and IX. The facilities of the ports are generally outdated, including the lack of equipment and poor condition of the piers. Also, there are still 7 infrastructure bottlenecks that hamper the traffic on the Bulgarian section of the Danube. Inland waterway transport is predominantly used for international transportation of cargo (and to some small extent of passengers) and inland waterway shipping companies have become profitable in recent years.

Freight terminals and other intermodal transport infrastructure

The main freight villages are situated in Sofia, Russe, Stara Zagora and Dimitrovgrad. Seaports have been modernized extensively in recent years. Both Varna and Burgas ports are well connected with railways and can handle 300 TEU/day and 200 TEU/day respectively. The annual throughput in Varna exceeds 7 million tonnes of bulk cargo and 64 000 TEU, the corresponding figures for Burgas are 6 million tonnes and 25,000 TEU. The handling capacity of inland ports on the Danube is significantly smaller. Further modernisation of intermodal infrastructure is expected from the evolving system of 30-year concessions in Bulgarian ports and terminals. The first tenders, for two relatively small ports, took place in early 2005 and others should follow. Lom, for instance, on the Danube, is expected to enjoy a €30 million upgrade to take container traffic, allowing it to benefit from its position on the EU's north-south PETC IV.

International border crossing points (road and rail)

Four international rail border crossings are open around the clock while another two operate 15 and 18 hours per day. Average waiting times range from 50-70 minutes for passenger trains, and 180-240 minutes for freight trains.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

The country is building upon its favourable geographic position, with the development of major roads and rail transport infrastructure projects. To this end, its strategic framework for infrastructure planning includes the following:

- Strategy for Development of the Transport Infrastructure of the Republic of Bulgaria until 2015 – approved by the Council of Ministers in 2006 (Budget € 4 712 M)
- Operational Programme on Transport 2007-2013 – officially signed on 27 November 2007 in Brussels (Budget € 2 003 M)
- General Transport Master Plan for Bulgaria
- Strategy for Development of the Transport Infrastructure of the Republic of Bulgaria through the Concession Schemes
- National Programme for Development of the Public Ports

The recently completed and ongoing infrastructure projects have rehabilitated sections of the E79, E80, E85 and E773 roads along the PET Corridors IV, VIII, IX and X while extending the "Trakia" motorway, a part of the Trans-European North-South Motorway (TEM) connecting the countries of Central and Eastern Europe with the Near East. The related investment, amounting to €159 million, was financed by loans from IFIs and the state budget. Most of the road projects should have been completed. A major rail modernization project (€340 million) along the E070 main line from Plovdiv to Svilengrad on the Turkish border is still under construction and is planned to be completed within 2011. It is financed mainly by the EIB loan and ISPA grant, covering 45 per cent and 44 per cent of total cost respectively, while the state budget contributes the residual amount (11 per cent).

New proposed transport infrastructure projects of international importance and related investment costs

The infrastructure projects proposed for the road sector, which are along proposed EATL routes, amount to some 655 million USD. These include the construction of three motorways, namely the "Trakia" Motorway, the "Maritza" Motorway and the "Struma" Motorway. Financing has been secured for both "Trakia" and "Maritza" motorway projects, which are under construction and are planned to be completed in 2012. The "Struma" Motorway project lots 1, 2 and 4 are at the tender stage and planned to be completed in 2013. There is no information with regard to the sources of funding.

Six projects in the rail sector with scheduled completion dates between 2010 and 2019 would cost over 6849 million USD. Approximately 85% of this sum would be financed with the aid of EU structural funds while the state budget should contribute the remaining 15%. The projects focus on the modernisation of the existing infrastructure and further electrification of tracks. No major expansion of the existing rail network is envisaged:

- Renewal of Railway Sections along Plovdiv – Burgas Railway Line
- Modernization and electrification of Radomir-Gueshevo railway line
- Modernization of Sofia-Radomir railway line
- Modernization of Sofia-Dragoman railway line
- Modernization of Radomir-Kulata railway line
- Renovation and electrification of Voluyak-Dragoman-Dimitrovgrad-GS BS railway line

In addition to the above, the expansion of the Port of Bourgas (of cost 145 million USD) has been completed, while an inland waterway project, the rehabilitation, reconstruction and modernisation of the port of Lom is planned for year 2015.

Altogether, Bulgaria has submitted eleven EATL projects for evaluation. Three road projects, six railway projects, one maritime project and one inland waterway project.

Sources: Economist Intelligence Unit, NFP Country Report.

China

China's achievements in economic growth and poverty reduction over recent years have been impressive. One contributor to that success has been on the development of its transport infrastructure. In recent years China has seen an unprecedented transformation of its transport sector. It has created one of the world's most comprehensive expressway networks. It has significantly increased the capacity of its railway network. Ports and inland waterways have also seen major investments. There have been major improvements in airports. At the same time, there have been changes to policies across all sectors to attract private sector investment and to help China be competitive.

Road transport

Today, China is linked by a still evolving network of roads (China National Highways) and expressways (Expressways of China). By the end of 2010, China's highways extended to 74,000 Kilometers, with the total length of all public roads reaching 3,984,000 km. Paved roads totaled 770,265 km in 2004, the remainder being gravel, improved earth standard, or merely earth tracks. Highways (totaling 130,000 km) were critical to China's economic growth as it worked to mitigate a poor distribution network and authorities sought to spur economic activity directly.

The road transport sector has contributed greatly to, and has also been strongly stimulated by, China's continuing economic and social development. Among the surface modes, road transport has seen its modal share grow over the last ten years from 45% to 60% in terms of passenger-km and from 24% to 30% in terms of freight ton-km.

Rail transport

Rail is the major mode of transport in China. Carrying some 24% of the world's railway transport volume, China's railway system is critical to its economy. China has the world's second largest rail network, the total track length being at 86,000 km in 2009. The national rail system is modernizing and expanding rapidly. Some 5,000 km of track were added in 2010. The total mileage is 91,000 km, out of which approximately 40% is electrified.

Sea ports and inland waterway ports

China has more than 2,000 ports and has become one of the most dynamic global shipping markets in the world. It has sixteen "major" shipping ports with a capacity of over 50 million tons per year. Combined China's total shipping capacity is in excess of 2,890 million tons. By 2010, 35% of the world's shipping was expected to originate from China. The seven largest port terminals are Dalian, Guangzhou, Nanjing, Ningbo, Qingdao, Qinhuangdao, Shanghai. In additionally, Hong Kong is a major international port serving as an important trade center for China.

China's inland waterway transport network is the world's largest, in terms of length and freight volume. In 2006, the total length of inland waterways was 123,388 km, while in 2005 these carried nearly 3,855 billion ton-km of freight and 7.36 billion passenger-km of passengers. The main navigable rivers are the Heilong Jiang; Yangtze River, Xiang River, a short branch of the Yangtze, Pearl River, Huangpu River Lijiang River, and Xi Jiang. Despite the above, inland ports are not yet equipped to make best use of inland waterways.

Freight terminals and other intermodal transport infrastructure

China's international trade has stimulated a rapidly developing logistics industry. The logistics industry is most active along China's east coast, where the manufacturing industry is centered. There are three different areas of major development: the Bohai Rim region in the north, including Liaoning, Shandong, Beijing, Tianjin and Hebei; the Yangtze River delta around Shanghai including Jiangsu and Zhejiang; and the Pearl River delta, centered on Shenzhen and Guangzhou. In each of these areas numerous large logistics parks have been developed or are under construction.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

In 2004, the Chinese government approved further plans for the National Expressway Network (NEN). The NEN is also called the “7-9-18 Highway Network” and is to be completed by 2020. Incorporating and expanding the NTHS, this highway network will have some 85,000 km of high-grade expressways consisting of 7 capital radials, 9 north-south major highways, and 18 east-west corridors.

China has also embarked on the biggest program of railway building in any country since the nineteenth century. In 2004 the State Council approved the MOR’s ‘Mid and Long-Term Railway Network Plan’, which sets out the investments required through 2020 to keep pace with the demand. This plan, the first of its kind approved by the state, sets out the main steps for expanding rail transport capacity and improving service quality, with an emphasis on ensuring maximum value for the proposed investment, while supporting both rural and urban development in a sustainable manner. By 2020, the total operational length of China Railways is expected to reach 100,000 km, with separate high-speed passenger and freight routes on the main corridors and 50% of the network either double-tracked or electrified or both.

The central government wishes to increase the role of Inland waterway transport. As part of the 11th Five-Year Plan (11th FYP), the central government wishes to increase the contribution of China’s waterways to meet its transport needs. During the 11th FYP, it is planned to invest almost $3 billion, in the form of central government subsidy, into the IWT industry development, half of which will go to waterway improvements.

New proposed transport infrastructure projects of international importance and related investment costs

China proposed the following road projects of total cost 6,288 billion USD, expected to be completed during 2010-2017:

- Construction of Tianshui-Dingxi road in Gansu province
- Construction of Xujiamo-Gulang road in Gansu province
- Reconstruction of Anxi-Xingxingxia road in Gansu province
- ReconstructionXingxingxia-Xiaocaohu in Xinjiang
- Reconstruction of South section of Urumqi ring road in Xinjiang
- Reconstruction of Kuitun-Sayram Lake road in Xinjiang
- Reconstruction of Sayram lake-Khorgos Port in Xinjiang
- Construction of Xijiagang-Qidong road in Shanghai
- Construction of Liuhe-Pukou road in Jiangsu province
- Reconstruction of Jinghe-Alatawshankou road of S205 in Xinjiang
- Reconstruction of Xiaocaohu-Heshuo road in Xinjiang
- Reconstruction of Korla-Aksu road in Xinjiang
- Reconstruction of Aksu-Kashi road in Xinjiang
- Construction of Kashi ring road in Xinjiang
- Reconstruction of Kashi-Honqilaf road in Xinjiang
- construction of Kashi-Irkeshtam road in Xinjiang

In addition to the above, China proposed two projects of constructing additional berths at the Lianyungang and Shanghai seaports.

Sources:
http://en.wikipedia.org/wiki/Transport_in_the_People%27s_Republic_of_China
http://chinaautoweb.com/2010/12/chinas-highway-network-expands-74000-kilometers/
AN OVERVIEW OF CHINA'S TRANSPORT SECTOR - 2007 EASTE WORKING PAPER No. 15, *Transport, Energy and Mining Sector Unit, Sustainable Development Department East Asia and Pacific Region*, *December 2007, The World Bank*

Finland

Finland's location far from the main transport and logistic arteries of central Europe poses major challenges to the transport policy of the country. Smooth and well-organised logistics is very important for business life, and particularly for competitiveness of imports. Finland is located on the periphery of Europe and transport journeys within the country are long. Logistics costs, therefore, amount to 13 per cent of businesses' turnover. Although away from the main market areas of central Europe, Finland's location next to Russia has made it an important transit country for goods transport. Transit goods to Russia arrive in Finland by sea and are mainly transported to their destination by road.

Road transport

The total length of public roads in Finland is approx. 78,000 km, of which the main road network (class I and II main roads) accounts for about 13,300 km. The total length of motorways in Finland is 765 km. Approximately two thirds of all public roads in Finland are paved.

Rail Transport

The length of the operational rail network in Finland is 5,900 kilometres, of which 52 per cent has been electrified. About 90 per cent of the network consists of single-track lines.

Sea ports and inland waterway ports

The network of maritime and inland waterway routes maintained by a state enterprise is approx. 16,200 km in length. Less than 4,000 km of this consists of merchant shipping routes, while the total length of fairways with a minimum depth of 8 m is 2,100 km. This includes all fairways leading into winter ports.

Freight terminals and other intermodal transport infrastructure

The goods transported in containers via Finland to Russia arrive from Far Eastern ports mainly to the ports of Helsinki, Kotka and Hamina. From here, the majority of goods are after intermediate storage transported by trucks to Russia, Moscow and St. Petersburg. The ports also handle a great volume of Finnish import and export transportations.

International border crossing points (road and rail)

In Finland the most important border crossing point is Vaalimaa (holds the majority of road transits, 69%, in 2006), which has been suffering increasingly from traffic congestion, and this causes long queues outside of the actual border crossing area. In the worst cases the length of this queue has been over 50 kilometers.

The Trans-Siberian railway from the Russian Far East to Finland was previously a significant transport route for containers with valuables. In 2003-2005, the number of containers exceeded 100,000 TEU per year. From the beginning of 2006, Russia increased the transport charges, as a result of which the number of containers collapsed to less than 10,000 TEU. Suppliers shifted their transports to the sea. The Russian Railways has set up a joint venture titled Container Trans Scandinavia Oy with the Finnish rail operator VR. The target was to develop rail transports between Finland and Russia, including transits by regular, scheduled container trains to Moscow.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

Current figures present an investment of approximately 393 million euro for transport infrastructure development, as per the following:

- roads: 158 million euro
- railways: 161 million euro
- waterways: 22 million euro

According to the preliminary proposals, projects valued at about 2,2 billion euro were to be implemented during the years 2008 – 2013. A summary of the projects is presented in Table 1.

Table 1-Project Summary for years 2008-2013

	Number	€Million
Road projects	19	1175
Railway projects	8	984
Waterway projects	1	5
Total	**28**	**2164**

Large investments	23	1928 (89 %)
Thematic projects	5	236 (11 %)
Total	**28**	**2164 (100 %)**

Thematic projects include the following:

- Electrification of rail sections in Joensuu region as well as the rail sections Hyvinkää - Hanko and Seinäjoki - Vaasa.
- Removing of level crossings on the rail sections Luumäki - Imatra, Seinäjoki - Oulu, Jyväskylä – Kuopio and Turku - Toijala.
- Upgrading of the Tampere and Riihimäki rail yards as well as upgrading of the rail section Jämsänkoski - Rauma to allow for 25 tonne axle loads.
- Real-time traffic monitoring system for the most important main road segments and the largest urban areas.

Large investments include the following:

- MARJA-railway
- Improving the level of service on rail section Seinäjoki - Oulu, phase 2
- E18 (main road 7) Koskenkylä – Loviisa – Kotka
- Additional track on the rail section Luumäki – Vainikkala
- Upgrading of the rail section Luumäki – Imatra
- E18 (main road 7) Hamina – Vaalimaa
- Upgrading of main road 12 Lahti – Kouvola
- Upgrading of main road 3 Tampere (Ylöjärvi) – Vaasa
- Upgrading of main road 8 Turku – Pori
- Main road 15 Kotka – Kouvola upgrading with port connection
- Upgrading of main road 21 Palojoensuu – Kilpisjärvi

New proposed transport infrastructure projects of international importance and related investment costs

The Finnish Transport Agency presented two big construction projects for the possible constructors and financiers in Brussels on 19 May 2010. The projects are the second track between Kokkola and Ylivieska and the motorway construction of the highway 7 as part of the international E18 road.

The second track project is one of the biggest railway projects in Finland in recent years. Between 2011 and 2014, a 76.5kilometre-long second track will be built between the cities of Kokkola and Ylivieska. The total construction cost is €263 million and will be implemented using a Public Private Partnership (PPP) model.

The motorway construction involves the following three road plans:

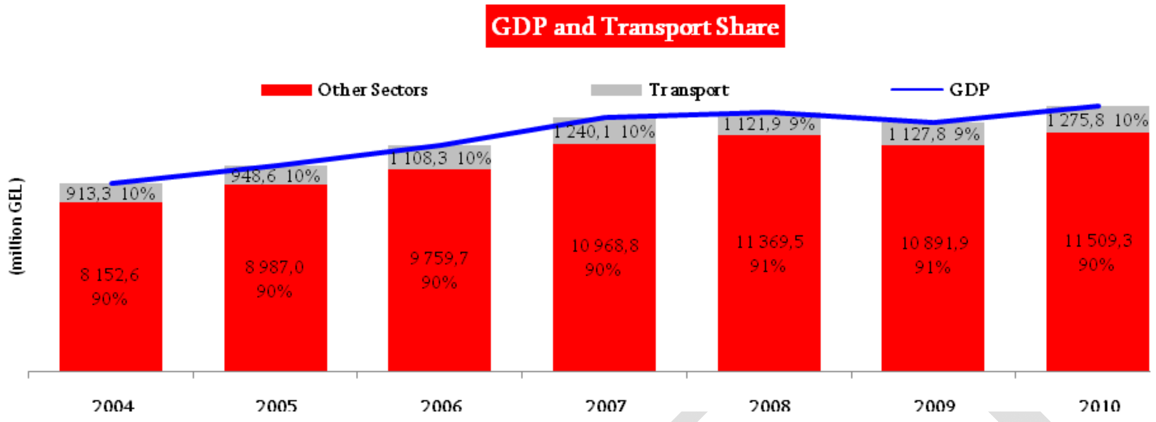
- Conversion of the road into a motorway between Koskenkylä and Loviisa, road plan inspection
- Construction of motorway between Loviisa and Kotka
- Improve in noise control between Karhula and Rantahaka

It was decided in 2010, that a budget that €650 million would be authorised for the project and that it would start at the end of year 2011.

Sources:
http://www.lvm.fi/web/en/home
Strategy for the development and maintenance of Finland's transport infrastructure in 2004–2013, Report of the Ministerial Working Group, Helsinki 2004
http://www.europeanrailwayreview.com/5310/rail-industry-news/finnish-public-private-partnership-projects-introduced-for-constructors-and-financiers-in-brussels/
http://www.ely-keskus.fi/fi/Liikenne/tiehankkeet/kaakkoissuomi/Vt7%28E18%29Koskenkyla-Loviisa-Kotka/Documents/koskenkyla-kotka-eng-esite.pdf

Georgia

GDP and Transport



Road transport

Road freight transport declined significantly since the early 1990s, reaching in 2004 only 34 per cent of the 1991 level. Nevertheless, it now accounts for some 10 per cent of freight transport (tkm), up from 3-4 per cent in the 1990s. The network includes 1.495 km of international roads, 5.446 km of internal roads and 15.439 km of local roads. The rehabilitation and reconstruction of roads of international importance were initiated in 2005 and this process is still underway. Their maintenance is relatively costly because of severe weather conditions. The 1,222 km long EATL network is defined by a number of E-roads (E60, E70, E97, E117, E001, E691, E692), with design speeds ranging from 60 to 110 km/h.

Georgia has a bilateral agreements concerning road transport with 21 states. Also, Georgia is a party to the following Multilateral Agreements and Conventions:

1. European Agreement on Main International Traffic Arteries (AGR)
2. Vienna Convention on Road Traffic
3. Vienna Convention on Road Signs and Signals
4. European Agreement supplementing the Convention on Road Signs and Signals
5. Protocol on Road Markings, additional to the European Agreement supplementing the Convention on Road Signs and Signals
6. Agreement Concerning the Adoption of Uniform Conditions for Periodical Technical Inspections of Wheeled Vehicles and the Reciprocal Recognition of such Inspections
7. Convention on the Contract for the International Carriage of Goods by Road (CMR)
8. Protocol to the Convention on the Contract for the International Carriage of Goods by Road (CMR)
9. Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention)
10. Customs Convention on Containers
11. International Convention on the Harmonization of Frontier Controls of Goods
12. Agreement on the International Carriage of Perishable Foodstuffs and on the Special Equipment to be Used for such Carriage (ATP)

On the basis of the Decree of the president of Georgia #187 of 7.04.2011, Georgia acceded to the European Agreement concerning the Work of Crews of Vehicles engaged in International Road Transport (AETR) developed by UN Economic Commission for Europe. After expire of accession procedure time (6 months), Georgia will become a member of the Agreement.

International Truck Transportation by Regimes (Unit)

Regime	2007	2008	Growth, y-o-y (%)	2009	Growth, y-o-y (%)	2010	Growth, y-o-y (%)
Transit	56 102	71 172	**27%**	77 430	**9%**	90 342	**17%**
Import	57 825	62 794	**9%**	61 548	**-2%**	69 721	**13%**
Export	12 377	9 313	**-25%**	12 338	**32%**	7 022	**-43%**
Total	126 304	143 279	**13%**	151 316	**6%**	167 085	**10%**

Railway transport

Rail freight turnover reached in 2004 only 40 per cent of the 1991 level. However, the rail transport performance improved in relative terms and by 2004 it accounted for 88 per cent of tkm, up from 24-25 per cent in the 1990s. The complicated geographical relief of Georgia motivated the construction of the artificial engineering buildings, which include more than 3,700 constructions. Total length of the Georgian Railway is 2,344 km. The busiest line links Tbilisi to the Black Sea ports; until completion of the Baku-Supsa oil pipeline, this was also used to transport Azeri oil to the Black Sea. The Georgian railway system has direct connections to the railway systems of Armenia, Azerbaijan and the Russian Federation. The EATL network includes 1,564 km of electrified rail lines.

At present, Container Block Train Poti-Baku pilot project is being prepared within the TRACECA Programme. Pilot project will be presented on the TRACECA Investment Forum (TIF) 2012.

In 2011, Georgia in accordance with its legislation joined the **Convention concerning International Carriage by Rail (COTIF)**. Convention will enter into force after expire of accession procedures.

Transported Cargo by Regimes (Million tons)

Regime	2007	2008	2009	2010	*Gro*
Transit	14,4	13,8	11,4	13,2	
Import	3,6	3,5	2,7	3,1	
Export	1,4	1,5	1,4	1,5	
Local	2,8	2,4	1,7	2,1	
Total	22,2	21,2	17,1	19.9	

Sea Ports

Sea transport declined rapidly from the early 1980s when it accounted for 73 per cent of freight transport turnover. By 2004, this share fell to 1 per cent. This decline was caused partly by the civil war and subsequent loss of territory to separatist forces in the early 1990s. Georgia has two main seaports and two sea terminals on the Black Sea, Poti and Batumi seaports, and Kulevi and Supsa sea terminals. Supsa and Kulevi terminals mainly are engaged in oil processing.

Regime	2008	2009	2010	Growth, y-o-y (%)
Poti Sea Port	8.0	6.1	7.3	20%
Batumi Sea Port	8.6	7.8	8.0	3%
Kulevi Sea Port, Liquid	1.3	2.1	3.4	62%
Supsa Sea Port, Liquid	0.6	4.2	4.0	-5%
Total	18.5	20.2	22.7	12%

Ferry lines from the Batumi and Poti Black Sea ports directly connect the Caucasus and Central Asia with the Black Sea regions of Europe. The Poti and Batumi sea ports are directly linked by ferry service with Ukraine (Ilyichevsk; Kerch), Bulgaria (Varna) and Russia (Kavkaz; Novorossiysk). The Ro-Ro service is only at Poti-Novorossiysk line.

Poti Sea Port

MAERSK-Danish subsidiary of the Company "APM Terminals" is owner of 80% shares of the Poti sea port, and rest 20 % of shares is in the ownership of “Rakeen Georgia”.
APM is going to invest over 100 million USD in port infrastracture development next 5 years.

Strategically-located, Poti Sea Port is the largest port in Georgia handling liquid and dry bulk, ferries as well as containers. It has 15 berths, with total berth length of 2900 meters and more than 20 quay cranes. The port currently serves as the European gateway for international trade in Georgia, Armenia and Azerbaijan, and is ideally located to become a future hub for Central Asia trade. Poti sea port is mainly processing a dry cargo.

Berth #	Characteristics	Length (m)	Depth (m)	Max. Draft (m)
1	Liquid Cargo	200	10,0	8,0
2	Rail Ferry terminal	185	10,0	8,0
3	General-Bulk Cargo	215	8,5	8,0
4	General-Bulk Cargo	154	8,5	7,9
5	General-Bulk Cargo	173	8,5	8,0
6	General-Bulk Cargo	212	9,75	9,0
7	Container	211	8,5	8,5
8	General-Bulk Cargo	215	9,75	9,25

9	General-Bulk Cargo	220	8,0	7,5
10	General-Bulk Cargo	264	8,0	7,5
11	General-Bulk Cargo	71	8,0	7,4
12	Passenger	250	6,5	6,5
13	Ro-RO Ferry terminal	97	6,5	6,5
14	Multifunctional Container Terminal	253	8,4	
15	Grain Terminal (under design)	155	8,5	

Poti Sea Port Cargo Volumes and Main Infrastructure

Volumes (Tons mln)	
2008	8,0
o/w Dry cargo	7,0
2009	6,1
o/w Dry cargo	5,2
2010	7,3
o/w Dry cargo	6,1

Main Infrastructure		
Navigable all year round		
Area	Closed and Opened Storage	298 800 m^2
Including	Berths	2 715 m
	Breakwater	1 810 m
	The overall water area	653 400 m^2

Batumi Sea Port

Kazakhstan's National Oil and Gas Company *"Kazmunaigaz*" is owner of 100% share of Batumi Sea Port and Batumi Oil Terminal.

Throughput efficiency of the oil terminal is – up to 15 million tons annually. The terminal specializes in refining raw oil and almost all types of oil products: diesel fuel, petrol, reduced cruel and so on.

The 1, 2, 3 berths are leased to Ltd "Batumi Oil Terminal" until 2019.

Throughput efficiency of the container terminal is 100 000 TEU annually. The container terminal has open storing areas and possesses transshipment equipment, which specializes in operating with containers in direct and storage ways.

The ferry runs between Varna, Iliychevsk, Poti and Batumi. The operation of the ferry is totally automated. The nominal throughput efficiency of the terminal is approximately 700 000 tones.

From November 2007, berths 4, 5, 6 and railway ferry terminal were leased to Batumi International Container Terminal LLC, which is the member of group of companies International Container Terminal Services INC (ICTSI).

The 7, 8, and 9 berths are used for the dry cargo handling terminal. Maximum throughput of the dry cargo terminal – 2,0 million tones annually.

The marine passenger terminal is situated in the center of the city, in the seaside boulevard. The throughput efficiency is about 180 000 passengers annually. The passenger berths No.10 and No.11 ensure handling passenger ships as well as small-capacity cargo and passenger ferries (Ro-Ro).

Batumi Sea Port Cargo Volumes and Main Infrastructure

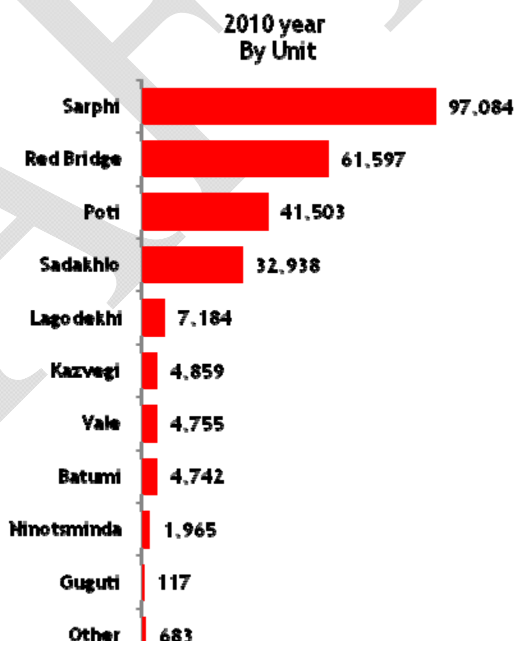
Volumes (Tons mln)	
2008	8,7
o/w Liquid cargo	7,2
2009	7,8
o/w Liquid cargo	6,4
2010	8,0
o/w Liquid cargo	6,1

Main Infrastructure		
Navigable all year round		
Area	Closed Storage	13 221 m^3
	Open Storage	18 889 m^2
Capacity	Water Depths Range	8-16 m
	Dry Cargo Vessel	30 000 tones
	Oil Tankers	120 000 tones

Border Crossing Points (Road and Rail)

Road Border Crossing Points:

- Red bridge – with Azerbaijan
- Lagodekhi – with Azerbaijan
- Samtatskaro – with Azerbaijan
- Mtkvari – with Azerbaijan
- Sadakhlo – with Armenia
- Ninotsminda – with Armenia
- Guguti – with Armenia
- Akhkerpi – with Armenia
- Sarphi – with Turkey
- Vale – with Turkey
- Kazbegi – with Russia
- Batumi Sea Port
- Poti Sea Port



Note: Data include transit in both directions.

Railway Border Crossing Points:

- Gardabani – with Azerbaijan (**12.9 million tons in 2010**)
- Sadakhlo – with Armenia (**1.7 million tons in 2010**)
- Poti Sea Port (**5.3 million tons in 2010**)
- Batumi Sea Port (**7.4 million tons in 2010**)
- Kulevi Sea Terminal (**3.6 million tons in 2010**)

Note: Data include transit in both directions.

From 2010 there has been functioning the **"Single Window"** principle on the border, according to which, the passport control of individuals crossing the border by vehicle on check points, as well as registration functions of mentioned vehicles in the data base of the Ministry of Internal Affairs of Georgia, was delegated to the authorized officer of the Portal. Also, Portals infrastructure was reconstructed what made it possible to carry out passport control of drivers without getting out from vehicles.

In 2010, integration and modification of computer-aided bases of the Ministry of Internal Affairs of Georgia and of the Revenue Service of the Ministry of Finance of Georgia were executed. It was only due to the consolidation of the data bases when the above-mentioned "Single Window" principle has started working. All the afore mentioned has significantly **facilitated border crossing procedures**, reduced time of service and increased level of service.

E.g. before the integration of data bases, a service procedure for vehicles was taking: for unladen – 5-6 minutes; for laden – 20-25 minutes.

After the integration of data bases: for unladen - 2-3 minutes, for laden – 10-12 minutes.

Germany

Length of roads (structure), rail, inland waterways in km, as well as ports (sea and inland)

Germany has one of the densest and best-developed transport networks in Europe: 12,800 km of motorways, 41,000 km of federal highways plus 170.000 kilometres of regional and local roads, 34,000 km of railways and 7,300 km of inland waterways. In addition, Germany has important ports and airports that function as international hubs.

Principal modes of transport

Following a massive slump as a result of the financial and economic crisis, in 2010 the amount of freight moved in Germany increased again for all modes of land transport. The amount of freight moved by rail and inland waterway, for instance, increased by approximately 12.0 % each and that moved by road increased by 4.9 %. In 2010, the various modes of transport had the following shares in the modal split:

- Road freight 71.9 %
- Railways 17.8 %
- Inland waterways 10.3 %

Border crossing points (road, rail, sea and inland waterways)

Germany's location at the centre of Europe with 9 neighbouring states and its strongly export-driven economy make cross-border transport an important subject of national transport policy. Germany is part of the Schengen area and, with the exception of Switzerland, all its neighbours are EU Member States. When it comes to preparing cross-border infrastructure projects, the usual procedure is to establish joint working groups that assess the economic viability of any given project and subsequently prepare the relevant agreements.

According to a recent study ("Optimizing long distance transport": http://www.bmvbs.de/SharedDocs/DE/Artikel/UI/langstreckenverkehre-optimieren.html), Germany is bearing the main part of the traffic load generated by the European Single Market. In 2007, for instance, the share of transit traffic in Germany amounted to 16.2 % of all freight moved. This kind of traffic will continue to grow, in particular in the East/West and North-West/South-East directions, with a clear focus on road freight. Moreover, cross-border transport shows a much stronger growth dynamic than inland transport. In 2025, it will account for nearly 57 %, i.e. the majority of all freight moved. Within international road freight, transit traffic will show the biggest increase, namely to just over 20 % of all freight moved.

Freight terminals

More than 120 combined transport transhipment facilities for railborne and waterborne cargo are currently being operated in Germany. The Federal Government has provided financial assistance for the construction and upgrading of these facilities. This has helped to significantly improve the terminal infrastructure in Germany and bring about a considerable increase in the volume of cargo handled from 45.5 million gross tonnes (1998) to 92.7 million gross tonnes (2008). In addition, there are freight villages at 35 locations. More than 1,300 companies with more than 50,000 employees are located there. Overall, with a turnover of more than 200 billion euros and 2.7 million employees in 2009, freight transport and logistics were the third largest sector of the German economy. The further promotion of combined transport is part of the Freight Transport and Logistics Action Plan published by the Federal Ministry of Transport, Building and Urban Development (http://www.bmvbs.de/cae/servlet/contentblob/59840/publicationFile/30825/aktionsplan-22-11-2010.pdf).

Challenges that face transport and transport infrastructure

Despite the economic and financial crisis we must expect a further strong increase in freight transport. On the whole, an increase by approximately 70 % is expected in the period to 2025: 79 % in road freight and 84 % in long-distance road haulage. Growth will vary enormously from region to region and will concentrate on certain arteries and conurbations, mainly on seaport hinterland traffic and North-South connections. In view of this development, the quality of the existing network will have to be preserved and safeguarded. In addition, the efficiency of the overall system will have to be increased in order to ensure that it can cope with the forecast growth. The most important measures to achieve this are:

- Improved logistics and freight transport chains: Consolidation of transport operations, avoiding empty running, strategies for logistics in urban areas, European logistics chains making use of short sea shipping.
    - Active traffic management systems on motorways. They can be used inter alia to allow hard shoulder running during periods of congestion (up to now, more than 2,500 kilometres of motorway have been equipped).
    - Better roadworks management, since 35 % of all congestion on motorways is caused by roadworks.
    - Innovative vehicle technologies: Vehicles are to communicate and exchange information with one another and with the infrastructure and thus make road traffic safer, more effective and more environmentally sound.
    - Expansion of capacity on the railways by means of new signalling and rolling stock engineering technologies.
    - Transport applications of satellite and telematics technologies.
- Strengthening of seaports, inland ports and airports as hubs of national and international trade and centres of logistics activities. The Federal Government's National Ports Strategy

(http://www.bmvbs.de/cae/servlet/contentblob/31316/publicationFile/3887/nationales-hafenkonzept-fuer-die-see-und-binnenhaefen.pdf) and Airports Strategy (http://www.bmvbs.de/cae/servlet/contentblob/30822/publicationFile/446/flughafenkonzept-2009-der-bundesregierung.pdf) provide policy guidance in these sectors.
– Development of a strategy for moving away from fossil energy carriers. This strategy involves a wide range of modern technologies such as the development of alternative fuels, the increased use of renewable energy in the transport and buildings sectors and the evolution of energy-efficient conventional drivetrains in vehicle construction.

The key challenge, however, is the issue of funding.

Ongoing and planned transport-infrastructure projects of international importance (description and approximate value)

In April 1991, shortly after German reunification, the Federal Government agreed on 17 German Unity Transport Projects in order to provide as quickly as possible the infrastructure linking the old and the new federal states, which was required to enable an economic upturn. Out of the 17 projects, 9 are rail projects, 7 are road projects and 1 is a waterway project. The main focus of the German Unity Transport Projects is on West-East connections. Up to now, more than 29 billion euros have been invested. The annual status report provides an up-to-date overview of the projects: http://www.bmvbs.de/cae/servlet/contentblob/68032/publicationFile/40375/sachstandsbericht-verkehrsprojekte-deutsche-einheit-stand-mai-2011.pdf

The routes identified within the framework of EATL Phase II are among the busiest routes in Germany. For the rail links listed there alone, the total investment made or planned for the years ahead amounts to more than 7 billion euros. And the upgrading of the important A 6 East-West motorway will cost more than 1.8 billion euros. Details for all surface transport modes are provided in the current framework investment plan of the Federal Ministry. http://www.bmvbs.de/DE/VerkehrUndMobilitaet/Verkehrspolitik/Infrastrukturplanung/Verkehrsinvestitionsbericht/verkehrsinvestitionsbericht_node.html

The 2010 federal budget – plus two economic stimulus programmes - made provision for expenditure totalling 11.8 billion euros for investment in transport infrastructure. Of this total, around 4.3 billion euros have been used for the federal railways, around 5.3 billion euros for the federal trunk roads and around 1 billion euros for the federal waterways. 150 million euros are available for combined transport installations that improve co-modality. However, more than 4.5 billion euros of these funds have been used for the renewal of railways and roads. Between 2011 and 2014, around 10 billion euros per year will be spent for the construction of new and the upgrading of existing transport infrastructure as well as for the structural and routine maintenance of infrastructure.

Greece

1. Contribution of transport to the GDP
In Greece, the transport sector represents an important part of the economy and accounts for about 7-8% of GDP, with a special contribution to exports, imports, investment and employment.

2. Road Transport

Road transport is the principal mean of transport for both passengers and goods. The share of road in inland freight transport increased slightly during the last years and as a consequence, the share of rail freight transport decreased slightly over the same period. Greece recorded one of the highest shares of road freight transport, between the Member States of EU, (97,8% with 27791 million tkm reported in 2009), instead of 2,3% (835 million tkm) in rail transport. The following table shows that road transport increased from 97,3 to 97,8% during the years 2008-2009.

Modal split of freight transport		
	Road	**Railways**
2008	97,3%	2,7%
2009	97,8%	2,3%

The same situation occurred in passenger transport, where the mode split of passengers between train, car and bus noted the following fluctuation for the years 2007-2008:

Modal split of passenger transport			
	Trains	**Passenger cars**	**Motor coaches, buses and trolley buses**
2007	1,6%	79,9%	18,5%
2008	1,3%	80,8%	17,5%
2009	1,1%	80,8%	17,8%

The following table shows the safety conditions for both road and rail transport. It is obvious that the fatal road and rail accidents we have a decrease in the related numbers:

People killed in inland transport accidents		
	Road	**Railways**
2008	1555	40
2009	1453	42
2010	-	39
% change	-6,6%	-2,5%

Total length of motorways increased from 958 km to 1120km (almost 14,5% increase) during the last five years (2003-2008). Main or national roads extend to 10189 km, secondary or regional roads to 30864 km and other roads to 75600km as calculated at the end of 2008.

3. Rail Transport

Railway transport, both freight and passenger, presented a significant decrease, between the years 2009-2010. In figures, from 540.064 tkm reported in 2009, rail freight patronage fell down to

393.166 tkm in 2010. This decline results to a decrease of 27,2%. On the other hand, passenger performance decreased from 1.343.919 pkm reported in 2009 to 1.059.065 pkm in 2010, recording 21,2% decrease.

	Freight – in tkm total	Passengers -in pkm - total
2009	540.064	1.343.919
2010	393.166	1.059.065
%-variation compared to previous year	-27,2%	-21,2%

Total length of railway line in use is 2552 km, out of which 368 km are electrified, 475km high-speed lines and 2077km conventional lines. Main railway gauge used is 600, 1000 and 1435 mm and electric current used is 25000 and 50 Hz.

Below is stated the active network and the network under construction.

Active Network	
Network	**Axes**
Main PATHEP	**Piraeus-Athens-Platy-Thessaloniki-Eidomeni**
Branches	Lianoklada-Lami-Stylida
	Palaiofarsalos-Kalampaka
	Larissa-Volos
	Ano Lehonia-Milees
Western Macedonia	**Thessaloniki-Platy-Edessa-Arnissa**
Branches	Arnissa-Amyndaio-Florina
	Amyndaio-Kozani
Eastern Macedonia	**Thessaloniki-Strymonas-Alenxandroupolis-Dikaia-Ormenio**
Branches	Strymonas-Promahonas
Peloponnesus	
Branches	Diakofto-Kalavryta
	Rio-Patra-Agios Andreas
	Pyrgos-Olympia
	Pyrgos-Katakolo
	Corinth- Argos-Tripoli
	Argos-Nafplio
Suburban	**Piraeus-Liosia-Kiato**

	Airport-SKA-Liosia-Kiato
	Athens-Chalkis

Network under construction	
Peripheral network	**Route**
MAINLAND GREECE (normal gauge)	Tithorea-Domokos
SUBURBAN (ATHENS)	Thriasio Pedio-Neo Ikonio
PELOPONNESUS (normal gauge)	Kiato-Rododafne- Rio
PELOPONNESUS (metric gauge)	Tripoli-Lefktro-Zevgolatio
WESTERN MACEDONIA (normal gauge)	Polykastro-Eidomeni (new line)

At the beginning of 2007 the state-owned railway company was split in two companies, one responsible for the management of infrastructure and the other named TRAINOSE, responsible for rail operations.

The infrastructure expenditure, both for conventional and high-speed network, in fields of maintenance, renewals and enhancements, was spent as follows for year 2010. Additionally is set the forecast for 2011.

	Maintenance	**Renewals**	**Enhancements**
Conventional lines 2010: (in Euro)	2,2 million	23,5 million	
(in km worked on)	869 km	405 km	
Forecast for 2011 (in Euro)	6,1 million		
(in km worked on)	878 km		
High-speed lines 2010 (in Euro)		7,79 million €	
(in km worked on)		224 km	
Forecast for 2011 (in Euro)		1,7 million €	
(in km worked on)			

4. Maritime transport -Sea ports and inland waterway ports

Greece is one of the strongest and most important maritime countries in the world and commercial shipping, along with tourism, are the mainstays of the national economy.

Nevertheless, the following table shows a decrease in the number of passengers embarked and disembarked in Greek ports, between years 2008-2009.

Passengers embarked and disembarked in all

	ports (in million passenger)
2008	91.101
2009	88.351

The passenger traffic at major seaports is stated below and only in the port of Igoumenitsa we had an increase, between the years 2007-2009.

Passenger traffic at major seaports Passenger embarked and disembarked (in thousand)				
	2007	**2008**	**2009**	**% change 2008-2009**
Paloukia Salaminas	13 066	13 063	12 821	-1.9
Perama	13 066	13 066	12 821	-1.9
Piraeus	11 063	11 079	10 444	-5.7
Igoumenitsa	2 683	2 631	2 741	4.2

A decrease also occurred to the number of tonnes of goods transported to/from the main ports of Greece.

Maritime transport - Goods - Annual data - Main ports (in thousands of tonnes)	
2008	42.377
2009	39.476

The only inland waterways that Greece has (navigable canals, rivers and lakes regularly used for transport) is the Korinthos canal, with a total length in use 6km.

5. Border- crossing points

The border crossing points of Greece with the neighbouring countries, for both road and railway network, are presented in following table:

Border –crossing points of Greece with the neighbouring countries

	Road	Railway
Bulgaria	Promachonas	Promachonas
FYROM	Evzoni	Idomeni
Albania	Kakavia	Kristallopigi
Turkey	Kipi (temporary is to be decided in the context of TEN-T recast)	Pithio (temporary is to be decided in the context of TEN-T recast)

More data will be provided after the finalisation of them in the context of the recast of TEN-T policy.

6. Freight terminals

The most important Freight Center, designed to collect the activities that are currently scattered in the area of capital (sorting station, container terminal, freight stations and terminals, warehouses, etc) is located in the area of Thriasio Pedio. The freight centre is linked directly with the cargo Port of Ikonio and Piraeus in southeast side, with Thessaloniki in north side and with Patra and Megalopoli in west side. There is also easy road access by the direct connection of Thriasio with Attiki Odo and the National Road. There exists planning for the implementation of other freight centers in the main cities of Greece.

7. Ongoing and planned transport-infrastructure projects of international importance (description and approximate value)

The most significant ongoing and planned transport- infrastructure projects of international importance, in the context of the Trans-European policy, are the following:

- **Priority Project 7: Motorway axis Igoumenitsa/Patra-Athina-Sofia-Budapest** will provide significant improvements to the road network of southeastern Europe, by connecting the ports of Patras, Igoumenitsa, Athens (Piraeus), Thessaloniki and Constanza to the heart of the enlarged European Union. The completion of the project demands:
  - Studies for re-aligning/upgrading of the vertical access Thessaloniki-Serres-Promachonas. The cost of the project is estimated around 4,700,000€ of which 50% is based on EU contribution.
  - Studies for the development of the motorway project, the cost of which is estimated around 2,250,000€ with 50% EU contribution.

- **Priority Project 21: Motorways of the Sea,** one of which is located on Southeastern Europe and connects the Adriatic Sea with the Ionian and the Eastern Mediterranean, with an extension to Black Sea. The total cost of the project is estimated around 5,643,000€ of which 50% is based on EU contribution.

o **Priority Project 22: Railway axis Athina-Sofia- Budapest- Wien-Praha-Nurnberg/Dresden,** part of which is the railway axis PATHEp (Patras- Athens-Thessaloniki-Eidomeni/Promachonas). The completion of the study will improve connectivity between all national networks on the basis of common standards and its cost will be around 13,000,000€ with EU contribution.

o **Priority Project 29: Railway axis Ioanian/Adriatic intermodal corridor** consists of two interlinked routes (Kozani-Kalambaka-Igoumenitsa and Ioannina-Antirrio-Rio-Kalamata), which will lead to the increase of the capacity for intermodal links between sea and rail transport. These routes aim to connect the major ports in Greece with each other, and with the main rail routes to the rest of Europe.
The completion of the project demands:

- Studies for the improvement and upgrading of the existing railway line Patras-Kalamata and the change of its gauge from 1.0 to 1.435m, with estimated cost 31,000,000€ and 50% EU contribution.
- Studies for designing of the new line Antirrio-Ioannina, the cost of which is estimated around 43,000,000€ with 50% EU contribution.

8. Challenges that face transport and transport infrastructure

The challenges that face transport and transport infrastructure are particularly defined in the "*White paper: Roadmap to a Single European Transport Area: Towards a competitive and resource efficient transport system*" and can be concluded, as follows:

- establish a genuine **Single European Transport Area** by eliminating all residual barriers between modes and national systems, easing the process of integration and facilitating the emergence of multinational and multimodal operators (Single European Sky, Single European Railway Area, Blue Belt),

- focus on the most **promising technologies** such as the air traffic management system of the future (SESAR), the European rail traffic management system (ERTMS) and rail information systems, maritime surveillance systems (SafeSeaNet), River Information Services (RIS), intelligent transport systems (ITS), and interoperable interconnected solutions for the next generation of multimodal transport management and information systems (including for charging),

- territorial cohesion and economic growth through a European mobility network, which integrates the eastern and western part of the European Union ,shapes the Single European Transport Area and concentrates on the components of **the TEN-T network,**

- establishment of a concrete framework for the development of PPPs and introduction of a formal screening of TEN-T projects to identify those with the potential for funding through PPPs,

- develop the conditions to extend our transport and infrastructure policy to **our immediate neighbours**, to deliver improved infrastructure connections and closer market integration, including the preparation of mobility continuity plans.

Iran

Road Transport

The EATL network in Iran covers eight major routes on nine international roads (AH1, AH2, AH8, AH70, AH71, AH72, AH75, AH78, AH82) totalling 10,716 km (15,149 km[139]) of roadways. As 68 per cent of the sections of these routes are considered to be in "good" or "good to fair" condition, there is a need for improvement and upgrade of the road system.

Rail Transport

The total length of the railway lines is 8676 km, while 4000 km are currently under construction. Between 21 March 2004 and 20 March 2005, around 18,182 tonnes-km net freight was transported by the Iranian railway, while currently the freight volume transported amounts to 33 MT .

The EATL network spans 11,164 km and six major routes (A21-24, B21-22)..

Problems regarding bottlenecks and missing links are addressed as follows:

- Construction of railway connections between Astara and Rasht, Anzali (port) and Rasht as well as Bam to Chabahar have been proposed;
- Missing links between Rasht and Qazvin, between Sangbast – Torbat/Heydarieh – Tabas – Bafgh as well as between Kerman and Bam are under construction.

A considerable amount of freight traffic is moving over the railway that opened between Bafgh and Mashhad in 2005: According to the Railway Gazette (January 2007) three passenger trains a week operate between the port of Bandar Abbas on the Gulf of Hormuz and Mashhad in north-eastern Iran, but most trains over the line are carrying freight. Providing a direct link between the Turkmenistan border and the sea, the line handles considerable quantities of bulk liquids, mainly oil, petroleum and other oil derivatives. Goods, such as compressed gases, aggregates, sulphur and steel coils are moving over the line, with much of the traffic bound to, or from the Central Asian republics. While most traffic is carried in bulk cargo wagons, there is evidence of a considerable increase in volume of container business.

Sea Ports and Inland waterway Ports

Iran maintains four sea ports (Bandar Emam, Bandar Abbas, Chabahar, Bushehr) and two inland ports (Anzali, Amirabad). The length of available inland waterways (on the Karun River) is 850 km. The actual annual throughput amounts to about 64 million tonnes. For the majority of ports, construction and improvement projects are planned or underway.

Freight terminals and other intermodal transport infrastructure

The sea ports in Bandar Emam and Bandar Abbas offer modern container carrying terminals with lifting and displacing equipment (rail/sea - rail/road transshipment facilities). The

[139] This is the sum of the overall lengths of the individual routes, which does not exclude the lengths of shared sections of the route.

inland port Amirabad also has modern container carrying terminals with lifting and displacing equipment (rail/sea - rail/road - Ro/Ro transhipment facilities).

International Border Crossing Points Road and Rail

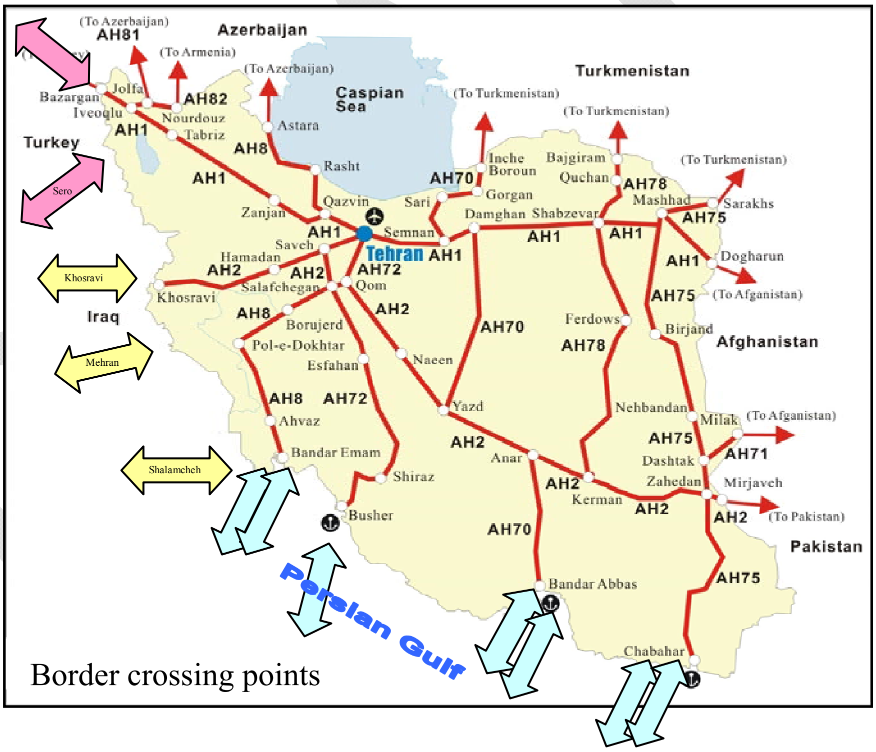
Iran has numerous international border crossing points with neighbouring countries (see figure below), which include:

- Milak (road), Dogharoun (road) and Sangan (rail) with Afghanistan;
- Bazargan (road) and Razi (rail) with Turkey;
- Astara (rail and road), Nourdouz and Jolfa (rail and road) border with Azerbaijan;
- Mirjaveh (rail) with Pakistan.

Furthermore, three formal border crossing points with Iraq were established:

- Khosravi on AH2 opposite to Mantharye in Iraq, which is on M40;
- Mehran in front of Zorbatye in Iraq that is connected to AH2 through Ilam and Kermanshah cities;
- Shalamcheh opposite to Basreh in Iraq (on M70), that has connection to Ahvaz and Bandar Emam on AH8 via Khorramshahr.

Figure A1.1 Border crossing points



Border crossing points

While only some of the international road border crossing points (Bazargan, Nourdouz and Jolfa) are open 24 hours each day, all seven rail border crossing points operate on a 24 hours-basis daily. The majority of the other road border crossing points has opening hours only during daytime.

The international border crossing with Turkmenistan at Sarakhs (rail and road) disposes of bogie exchange facilities for container and the handling capacity amounts to about 200 containers/24 hours.

The obstacles hindering the seamless and efficient transit and transport are the following:

- Lack of unified agreements among the neighboring states
- Complex documents and regulations
- Lack of harmony in the procedures and the border crossing documents
- Lack of clarity of following the procedures
- Unconformity of weights and dimension of vehicles
- Lack of state-of-the-art logistic services

Ongoing and planned transport infrastructure projects of international importance and related investment costs

Iran considers the following measures to remove existing bottlenecks in the transport sector:

- Integrity and cooperation of the regional countries in order to establish compatibility
- Create trade and customs facilities;
- Establish competitive and flexible tariff system;
- Decrease the traveling time by reducing the extra stops of trains in the borders and taking measures for decreasing the running time of the transit trains inside the countries
- Promote the role of forwarders in the CIS countries,Iran and Turkey, as well as involvement of the private sector on this route;
- Construction of the rail lines on the missing links;
- Unify the transport documents, regulations, information and technical systems;
- Accesion of all member states to a joint rail convention.

In addition, major road, railway and port development programmes are being undertaken for the expansion and modernization of the transport infrastructure.

New proposed transport infrastructure projects of international importance and related investment costs

Iran and Russia have prepared all the needed technical and economic plans to build a highway to link Iran's Northern city of Rasht to the Russian capital city of Moscow via Azerbaijan, through the construction of Baku-Astara highway. A working group comprising representatives from Iran, Azerbaijan and Russia held a meeting in Tehran late March 2008, during which the railway organizations of the three countries signed an MoU on practical cooperation in the project. Under the Tehran agreement, feasibility studies in relation to the Iranian segment were due to be completed in six months and submitted to Azerbaijan and Russia. Once the feasibility studies were confirmed, terms of construction were determined, according to the same agreement. The cargo transportation volume by this route will total around 5-7 million tons in the first phase with a further increase of up to 15-20 million tons. Under Iranian experts' calculations, Rasht-Anzali segment would cost $600 million and Anzali-Astara would need a $200 million construction budget.

Two rail projects are currently under construction, and are to be completed soon, the construction of Qazvin-Rasht-Anzali-Astara line, which is a missing link in the North-South corridor that may decrease the length of the route from Finland to India, and the construction of the Mianeh – Bostanabad – Tabriz line, which will shorten the current 300 km line to 200 km.

The following three projects are also along EATL routes, have committed funding and are planned to be completed by year 2014:

- Construction of section Bam – Chabahar
- Construction of section Zahedan – Mirjaveh
- Construction of section Shiraz – Bushehr

In addition, the project involving the construction and upgrade of the section Tehran – Esfahan of total cost 1350 million USD is at the planning stage and has not secured 100% of its funding.

Other railway projects of national importance include the following:

- The construction work for the Khorramshahr – Shalamcheh – Bassra link has started, connecting Iranian railways to Iraq in the south.
- Rail link with Iraq by a land bridge between Mediterranean Sea and the Persian Gulf via: Arak-Kermanshah–Khosravi long term project, 610 km

Sources: CIA Factbook, Railway Gazette (2007), Islamic Republic of Iran Country Report presented in Amman in 2005, other information provided by the country.
H. JAMALI, Deputy General Director of Intl. Affairs.Presentation “The first regional workshop of Euro-Asian transport linksPhase II Facilitation of Euro-Asia transport in the ECO region”
http://en.trend.az/capital/transport/1760595.html

Kazakhstan

The economic and geographic features of Kazakhstan (vast territory, land-locked position, uneven spatial distribution of population clusters and natural resources) result in high dependence of the economy on the transport networks.

Road and railway routes account for a major share of the total land transport routes (about 88.4 and 14 thousand km, respectively).

Currently, there is an evident problem of poor condition of the transport sector fixed assets, obsolete infrastructure and technology. The share of transportation costs in the final cost of the goods makes up 8% and 11% for in-land railways and road traffic respectively. As a result, the transport burden on the economy exceeds that on the major industrialized nations by twice on average. By cargo intensity index, Kazakhstan’s economy is about five times less efficient, as the transport component of every 1 USD of GDP makes no less than 9 ton-km, while in the EU, cargo intensity is less than 1 ton-km/dollar of GDP.

Four international transport corridors cross the territory of Kazakhstan and are formed on the basis of transport infrastructure existing in the country. These are:

• Northern Corridor of Trans-Asian Railway Main (TARM): Western Europe – China, Korean Peninsula and Japan via Russian and Kazakhstan (section Dostyk – Aktogai - Sayak – Mointy – Astana – Petropavlovsk (Presnogorkovskaya)).

• Southern Corridor of TARM: South-Eastern Europe – China and South-Eastern Asia via Turkey, Iran, Central Asian states and Kazakhstan (section Dostyk – Aktogai – Almaty – Shu – Arys – Saryagash).

• TRACECA: Eastern Europe – Central Asia via the Black Sea, Caucasus and the Caspian Sea (section Dostyk – Almaty – Aktau).

• North-South: Northern Europe – Gulf States via Russia and Iran, with Kazakhstan's participation in the following sections: sea port Aktau – Ural regions of Russia and Aktau – Atyrau.

Road transport

Kazakhstan possesses a road network of total length of more than 88,9 thousand km, of which 13 thousand km are of international significance linking the Asian and European motorways. During recent years, great attention was paid to major repair and reconstruction of existing infrastructure and construction of new roads (14,4 thousand km of roads were repaired). All given roads are toll-free. The overall road density in Kazakhstan is 32,4 km per 1,000 km^2 with approximately 94 per cent of the roads being paved.

The EATL network in Kazakhstan covers 22 major routes on 23 international roads (AH5, AH6, AH7, AH60-64, AH67, AH68, AH70, E011-016, E38, E40, E121, E123, E125, E127) totalling 28,472 km of roadways.[140]

Rail transport

The EATL network spans four major routes with a total length of 4,588.5 km:

- Petropavlovsk to Dostyk (1,910.8 km);
- Presnogorkovskaya to Kokshetau (346.5 km);
- Saryagash to Aktogai (1,505.4 km);
- Aksaraiskaya to Oazis (825.8 km);

The overall rail network in Kazakhstan covers 14,200 km (as of 2005) and has a density of 5,1 km per 1 000 km^2. The Kazakhstan railways are responsible for 70 % of the overall freight traffic turnover and 50% of the passenger turnover in the country. In 2005, freight shipments amounted to 171.9 billion of tonne-kilometres.

Sea ports and inland waterway ports

Kazakhstan, a landlocked country (closest distance to the sea is 3,750 km), has access only to the Caspian Sea and, thus, relies to some extent on transport via inland waterways, mainly on the Irtysh and Syr Darya rivers. Four major inland waterways covering 3,912 km in length allow transport for vessels with navigable water level of no less than 2.5 m for river vessels and 4.5 m

[140] This is the sum of the overall lengths of the individual routes, which does not exclude the lengths of shared route sections.

for "river-sea" vessels, respectively. The density per every 1000 km^2 stands at 1,5 km for in-land navigable waterways. These have a limited navigation period averaging 200 days per year. In 2000, yearly traffic amounted to 552 units (including 402 units of transport fleet and 150 units of technical fleet). The inland waterways require some infrastructure investment in order to remedy existing bottlenecks.

The main transit flow passes via reconstructed Aktau International Sea Commercial Port, which has a capacity for oil shipments up to 8 mln. tons, general and bulk cargo – 1,5 mln. tons, 24 thousand containers per year. The Aktau Port is considered as a strategic junction of one of the routes of TRACEKA corridor (Transport Corridor Europe-Caucasus-Asia) and International Transport Corridor North-South, connecting North Europe with the South Asia and India.

Freight terminals and other intermodal transport infrastructure

The container sites at Tura-Tam station, Arys station and Turkestan station require major renovation works to function. In 2003, the annual throughput of the freight terminals amounted to 31,116 tonnes or 567 TEUs. Additional ports are Atyrau river port (Gur'yev), Pavlodarsk river port, Aqtau (Shevchenko), Oskemen (Ust-Kamenogorsk) and Semey (Semipalatinsk).

International border-crossing points (road and rail)

Along the EATL roads, Kazakhstan has 42 international border-crossing points. While the border-crossing points at Khorgos, Dostyk (road and rail), Kegen and Kolzhat have limited opening hours from 9 a.m. to 6 p.m., all others operate daily on a 24 hour basis. Furthermore, additional 16 rail border-crossing points are operational. At the rail border crossing with the Russian Federation non-physical obstacles to smooth border crossing exist, resulting in delays caused by extensive checks and lengthy processing of documents by the Russian customs service.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

The Kazakhstan Government has elaborated and approved the Strategy of Transport Sector Development of up to 2015. The amount of investments required for the construction of the respective infrastructure within the 10 years will make up USD 26 billion. The Strategy covers the period 2006-2015 and is supposed to be implemented in two stages: 1st stage – 2006-2011, 2nd stage – 2011-2015. The ultimate goal of the Transport Strategy is to ensure progressive development of transport and communications complex in line with the economic strategy of the state.

The Strategy envisages the construction of approximately 1600 km, and electrification of 2700 km railways, the construction and reconstruction of about 50 000 km of roads, and the development of national merchant fleet and seaport infrastructure.

New proposed transport infrastructure projects of international importance and related investment costs

Construction of the new transport corridor West Europe-West China will increase deliveries by trucks almost four times. Deliveries along this corridor are expected to grow from the current 900 thousand tons to 3.5 million tons. The Government supported the idea of financing of the feasibility study for the corridor. Apart from freights volumes from China and Europe, the project will enable the country to attract transport flows from Central Asia. The total project cost is 2.500.0 US$ millions. The Government invited the World Bank, ADB/JICA, EBRD, and IDB, to co-finance in parallel separate sections of the "West Europe-West China" corridor. In order to formalize this collaboration, a Memorandum of Understanding (MOU) was signed by the MOTC and all participating IFIs. The loan is 2,125.0 US$ millions.

The following four investment projects (along proposed EATL routes seek to rehabilitate road segments in Kazakhstan):

- Astana- Karaganda
- Almaty- Kapchagay
- Aktau-Beyneu
- Western Europe-Western PRC Transit Corridor

All investment projects have committed funding and are expected to be completed by 2013

Three investment projects with committed fundin involve the electrification of existing railway lines expected to be completed until 2013 within EATL routes and one railway project is a new railway construction project (Korgas- Zhetygen section).

Finally, an on-going project is the Expansion of Aktau Port, which seeks to increase the capacity of the port to 20 million tons of oil cargo and 3 million tons of general cargo per year.

Sources: World Bank, UNCTAD, *CIA World Factbook*, <http://www.railways.kz/>, International Union of Railways

CAREC Report, “Kazakhstan: Country Progress Report on the Implementation Action Plan for the Transport and Trade Facilitation Strategy”, 22 April 2009 *and*

г. Вена, ноябрь 2010 год, Presentation: DEVELOPMENT OF ROAD AND RAIL TRANSPORT INFRASTRUCTURE, Vienna November 2010

http://www.kazakhembus.com/index.php?page=infrastructure

Kyrgyzstan

Road transport

Transport contributes approximately 2-3 per cent to the Kyrgyz GDP, with the country having one of the lowest road densities (0.17 km/km^2). Gross production of transport services amounted to 14.4 mlrd.somov and increased in comparison with January-July 2010 to 10.9%. Volume of freight all kinds of transport has increased over the same period of 2010 to 3.5%. Over the past period this year growth in freight road transport caused by increasing traffic carried by individual entrepreneurs. Transportation of passengers, made all kinds of transport for the period rose by 3.5%.

Kyrgyzstan does not have access to the sea. More than three-quarters of the territory of Kyrgyzstan territory - Mountains and more than 97 per cent of goods are transportation by automobile transports and 80 per cent of passengers are transported also by road

The EATL network in Kyrgyzstan covers five major routes on four international roads (AH5, AH7, AH61, AH65)[141] totalling 1,715 km of roadways.

All the roads has reconstructions by the International financial institutions or/and by Donor countries. Completed reconstruction of the road AH 7(5) Bishkek-Osh. For the roads AH 65, AH 61 reconstruction will end up years 2012-2014.

Rail transport

The EATL network spans three corridors in Kyrgyzstan

"Northern" line

1. Corridor from station "Lugovaya" (Kazaxstan) to station "Rybach'e" (Balykchi) Kyrgyzstan.

"Southern" line

2. Corridor from station "Uchkyrgan"(Uzbekistan)- the border Uzbekistan station "Shamaldy_Sai"- to station "Tach-Kumyr" (Kyrgyzstan).
3. Corridor from station "Savai"(Uzbekistan) to station "Kara-Cuu"- "Osh" (Kyrgyzstan) and "Xanabad "(RU)- "Kok-Jangak" (KR)

According to the Kyrgyz Ministry of Transport and Communications, the total length of the railroad system in the Kyrgyz Republic is 424.6 km, consisting of two unconnected lines: a "Southern" line - 101.2 km. and a "Northern" line -- 323.4 km

Sea ports and inland waterway ports

Kyrgyzstan is a landlocked country; nevertheless a small volume of transport on the 600 km of inland waterways occurs on Lake Issyk-Kul (Balykchy port).

International border-crossing points (road and rail)

The Kyrgyz Republic and its four neighbours have 14 border control points, two of which are major rail corridor crossing points. The largest rail control point is in Bishkek (about 40 km from the border with Kazakhstan) whereas the largest road control point is in Akzhol (at the border with Kazakhstan). Osh, another rail border-crossing point covers the traffic through the Ferghana Valley. According to data from 2003, these two points handle over 1.1 million tons and 1.3 million tons of goods per year respectively. The border control points process 20 000 rail wagons and about 125 000 trucks annually. With the exception of the new facilities at Akzhol, the main problems are the poor condition of the buildings/offices and inadequate communication and data processing facilities.

[141] Another report from ADB uses different denominations for two routes: Osh to Irkeshtam AH64 instead of AH65, Kara Balta to Osh AH74 instead of AH7.

Kyrgyzstan has a number of international border-crossing points with neighbouring countries, which include:

- Kazakh-Kyrgyz border (1 051 km): Akzhol (road), Georgievka, Kegan;
- Kyrgyz-Uzbek border (1 099 km): Osh (rail), Kara-Suu, Kizibl-Kiya (Kaytpas and Gazprom checkpoints);
- Kyrgyz-Tajik border (870 km): Isfand, Sari-Tash (Kyzylart Pass), Karamik;
- Kyrgyz-Chinese border (858 km): Torugart Pass.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

A number of road rehabilitation projects at estimated project costs of US$ U.S. $ 585.6 are planned, which include:

1. Osh-Sary Tash-Irkeshtam (AH is the road 65 and E 007) - loan amount U.S. $ 139.7 million: ADB - U.S. $ 32.8 million. Government of the RS 6, 3 million dollars., 75.3 million U.S. Eximbank of China, 25.3 million U.S. dollars, China Development Bank

2. Bishkek-Naryn-Torugart (AN 61, E-125) loan amount - 397.3 million U.S. dollars. - U.S. $ 200 million. Eximbank of China, 72.35 million U.S. dollars Arab Coordination Group, U.S. $ 125 million ADB

3. Roads Sary Tash-Karamik (AN 65, E 60) The loan amount - 48.6 million U.S. dollars - ADB

The total length of regional transport corridors Kyrgyzskoy Republic is 2,242 km, which includes eight routes: 1. Bishkek-Osh road (AH65,E007) - 672 km 2. Bishkek Georgiyevka (continuation of the road Osh-Bishkek to Kazaxstan) -16 km 3. Bishkek Chaldovar (part-Karabalta Chaldovar.) - 31 km 4. Bishkek-Naryn-Torugart (AH61, E125) - 539 km 5. Taraz-Talas-Suusamyr - 199 km 6. Osh-Sary Tash-Irkeshtam (AH 65, E60)- 258 km 7. Osh-Isfana - 385 km 8. Sary Tash-Karamik (AH65,E60) - 142 km.

And projects of roads of which are being reconstructed now and have regional importance and related investment costs

1. Osh-Isfana - 385 km-	funded WB- 25 mln.$, EBRR-35,0 mln$, EK- 6,3 mln.$, EC-6,8
mlm.$ total- 67,43mln.$	
2. Taraz-Talas-Suusamyr - 199 km-26.0 mln$ IBRand will planed 52.2mln.$	

New proposed transport infrastructure projects of international importance and related investment costs

Kyrgyzstan's existing dead-end railroads of the total length of 425 km are sparse and inadequate to satisfy transport demand within the region. Moreover, a lack of the shortest transport routes providing access to the world market significantly impedes the development of foreign economic relations of the Kyrgyz Republic and results in the increase of transport share in the cost of export goods. Therefore, the crucial factor for the further development of the national railways network is the creation of the South corridor of the Euro-Asian transcontinental railroad which shall connect the ports of the Pacific to the Persian Gulf and to the Mediterranean by passing on the territory of Kyrgyzstan.

For Kyrgyzstan need of building Railways that connected the north and south of the country, but also transit to the neighboring countries. To 2003 year government of the Chine was funded the Report on the feasibility building of the railway China-Kyrgyzstan-Uzbekistan. In addition, new construction of railways is planned from Kochkor via Kazarman to both Torugart and Jalal-Abad. The railroad line connecting Balykchy - Jalal-Abad – Torugart to China is in the design phase.

To this end, a new railway line shall be constructed on the territory of China and Kyrgyzstan. After a lengthy debate in the discussion of the rail route through Kyrgyzstan approved the "north" direction: from the Chinese city of Kashgar, which is the end point of the railway in southern Xinjiang, the border through the valley of the Arpa Torugart, Fergana ridge with access to the Uzgen and border with Uzbekistan, Kara-Suu. The planned length of the Kyrgyz section is 268.4 km, the Chinese section - 165 km.

China and Kyrgyzstan still have no consensus on the gauge line. The Kyrgyz side insists on the use of standard 1520 mm, the Chinese side - width 1435 mm.

In 2003, Chinese experts have developed a preliminary feasibility study for the railway. Feasibility study notes a number of advantages of the new ways in comparison to existing transportation corridors - the new line is shorter than the existing transport corridor for more than 900 km, the railway construction improves transport links between Central Asian countries and provide them with convenient access to the sea. According to preliminary calculations, Kyrgyzstan will receive annually about U.S. $ 200 million for the transit of goods across its territory. For the best possible estimates of the volume of domestic cargo within Kyrgyzstan is no more than 5 percent. This period the cost of building the railway on the territory of Kyrgyzstan was estimated at 1 billion 340 million U.S. dollars. but now this cost almost 2 billion $. Unfoternly the Kyrgyzstan has no proper funding of this evro asian rail highway, why is now intended that construction will fund by Government of China. As compensation, maybe China will get mineral deposits of the Kyrgyzstan2 billion $ U.S.A.

However, now, China's government has expressed a real interest in the construction of the Railways "China-Kyrgyzstan-Uzbekistan".

In this connection, the MOTC has requested, and China Group Corporation for the construction of communication facilities has expressed willingness at the expense of their financial resources to conduct research and prepare a feasibility study for the project, as well as to develop a Program of the railway network of the Kyrgyz Republic. All the work of the Chinese side promised to do before November 2011.

Re-examination of issues for the construction of the railway may start in 2012..

Another proposed project is the electrification of 322.7 km of railway between Lugovoe and Balykchy. Estimated total cost of construction is US$ 145 million. The cost of the first stage of construction of the Lugovoe – Alamedin segment (157 km) is US$ 69 million, while the second part, Alamedin - Balykchy (165.7 km), will cost US$ 76 million.

Two additional rail projects include the electrification of the Bishkek–Balykchy Railway (cost 100 million USD) and the track rehabilitation of the segment Chaldovar–Balykchy (cost 65.6 million USD). The securization of funding is yet to be determined, however, the electrification of the Bishkek–Balykchy Railway has been identified as low priority, and hence was assigned to Category IV, while the track rehabilitation of the segment Chaldovar–Balykchy as medium priority, and hence, was assigned to Category II.

Latvia

1. GDP and transport (Contribution of transport to the GDP in %)
Transport sectors represents an important part of the economy of Latvia, it accounts about 11-12% of GDP. About 9% of employed population work in transport and storage sector.

2. Basic description of principal modes for transport:

- Road transport infrastructure

Road classes	***Total length of road network (km)***
State roads, including:	20150.104
Main roads (A)	1652.735
Regional roads (P)	5315.753
Local roads (V)	13181.616
Municipal roads and streets	38775.709
Forest roads	10142.000
Private roads	3500.000
Roads and streets, total	**72567.813**

The density of the motor road network of Latvia is 1.124 km per 1 km^2, which may be considered as sufficient, taking into account the number of inhabitants and the size of the territory.

The basic network of motor roads, which includes almost all major State roads and has been identified as the Trans-European Transport Network (TEN-T).

n carriage of goods (in 2010 - 46 809 thsd. tons) by road of the total amount of goods were formed by national carriage – timber, foodstuffs, household products and construction materials were dominating. Carriage of goods by road constituted approximately 46% of the total carriage of goods in the country.

- Railway transport infrastructure

The State joint stock company *Latvijas dzelzceļš* (LDz) is the largest carrier of rail freight. . The track gauge of public usage rail network is 1520 mm, total operating length is 2206.3 km, 23.5 ton axle loads are permitted on public usage railway network. Alowed speed on public usage railway infrastructure for passenger trains is 120 km/h, for freight trains - 80 km/h.

Public usage railway network has 152 stations (operating points) with extended tracks, 70 of them are open to freight operations. Among stations where freight operations are done there are 2 marshalling (sorting) yards (Šķirotava and Daugavpils), 4 district stations (Jelgava, Rēzekne, Krustpils, Gulbene).

National and international Freight transport by rail:

	2008	***2009***	***2010***
Freight transported , thsd tons	**56 061**	**53 679**	**49 164**
Domestic traffic	1 687	1 299	1 263
International traffic	51 374	52 380	47 901
Exports	2 652	2 222	3 206
Imports	47 116	47 092	40 973
Transit cargoes	4 606	3 066	3 722
Of the international freight transport – transport through ports	43 871	45 117	39 056
Freight turnover, mlt t-km	**19 581**	**18 725**	**17 179**

10 month of 2011 shows substantial increase of freight transport volumes 18.5 % (comparing the same period in 2010) and in total 48 405 mln tonns

Rail freight carriage constituted 48% of the total amount of carriage in Latvia and about 80% was carriage of freight to the three largest ports of Latvia – Rīga, Ventspils and Liepāja, including from Russia and Belarus via the large junctions of Eastern Latvia in Daugavpils and Rēzekne.

- Maritime transport

There are three large ports operating in Latvia (Riga Freeport , Ventspils Freeport, and port of Liepaja), the proportion of which in the total turnover of freight was 98%, and seven small ports (Engure, Lielupe, Mērsrags, Pāvilosta, Roja, Salacgrīva, Skulte).

Cargo loaded and unloaded from domestic and foreign vessels at Latvian ports:

(thsd t)

year	total	of which in ports			
		Riga	Ventspils	Liepaja	Small ports
2008	63 649	29 566	28 570	4 188	1 326
2009	61 980	29 724	26 640	4 381	1 234
2010	61 160	30 476	24 816	4 384	1 485

Riga Freeport is open for navigation all year round. Up to 80% of the Freeport of Riga cargo turnover is made up of transit cargoes forwarded to or received from the CIS. Main types of cargo handled at the Freeport of Riga are coal, oil products, timber, containers, mineral fertilizers, chemical cargoes and food products.

Ferry line: Riga – Stockholm (Sweden). Maximum port depth is 14.5 m, after dredging works it will achieve 17 m.

Ventspils Freeport is ice-free the whole year round. Main types of cargo handled at the Ventspils Freeport are oil products, coal, mineral fertilizers, ore and timber.
Ferry lines: Ventspils - Nynäshamn (Sweden) , Ventspils - Travemünde (Germany) and Lübeck (Germany) – Ventspils – St.Petersburg (Russia). Maximum port depth is 17.5 m.

Port of Liepaja is ice-free the whole year round. Main types of cargo handled at Port of Liepaja are timber, metals and metal products, oil products, crude oil and coal.

Ferry line: Liepaja - Travemünde (Germany). Maximum port depth is 10.5 m, after dredging works it will achieve 12.5 m.

- Air transport infrastructure

There are 4 airports in Latvia: Riga international airport, Liepaja international airport, Ventspils international airport and Daugavpils international airport.

99% of flights are performed from the Riga airport. The number of passengers and aircrafts serviced by Riga airport increased significantly and the airport convincingly became the dominating one among the airports of the three Baltic States. In 2010 the network of destinations of Riga airport expanded into the direction of Scandinavia,
Southern Europe, the Middle East and Eastern Europe. The most popular destination in 2010 was London.

Passenger and cargo turnover in Riga airport:

	Passenger turnover	cargo turnover (t)
2008	3 690 549	7 669
2009	4 066 793	9 429
2010	4 663 647	12 294

3. Border crossing points

Railway border crossing points:

With Russian Federation - Kārsava, Rēzekne Preču station, Zilupe;
With the Republic of Belarus – Indra, Daugavpils Preču station;
With Estonia – Lugaži;
With the Republic of Lithuania - Daugavpils, Eglaine, Kurcums, Meitene, Reņģe, in stations Priekule and Vaiņode train traffic is closed.

Road border crossing points:
With Russian Federation – Vientuļi (LV)-Ludonka (RU), Grebņeva (LV) – Ubiļinka (RU), Terehova (LV) – Burački (RU), Pededze (LV) – Bruniševo (RU).
With the Republic of Belarus – Paternieki (LV) – Grigorovščina (BY), Silene (LV) – Urbani (BY).

4. Key challenges and planned transport-infrastructure projects of international importance

- Completing road network rehabilitation (construction of main roads in four lanes);
- Upgrading railway and road infrastructure;
- Development of railway project “RailBaltica”;
- Construction of railway route to the International Airport “Riga”;
- Elaboration of New Passenger/Cruise Ship Terminal in the Freeport of Riga;
- Reconstruction of Access Channel for Ships Entering the Port of Riga, Phase II;
- Reconstruction of East and West Breakwaters, Development of New Territory Beyond the West Breakwater in Port of Riga;
- Construction of Ventspils Northern port

Lithuania

Due to Lithuania's geographic location, the transport sector, particularly freight transit, plays a key role in the country’s economy. Freight shipments between the East and the West are the core of the transit industry. The transport, storage and communication sector has increased its importance to the economy of Lithuania. In 2008, it accounted for 12.1% of the country’s GDP. Lithuania became a well-developed transport corridor between the East and the West. Having a dense road network, the country has achieved significant growth in the amount of goods carried both by road and by rail transport.

Road transport

Lithuania’s total road network is 69,067 km. The network size and its reach are adequate but the quality is not. National Government owns and maintains 21,335 km of roads. 376 km of European standard motorways serve the highest density routes of Vilnius-Kaunas-Klaipeda and Vilnius-Panevezys.

Rail transport

The Lithuanian rail network consists of 1775.3 km with 557 km of double track. Lithuanian Railways (LR) is a profitable state owned company (in 2003 profit was USD 5.1 mln). The main rail corridor is situated on the route Russian mainland–Kaliningrad – Corridor IX –Klaipeda – Kaunas –

Belarus. The present railway sector is rather behind in technical, economic, technological and organizational terms in relation to the modern interacting railway systems of EU Members. Insufficient funding for maintenance and development has led to obsolescence of the rolling stock, lack of spare parts, and limited train speed.

Sea ports and inland waterway ports

Lithuania's major seaport Port Klaipeda has several advantages in cargo shipment over other ports in the region; it has a four lane European standard motorway to Vilnius and rail connection to the East and Moscow and offers a faster transport route to Russia from the West, compared to land transport through Poland, avoiding rail transshipment before entering into Poland and bottlenecks at border crossings. The port has well-developed intermodal transport capacities, comprising maritime and land transport infrastructure. This forms a strong basis for facilitation of transport and logistic services between Europe and Asia.

Freight terminals and other intermodal transport infrastructure

Transit services for freight flow are provided along three main corridors: (i) East-West (major): to/from Russia and other CIS countries, via Belarus, Vilnius and Kaunas to Port of Klaipeda, and on to Scandinavia and Western Europe; (ii) North-South: to/from Finland, via Estonia, Latvia, Kaunas and Sastokai, on to Poland, Germany and Central Europe (road section is known as Via Baltica); and (iii) East-West (minor): to/from Russia and other CIS countries, through Kaunas, on to Kaliningrad.

There are more than 600,000 m^2 of modern logistics and warehousing facilities in Lithuania. The biggest supply of new, modern warehousing facilities is in the capital city Vilnius (after the completion of several new projects in the third quarter of 2009, the supply of modern warehousing premises has increased by nearly 12% in Vilnius and currently reaches 334,400 m^2 of the rentable area). Kaunas is in the second place (around 200,000 m^2), and Klaipėda in the third (122,500 m^2).

Ongoing and planned transport infrastructure projects of international importance and related investment costs

Along the North-South Axis, projects of Via Baltica and Rail Baltica are focused on modernization of road and rail infrastructure, connecting the eastern part of Baltic Sea with Western Europe by inland transport.

Along the East-West Axis, projects are focused on enhancing road, rail and Klaipeda deepwater seaport infrastructure, as well as development of the Motorways of the Baltic Sea (intermodal extension of IXB corridor towards Western Europe). A special attention is given to development of public logistics centers and to the modernization of railway infrastructure.

Six road projects are currently underway with regard to the reconstruction of Road E85 section (Vilnius–Kaunas–Klaipeda).

With regard to the rail sector the modernization of track equipment, power supply equipment, and technological communication network at Kaunas station, Palemonas–Rokai–Jiesia bypass and Kaunai–Kybartai line is under implementation.

In ddition to the above, the reconstruction of international importance E41 section of the waterway Kaunas-Atmata mouth is currently carried out, as well as the construction of infrastructure for passenger and cargo ferry terminal in

New proposed transport infrastructure projects of international importance and related investment costs

Three road projects are at the design stage as part of the reconstruction of Road E85 section (Vilnius–Kaunas–Klaipeda). Another 24 railway projects are also at the design/planning stage concerning the modernisation of rail Baltica railway line on Kaunas–Siauliai section, the rehabilitation of the existing Kazlu Ruda–Kaunas railway section development of Klaipeda railway junction, and the Vilnius and Kaunas public logistics centres.

Additional projects are planned for the inland waterway sector for the port of Kaunas. Finally, two projects are at the planning stage for the port of Klaipeda.

Sources:
http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/ECAEXT/EXTECAREGTOPTRANSPORT/0,,contentMDK:20647604~pagePK:34004173~piPK:34003707~theSitePK:571121,00.html

Luxemburg

Investments in the road and rail network of Luxembourg have contributed to an efficient transport network for goods and freight. Compared to other countries, public investment is quite high when expressed as a share of GDP. The transport and handling sectors make up roughly 5% of GDP. Transport in Luxembourg is ensured principally by road, rail and air. There are also services along the River Moselle, which forms the border with Germany. The road network has been significantly modernised in recent years with motorways to adjacent countries.

Road transport

The six Luxembourg motorways cover a total distance of 147 km, linking the capital with Trier (Germany), Thionville (France) and Arlon (Belgium), as well as with Esch-sur-Alzette and Ettelbruck in Luxembourg with a density of 56.8 km of motorway per 1,000 km^2.

Rail transport

Operated by Chemins de Fer Luxembourgeois (CFL), Luxembourg's railways form the backbone of the country's public transport network, linking the most important towns. The total length of operational (standard gauge) track is 274 km.

Sea ports and inland waterway ports

The River Moselle forms a 42 km natural border between Luxembourg and Germany in the south-east of the country. Mertert near Grevenmacher on the Moselle is Luxembourg's only commercial port. With two quays covering a total length of 1.6 km, it offers facilities connecting river, road and rail transport. It is used principally for coal, steel, oil, agricultural goods and building materials

Freight terminals and other intermodal transport infrastructure

The logistics sector is a rapidly growing part of the Luxembourg economy. Over 80% of the goods and services produced in Luxembourg are bound for foreign markets.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

Thus, with regard to the railway field, the Department of Transport has appointed the National company of the Railroads Luxembourg (CFL) not only with the maintenance of the railway network, but also with the realization of the projects of extension of the rail network.

New proposed transport infrastructure projects of international importance and related investment costs

There is no information of any major road or railway infrastructure projects of international importance.

Sources:
http://www.mt.public.lu/
http://www.lff.lu/finance/news/news-detail/browse/1/article/luxembourg-as-a-european-logistics-hub/21/

Mongolia

Mongolia's geographical location, far from the sea and surrounded by two large neighbors China and Russia, enables external transport links only via these countries terms of Mongolia's international trade. Mongolia is one of the 44 landlocked countries in the World.

Mongolia currently uses the Chinese port of Tianjin for almost all of its overseas imports and exports. There is also some small movement by rail to/from Europe through Russia, and via Russian Pacific ports/Vostovhnyi/ for freight traffic to and from North America. In recent years, Mongolia's land-locked position between Russia and China has become a positive advantage as an important link between the two, with Mongolia benefiting from the rail transit traffic moving through it between Russia and China.

Road, Transport sector

Transport sector consists of 4 modes, as railway, road, air and water transport.

Modes of transport	2007	2008	2009	2010
Freight turnover, mln.t.km				
Total	9,030.2	9,051.4	9,016.4	12,124.8

Railway	8,360.7	8,261.4	7,852.1	10,286.7
Road	6,61.9	782.1	1,160.7	1,834.0
Air	7.7	7.9	3.7	4.2
Carried freight, thous.t.				
Total	23,281.6	23,904.4	24,736.7	29,415.9
Railway	14,072.6	14,646.9	14,171.5	16,804.0
Road	9,207.1	9,255.7	10,563.8	12,610.2
Air	1.9	1.8	1.4	1.6
Passenger turnover, mln.pass.km				
Total	3,263.1	3,607.3	3,179.2	3,372.4
Railway	1,406.4	1,400.4	1,008.5	1,220.0
Road	869.7	1,215.0	1,535.9	1,480.2
Air	987.1	991.9	634.9	672.2
Carried passenger, mln.passengers				
Total	209.9	231.6	232.5	250.7
Railway	4.5	4.3	3.1	3.5
Road	205.0	226.9	229.0	246.7
Air	0.4	0.4	0.3	0.4

Transportation and storage share in GDP for 2010 is 8.1 %, GDP per capita $2,394/ rate for US$1=1250 tugrugs./

Road Subsector

Road network in total is 49,250 km, including international, state, internal, and local government road networks. Total state roads account for 12,722 km while the remaining 36,528 km is province and local roads. Most Mongolian roads are poorly maintained gravel and earth roads; approximately 5.2% of the road network (2,597 km) is currently paved.

Bounded by two large neighbors – the PRC and the Russian Federation – makes road transportation links significant in terms of domestic and international trade.

Government of Mongolia signed on April, 2004 in The Intergovernmental Agreement on the Asian Highway Network

Asian Highway routes in Mongolia:

AH-3 - 990 km
AH-4 - 749 km
AH-32 - 2520 km
TOTAL 4 259km

Every year, number of vehicles in Ulaanbaatar is increasing by 20% in recent years. However, existing deteriorated road network which is overloaded above its capacity becomes root cause for congestions in city streets and increases occurrence of road accidents. 80% of total city road network is being used for more than 15 years and deteriorated to a large extent due to lack of or poor routine maintenance and rehabilitation.

Rail Subsector Background

The railway is the dominant mode of freight transportation in Mongolia and main carrier for transit transportation. In total, 16,8 million ton freight and 3.5 million passengers were transported in 2010.

Railway transport sector consists of Mongolian –Russian joint venture "Ulaanbaatar Railway", state share holding company "Mongolian Railway", "Bold Tumur Yeruu Gol" Co., Ltd, "Ded Buttsiin Hugjil" (Infrastructure Development) Co., Ltd and small railway entities.

As today, railway network is consisted of main and branch railway lines, the total length is 1,908 km. The 1110 km-main line, which connects Russia and China via capital city Ulaanbaatar, is the key way of Trans-Mongolian Railways. 239 km –railway line of Bayantumen is located in northern east of Mongolia, connects the eastern zone center - Choibalsan and border between Mongolia and Russia. 98 km-railway line of "Boldtumur Yeruu Gol" Co. Ltd is linked to the main line.

State policy on railway transportation was adopted by resolution No.32 of June 24, 2010, the Parliament of Mongolia. *The purpose of the state policy* is to increase the carrying and passing capacity of railway, to expand the efficient integrated domestic network to meet the increasing freight transport demand, furthermore, to improve the national transit capability of the country, utilize the large mining deposits, export its products, to accelerate the socio –economic development and ensure the sustainable development for the future.

Due to the fast development of mining industry in Mongolia, over 5600 km railway lines will be built in 3 stages, to transport the raw and processed mineral materials in and to abroad.

Aviation Subsector

Due to the large distances between cities and sparse populations across Mongolia, the aviation subsector is relatively well developed. The national airline, MIAT, supplements its domestic routes with international destinations that include PRC, ROK, RF, Japan, and Germany. Plans for route expansion include the Hong Kong and Thailand markets. Recently, private companies, such as Aero Mongolia, Eznis Airways, and 4 other companies, have entered the market and are attempting to increase their market share. MIAT is responsible for transporting 45 percent of international passengers, with the private companies only carrying 3 percent. Conversely, in the domestic market, the six private sector operators enjoy a 70 percent market share.

In recent years, the focus of the aviation subsector has been to increase the number of airports throughout the country with paved runways and increase the number of international overflights. At the same time, privatization measures have been pursued, aiming to involve the private sector more in aviation activities, including airport management and airline operations. Throughout the development of the subsector, promoting safety remains a primary concern.

Road Transport Subsector

The history of the road transport sector goes back to 1920's. It played an important role in the transport sector of the country when other means of transport were not sufficiently providing services countrywide.

In 1990's there were 15 major entities with a fleet of 300-1000 vehicles for intercity transport and over 20 local entities carrying out cargo, passenger and postal deliveries. The total number of vehicles of these entities took up only 30 percent of the entire vehicle population of the country but carried over 70 percent of freight transport and 98.5 percent of passenger transport.

With the transition into the market economy the demand for road transport have increased among people and private entities and as a result of government policy on privatization virtually whole road transport sector were privatized except for three city public bus companies in Ulaanbaatar.

The road transport subsector stands to benefit greatly from Mongolia's strategic location between two vast economies: the PRC and the RF. Three highways within the country have been designated Asian Highways (AH) as part of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) classification system: the vertical axes of AH3 and AH4, as well as the horizontal axis of AH32, which largely follows the alignment of the Millennium Road. Establishment by the private sector of road side facilities along these alignments for vehicle maintenance and repair workshops, fuel stations, accommodations, restaurants, and communication facilities under standards approved by the Ministry of Road, transportation, construction and urban development are encouraged.

Water and maritime Subsector

As a landlocked country, Mongolia has been taking stages of measurements in order to make ocean trip under its own country's flag, to use and own ocean resources and to coordinate the dealing to run marine transportation. Among the steps is Maritime Law Approves by State Ikh Khural in 1999. To implement this law Mongolian government has taken particular measurements such as to appoint the person who will carry out the registration process of ship, to approve related rules and regulation and to unite with related documents like international convention to conform publicly in order to implement international requirements for using ocean.

Having own Maritime Administration, Mongolia has advantages to introduce a motion to the process of working out the policy from International Maritime Organization and to get to the international arena, participating in activities of this organization as an authorized member. In the international standard managing organization engaged in marine shipping problems is National Marine administration of that country and cooperates, with other countries' organizations responsible on ocean problems, exchanging staff, work experience and methods.

There are two ship registry companies, one of them is "Mongolia Registry Ship" company. Since its establishment the company is successfully operating and 1200 ships are registered from 40 countries, around over 300 ships are floating under Mongolian flag.

Internal water transport division is carrying the inspection and survey of boats and ferries floating on Khuvsgul Lake. There are in total 120 boats and ferries on lakes and rivers of Mongolia and there are mainly for tourism.

TRANSIT MONGOLIA

On 14 May 2008 the GOM adopted Resolution No. 183 and approved the national program "Transit Mongolia" and its Action Plan for implementation. Transit Mongolia is the first attempt by the GOM to develop a key regional asset (the country's favorable geographic location) in a coordinated manner with the implementation lead agency as the MRTCUD. In the Background section of the Transit Mongolia program the GOM acknowledges the following:

"In current times of globalization, using its geographic privileges Mongolia can benefit by becoming a transit country through being part of a integrated network of international trade, transport and logistics, and thus by implementing certain activities to increase its competitiveness in international trade, transport and logistics markets, accelerating its economic growth and resolving many outstanding economic and social issues."

Following international agreements have been concluded within the integrated transport:

1. People's Republic of China (1991.08.26)

2. Russian Federation (1992.10.29)

3. Republic of Kazakhstan (1993.10.22)

4. Democratic Republic of Korea (1996.05.10)

Railway transport is carried out over 90 per cent of total turnover of the country and in 2010 the total transportation was 16,8 million tn. freight, from which the export was 4,6 million tn., import 1,5 million tn., transit 2,3 million tn.

Road sector

Road sector is the member of World road union;

Road transport

- Existing bilateral agreements with 8 countries. Mongolian Road transport sector is the member of the International Road Union;

Railway sector

- Existing bilateral agreements with Russia and China. Mongolian Railway is the member of OSJD-Organization for railway cooperation, in total 27 member countries.

Civil aviation sector

-Bilateral agreement with EU and Government of Mongolia on certain aspects of Air services.

Existing Air services agreement with 35 countries.

River and maritime sector

- The Mongolia is the member of IMO-International maritime organization, in total 169 member countries.

Pakistan

Transportation in Pakistan is extensive and varied but still in its developing stages and serving a population of over 170 million people. The transportation sector accounts for about 10.5 percent of the country's GDP. Although the sector is functional, its inefficiencies with long waiting and traveling times, high costs, and low reliability are dragging the country's economic growth. These factors also reduce the competitiveness of the country's exports, increase the cost of doing business in Pakistan, and constrain Pakistan's ability to integrate into global supply chains which require just-in-time delivery.

Road transport

Road transport is the backbone of Pakistan's transport system. The 9,574 km long National Highway and Motorway network - which forms 3.65% of the total road network - carries 80% of Pakistan's total traffic. Over the past years, road traffic (both passenger and freight) has grown significantly faster than the national economy. Currently, it is accounting for 91% of national passenger traffic and 96% of freight. The quality of road transport services is low. Over half the national highways network is in poor condition, and the road safety record is poor.

Rail transport

The railway network comprises 8,163 km of which 1,676 mm broad gauge forms 7,718 km, including 293 km of electrified track. The network consists of the main North – South corridor, connecting the Karachi ports to the primary production and population centers in Pakistan. The track is in good condition with an axle-load of 23 tons and maximum permitted speeds of 100/110 kph. Pakistan Railways (PR) needs to take major steps to make freight services more competitive. PR has a very low and stagnant market share, carrying less than 10 percent of passenger traffic and 5 percent of freight.

Sea ports and inland waterway ports

Port traffic in Pakistan grows at 8% annually in recent years. Two major ports, Port Karachi and Port Qasim, handle 95% of all international trade. Port Gwadar, which was inaugurated in March 2007, and is being operated by Singapore Port Authority, is aiming to develop into a central energy port in the region. 14 dry ports cater to high value external trade. The performance of port operations is improving, but remains insufficient for the long term.

Freight terminals and other intermodal transport infrastructure

The Freight Business Unit with 12000 personnel operates over 200 freight stations on the railway network. The FBU serves the Port of Karachi and Port Qasim as well as in various other stations along the network and generates revenue from the movement of agricultural, industrial and imported products such as wheat, coal, fertilizer, cement, and sugar.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

There is growing recognition within the Government of Pakistan that the sustainability of economic growth is closely linked to the efficiency of its transport system. To support sustained growth and increase competitiveness, the Government is taking a strategic and holistic approach to the transport sector and has launched a major initiative to improve the trade and transport logistics chain along the north-south 'National Trade Corridor' (NTC) linking Pakistan's major ports in the south and south-west with its main industrial centers and neighboring countries in the north, north-west and east. The National Trade Corridor Improvement Program (NTCIP) consists of key policy reforms along with a comprehensive investment program to be implemented over the current Medium Term Development Framework (MTDF) period – 2005-2010.

New proposed transport infrastructure projects of international importance and related investment costs

There are 21 infrastructure projects of international significance proposed for the road sector, along the following sections:

- Lahore (Wahga)-Islamabad-Peshawar-Torkham
- Lahore-Multan-Rohri-Quetta-Taftan
- Khunjerab-Islamabad-Lahore-Multan-Karachi
- Chaman- Quetta-Kalat-Karachi
- Peshawar-
- Dera Ismail Khan-Quetta

In addition, the upgrade of the Quetta-Koh-i-Taftan has been proposed for the rail sector. Finally, several projects are foreseen for the port of Quasim.

Sources:
http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/SOUTHASIAEXT/EXTSARREGTOPTRANSPORT/0,,contentMDK:20699058~menuPK:869060~pagePK:34004173~piPK:34003707~theSitePK:579598,00.html

Republic of Moldova

Road transport

There are 10,531 km of public roads on the Moldovan territory, including 9,462 km managed by the central public administration, and 1069 km managed by the local public administration of the left side of the Nistru river. The EATL road network consists of 4 international (AGR) arteries, including the east-west oriented E 58 road along the sector (Iaşi) – Chişinău – (Odessa) and 3 connectors: E 581 along the sector Leuşeni – Chişinău – (Odessa), E 583 along the sector (Iaşi) – Balţi – (Mogilev-Podolsky), and E 584 along the sector Dubăsari – Chişinău – Giurgiuleşti.

The country continues to suffer from the internal "frozen" conflict in the eastern region of Transnistria, which has been *de facto* outside the control of the central Government since 1991. Road transport operators have to bypass the Transnistrian part of Moldova to avoid possible difficulties with the self-proclaimed authorities of the region. Nevertheless, the road sector's performance improved noticeably between 1998 and 2010, its share in the freight turnover measured by tkm rising from 13 per cent to 60 per cent. This improvement materialized in spite of the continued deterioration of Moldova's road network due to the limited investment undertaken in recent years.

Rail Transport

The volume of rail freight increased slowly between 1998 and 2010 while its share of freight transport declined from 87 per cent to 40 per cent. Similar to the road sector, rail continues to suffer from inadequate maintenance and rehabilitation of the network. The Moldovan components of Pan-European Corridors VII and IX, national main railway lines as well as the OSJD rail corridors and lines on the Moldovan territory are considered to be direct links or branches within the EATL network.

Inland waterway ports

The E-Waterway Network in Moldova covers 2 branches of west-east oriented main inland E-waterways specified in the AGN agreement: E 80-07 – the Prut river from the mouth to Ungheni, E 90-03 – the Nistru river from the port Belgorod-Dnestrovsky (Ukraine) to Bender, including 2 inland navigation ports: P 90-03-02 Bender (the Nistru, 228.0 km) and P 80-62 Giurgiuleşti (the Danube, 133.0 km).

The importance of inland waterways became negligible in the early 1990s when the central government lost control of the major port situated in Transnistria. The government intends to increase the marginal share of inland water in freight turnover by development of the new port Giurgiuleşti mentioned above, which would ensure a direct connection of landlocked Moldova to the Black Sea.

Freight terminals and other intermodal transport infrastructure

The multimodal transport corridor Europe - Caucasus - Asia (TRACECA) crosses both the Black Sea and the Caspian Sea, connecting them with the Moldovan components of PETC IX, which reach the Black Sea port of Odessa along the railway line from the Moldovan-Ukrainian border, via Ukrainian stations Cuciurgan (Kuchurgan) and Razdelnaia and along the motorway Chişinău – Tiraspol – Odessa. The authorities are convinced that this route could be extended along the water from the port of Odessa to the port complex Giurgiulesti, which has been constructed on the Moldovan territory on the mouth of the Danube river (the national component of PETC VII).

International border crossing points (road and rail)

Five road border crossings are situated on EATL Routes. All of them are open daily and operate around the clock. The customs checkpoints at two of these crossings are beyond the control of the Government of Moldova. Waiting times range from 5-15 minutes for passenger cars to 20-30 minutes for buses and 30-60 minutes for trucks. Two rail border crossing on EATL Routes are open around the clock. The operation of customs and other services at one of them is not controlled by the Government of Moldova. Average waiting times at the second railway crossing (on the Romanian border), including the change of carriage bogies, amount to 120 minutes for passenger trains and 100-185 minutes for freight trains.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

One road infrastructure project along the EATL Road route…… is under bidding procedures with the support of EBRD. The length is 98 km, the cost is 94 million US Dollars. The project is planned to be finished in 2014.

New proposed transport infrastructure projects of international importance and related investment costs

The Government of the Republic of Moldova is at the initiation phase of the new investment project for construction of a new railway line Marculesti-Soroca and the bridge over the Nistru River. The **existing railway section** that connects the Ungheni terminal(Republic of Moldova) and Vapniarca terminal(Ukraine) is **450km** long. It belongs to PETC Corridor IX and EATL routes 3.g. and 6.a.The **proposed project** will reduce the travel distance from 450km to **216 km**.

Four road infrastructure projects ready for implementation (feasibility study, detailed design and bidding documents were developed)along the EATL Road Routes 4.k. and 4.i. One rehabilitation project (4.i.) and tree new construction projects. The Balti-Criva project is 133 km long, and the cost is 137 million US Dollars. The other three projects (new construction belong to the EATL Road Route 4.k.). These projects have a length of 65 km and the cost is 92 million US Dollars. The projects have no secured funds and the Government is planning to finish them up to 2020.

Such priority rail and road infrastructure projects as the rehabilitation and electrification of the Moldovan rail segment of PETC IX and CE 95 main line, were included in the Land Transport Infrastructure Strategy, which has been developed with the support of World Bank.

Moldova proposed four road rehabilitation projects of total cost 225 million USD, out of which, according to information received, one has committed funding and thus belong to Category I, while three was classified as Category III.

One new infrastructure project proposal aims at the rehabilitation and electrification of the railway line traversing the Moldovan territory from the Ukrainian border through the capital city of Chişinău to the Romanian border. At present, this 209 km long main line, which constitutes the Moldovan part of TEN Corridor IX and the E95 line defined by the AGC and AGTC agreements, is being operated with diesel locomotives. The project preparation and implementation would take 7 years. The project is still proposed with an estimated cost of 317 million USD, but funding remains to be secured, and hence was assigned to Category IV.

Altogether, Moldova has submitted five EATL projects for evaluation, and one road and one rail project of national importance.

Sources: CIS Statistical Committee, NFP Country Report.

Romania

Transports represent an important field of economy, with a share of 7.15% of the GDP in 2010.

Road transport

Romania's public road network covers 82,386 km in 2010, comprising national roads (16,552 km), county roads (35,221 km) and communal roads (30,613 km). In addition, there are approximately 30,000 km of village roads serving the needs of rural communities. The EATL road network along PET Corridors IV and IX is 1,614 km long and includes a number of E-roads that coincide with sections of Asian Highways AH1, AH2 and AH3. There are four bottlenecks identified by the authorities along the E68 and E81 roads (AH3).

Higher flexibility of freight road transport has resulted in its most significant share in total freight transport (58.6% of the total volume of goods transported, that is 49.2% of total goods route) despite the fact that the share of freight road transport in the total freight transport decreased in 2010 by comparison to previous years.

Rail Transport

The rail network is extensive, the Railway Infrastructure Manager – "CFR"S.A. – had in 2010 in operation a network with a length of 10,785 km, 971 railway stations and halts. Most of the lines have standard gauge -1,435 mm – but the network in operation also has 135.457 km of wide gauge railway lines and 3.668 km of narrow gauge lines. The total length of the electrified railway lines is 4,032 km (37% of the total line length) and the supply system is of 25kV/50Hz. Much of the rolling stock needs urgent replacement. In 2010, by comparison to the previous years, freight rail transport (freight volume-tons) and freight route (tons-km) has recorded an increase. Passengers route and the number of passengers have decreased.

The Euro-Asian Transport Links (EATL) network overlaps the railway sections of the Pan European transport Corridors IV and IX within the Romanian territory. The length of these sections (out of which for Corridor IV are considered both the northern and the southern branches) is about 1,990 km.

At present the main challenge for the Romanian railway sector is to enhance the quality of the services performed in the railway transport, with a view to attracting increased flows on the international transport Corridors within the territory of our country.

Sea Ports and Inland Waterway Ports

Three Romanian seaports belong to the EATL network: Constanţa, Mangalia and Midia. In addition, the network includes nine inland water ports. The length of inland waterways in 2010 is 1,691 km. Shipping along the Danube, which flows for 1,075 km within PET Corridor VII, provides Romania with important trade links to central Europe.

The authorities identified 16 bottlenecks along this EATL route. The 64 km long Danube-Black Sea canal, stretching from the lower part of the river to Constanta, has a strong development potential as the newly independent Caspian states seek outlets for their hydrocarbon exports that bypass the Bosphorus[142] Strait. The shorter (28 km) Poarta Alba-Midia-Navodari canal also connects inland waters to a Black Sea port. In anul 2010, the most significant quantities of goods loaded/unloaded in the Romanian ports were destined for Turkey (17.6% of the total loaded/unloade goods), Rusia (14.5%) and Spain (5.1%).

Freight terminals and other intermodal transport infrastructure

[142] For further clarification on the subject please consider official communications received by the governments of the Russian Federation and Turkey as well as the extract of document ECE/TRANS/SC.2/GEURL/2011/9 of the Working Party on Rail Transport Group of Experts towards Unified Railway Law, Report of the Group of Experts on its second session Geneva, held on 7 October 2011 (this can be found at the end of this document).

The container handling capacity amounts to 1,334 TEU per day. Currently in Romania there are 26 railway terminals with a capacity of 10,500 TEU, some of which are however closed. In addition, there are 19 terminals / private industrial tracks for loading / unloading containers. The share of the volume of cargo containers loaded and unloaded in ports is 12.5% of the total goods loaded and unloaded in Romanian ports in 2010.

The ports where the most intense activity was carried out during 2010 are Constanta, accounting for 79.7%, Midia with 11.4% and Galati with 4.7%. The Constanta port has oil, ore and container terminals, which are well equipped with handling facilities and operate around the clock.

International border crossing points (road and rail)

There are five international road border crossings, for both freight and passengers. that operate around the clock. Average waiting times range from 1 to 5 minutes. Three rail border crossings for both freight and passengers are also open 24 hours per day. Average waiting times are longer than at road border crossings, ranging from 4-40 minutes for passenger trains to 150-240 minutes for freight trains.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

The cost of the national programme to construct and upgrade the road infrastructure amounted to approximately $3.3 billion over the 2004-07 period. Almost $1 billion has been allocated to EATL projects. About one-quarter of the funding was provided by the state budget, the remainder included EU pre-accession grants (ISPA and PHARE programmes) and loans from the World Bank, European Investment Bank (EIB), European Bank for Reconstruction and Development (EBRD) and Japan Bank for International Cooperation (JBIC).

Investment expenditure on projects to upgrade EATL railway routes up to 2010 exceeded $2.1 billion. The funds were provided by the government budget, EU grants and the financial institutions mentioned above.

The Romanian inland waterways are subject to improvements of navigation conditions in order to assure the 2.5 m minimum depth recommended by the Danube Commission, through different projects which are in different stages of implementation and where the environmental protection is duly taken into consideration (i.e. before, during and after the works implementation, the Călăraşi –Brăila sector is subject to an environmental monitoring). Also on the inland waterways the RoRIS (Romanian River Information Service) and other projects in the RIS field are under implementation in order to increase the safety of the navigation.

New proposed transport infrastructure projects of international importance and related investment costs

Altogether, in Phase II Romania submitted for evaluation seven projects. One road project of national importance (Tg. Mureş-Iaşi-Ungheni motorway), one maritime project (cost 196 million USD) and four inland waterway projects, of total cost 298 million USD, along proposed EATL routes were assigned to Category I. Another inland waterway project was assigned to Category IV due to insufficient data.

According to the **Intermodal transport strategy in Romania 2020**, it is foreseen to build at least one terminal in one of the six main sites that were identified (the areas of Timisoara, Constanta, Bucharest, Giurgiu / Oltenita, Brasov and Suceava) with SOP–T (2007-2013). Currently there is available budget of **18,019,383 eur**, with Regional Development Fund as a funding source for **12,814,778 eur** and **5,204,605 eur** from national public funds, within the Sectoral Operational Program for Transport, Priority Axis 3 - Modernization of transport sector with an aim to improve environmental protection, human health and passenger safety, Key Area of Intervention 3.1 - Promotion of intermodal transport.

Russian Federation

The transport network of the Russian Federation is one of the world's most extensive. The country has adopted two national transport strategies in recent years. On 12 May 2005, the Russian Ministry of Transport adopted the Transport Strategy of the Russian Federation to 2020. Three years later, in 2008, the Russian government adopted a revised strategy, extending to 2030.

The export of transport services is an important component of Russia's GDP. The government anticipated that between 2007 and 2030, the measures included in its 2008 transport strategy would increase the export of transport services to a total value of $80 billion, a sevenfold increase on its 2008 value. Foreign cargo weight transported is expected to increase from 28 million tonnes to 100 million tonnes over the same period.

Road transport

As of 2009, Russia had 982,000 km of roads, of which 776,000 were paved[1)]. Some of these make up the Russian federal motorway system.

The road network under the EATL framework in the Russian Federation covers 15,716 km with 78 per cent of the roads being in good or at least fair condition.

Rail transport

Russia has the world's third-largest railway network (after United States and People's Republic of China), with a total track length of 85.6 thousands km as of 2011. Electrified track accounts for around half of the Russian railway network - totalling 44 thousands km (51.4%) - but carries the majority of railway traffic. "Russian Railways" moves 1.3 billion tons of freight each year.

Sea ports and inland waterway ports

Russia has two ports on the Caspian seaboard: Astrakhan and Makhachkala. Additional sea and river ports related to EATL routes are Vladivostok, Nakhodka, Vanino, Vostochny, St. Petersburg, Murmansk, Arkhangelsk, Kandalaksha, Dudinka, Omsk, Novosibirsk, Krasnoyarsk,

1) Basic indicator of Transport in Russia. 2010. Official Handbook of Statistics. Federal State Statistics Service of the Russian Federation, Moscow, 2010

Osetrovo, Blagoveshensk, Vyborg, Vysotsk, Novorossiysk, Tuapse, Taganrog, Kavkaz, Temryuk, Nizhny Novgorod, Volgograd, Cherepovets and Kazan.

Inland waterways in Russia:

- Branches (TSW):
  - TSW1: Irtysh – (Omsk – Khanty-Mansiysk);
  - TSW3: Ob (Novosibirsk - Khanty-Mansiysk);
  - TSW5: Yenisey (Krasnoyarsk);
  - TSW7: Lena (Osetrovo);
  - TSW9: Amur (Blagoveschensk).
- Main route (NSW): St.-Petersburg – Vytegra – Cherepovets – Nizniy Novgorod – Kazan – Volgograd – Astrahan – Caspian Sea;
- Branches (NSW):
  - NSW1: White Sea – Baltic Sea canal;
  - NSW2: Cherepovets – Bolshaya Volga - Moscow canal – Moscow;
  - NSW3: Kama River (Kazan – Perm – Solicamsk);
  - NSW4: Volgograd – Volga-Don canal – Rostov-on-Don.

Freight terminals and other intermodal transport infrastructure

In terms of intermodal transport infrastructure, TransContainer (TC), the intermodal daughter company of Russian Railways (RZD), conducted trials for fast transit of more than 150 TEU container trains on different routes in 2010. Volume of transit transportation of containers in 2010 is 152 thousands TEUs (+28.2% more than in 2009). Furthermore, enhanced infrastructure allows container transshipment at docks in port Olja. Due to demand for development of specialized container terminals on inland waterways providing transportations and transshipment on the international transport corridor "North-South", additional container terminals in riverports St. Petersburg, Moscow-North, Yaroslavl, Nizhniy Novgorod, Kazan, Samara, Volgograd, Astrakhan, Ust-Donetsk, Rostov-on-Don and Azov are planned to be constructed by 2010.

International border-cossing points (road and rail)

Major road border-crossing points with EATL countries are situated on borders with Azerbaijan (284 km), Belarus (959 km), China (3,645 km), Georgia (723 km), Kazakhstan (6,846 km) and Ukraine (1,576 km). As of September 2006, there were six rail border-crossing points to Belarus and seventeen to Ukraine.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

Road projects that were envisaged for completion by 2010 include the following:

- “Chujsky trakt” (Motorway 52/A-4: Novosibirsk – Barnaul – Tashanta – border with Mongolia) to become the main route connecting the Siberian federal district region with other parts of the Russian Federation and China;
- Highway “East” Khabarovsk – Nakhodka (length: 824 km of which 342 km are already operational);
- Highway Khabarovsk – Lidoga – Vanino (length: 527 km; construction of section Lidoga – Vanino already started and 24.4 km operational; investment volume USD 145 million).

Rail projects envisaged by the Russian Railways between 2007 and 2010:

- Development of routes linking the Kuznetsk coal basin with the Far East, the Azov Sea and Black Sea, and with transport hubs in the northwest (US$ 4.5 billion)
- Construction of the Berkakit - Tommot - Kerdem (Yakutsk) line by 2010 (US$ 0.1 billion in 2006-08)
- Reconstruction of the Mga-Gatchina - Veimarn - Ivangorod line and the rail approaches to ports along the south coast of the Gulf of Finland (US$ 1.0 billion in 2006-10)
- Improving the rail approaches to Ust-Luga (US$ 0.37 billion)

New proposed transport infrastructure projects of international importance and related investment costs

The Russian Federation proposed seventeen projects of international importance with an estimated total cost of 72565 million USD, to be completed within year 2015. These mainly involve the construction and reconstruction of road sections between Moscow and Border with Belarus, Border with Ukraine, Novorossiysk, Chelyabinsk, Astrakhan, Ufa, Archangelsk, and St. Petersburg. Other projects include the following:

- Construction and reconstruction of the road M-10 "Scandinavia" - from St. Petersburg via Vyborg to the border with Finland
- Reconstruction of the road M-18 "Cola" - from St. Petersburg via Petrozavodsk, Murmansk, Pechenega to the border with Norway (international automobile border crossing point “Borisoglebsk”)
- Construction and reconstruction of the road M-21 Volgograd - Kamensk-Shakhtinsky to the border with Ukraine (in the direction of Kiev, Chisinau)
- Construction and reconstruction of the road M-23, Rostov-on-Don - Taganrog to the border with Ukraine (in the direction of Kharkov, Odessa)
- Reconstruction of the road M-32 Samara - Big Chernigovka to the border with the Republic of Kazakhstan (Uralsk, Aktyubinsk, Kyzyl-Orda, Chimkent)
- Construction and reconstruction of the road M-51, F-53, M-55 "Baikal" - from Chelyabinsk via Kurgan, Omsk, Novosibirsk, Kemerovo, Krasnoyarsk, Irkutsk, Ulan-Ude to Chita
- Construction and reconstruction on the road M-60 "Ussuri" - from Khabarovsk to Vladivostok
- Reconstruction of the highway A-229 Kaliningrad - Chernyakhovsk - Nesterov to the border with the Republic of Lithuania (in the direction of Vilnius, Minsk, road "Belarus")
- Reconstruction of sections of the road 1P 242 Perm – Yekaterinburg
- Construction and reconstruction of the road M-52 “Chuysk Tract- from Novosibirsk via Biysk to the border with Mongolia

With regard to the rail sector twenty three rail projects of international significance were proposed:

- Construction of third track in passage Lyangasovo – Kotelnich
- Construction of third track in passage Perm – Chaikovskaya
- Construction of third track in passage Tumen – Voinovka
- Reconstruction of Saint Petersburg railway junction
- Construction of side track in the passage Vyborg-Pass. – Buslovskaya
- Construction of by-road around Saratov junction

- Construction of side track in Saratov – Petrov Val passage
- Construction of side track in the passage Enem – Krivenkovskaya
- Construction of side track in the passage Enem (Afipskaya) – Krimskaya
- Construction of by-road around Krasnodar junction
- Construction of third rail-tracks in the passage Voskresensk – Ryazan
- Construction of third track in the passage Likhaya – Rostov
- Electrification of Rtishevo – Kochetovka passage
- Construction of side track in the passage Akhtuba – Trubnaya
- Electrification of Trubnaya-Aksarayskaya passage
- Construction of third rail-tracks in the passage Bekasovo – Nara
- Construction of special passenger high-speed backbone Moscow – St. Petersburg
- Reconstruction of line Moscow – Krasnoye for organization of high-speed passenger traffic
- Construction of the third main track in the section Kosulino – Bogdanovich
- Construction of the second main track in the section Kharanor – Zabaykalsk
- Construction of the second main track in the section Volgograd – Akhtuba
- Construction of the second main track in the section Murmansk – Apatity, Segeja – Medvejia Gora
- Construction of the second main track in the section Krymskaya – Vyshesteblevskaya

In addition to the above, the Russian Federation envisages projects for five major ports aimed at increasing annual throughput, namely Ust-Luga Sea Port, St. Petersburg Sea Port, Murmansk Sea Port, Vostochny Sea Port and Novorossiysk Sea Port.

Finally, five intermodal terminals projects are proposed, of total cost 17240 million USD, which have committed funding. These include the:

- Comprehensive Development of Murmansk Transport Hub Project
- Comprehensive Development of Vostochny – Nakhodka Transport Hub Project
- Comprehensive Development of Novorossijsk Transport Hub Project (Krasnodar region)
- Multimodal transport and logistics hub “Rostov Universal Port” development project
- Construction of the Sviyajsky interregional multimodal logistics center (Republic of Tatarstan)

Tajikistan

Tajikistan, a landlocked country and mountainous territory, has one of Central Asia's least developed transport sectors and one the world's highest transport costs. Since 2000, Tajikistan has dramatically improved its transport infrastructure due to the rapidf growth of regional trade—especially with the PRC and other Central Asian countries.

The Tajikistan country partnership strategy for 2010–2014 aims to reach the goal of meeting soaring demand by developing transport infrastructure, building human capacity, and achieving good governance. In addition, the country is actively participating in the Central Asia Regional Economic Cooperation (CAREC) Program. To this end, Tajikistan has developed a national transport sector master plan with the assistance of the Asian Development Bank (ADB), supportive of CAREC’s Transport and Trade Facilitation Strategy (2008–2018) and Tajikistan’s national development program.

Road transport

The Tajik road system covers 27,767 km with a road density of 194 km per 1,000 km^2. The Ministry of Transport and Communications (MOTC), Tajikistan's central governing body for the transport sector, has jurisdiction over roughly 14,000 kilometers (km) of the country's road network. About 29% of these roads are paved in asphalt

The EATL road network in Tajikistan covers four major routes on three international roads (AH7, AH65, AH66) with a total length of 1,924 km:

- Tursunzade (border to Uzbekistan) to Kofirnigan;
- Kofirnigan to border of Kyrgyzstan;
- Kofirnigan to Kulma Pass (border of China);
- Chavast (border to Uzbekistan) to Nihiniy Panj (border to Afghanistan).

The major part is within the TRACECA corridor, except for the sections "Nizhiniy Panj to Afghan border" (0.2 km) and "Murgab to Kulma Pass" (91 km). The current physical status of the AH network (141,000 km, 32 countries) with a missing link (no road) of 100 km indicates that 33 km of that missing link are located on AH66 in Tajikistan.

Rail transport

The railway network covers 951 km and has one of the lowest densities in the Central Asian region mainly due to topography constraints.
Railways carry 50% of Tajikistan's exports and imports. There are three domestic networks: northern, central, and southern. The northern line dominates freight transit traffic, the central line is mainly for imports, and the southern line has a low volume of freight traffic.
Apart from the topography, restricted network interconnectivity, too-few and aging rolling stock and locomotives, and a heavy dependence on Uzbekistan and Turkmenistan railway systems, hinders the expansion of the railway network.

Sea ports and inland waterway ports

Tajikistan is a landlocked country; nevertheless a small volume of transport on the 200 km of inland waterways occurs along the Vakhsh River.

International border-crossing points (road and rail)

The following border-crossing points are operational:

- Afghanistan (1,206 km): Nihiniy Panj, Ashkasham (both road);
- China (414 km): Kulma Pass (road);
- Kyrgyzstan (870 km): Oktajabr'sk, Bekabad (both rail);
- Uzbekistan (1,161 km): Tursun-zadeh (road), Ajvadz (rail), Chavast (road), Sughd Oblast ("Navruzobod").

In detail, the "Bratsvo" international checkpoint facility at Tursun-zadeh is fully equipped with computers and passport readers allowing transmission of information on border crossing to all applicable Tajik agencies. According to the EU's Border Management Programme in Central Asia, border-crossing points on the Tajik-Afghan border at Darvoz, Tem and Ishakashim are currently under construction, with new buildings that encourage inter-agency cooperation and facilitate trade and transit whilst enhancing border security.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

The Government has adopted an ambitious Programme of the Tajik transport development by 2015 that focuses on the development of international transport corridors.
With regard to road transport, the government needs to take the following actions:

In the short term (2011–2015):

(i) Rehabilitate CAREC corridors.
(ii) Increase maintenance funding.
(iii) Improve road data collection and compilation.
(iv) Improve efficiency with unbundling, privatization, mechanization, and quality control.
(v) Introduce systematic road-user charges, based on the costs of vehicular road damage
(vi) Simplify and harmonize border-crossing requirements.

In the medium term (2016–2020):
(i) Continue rehabilitating international corridors and start rehabilitating key national roads.
(ii) Improve and complete connections to the PRC.

In the long term (post 2020):
Complete the rehabilitation of international and national roads, and gradually expand investment to local roads.

With regard to the railway sector, the following actions are envisaged:

In the short term (2011–2015):

(i) Rehabilitate the existing assets (wagons, coaches, and locomotives); and repair facilities, tracks, and quarries.
(ii) Explore better provisions for the existing traffi c base of Tajik Railways, particularly for international and Uzbek transit traffi c.
(iii) Set up business development and planning units.
(iv) Prepare for containerization and multimodal traffi c.
(v) Create a database for use by Tajik Railways and MOTC, including
    (a) comprehensive track inventory and condition surveys, with regular updates; (b) passenger travel and cargo shipments, by origin and destination; (c) cost-accounting information by service and line section; and (d) regional development and expansion.
(vi) Corporatize railway operations.

In the medium term (2016–2020):

(i) Continue to rehabilitate existing infrastructure and modernize rolling stock.
(ii) May subsidize selected railway lines that have high social importance.

In the long term (post 2020):

(i) Expand major railway lines, depending on committed regional development programs that involve sections of the domestic rail network.
(ii) Privatize Tajik Railways.

New proposed transport infrastructure projects of international importance and related investment costs

Tajikistan submitted twelve projects that along EATL routes, with total cost of 627 million USD , The road projects that are planned to be completed with 2011 included the reconstruction of existing sections, as well as the construction of new roads:

- Reconstruction of the road Dushanbe-Kulma, section Dushanbe-Dangara
- Construction of the tunnel Chormagzak
- Construction of the road Shagon-Zigar Phase 2
- Reconstruction of the road Kurgantyube - Dusti
- Reconstruction of the road Dusty-Nizhniy Panj Phase 2
- Reconstruction of the road Dushanbe - border with Uzbekistan (Project CAREC III)
- Restoration of the road Gulistan - Parhar - Panj-Dusti

Two railway projects along EATL routes were proposed, which required foreign investement:

- Improving the railway section Bekabad-Kanibadam

Modernization of the cargo terminal railway station Dushanbe 1, which has been privatised.
In addition to the above projects, several other were proposed along routes of national importance. Finally, the creation of logistic centers in the country is envisaged with a total cost of 20 million USD. Currently, with the assistance of the TRACECA Program, the feasibility study of the Logistic Center "Nizhniy Panj" was developed with an estimated cost of 13.3 U.S. dollars. Nevertheless, it is in need of attracting foreign or domestic investment.

Sources: CIA World Factbook,
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<http://bomca.eu-bomca.org/en/taj>,
<http://dushanbe.usembassy.gov/pr_012606.html>,
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ADB, TRANSPORT AND COMMUNICATIONS, 2011

The former Yugoslav Republic of Macedonia

Contribution of transport to the GDP in 2009 is 7,9%.

Road Transport

Road infrastructure in the former Yugoslav Republic of Macedonia (fYRoM) in 2009 includes 8024 km of paved roads. 224 km are motorways. The length of the E-roads is 553 km. The EATL road network in fYRoM is 553 km in length and consists of the following highway roads:

E-75 Serbian border crossing - Tabanovce - Kumanovo- Miladinovci - Petrovec - Veles - Negotino - Gevgelija - Bogorodica - Idomeni (Greece) (part of Corridor X) and E-871, E-65 Bulgarian border crossing - Deve Bair - Kriva Palanka - Kumanovo - Skopje - Tetovo - Gostivar - Kicevo - Struga - Albanian border crossing (part of Corridor VIII. There is a bottleneck on the corridor X highway in the section consisting of 1+1 lanes.

Rail Transport

Rail network is not fully completed along corridors X and VIII. In 2009 there were 696 km of rail track. 233,5 km were electrified and 466,1 km were non electrified.

Rail line from Tabanovce-Kumanovo-Skopje-Veles-Gevgelija-Bogorodica is part of Corridor X along EATL network in FYRoM, and from Deve Bair-Kriva Palanka-Beljakovce-Kumanovo-Skopje-Kicevo-Struga it is part of Corridor VIII along Eatl network. This rail corridor is fully electrified in length of 214,9km. The track along all rail lines in FYRoM has the standard gauge (1,435mm). Missing links on corridor VIII are from Kumanovo to Bulgarian border and from Kicevo to Albanian border. Bottlenecks on the railway tracks occur at those locations where the speed of movement is minimum as a result of geometric characteristics of the rail lanes.

The state-owned railway company in 2007 was split into two companies: one responsible for rail infrastructure and other responsible for rail operations.

International Border Crossing Points (road and rail)

The fYRoM has four international border crossing points on the road infrastructure along Corridor X (Tabanovce-border with Serbia, Bogorodica-border with Greece, and Corridor VIII (Deve Bair- border with Bulgaria and Kafasan-border with Albania). Rail border crossing points are on corridor X (Tabanovce-border with Serbia, Bogorodica-border with Greece). Average waiting times range from 30 minutes for passenger trains to 90-120 minutes for freight trains.

Freight Terminals

There are no freight terminals in the fYRoM. Underway is a tender procedure for preparation of a study for development of strategic multi-modal transport nodes, which is supposed to be completed in 2013.

Ongoing and planned transport infrastructure projects of international importance

There are ongoing and planned transport infrastructure projects of international importance. Some of them are:
Works are underway for upgrading to the level of motorway the section of Corridor X from Tabanovce (Border with Serbia) to Kumanovo of 7,5km in length, and total cost of 15,5 mil. Euros. This section is going to be completed until September 2011.
It is planed to finish the last section of the highway within the corridor X from Demir Kapija to Smokvica of 28,2km in length.

On corridor X a new modern traffic signalization will be introduced in total value of 5,5 mil Euros within the period 2012-2013.

There are also other planed activities covering the road infrastructure including construction of new highways from Kriva Palanka (border with Bulgaria)-Romanovce in length of 60 km and from Gostivar-Struga (border with Albania) in length of 128 km which are to be financed by concession.

These activities in next period also include reconstruction of part of the highway on the section Katlanovo-Veles on corridor X in both directions, in the period 2012-2014, and there also will be construction of new highways which are not part of the corridors along EATL routes.

Other planed rail infrastructure projects include renewal of rail sections on corridor X in length of 54 km in terms of improving a safety and increasing the speed on some sections to max 120 km/h by the end of 2013. Planed activities also include renewal with reconstruction of the Railway Section Bitola-Kremenica (Border with Greece), as part of Corridor X, Branch Xd in total cost of 9 mil. Euros. Other planed activities are rehabilitation of the biggest Rail stations along corridor X in cost of 8,9 mil. Euros. On corridor X, there will be Supply and Installation of Equipment for European Train Control System (ETCS level 1) in cost of 3,0 mil. Euros**.** Planned activities for corridor VIII are: Construction of new Rail line from Kriva Palanka (Border with Bulgaria) to Beljakovce in length of 60 km, Construction and reconstruction of existing railway line from Beljakovce to Kumanovo in length of 29 km and Preparation of Detailed design and tender documentation for construction of a new Railway Section from Kicevo to Border with Albania.

Challenges that face transport and transport infrastructure

Modernization of pay toll system with introduction of integrated system for toll collection on five existing stations and construction of four new stations with equipment for electronic toll collection system which is planed to be implemented in the period 2012-2016 on corridor X. Another challenge is to construct modern roads (transformation of the state roads in modern highways with two 2+1 lanes) which are not part of corridor X and VIII but they are of high importance for the road networking.

We are facing also challenges in the Rail infrastructure by our plans for improvement and modernization of the rail lines along corridor X and VII (on EATL Routes), reconstruction and modernization of Railway Stations and modernization of the rolling stock and introduction of new electronic equipment.

Turkey

Road transport

The General Directorate of Highways administers 64,865 km of roads, including 2,080 km of motorways. Road is the dominant land transport mode, accounting in 2009 for 89.3 per cent of passenger-km (pkm) and 88.8 per cent of tonne-km (tkm). The length of the state and provincial road network is 62,785 km. In recent years, road surfaces have been considerably improved, and some roads have been widened. The motorways and two bridges across the İstanbul Strait are toll paying.

Rail transport

The total rail network is 11,940 km and characterised by mountainous terrain, tight curves and steep gradients. The total length of the main lines is 8267 km. 69 per cent of the main lines are single-tracked and 26 per cent are electrified. Rail plays a relatively modest role in inland transport, accounting in 2009 for 1,7 per cent of pkm and 5,4 per cent of tkm. The loss-making state railways, TCDD, own all lines. Only a few suburban lines are commercially successful, while services in the less developed eastern part of the country have been operated at a loss. TCDD runs major sea ports in Turkey that are generally State owned. TCDD also operates the following international trains:

- H.Paşa – Almaty (Kazakhstan) block container train,
- H.Paşa-Tehran-Islamabad block container train,
- Cologne-Köseköy train,
- Halkalı- Sopron container train,
- Çukurhisar-Vienna block train (container and conventional wagons),
- Halkalı-Vienna, Sopron block container trains,
- Halkalı - Ljubljana block container train,
- Halkalı- theCzech Republic conventional block train
- Cologne -Derince conventional block train

A number of planned projects aim to increase the role of railways. Branch lines are being built to industrial zones in order to increase the share of railways in freight transport. Since 2002, number of branch lines has reached to 326 from 281.

In passenger transport, high-speed railways are getting more important. Within this framework, construction works of a high speed railway line between the two biggest cities in Turkey, İstanbul and Ankara, is continuing. High-speed trains reaching 250 km/h speed will decrease the travel time between İstanbul and Ankara from 7 hours to 3 hours. Through the integration of this project with the Marmaray Project which will connect Europe and Asia through a tube-tunnel crossing under the Istanbul[143] Strait, passengers would have the opportunity to travel from the middle of Turkey to the middle of Europe uninterruptedly. Operation of high-speed trains has already begun on the Ankara-Eskişehir route which is an important part of the whole Ankara-Istanbul high-speed-line, on March 2009. Furthermore, other high-speed railway lines on Ankara-Konya and Ankara-Sivas are being constructed; and it is planned that construction works of high-speed lines on Ankara-Bursa and Ankara-İzmir routes would start at the end of 2011.

Since the track gauge is different in Turkey (1,435 mm) and EECCA countries (1,520 mm), during transport to these countries either the axles of wagons are changed or the goods are transferred to EECCA wagons. One exception is provided by the ferry link between the ports Derince (Turkey) and Ilyichevsk (Ukraine) that permits EECCA wagons to be loaded with freight in Turkey, bypassing the break in gauge. Also, a bogie exchange station was constructed on Samsun Port and demonstration train-ferry runs between Samsun Port and Kavkaz Port (Russian Federation) were started on December 2010.

Sea ports and inland waterway ports

Sea transport is important for domestic and international trade and travel, with three of Turkey's major industrial agglomerations (Istanbul-Izmit, Izmir and Adana-Mersin) located on the coast. The share of maritime transport in merchandise trade is almost 90 per cent by volume and 50 per cent by value. The ports of Derince, İskenderun, Haydarpaşa and İzmir operated by TCDD - Turkish State Railways - are important parts of the EATL network. Mersin, Samsun and Bandırma Ports (priorly operated by TCDD) were privatised. All of them are well connected to

[143] For further clarification on the subject please consider official communications received by the governments of the Russian Federation and Turkey as well as the extract of document ECE/TRANS/SC.2/GEURL/2011/9 of the Working Party on Rail Transport Group of Experts towards Unified Railway Law, Report of the Group of Experts on its second session Geneva, held on 7 October 2011 (this can be found at the end of this document).

railways and roads. The privately owned port of Trabzon is also an EATL facility but has no railway connection while having effective road connections.

Major Turkish ports have active ro-ro and train-ferry connections with some important ports in Italy, Ukraine, Russia, Slovenia, Algeria, Egypt, Georgia.

Inland water transport of freight is of marginal importance. Lake Van is the only part of the EATL inland water system in Turkey. The train ferry operating on the lake is an essential link in an EATL rail route connecting South-East Europe to Iran.

Freight terminals and other intermodal transport infrastructure

Logistic Centres, which are accepted as the heart of modern freight transport, are being constructed in Turkey as well. On 16 different locations (being close to organized industrial zones and having a high freight potential) namely İstanbul, İzmit (Köseköy), Samsun (Gelemen), Eskişehir (Hasanbey), Kayseri (Boğazköprü), Balıkesir (Gökköy), Mersin (Yenice), Uşak, Erzurum (Palandöken), Konya (Kayacık), Denizli (Kaklık) ve Bilecik (Bozüyük), Kahramanmaraş (Türkoğlu), Mardin, Kars and Sivas, modern logistic centres are being constructed.

Apart from TCDD ports, there are container terminals in Halkalı, Başpınar (Gaziantep) and Bozüyük. Halkalı has a container handling capacity of 400 TEU/day.

International border crossing points

There are two road border crossings with Bulgaria (one of them for freight only), one with Georgia and one with Iran. All of them operate around the clock. Average waiting times range from 20 to 30 minutes for private cars, 1 to 8 hours for buses and 20 minutes to 2 hours for trucks.

There are three rail border crossings. On the border with Bulgaria, the average waiting time amounts to 75 minutes for freight trains and for passenger trains average waiting time is planned to be between 70 to 95 minutes. On the Iranian border, the average waiting time for freight trains is 156 minutes and for passenger trains average waiting time is planned to be 95 minutes. The border crossing with Armenia remains closed.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

In the road sector, five projects with a total cost of 800 million USD are still on-going and planned to be completed by 2014. The on-going projects are parts of a bigger project developing an important existing road connection (Gerede-Koyulhisar) on EATL Route-5 connecting Europe with Iran.

There are seven ongoing projects with regard to the rail sector. The estimated aggregate cost of these projects amounting to approximately 20 billion USD. Five projects are under construction. Two projects are still at the planning stage with no funding secured. Railway projects include the high-speed railway connections of Ankara-İstanbul, Ankara-Sivas, Ankara-İzmir, new railway connection of Kars-Tbilisi-Baku and Lake Van Northern Crossing.

There are four on-going and planned port projects regarding rehabilitation and modernization of Derince, İzmir, Mersin and İskenderun ports.

New proposed transport infrastructure projects of international importance and related investment costs

A number of proposals for new infrastructure road projects have been reported. These include works on the Ankara-Eregli Junction Motorway, the Izmit-İzmir Motorway, and the North Marmara Motorway with a total cost of 12.5 billion USD. According to information available, these were assigned to Category II.

Two new rail projects were submitted with a total cost of approximately 4 billion USD. One of these projects (Adapazarı-Bartın) was assigned to Category II and the other one (Bandırma-İzmir) was assigned to Category III.

Three new port construction projects namely Mersin Container Port, Filyos Port and Çandarlı Port were reported. These three projects are on the EATL routes and are expected to be major ports in respectively Mediterranean Sea, Black Sea and Aegean Sea. The total expected cost of these projects is approximately 6.3 billion USD. Çandarlı Port Project was assigned to Category I, Filyos and Mersin Container Port Projects were assigned to Category II.

Altogether, Turkey has submitted twenty-four EATL projects for evaluation. Fifteen of these projects were assigned to Category I, six of them were assigned to Category II, one of them was assigned to Category III and two of them were assigned to Category IV.

Turkmenistan

By virtue of its geographical location, history, and economic circumstances within the region of Greater Central Asia, Turkmenistan should be a major crossing point for both regional and continental transport. The new century witnessed important changes both within Turkmenistan and in Turkmenistan's relationship to issues of transport and trade. In 2006, the government announced its intention to redouble its efforts to integrate its highway and railroad systems more closely with continental east-west routes across Iran, and to begin by upgrading its main roads to both Afghanistan and Iran.

Road transport

In 2001, Turkmenistan had an estimated 22,000 km of roads, about 18,000 km of which were paved. One major highway runs westward from Mary, along the Iranian border through Ashgabat and then to Turkmenbashi on the Caspian Sea, while a second runs northwestward from the Afghanistan border through Turkmenabat, along the Uzbekistan border to Dashhowuz. In the early 2000s, major road-building projects improved sections of the highway connecting Ashgabat with Turkmenbashi and Mary.

Rail transport

In 2005, Turkmenistan had 2,440 km of railroad line, most of which runs close to the northern and southern borders. The Tejen–Serakhs–Mashhad railroad, built in 1996 by Turkmenistan and Iran, has become a vital link of Central Asian, Russian, and European railroad systems with South Asia and the Persian Gulf. In February 2006, the final construction phase began on the Trans-Garagum Railway, a direct link between Ashgabat and Dashhowuz that would halve travel time between the southern and northern borders.

Sea ports and inland waterway ports

The main port is Turkmenbashi on the Caspian Sea, with the main shipping lines crossing the Caspian to Astrakhan in Russia and Baku in Azerbaijan. Smaller Caspian ports are Alaja, Chekelen, and Ekarem. Plans call for expansion of Ekarem into a second major Caspian port.

The main inland waterways are the Amu Darya River, which runs along the northern border, and the Garagum Canal, which runs from east to west from the Amu Darya near the Afghanistan border through Mary and Ashgabat to Turkmenbashi on the Caspian coast. The 1,400-kilometer canal, designed mainly for irrigation, is navigable for 450 kilometers from its Caspian terminus. Because water is withdrawn for irrigation, the Amu Darya is navigable only about 250 kilometers downstream from the Afghanistan border to Turkmenabat.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

Turkmenistan's participated in the six-country (Afghanistan, Iran, Pakistan, Tajikistan, Turkmenistan and Uzbekistan) Central-South Asian Transport and Trade Forum (CSATTF). This undertaking was expected to reopen a series of road corridors centering on northwestern Afghanistan at a cost of $5.7 billion, which would come mainly from international donors.

Turkmenistan joined recently the Central Asia Regional Economic Cooperation (CAREC). To this end, Program Improvements in selective important regional transport infrastructure, which is a part of CAREC corridors, with other IFIs or key bi-lateral donors, including key Caspian Sea port infrastructure projects.

It was also proposed to implement the project of construction of a railway line from Turkmenistan to Afghanistan with a view of extending it onward in the territory of Afghanistan. The project entails the construction of the 85-km section Atamyrat-Imamnazar in the territory of Turkmenistan.

Sources:
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http://www.andrewgrantham.co.uk/afghanistan/3745/turkmenistan-to-afghanistan-railway-discussed/

Ukraine

On the October 20, 2010 the Cabinet of Minisers of Ukraine has adopted the “Transport Strategy of Ukraine for the Period of up to 2020”, which identifies the main priorities of the development of all modes of transport.

According to the State Statistics Committee of Ukraine in 2009 the share of the transport in the GDP stated 11.3%

Road transport

As of 2010 the share of freight road transportation is 72.698%. The infrastructure includes 169.5 thousand km of roads (category III or higher), including 20.1 thousand km of state priority, 149.4 thousand km – are of regional priority and total amount of bridges – 16.2 thousand units. The State Program of the Roads Development for the Period of 2012-2016 is adopted now. It corresponds with the main EATL routes and the Priority road network of Ukraine connecting the TEN-T. The main routes are in the map attached.

Rail transport

Rail is still a significant domestic mode of transport for freight, although road transport now accounts for a larger (and increasing) share of the total. If consider the tone/km indicator – the rail cargo transportation can have lager share. Nevertheless, in 2010 the share of rail cargo transportation stated 26,629%. Operational length of the railways is 21.68 thousand km, which include the electrified lines – 9.85 thousand km. Railways are operated by the State Railway Administration of Ukraine, which consist of 6 regional railways. Railway car park includes 121.3 thousand freight cars and 7.3 passenger coaches. The main routes are in the map attached.

Sea ports and inland waterway ports

There are 18 sea commercial ports situated in the Black Sea, Azov Sea and Danube basins. There are also 4 fishing ports, 13 private transhipment complexes and 12 river ports operating in Ukraine. The length of the largest European river waterways Danube and Dnepr is 2.2 thousand km. All ports are developing according to the Program of the Development of the Port, which is adopted for each port separately.

International border crossing points.

There are 148 international border crossing points are operating in Ukrainian border, which include 57 automobile, 34 rail, 29 sea, 24 air, 3 river and 1 ferry border crossings. They are mostly 24 hour operation.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

The infrastructure development is realized according to the Development Programs of different modes of transport. The Program of the Development of International Transport Corridors for the period of 2006-2010 is finished and showed the indicator of 1 394,2 million EURO of investment, including 201,3 million EURO of state budget.

There is a cooperation with IFIs, for instance the credit portfolio of investment projects of EBRD 2 467,6 million EURO, which include the credit investment of 1 129,4 million EURO.

The credit portfolio of investment projects of IBRD 386,5 million EURO, which include the credit investment of 298,5 million EURO.

The credit portfolio of investment projects of EIB 1 721,4 million EURO, which include the credit investment of 650 million EURO.

New proposed transport infrastructure projects of international importance and related investment costs

There are 4 investment projects proposed for the investments, which are attached. Total amount of investments is 1568,85 million EURO. The description of the projects is attached.

Uzbekistan

Road transport

The road system in Uzbekistan covers an estimated length of over 183 thousand km with a road density of 409 km per 1,000 km^2. The EATL networks spans 3,626 km along AH5, AH7, AH62, AH63 and AH65.

Rail transport

The railway network covers 4,230 km and provides a rail density of 13,5 km per 1,000 km^2. Freight services amount to 23 billion tonne-kilometres per annum. The EATL network spans approximately 2,154 km (excluding shared route sections) on the following routes:

- Keles to Karakalpakiya (1686 km);
- Keles to Hodjadavlet (732 km);
- Havast to Bekabad on the route from Karakalpakiya to Osh (Kyrgyzstan) 33 km;
- Karakalpakiya to Termez port (1732 km).

Sea ports and inland waterway ports

Uzbekistan, being a landlocked country, shares the southern portion of the Aral Sea with a 420 km shoreline. The inland port on the Amu Darya river Uzbekistan operates at Termez. The waterways within the country add up to 1 000 km in length.

Freight terminals and other intermodal transport infrastructure

Overall eight inland container depots, intermodal freight terminals (rail/road) and freight villages/logistics centres operate along the EATL: Chukursai, Tashkent, Sergeli, Ulugbek (Samarkand), Termez, Margilan, Bukhara-2 and Andijan (northern). The general opening hours are from 8 a.m. to 8 p.m. every day.

International border-crossing points (road and rail)

Uzbekistan operates border-crossing points along the border with the following countries:

- Afghanistan 137 km: Galaba, Termez, Amuzang (all rail), Hayraton (road);
- Kazakhstan 2,203 km: Karakalpakiya and Keles (rail), Karakalpakiya and Yallama (road);

- o Kyrgyzstan 1,099 km: Savay, Sultanobod, Xonobod, Uchkurgan (rail), Dustlik (road);
- o Tajikistan 1,161 km: Bekobod, Suvanobod/Andarhon, Amuzang, Kudukli/Uzun (rail), Gulbahor, Sariasiya, Djartepo, Aybek, Andarhon (road);
- o Turkmenistan 1,621 km: Nishon, Pitnyak, Hodjadavlet, Hodjeyli, Alat (rail), Hodjeyli and Alat (road).

As of 2010, 158 customs points were operational. Out of these 26 are mobile customs points, 13 are rail border-crossing points, 49 are road border-crossing points and one is a river border crossing. 58 customs points are dedicated to “foreign economic relations”.

Ongoing and planned transport infrastructure projects of international importance and related investment costs

Currently six infrastructure projects (four concerning rail and two concerning road infrastructure) of international importance are undertaken.

The following railway projects with costs of US$ 430.2 million are under way:

- Organization of high speed passenger trains traffic on Tashkent-Samarqand route (cost of US$ 76.7 million);
- Construction of fiber-optic line on Navoi-Uchkuduk 2-Misken-Nukus-Kungrad-Karakalpakiya route;
- Installation of centralized control and auto-lock equipment of station on the Navoi-Uchkuduk 2-Sultanuizdag-Karakalpakiya route (both projects with total cost of US$ 19.2 million);
- Construction of double-track electrified railway line Yangiyer-Djizzakh (cost of US$ 334.3 million).

The following road projects with costs of US$ 782.5 million are under way:

- Program of multi-tranche financing. «Project of development of regional roads. Phase I» with ADB (cost of US$ 182.5 million);
- Program of multi-tranche financing. «Project of development of regional roads. Phase II» with ADB (cost of US$ 600 million).

New proposed transport infrastructure projects of international importance and related investment costs

In addition to the ongoing infrastructure projects, Uzbekistan has proposed one project with a medium and two projects with a long-term perspective on implementation:

- Electrification of Marokand-Karshi railway line (until 2014);
- Electrification of Marokand-Navoi-Bukhara railway line (until 2018);
- Electrification of Karshi-Tashguzar-Baysun-Kumkurgan-Termez railway line (until 2017).

On December 21st, 2010 was adopted Program of accelerated development of infrastructure, transport and communications construction in 2011-2015 which envisages construction and reconstruction of the sections of the Uzbek national highway with total length of

2306 km and road infrastructure facilities and services (240 units), upgrading of 1,030 km of railway tracks, renewal of the vehicle fleet of intermodal logistics centers (212 units) etc.

Total amount of foreseen investment for 2011-2015 (excluding communications sector) exceeds US$ 5.6 billion including foreign investment and loans of US$ 2.1 billion.

The Program envisages accelerated implementation of projects to establish a unified national automobile transportation system, connecting all regions of republic, expansion of construction and reconstruction of sections of four-lane roads that are part of the Uzbek national highway with application of a modern cement concrete and asphalt pavement technologies meeting the highest international standards, development and modernization of railway transport, reconstruction of railways, construction and commissioning of high-speed Tashkent-Samarkand railway line, electrification of railway stations to the cities of Bukhara and Karshi, renewal of rolling stock with modern high-performance locomotives, freight and passenger cars etc.

ПОСТОЯННОЕ ПРЕДСТАВИТЕЛЬСТВО
РОССИЙСКОЙ ФЕДЕРАЦИИ
ПРИ ОТДЕЛЕНИИ ООН И ДРУГИХ
МЕЖДУНАРОДНЫХ ОРГАНИЗАЦИЯХ В ЖЕНЕВЕ

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MISSION PERMANENTE DE LA FEDERATION
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NATIONS UNIES ET DES AUTRES
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No 333

The Permanent Mission of the Russian Federation to the United Nations Office and other International Organizations in Geneva presents its compliments to the Secretariat of the United Nations Economic Commission for Europe and with reference to documents ECE/TRANS/SC.2/GEURL/2011/1 and ECE/TRANS/SC.2/GEURL/2011/1/Corr.1 has the honour to inform of the following.

The term "Istanbul Strait", proposed by Turkey for inclusion in the document ECE/TRANS/SC.2/GEURL/2011/1 does not appear in any international legal instruments and thus is unknown to international practice.

The Russian Federation suggests that the term "Bosporus Strait" should be retained in line 5 of the item 8 on page 4 of the document ECE/TRANS/SC.2/GEURL/2011/1 as well as in the "Inter-Governmental Document - EurAsia", which will be drafted by group of experts later this year. The term "Bosporus Strait" is used in the Montreux Convention Regarding the Régime of the Straits of 1936 and is widely recognized by international law.

The Permanent Mission avails itself of this opportunity to renew to the Secretariat the assurances of its highest consideration.

Geneva, June 14, 2011

Secretariat of the United Nations
Economic Commission for Europe

Geneva

Постоянное представительство России при отделении ООН и других международных организациях в Женеве

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T.C. DAİMİ TEMSİLCİLİĞİ

PERMANENT MISSION OF TURKEY
TO THE UNITED NATIONS
GENEVA

2011/BMCO/2319963

The Permanent Mission of the Republic of Turkey to the United Nations Office at Geneva and other International Organizations in Switzerland presents its compliments to the Secretariat of the UN Economic Commission for Europe and has the honor enclose herewith the statement made by the Turkish Delegation at the meeting of the Group of Experts on Unified Railway Law, held in Geneva on 7 October 2011, in response to the objection raised by the Russian Federation, on the "corrigenda" issued by the Secretariat, on documents ECE/TRANS/2011/3/ and ECE/TRANS/SC.2/GEURL/2011/1.

The Permanent Mission of the Republic of Turkey would highly appreciate if due consideration be given to the position of the Republic of Turkey reflected in this statement, in the drafting of the forthcoming documents of the Inland Transport Committee (ITC) and its subsidiary bodies.

The Permanent Mission of the Republic of Turkey avails itself of this opportunity to renew to the Secretariat of the UN Economic Commission for Europe the assurances of its highest consideration.

Geneva, 7 October 2011

Encl. 1

Secretariat of the UNECE
Transport Division

Fax: 0229170039

7 October 2011

STATEMENT OF TURKEY MADE AT THE MEETING OF THE GROUP OF EXPERTS ON UNIFIED RAILWAY LAW

"The use of the term "Turkish Straits" or "Straits of İstanbul and Çanakkale" has historical, political and legal justification, such as; respect for past and present general practice, due regard to Turkey's sovereign rights over this particular area and to its jurisdiction according to the established principles of international law. There is also a considerable accumulation of agreements and principles developed by the UN concerning the standardization of geographical names which states inter alia that when a geographical feature is completely within sovereignty of a country then official name given by the authorized national organization should be used in international documents.

Concerning the terminology in the 1936 Montreux Convention, it is useful to remind that Montreux was enacted only with the purpose of regulating navigation through the Straits. Turkey has been strictly implementing this Convention for 75 years and intends to do so in the future.

Beyond this purpose, however, Montreux does not purport to establish names for localities or States Parties for that matter. Otherwise, we would have been forced to refer to some signatory countries with names such as the Kingdom of Bulgarians, the King of the Hellenes, the Emperor of India or The Central Executive Committee of the Union of Soviet Socialist Republics without paying attention to the fact that only States themselves are authorized to determine how they are called and governed.

In fact, the term "Turkish Straits" or "Straits of İstanbul and Çanakkale" have been continously used in many international documents, including IMO and NATO resolutions and documents. A case in point is the Turkish Straits Regulations registered within IMO in 1994 and again in 1998."

Document ECE/TRANS/SC.2/GEURL/2011/9 of the **Working Party on Rail Transport Group of Experts towards Unified Railway Law, Report of the Group of Experts on its second session** held in Geneva on 7 October 2011 states the following:

> “11. The Group of Experts was informed about communications received from the Russian Federation and Turkey regarding the corrigenda to the UNECE position paper and the agenda for the first session of the Group (ECE/TRANS/2011/3/Corr.1 and ECE/TRANS/SC.2/GEURL/2011/1/Corr.1). The corrigenda, issued at the request of Turkey, had replaced the term "Bosporus" used in both documents by the term "Istanbul Strait". Referring to its communication to the UNECE secretariat on 24 June 2011, the representative of the Russian Federation stated that the term "Istanbul Strait" did not appear in any international legal instrument and was thus unknown in international practice. The Russian Federation, therefore, considered that the term "Bosporus Strait" should be retained in both documents, as this term was used in the Montreux Convention Regarding the Régime of the Straits of 1936 and was widely recognized by international law.
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> In response to the communication of the Russian Federation, the representative of Turkey made the following statement:
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> "The use of the term "Turkish Straits" or "Straits of Istanbul and Çanakkale" has historical, political and legal justification, such as; respect for past and present general practice, due regard to Turkey's sovereign rights over this particular are and to its jurisdiction according to the established principles of international law. There is also a considerable accumulation of agreements and principles developed by the United Nations concerning the standardization of geographical names which states inter alia that when a geographical feature is completely within sovereignty of a country then official name given by the authorized national organization should be used in international documents. Concerning the terminology in the 1936 Montreux Convention, it is useful to remind that Montreux was enacted only with the purpose of regulating navigation through the Straits. Turkey has been strictly implementing this Convention for 75 years and intends to do so in the future.
>
> Beyond this purpose, however, Montreux does not purport to establish names for localities or States Parties for that matter. Otherwise, we would have been forced to refer to some signatory countries with names such as the Kingdom of Bulgarians, the King of the Hellenes, the Emperor of India or the Central Executive Committee of the Union of Soviet Socialist Republics without paying attention to the fact that only States themselves are authorized to determine how they are called and governed.
>
> In fact, the term "Turkish Straits" or "Straits of Istanbul and Çanakkale" have been continuously used in many international documents, including IMO and NATO resolutions and documents. A case in point is the Turkish Straits Regulations registered within IMO in 1994 and again in 1998."
>
> 12. The Group of Experts agreed that the decision on the term to use with respect to this strait was outside the scope and mandate of the group. Moreover, the term in question was not included in the future IGD EurAsia. Therefore, the Group of Experts agreed to take note of the positions of the Russian Federation and Turkey and asked the secretariat to reflect both positions in the report of the meeting.”

The full Report is available at this web address:
http://www.unece.org/fileadmin/DAM/trans/doc/2011/sc2/ECE-TRANS-SC2-GEURL-2011-09e.pdf
http://www.unece.org/trans/main/sc2/sc2_geurl_02.html