The European Union's TACIS Action Programme 2004 – Central Asia
Promotion of Networks: TRACECA

Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan,
Republic of Turkmenistan, Republic of Uzbekistan

Development of Co-ordinated National Transport Policies

Republic of Kazakhstan, Kyrgyz Republic,
Republic of Tajikistan, Republic of Turkmenistan,
Republic of Uzbekistan

Reference: EuropeAid/122076/C/SER/Multi

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DEVELOPMENT OF THE COORDINATED NATIONAL TRANSPORT POLICIES

REPUBLIC OF KAZAKHSTAN, THE KYRGYZ REPUBLIC, REPUBLIC OF TAJIKISTAN, REPUBLIC OF TURKMENISTAN, REPUBLIC OF UZBEKISTAN

Pre-screening of existing logistic centres & cargo terminals and future needs assessment

REFERENCE: EUROPEAID/122076/C/SER/MULTI

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Abbreviations

ADB	Asian Development Bank
AIFU	International Forwarders Association
BOMCA	The European Union's Border Management Programme in Central Asia
BSEC	Organisation of the Black Sea Economic Cooperation
CA	Central Asia
CAR	Central Asia Republics
CAREC	Central Asia Regional Economic Cooperation (under ADB)
CIS	Commonwealth of Independent States
EBRD	European Bank for Reconstruction and Development
ESCAP	Economic Commission for Asia and the Pacific
EC	European Commission
EU	European Union
EURASEC	Eurasian Economic Community
EWG	Expert Working Group
FF	Freight Forwarders
FIATA	Fédération Internationale des Associations de Transitaires et Assimilés (International Federation of Freight Forwarders Associations)
GDP	Gross Domestic Product
HLG	High Level Working Group
IATA	International Air Transport Organisation
ICT	Information and Communication Technologies
IFI	International Financing Institution
IGC	Inter-Governmental Commission
IMO	International Maritime Organisation
IRF	International Road Federation
IRU	International Road Transport Union
KFFA	Kazakhstan Freight-Forwarders Association
LC	Logistic centers
LLDC	Landlocked Developing Countries
M&E	Monitoring and Evaluation
MLA	Multilateral agreement
MoFEA	
MoTC	Ministry of Transport and Communications
MoU	Memorandum of Understanding

NGO	Non-governmental Organisation
OSCE	Organisation for Security and Co-operation in Europe
OSZhD	Warsaw-based Committee for the Organisation for Cooperation between Railways
OTIF	Bern-based Intergovernmental Organisation for International Carriage by Rail
PETrA	Pan-European Corridors and the Black Sea Pan-European Transport Area
PPP	Public-Private Partnership
PRC	People's Republic of China
SCO	Shanghai Cooperation Organisation
SEZ	Special economic zone
SME	Small and medium enterprises
SMGS	Agreement on the International Carriage of Goods
SMPS	Agreement on International Carriage of Passengers
SPECA	Nations Special Programme for the Economies of Central Asia
STE	Short-term expert
TACIS	Technical Aid to the Commonwealth of Independent States
TEN-T	Trans-European Transport Network
TIR	Transports Internationaux Routiers
TLC	Transport logistics center
ToR	Terms of Reference
TRACECA	Transport Corridor Europe-Caucasus-Asia
UIC	Paris-based International Union of Railways
UN	United Nations
UNECE	United Nations Economic Commission for Europe
UNESCAP	UN Economic Commission for Asia and the Pacific
USAID	United States Agency for International Development
WTO	World Trade Organisation

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1 Executive summary

The mission of the freight and logistics short-term expert (STE) has covered Kazakhstan, Uzbekistan, Kyrgyzstan and Tajikistan. The mission started on 12 March and ended on 18 April 2008. The STE has visited the sites, met the national authorities, unions of operators and forwarders, road transporters, forwarding companies and the TRACECA National Secretaries.
In this report, the conclusions are presented under the following headings:

- Survey and analysis of existing or proposed freight terminals and LCs;
- National strategies for LCs;
- Benchmarking, comparisons, international experience - best practices;
- SWOT, multi criteria needs assessments;
- Conclusions on where/how to develop new, or upgrade existing, facilities;
- Proposals for further action (relating in particular to the forthcoming TRACECA Project on LCs); and
- EWG 2 on private finance, PPP and logistics.

1.1 Main findings, conclusions and recommendations

LCs is no more an unknown concept in Central Asia. In Kazakhstan there is already an LC in full operation ("Astana Contract" in the north suburbs of Almaty), while another one is under construction and partly operating ("DAMU Almaty") also located north of Almaty city centre. Kazakhstan is advanced compared to the other CAR in the development of its network of LCs, but there is no clear strategy yet or ad hoc legislation for freight forwarding (FF) and logistics, nor clear rules of how, where and who may develop LCs.

During the mission it was learnt that DAMU, a private investor, was starting the construction of a second LC in Astana on a greenfield site north east of the centre of the city, notwithstanding the administrative difficulties and the large number of permits required. DAMU was also planning a third LC of 240 ha at Aktobe, and another at Dostyk. "Astana Contract" was also planning to develop an LC in Astana and recently bought the land. **Note, however, that the recent economic downturn may have caused these development plans to be delayed. Indeed it is possible that there could be a degree of LC overcapacity at the present time in Almaty.**

In Kazakhstan, according to KFFA (ANEK), the terms logistics and logistics centers are not well understood yet. There is a lack of trained human resources - thus capacity building is needed with appropriate courses at the KFFA training centre or the universities. In addition the LCs referred to above do not operate as proper LCs offering the full spectrum of services - but mainly as warehouses and container yards.

Uzbekistan is also in the final stage of developing an LC in Tashkent, near Sergely Rail Station. The planning is done by Uzvneshtrans, a state company. However private capital is welcome for the development and operation, but the rules of participation are not set yet. Moreover, the very well organised Bukhara Cotton Terminal operates in Uzbekistan, which undertakes many of the functions of an LC, but is dedicated to one commodity. There are also two small LCs (KN Ibrakom and another for perishables) near Tashkent.

Tajikistan and Kyrgyzstan are significantly behind in LC development, but the need is widely recognised and strategic ideas are discussed. However, finance is missing and therefore many stages of development are needed. In these two countries retail trade is often done through bazaars (e.g. shoe imports from China or Turkey) which are sold directly from containers.

In general in the countries of the region one can identify:

- different levels of deregulation and liberalisation of the economy;
- different level of recognition by the respective governments of the benefits of LCs; and
- a lack of clear policies and legislation in FF and logistics.

Railways are a very important link in a logistics network. Railways were very strong in the old Soviet Union and there is much infrastructure especially in Uzbekistan and Kazakhstan left from its heritage that should be maintained and not neglected in comparison to road transport. The rail terminals need renovation in general and better road connections. Some rail terminals need parking and manoeuvring areas for trucks and warehouses. Some are congested (Chukursay and Almaty), but others are underutilised (Bishkek, Tovarniy). **This report distinguishes carefully between locations where upgrading of existing rail/road transfer terminals is necessary, and those where new, stand-alone LCs incorporating a wide range of facilities appear to warrant detailed consideration.**

Kazakhstan can be seen as the most advanced of the CAR in terms of developments in logistics, but training and capacity building is needed in all four countries.

The following gives some proposed locations but under the precondition that full feasibility study will be needed first.

- **In Kazakhstan** it looks reasonable to consider establishing logistics centres based at the following sites: Almaty (an additional two are possible but two exist already i.e. DAMU, „Astana Contract"), Astana more than one (DAMU, „Astana Contract" already proceeding), Atyrau (the nearest point to Europe along land transport corridors) or in Aktau where the development of the new city is planned to reach one million population in 2020; priority should be given to Dostyk station for rail and Chorgos for road transport due to the increase of transit traffic from China, and in other industrially developed regions of Kazakhstan such as Shymkent, Aktobe
- **In Uzbekistan** it is reasonable to consider establishing logistics centres based at the following stations: Sergely Tashkent (already in final design stage by Uzvneshtrans), Chukursay Tashkent (for Keles border) after careful consideration of the feasibility to upgrade the existing rail terminal; Termez (Trans-Afghan transport corridor), Bukhara or Navoiy (for Karakalpakiya and Hodjidavlet borders); Andijan (multimodal traffic on Andijan-Osh-Irkeshtam route) or Kokand for Fergana region; Nukus of lower priority, a third one in the Tashkent area due to high population and high traffic, being a junction of corridors
- **In Kyrgyzstan**: Bishkek, Osh, Issykul (Balykchy)
- **In Tajikistan:** Dushanbe (possible upgrading of the rail terminal), and/or Tursunzade border about 80 km from the capital Dushanbe, plus investigation of feasibility for one or more locations such as Khudjand, Kurgan-Tube, Khorog, Nijnipiang - to be developed at a later time.

1.2 Conclusions from best practices which should be taken into account

There are many international developers who finance, develop and operate LCs in developed or developing countries. The governments of CAR should aim to attract such developers, in order to transfer the risk of spend for developing and operating LCs, to them (or share this risk with them), as the costs are high.

Significant benefits result from the development of LCs for the economy of the countries. The high employment in the LCs is a strong asset.

Multimodal transport and the railways play a crucial role in LC's operation. Even land locked countries in Europe, such as Austria and Hungary, act as hubs for international logistics, in order to serve transit traffic. Prerequisites are modern and well maintained transport infrastructure, modern LCs, good communications, high productivity, know-how and regularity in transport services.
The objective with LCs is to develop environmentally friendly ("green") facilities using energy self efficiency, energy saving techniques (solar walls) and recycling on site.

Many LCs have been developed on the edge of large cities in Europe. If proven feasible it may be appropriate to develop more than one LC on the periphery of big cities in Central Asia (e.g. Almaty, where already two LCs are operating) under the proviso that these existing LCs are operating at capacity, and that feasibility studies are conducted. LCs are also promoted in Europe to decongest cities and protect the environment.

However, as is emphasised in this report there needs to be a clear strategic, economic case made for logistics centres – mainly to handle international traffic flows. Construction of LCs should not be undertaken primarily to relieve congestion and environmental pollution in cities – there are many better and cheaper ways to deal with this issue.

1.3 Detailed feasibility study for LCs

The methodology which should be adopted in order to assess the feasibility of, and the preconditions for, developing the freight logistics centers includes the following steps.

Evaluation of the overall freight traffic within the range influenced by the logistics centre, and especially the freight that can be attracted to the logistics centre over different time horizons, through research, questionnaires, forecasts of similar studies and other data.

An assessment is needed of existing and possible future freight flows that are potential users of LCs if built – to/from which countries; by which corridors; which commodity types; which mode of transport and type of packaging/loading unit.

It will be important to undertake logistic centre network modelling for the freight forecasts using origin-destination data collected in the study, assignments to minimum cost/distance paths (given known constraints), and separation between door-to-door and break-bulk consignments. The objective is to estimate future point-to-point freight flows, by major commodity, mode of transport and type of loading unit that would be potential traffic for the logistic centres.

There is also a need to obtain the detailed views of truck operators, freight forwarders, consignors and consignees in each country on exactly where LCs are perceived to add value or reduce costs. Specific

evidence needs to be presented that the lack of LCs is restricting trade or making trade more expensive. This implies the need to specify exactly which particular links in the logistics chain are most under-developed in each CAR; and why the lack of particular services in existing facilities is causing problems in each country.

This report draws attention to the low existing freight traffic volumes in some CAR corridors. Whilst it is reasonable to assume that new LCs or upgraded rail/road transfer terminals may generate (or induce) a certain amount of new traffic, it would be imprudent to rely too heavily on this potential (or latent) traffic to justify implementation of high cost new LCs if the underlying strategic trade patterns are not likely to materialise – not at least until some considerable time in the future. The reasons for the relatively slow growth of containerised traffic in the region need to be taken into account.

It will also be important to assess whether or not use of LCs, in Kazakhstan for example, is being "forced" artificially to a certain extent, e.g. by urban truck bans; restrictions on movements by foreign vehicles; customs clearance/convoy regulations etc. For example, whilst it may be in a country's overall interest that customs clearance should be moved away from congested border posts and ports, policies and regulations relating to this may change over time. Moreover, truck operators may argue that they are already being delayed considerably at borders, at numerous check points en route (by police and others) and object to being further delayed at LCs.

2 Introduction

The subject of the second and third missions of the freight and logistics short term expert of the project "Central Asia: Development of Coordinated National Transport Policies in Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Republic of Uzbekistan, Republic of Turkmenistan was "a pre-screening of the existing logistic centres/major cargo processing terminals and needs assessment for logistics centres in the Central Asia Nations". The missions of the freight and logistics short term expert to Central Asia have covered Kazakhstan, Uzbekistan, Kyrgyzstan and Tajikistan. The logistics STE has visited the sites and met the national authorities and the unions of operators and forwarders, of road transporters, forwarding companies and National Secretaries of TRACECA. The mission started with the expert departing on 12 March and ended on 18 April 2008.

2.1 Objective

One of the planned outputs of the project "Development of Co-ordinated National Transport Policies Republic of Kazakhstan, Kyrgyz Republic, Republic of Tajikistan, Republic of Uzbekistan, Republic of Turkmenistan " is the preliminary qualitative screening of existing logistic centres, needs assessment and catalogue of good practice (Task 12 - To be achieved in cooperation with MoTCs, transport and logistic companies, ADB, FIATA), as a precursor for the 2006 TRACECA project on "International Logistics Centres/Nodes Network in Central Asia). More specifically:

"The project will carry out a survey of the existing logistic freight centres and define where it is efficient to improve these or to create completely new ones. It will identify the desired locations of these new/existing centres in each country (including Uzbekistan) and prepare an overall prefeasibility study needed for the creation/modernisation of such centres allowing at a later stage IFIs and other (private) financial institutions to finance the creation/modernisation of such centres."

The project's work so far has led to the following conclusions:

- The changing methods of transport and the further development of multimodal transport are continuing to impose new demands for infrastructure, especially multimodal terminals, which internationally are leading to logistic centres incorporating all related functions of international transport and logistics.
- Some of the countries in Central Asia are more advanced than others in the planning of logistics centres or in upgrading existing rail/road terminals to logistics centres.
- These modernising trends indicate the need for progress in creating conducive environments for developing PPPs.
- The highly positive response to the seminar conducted in October in Dushanbe on this issue underlines the importance given to this subject by at least three of the states. In the discussions it became clear that many of the officials dealing with project development lack knowledge of what is going on elsewhere in the area of PPPs.
- There was a feeling that that there is a need for an expert working group to be set up within the high level group to advance knowledge in the PPP-related areas.

It is proposed that in the remaining period the project will carry out the following in this context:

- to do a "needs assessment (preliminary screening) for logistics centres" in the form of a SWOT and multi-criteria assessment, covering all the existing and planned facilities in the Central Asia region;
- to establish a catalogue of good practice, based on international standards and experience, where and how to extend existing facilities or create new ones; and
- the results of the pre-feasibility screening should provide valuable input for both the further specification of national transport strategies and investment projects (in particular for the TRACECA logistics network study shortly to be commenced).

2.2 Definitions

During the meetings many parties referred to the insufficient lack of knowledge on what exactly a LC means, what services are offered, which are the functions and how it is configured. Thus it is considered very important to clarify these terms from the beginning:

The logistic centers (LCs) or freight villages are usually developed on the most important international corridors with heavy traffic flows, near ports, airports or rail terminals, near borders, near large cities or major production sites and serve international transport operations by providing space for parking, container (and possibly bulk) handling facilities, intermodal infrastructure connections; grouping of independent companies and bodies dealing with freight transport (freight forwarders, shippers and transport operators); customs inspections, tax payment, storage, maintenance and repair, banking and information/communication technology connections.

The LCs in inland locations or those located in landlocked countries are also called dry ports. Logistics centres are a comparatively new phenomenon which have not yet received an agreed name. The main terms for logistics centres known in Europe are:

- in Great Britain logistics centres are called "freight villages";
- in France - "plate forme logistique" or "plat forme multimodales" ;
- in Germany - "Güterverkehrszentum";
- in Italy - "interporto"; and
- in Denmark - "transport centre".

The most common and widely used term in Japan, Singapore, China and the USA is "logistics centre". Therefore, there is no unanimous opinion on a single term. However, with the growth of popularity of logistics centres and the profit they make it is likely that the term "logistics centre" will be the most appropriate one.

Logistics concerns the efficient movement of material flows.

Centre is an intersection point of lines, vectors, forces, the place where something is concentrated, the most important point, the point around which anything revolves, a place at which an activity or complex of activities is carried on.

Tsamboulas, D. A. referred to a logistics centre as an "integrator' of various transport modes, able to promote intermodal transport". He also identified logistics centres with "an intermodal terminal, which is the principal component of the intermodal transport chain, constituting the node where the transhipment of goods from one mode to the other takes place" EUROPLATFORMS (European Association of Freight Villages), defined a logistics centre as "an area within which all activities relating to transport, logistics and the distribution of goods, both for national transport and international transit, are carried out from various operators". The purpose of a logistics centre is to stimulate international trade and economic growth in a region.

Definition of a LC (dry port) and services offered in LC

The logistic centers (LCs) are also widely called dry ports. The term "dry port" according to ESCAP refers to a defined inland location for the consolidation and distribution of goods that has functions similar to those of a seaport, and which includes customs clearance services. Seaport functions that could be expected to be typically present at these dry ports include:

- container (and possibly bulk) handling facilities;
- consolidation of cargo;
- distribution of goods;
- intermodal infrastructure connections; and
- a geographical grouping of independent companies and bodies dealing with freight transport (including, for example, freight forwarders, shippers and transport operators); and the provision of accompanying services such as:
  - customs inspections;
  - tax payment, customs clearance;
  - storage;
  - maintenance and repair; and
  - banking and information communication technology connections.

While a large number of container yards and border-crossing points in the ESCAP region possess many of these characteristics, the secretariat does not envision or expect that all of these will become dry ports by its definition. A logistic centre may include various buildings such as:

- depots for dried products as well as for cargos of various types;
- depots for frozen products;
- cargo distribution centre;
- regulation terminal of cargo transported in containers;
- multimodal terminal; and
- buildings of common usage.

The potential expansion of functions at an inland intermodal facility may be the following:

- container yard;
- container freight station;

- inland container depot ;
- import processing zone ;
- industrial park ;
- export processing zone ;
- special economic zone; and
- logistics and other value added services.

Definition of multimodal transport

It is very important to give here the definition of multimodal transport as it is used sometimes in a confusing way and as it is the most important part of transport associated with the operation of LCs. The terms multimodal, combined and Intermodal transport have the following definitions:

- Multimodal transport uses two or more different means of transport through the use of transhipment (intermediate handling), organised by one carrier (multimodal transport operator), under one contract, with one freight document under one liability and one price.
- Intermodal transport is the use of several means of transport (multimodality) while the goods remain in the same loading unit (e.g. container), without intermediate handling (road vehicle, trailer, container).
- Combined transport is intermodal transport, which is principally carried out by rail, inland waterways, or by sea, with the trips beginning and ending by road (e.g. piggyback, roll-on roll-off systems) (e.g. piggyback, roll-on, roll-off systems).

Dry port experiences in developed countries

Governments in Europe at the national, and particularly the local, level have successfully promoted the development of dry ports as an ongoing process, with the pace of dry port construction gaining momentum since 1995. In Germany, for example, local governments, in partnership with private businesses, have championed dry port development, often in competition with neighbouring regions. The UNESCAP secretariat estimates that, by 2015, there may be a need for 130 dry ports in China, 69 in India, 10 in Kazakhstan, 12 in the Republic of Korea, 4 in Sri Lanka, 3 in Thailand, 2 in Bangladesh, and one each elsewhere, (note: it is believed that this is an underestimation especially for Uzbekistan but also for Kyrgyzstan and Tajikistan).

In the European Union, there is considerable variation in the average size of dry ports (typically 40,000 to 1.9m. TEU throughputs per year), land area (typically 30-200 ha), number of firms (typically 25-100) and overall employment (approximately 7,000 to around 37,000 people). Even the smallest countries in the European Union tend to have at least one dry port. The rules governing the operation of the common market make dry port operation relatively straightforward, meaning they often service an area that crosses national borders, thereby facilitating optimal location choices without having to consider international access risks.

Possible government and private sector roles

From international experience in seaport ownership and operation it is clear that the state usually has the ownership and is responsible for the regulation, while operation and management is given with concession agreements to private sector. Thus around 90 of the 100 largest container and seaports globally operate in this manner, including those in Asia. Government also cares about improving transport infrastructure links to ports and ensuring competition in the sector.

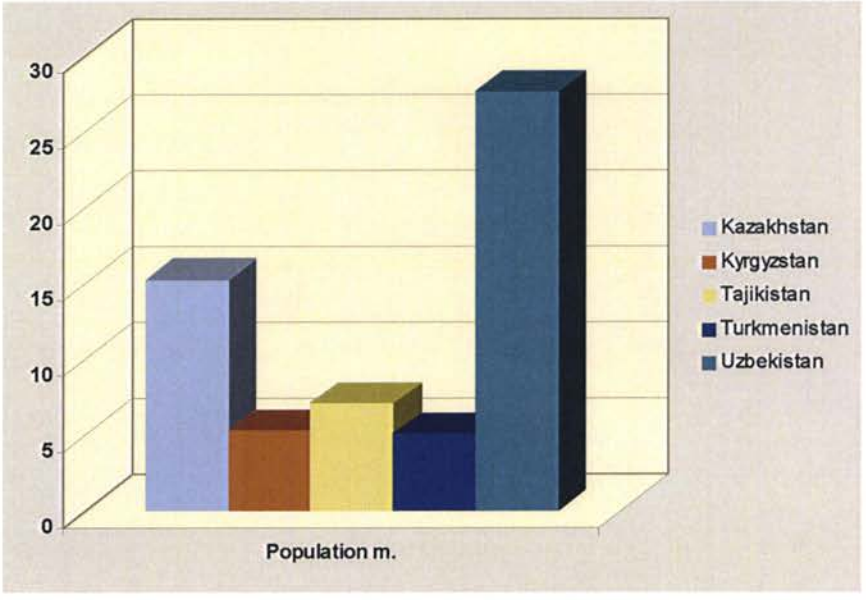
2.3 The region

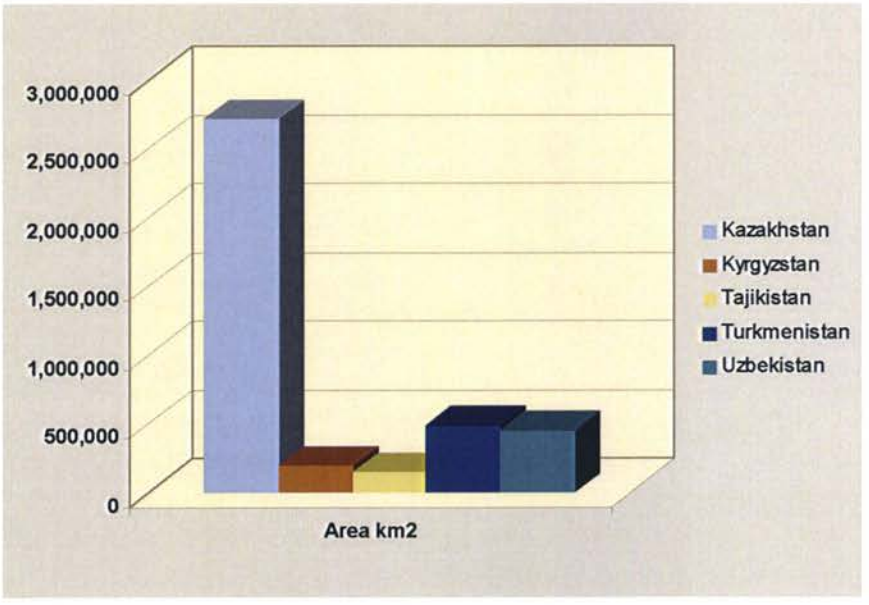
The Central Asia region borders Russia, China, Iran, Afghanistan and Caspian Sea and includes five countries namely the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, the Republic of Uzbekistan and the Republic of Turkmenistan. Of the Central Asia countries only Kazakhstan and Turkmenistan have sea ports in Caspian but all are landlocked in terms of access to oceans. GDP per capita varies considerably due to the fact that some of the countries are oil and minerals rich. Most of the countries of the region present high growth GDP rates 8 to 10%. Growth is associated with increased freight flows to which are added those in transit from China. The biggest population and density is in Uzbekistan, lowest density in Kazakhstan.

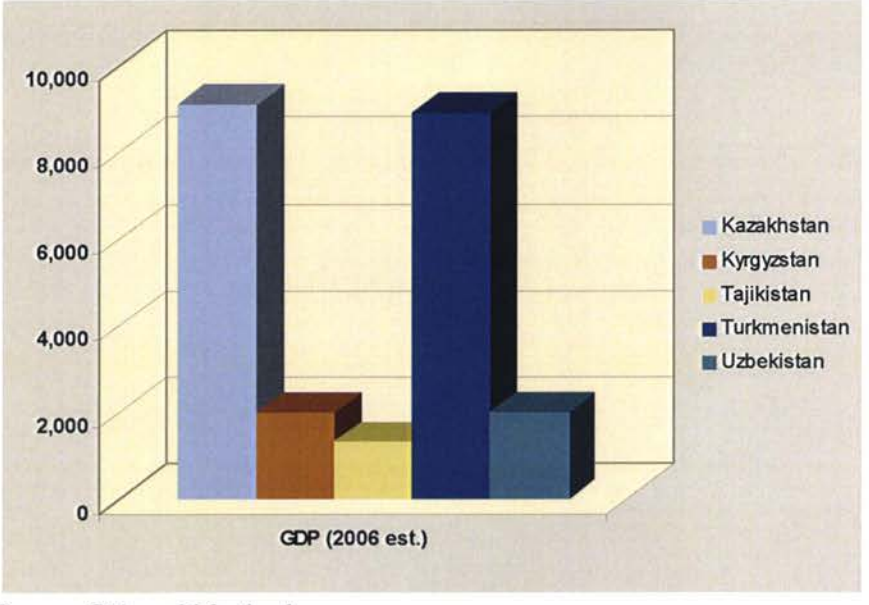
Table 1: Area, population, GDP in Central Asia region

Country	Area km^2	Population m.	GDP (2006 est.)
Kazakhstan	2,717,300	15.3	9,100
Kyrgyzstan	198,500	5.3	2,000
Tajikistan	143,100	7.1	1,300
Turkmenistan	488,100	5.1	8,900
Uzbekistan	447,400	27.7	2,000

Figure 1: Population, area and GDP in Central Asia Republics (CAR)





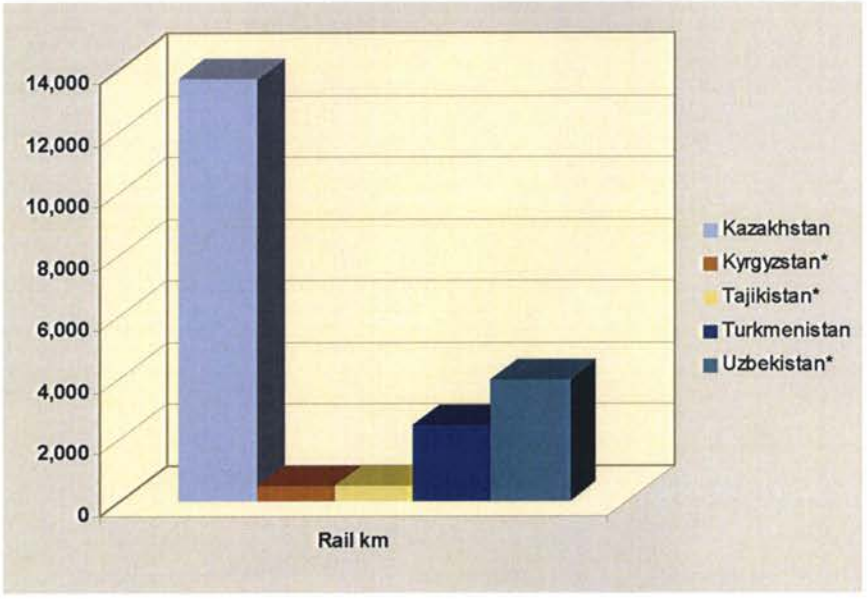


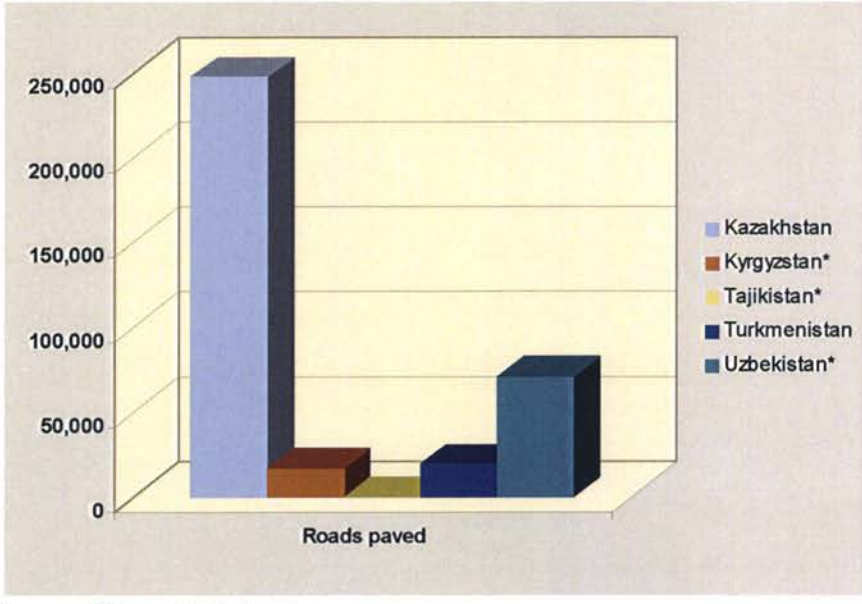
Source: CIA world factbook

Table 2: Transport infrastructure in Central Asia region

Country	Roads total km	Roads paved	Rail km		Water-ways km	Comments on water-ways	Ports* & terminals	Airports paved total	Airports paved over 3,047 m
Kazakhstan	258,029	247,347	1,3700	bg	4,000	On Syrdarya and Ertis (Irtysh Rivers)	Aktau, Atyrau, Oskemen, Pavlodar, Semey	66	9
Kyrgyzstan*	18,500	168,54	470	bg			Balykchy	18	1
Tajikistan*	27,767		482	bg	200	Along Vakhsh River	~	17	2
Turkmenistan	24,000	19,488	2,440	bg	1,300	Amu Darya and Karakum Canal	Turkmenbasy	22	1
Uzbekistan*	81,600	71,237	3,950	bg	1,100		Termez (Amu Darya)	33	6
EU25		1,765,140	199,682		29,637				

Figure 2: Railways and roads length for Central Asia per country





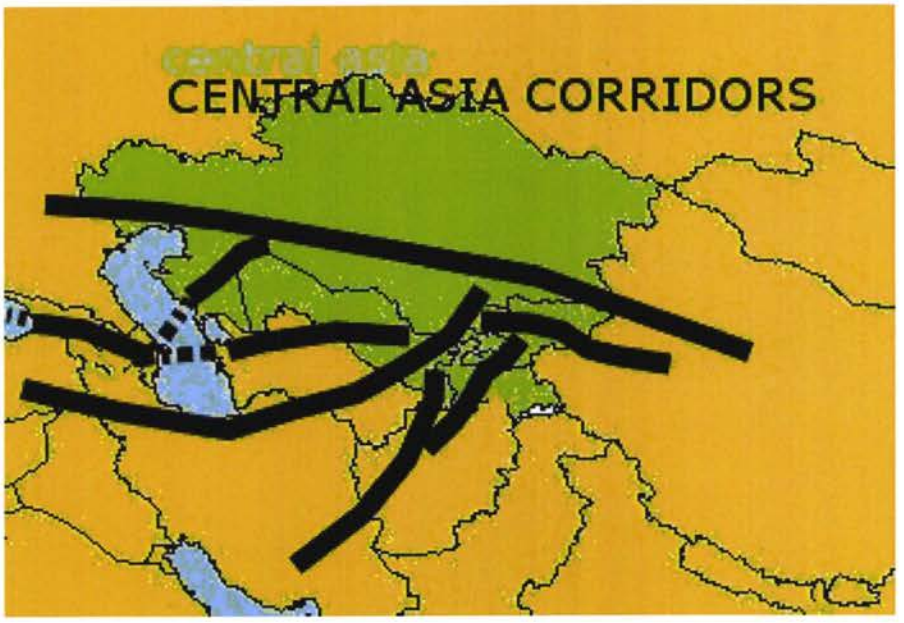
Source: CIA world factbook
Note: bg: Broad gauge 1,520 m wide, sg: standard gauge 1,435 m wide
Note: 3 land locked countries with no ports, no ocean ports at any of the above countries*

2.4 The corridors

The Eurasian International Transport Corridors crossing Central Asia connect China to Europe and play a very important role in the location of the LCs. Missing links and ongoing plans about them is a very crucial issue for international trade. Four international transport corridors cross Central Asia.

- **Northern Corridor:** Western Europe - China, Korean Peninsula and Japan through Russia and Kazakhstan (on the section of Dostyk – Aktogay – Saya – Mointy – Astana - Petropavlovsk (Presnogorkovskaya);
- **Southern Corridor:** South-East Europe - China and South-East Asia through Turkey, Iran, Central Asia states and Kazakhstan (on the section Dostyk – Aktogay – Almaty - Shu – Arys - Saryagash);
- **TRACECA:** Eastern Europe - Central Asia through the Black Sea, Caucasus and Caspian Sea (Dostyk – Almaty - Aktau);
- **North-South:** Northern Europe - Persian Gulf countries through Russia and Iran with Kazakhstan's share on the sections: Aktau - Ural regions of Russia and Aktau - Atyrau.

Map 1: Central Asia corridors



2.4.1 Corridors in Kazakhstan

Four international transport corridors formed on the basis of existing national transport infrastructure cross the territory of the Republic of Kazakhstan (Source: Transport Strategy of the Republic of Kazakhstan up to 2015):

- **Northern Corridor of Trans-Asian Railway Main (TARM):** Western Europe - China, Korean Peninsula and Japan trough Russia and Kazakhstan (on the section of Dostyk - Aktogay - Saya - Mointy - Astana - Petropavlovsk (Presnogorkovskaya);
- **Southern Corridor of TARM:** South-East Europe - China and South-East Asia through Turkey, Iran, Central Asia states and Kazakhstan (on the section Dostyk - Aktogay - Almaty - Shu - Arys - Saryagash);
- **TRACECA:** Eastern Europe - Central Asia through the Black Sea, Caucasus and Caspian Sea (on the section of Dostyk - Almaty - Aktau);
- **North-South:** Northern Europe - Persian Gulf countries through Russian and Iran with Kazakhstan's share on the sections: Sea Port Aktau - Ural regions of Russia and Aktau - Atyrau.

The Central Corridor of TARM also has great importance for regional transit traffic in the direction of Saryagash - Arys - Kandagach - Ozinki. Corridors allow significant reduction of the distance in the direction of East-West.

2.4.2 Corridors in Uzbekistan

The territory of Uzbekistan is crossed by 20 international transport routes in the following directions *(source: ADB study):*

- **to the northern direction** accessing Russia, Ukraine, and European states;
- **to the western and south-west direction** accessing Caucasian countries, Iran, Turkey and European states;
- **to the southern direction** towards the implemented Trans-Afghan international transport corridor accessing Afghanistan, Iran and sea port of Chahbehar, Bender Abbas, as well through alternative direction accessing Pakistani port of Karachi, Kasim, Gvadar via Afghanistan. The trucks coming from Turkey and Iran using the southern route dominate the international road transport.
- **to the eastern direction** accessing Chinese People's Republic.

According to an ADB study the transport corridors through Uzbekistan are grouped as follows:

Prime road corridors

- RD1 (Europe, Russia, China, Kazakhstan and Kyrgyz Republic) – Shymkent (Kazakhstan) - Gisht, Kuprik/Yallama - Tashkent - Samarkand - Bukhara - Alat - Farap, (Turkmenistan) - (Iran and Turkey);
- RD2 Tashkent - Kokand - Andijan - Dustlik - Osh (Kyrgyz Republic) - Kashgar (China);
- RD3 Samarkand - Karshi - Termez - Saryasiya - Dushanbe (Tajikistan)/Termez - Ayritom - Hayratan (Afghanistan) - (Iran and Pakistan);
- RD4 Samarkand - Jartepa - Panjikent (Tajikistan);
- RD5 Bukhara-Nukus-Kungrad - Beyneu (Kazakhstan) - Astrakhan (Russia).

The most important is north-south corridor RD1: M39 Shymkent - Tashkent - Samarkand, M37/M371 to Bukhara and south to the Turkmenistan border at Alat. Road surface quality is fair/good, apart from short sections south of Bukhara, in particular approaching Alat, where some improvements are in progress. The direct Tashkent-Samarkand route transits Kazakhstan, a section generally bypassed, increasing the distance by 56 km. A meeting between the presidents of Uzbekistan and Kazakhstan in Samarkand in March 2006 resolved some of the transit issues.

Corridor RD2, although important for domestic traffic, is less so for international/transit traffic. After the opening in 2000 of the twin tunnels on the A-373 under the Kamchik Pass, most

Fergana Valley traffic no longer transits northern Tajikistan. The A-373 is mostly dual carriageway; with widening of much of the remaining single carriageway in progress/planned.

International traffic on corridor RD3 declined due to security and other issues with Tajikistan and because of restrictions on traffic to/from Afghanistan, removed late 2005. Some sections of the Karshi-Surkhaendarya Valley route are difficult for heavy vehicles. The Bukhara-Karshi link is important for traffic through Farap (Turkmenistan) to Dushanbe.

Corridor RD4 carries little transit and international traffic due to the limited hinterland on the Tajik side. It is predominantly used for local trade and for activities relating to mining operations higher up the valley in Tajikistan.

Corridor RD5 is increasingly important for international traffic to Russia and is being upgraded. It is also the main domestic corridor west of Bukhara.

Rail corridors (ADB study)

- RL1 (Russia, PRC, Kazakhstan and Kyrgyz Republic) - Shymkent – Chengeldi (Kazakhstan) - Tashkent - Samarkand - Bukhara - Hodgadavlet – Farap (Turkmenistan) - Turkmenabad - (Iran and Azerbaijan);
- RL2 Tashkent - Nou (Tajikistan) - Kanibadam (Tajikistan) - Andijan - Osh (Kyrgyz Republic);
- RL3 Samarkand - Karshi - Talimarjan (Turkmenistan) - Kelif (Turkmenistan) - Termez - Dushanbe (Tajikistan)/Hayratan (Afghanistan);
- RL4 Samarkand - Navoiy - Nukus - Karakalpakiya - Oazis (Kazakhstan) - (Russia, Ukraine and Central Europe).

All the corridors are important international/domestic routes. Corridor RL2, Andijan -Tashkent, is operating well below capacity because of border facilitation issues and the high cost of the Tajikistan transit. Government strategy has been to either construct bypass lines to avoid transits, or to redirect traffic onto existing lines, despite the increase in distance involved.

The main international/transit route is north-south corridor RL1. Southbound, most of the transit traffic originates from Kazakhstan (89%) and Central Russia (10%), northbound most transit traffic goes to Kazakhstan (74%) and the Kyrgyz Republic (25%). RL1 is also important for Uzbekistan's trade, being the main route northwards to Russia, a major trading partner, and southwards (Rail connection to Persian Gulf through Iran - Turkmenistan) for cotton exports to Bandar Abas, via Sarakhs and to Poti via Turkmenbasy (Trans Caspian Railway). Transit through the Kazak enclave near Tashkent has been avoided by diverting traffic to the (longer) route via Khavast. Corridor RL2 is an important domestic line, also used for international transit traffic to/from Osh region and the Leninabad region of northern Tajikistan: transit freight volumes are not high, with only a small catchment area around Osh. However, the route is important for imports/exports to/from the Fergana Valley and for the UzDaewoo factory near Andijan, linking to its former parent company in Korea.

Corridor RL3 connects to Afghanistan. Traffic volumes have declined substantially in recent years due to the situation in Afghanistan and lower demand for construction materials from Kazakhstan, Russia, Belarus and the Kyrgyz Republic. The route passes through Turkmenistan, a transit that will be avoided with the opening of the Tashguzar-Boysun-Kamkurgan line end 2007. Sections at each end are already operating and a further 40 km was expected to open in September 2006. This line and planned rehabilitation of the Marokand-Karshi line will facilitate Tajik transit traffic and provide an attractive route for shipments to Afghanistan from the north and west, Russia, the Ukraine and western Kazakhstan. Total southbound traffic is 4.2m. t, but most of this passes through Turkmenistan to Serakhs and beyond via corridor RL1, with only 20% on RL3.

Corridor RL4 is a main route to Southern Russia and Eastern Europe, via Astrakhan. The corridor is important for Uzbekistan, Turkmenistan and Tajikistan trade with Russia, although RL1 is the primary route. The Navoiy-Uchkuduk-Sultanuizdag-Nukus section was completed in 2004, eliminating the need to transit through Turkmenistan.

- Kungrad-Beynau-Aktau railway line, the only direct link from Central Asia to Europe;

- Tashkent-Almaty-China railway link;
- Plan to construct new rail line (557 km) to China via Fergana Valley and Kyrgyzstan (Andijan - Dzhalalabad - Kishi - Kashgar).

2.4.3 EurAsian transport links

The Second International Euro-Asian Conference on Transport (source OSCE), held in 2000 in St. Petersburg, identified the following four Euro-Asian Land Transport Corridors presented to that conference by UNECE and UNESCAP as constituting the main backbone of the Euro-Asian land transport system[1]:

I. Transsiberian
Europe-Russian Federation - Korean Peninsula - Japan, with two branches from the Russian Federation to:
- Kazakhstan - China;
- Mongolia - China.

II. TRACECA
Eastern Europe - across Black Sea - Caucasus - across Caspian Sea - Central Asia.

III. Southern
South-Eastern Europe - Turkey- Islamic Republic of Iran with two branches to:
- Central Asia - China, and
- South Asia - South East Asia/Southern China.

IV. North-South
- Northern Europe - Russian Federation, with two branches: Caucasus - Persian Gulf, and
- Central Asia - Persian Gulf.

The Transsiberian corridor is a connecting link between European countries and Asia-Pacific region countries. In 2000, 98,000 (20-ft) containers were transported on the Transsiberian railway corridor. In the first quarter of 2003, the volume of container traffic was up by 75% compared to the same period of 2002. The rail corridor became an important two track railway line, fully electrified, stretching about 10,000 km. Its technical capacity enables it to carry up to 100m. t of goods per year and up to 140,000 20-ft containers. Infrastructure on this corridor is undergoing continuous modernisation and important improvements in originating ports and railway stations on the borders between the Russian Federation and Mongolia, China and Korea. In order to promote further use of this transport link in international transport, the International Coordinating Council on Transsiberian transportation was established in 1993. The main task of the council is to enhance the competitiveness of the Transsiberian rail corridor by ensuring a stable, competitive transit time, security of cargo, competitive rates, etc.

Although most of freight on long distances in this corridor is being carried by railways, road reconstruction along the Transsiberian corridor has also been going on for some time. In 2000-2001 the work on road reconstruction was carried out in the Russian Federation, financed from both the national budget and World Bank funds.

[1] 1UNECE, TRANS/WP.5/2001/14

The TRACECA[2] (Transport Corridor Europe-Caucasus-Asia) programme was initiated more than ten years ago by the European Union (EU) as an additional route to the existing transport corridors and is a catalyst for transport infrastructure and economic development in involved countries. The programme conforms to the global strategy of the European Union towards the TRACECA member countries (Afghanistan, Armenia, Azerbaijan, Bulgaria, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Mongolia, Romania, Tajikistan, Turkmenistan, Turkey, Uzbekistan and Ukraine), and aims at assisting in political and economic sustainability, promoting regional cooperation and optimal integration of the international transport corridor Europe-Caucasus-Asia-TRACECA with Trans-European Networks (TENs).

Countries along this corridor have high regard for its strategic importance in the context of Euro-Asian transport links and consider it as complementary to commercial exchanges between themselves and the Far East, with the possibility of the ancient Silk Route becoming once again a major trade corridor. When the TRACECA corridor is completed, a continuous railway line will follow part of the ancient Silk Road from the Chinese port of Lianyungang on the Yellow Sea to the Georgian ports of Poti and Batumi on the Black Sea and then on into Western Europe. A so-called "transport delta" is also planned to be created on the Georgian coast of the Black Sea with ferry connections to new ports at Supsa, Kulevi, Anaklia, Ochamchira and Sukhumi, linking the countries of the Commonwealth of Independent States (CIS) into a truly trans-Euro-Asian transport infrastructure. To step up their co-operation, TRACECA member states have set up an Inter-Governmental Commission (IGC), consisting of the highest governmental authorities of member states or their representatives with full authority to make decisions. The IGC regularly meets not less than once a year. The IGC also established a permanent secretariat, which is based in Baku, Azerbaijan.

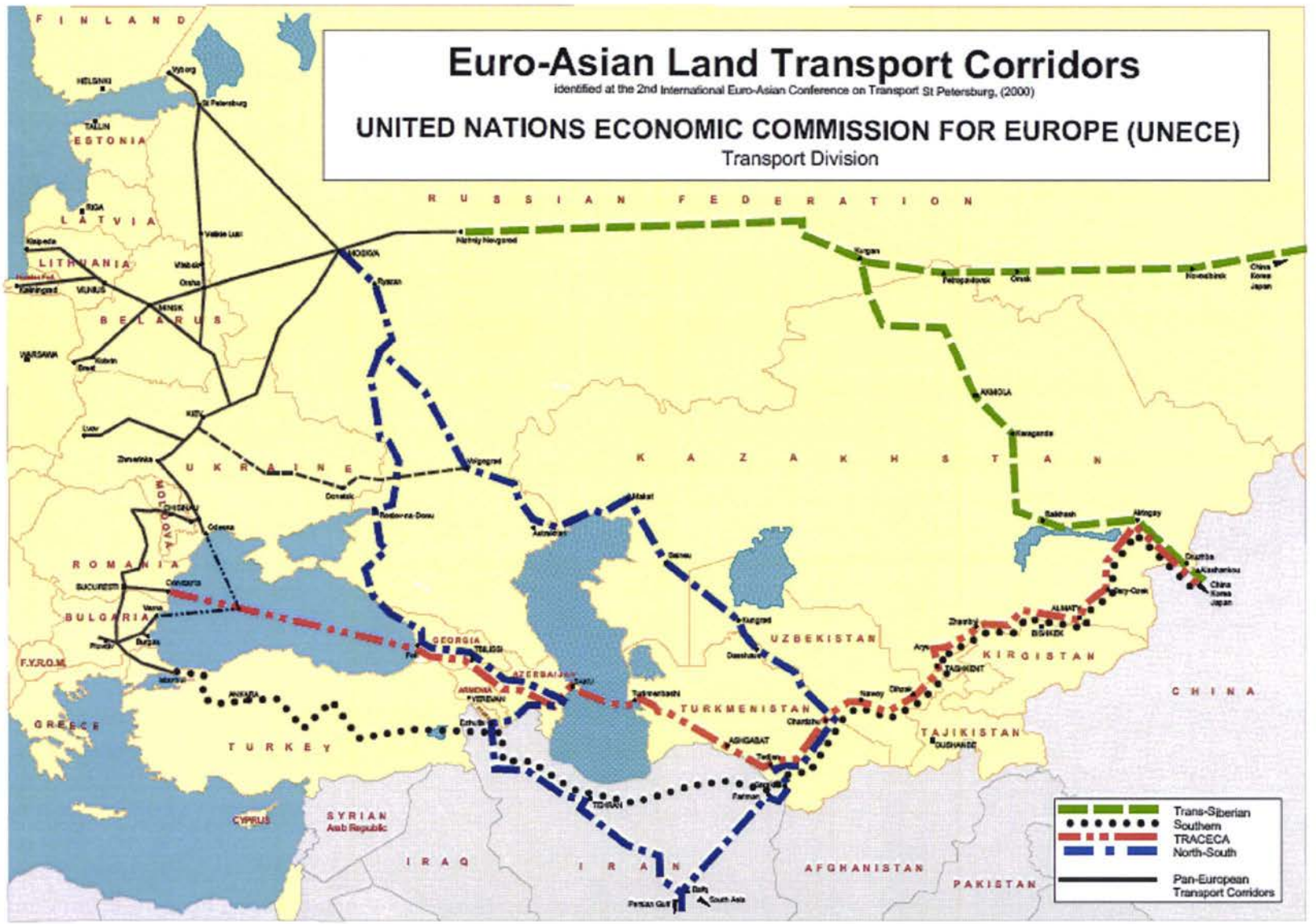
The Southern corridor connects South-Eastern Europe through Turkey, the Islamic Republic of Iran and through Central Asia with China, and with South - South-East Asia. The detailed analysis of potentials of this corridor can be found in the UNESCAP study "Development of the Trans-Asian Railway-Trans-Asian Railway in the Southern Corridor of Asia-Europe routes".

The North-South corridor is the shortest way connecting Europe with the Far and Middle East, the Indian Ocean and South-Eastern Asia. The corridor stretches from ports in India across the Arabian Sea to the Southern Iranian port of Bandar Abas, where goods then transit Iran and the Caspian Sea to ports in the Russian Federation's sector of the Caspian Sea. From there, the route stretches along the Volga River via Moscow to Northern Europe. The revived route is expected to offer both quicker and cheaper transportation than the primary alternative - the shipment of goods from South Asia through the Suez Canal and the Mediterranean and then into the Atlantic and North Sea to Baltic ports. Russian analysts predict that delivery time using the North-South Corridor will be reduced with 10-20 days and that the cost per container will decrease by US$400 - US$500. The opening of the Central Asian region and the new markets in the Indian Ocean and Persian Gulf area are very important for both the European and Asian continent. Access to rail and the road network in Central Asia and the Russian Federation will be provided after completion of the Astara -Qazvin railway.

Among the other advantages of North-South Corridor is the existence of several potential intersections with other existing corridors between Central Asia and Europe including TRACECA, which may provide good links between North-South and East-West freight flows.

[2] http://www.traceca-org.org/

Map 2: Euro-Asian land transport corridors



EuroAsian corridors identified by UNECE

- Kurgan (Siberia) - Akmola (Astana)(Kazakhstan);
- Aktobe - Akmola (Astana) (Kazakhstan) ;
- Aktobe - Druzhba (Kazakhstan - China border) ;
- Aktobe - Almaty - Tashkent - Samarkand - Bukhara (Uzbekistan) – Beyneu (Kazakhstan) - Atyrau (Kazakhstan) – Russia ;
- Almaty – Bishkek ;
- Tashkent – Termez ;
- Bukhara –Turkmenistan ;
- Termez – Dushanbe.

Main railway transition stations

(changing boogies or transshipment) on the Europe-Asian corridors (between CIS – Europe and CIS - China, CIS - Iran)

- Brest, Belarus - Poland border;
- Ungeny, Moldova - Romania border;
- Sarakhs, Iran - Turkmenistan border;
- Dostyk (Druzhba), Kazakhstan - China border;
- Chop, Ukraine - Hungary border.

Important ports in Caspian

- Bandar Anzall (Iran);
- Now Shahr (Iran);
- Turkmenbasy (Turkmenistan);
- Aktau (Kazakhstan);
- Astrakhan (Russia);
- Mahatchkala (Russia).

Important ports for Central Asia with access to ocean transport

- Bandar Abas (Iran);
- Bandar Khomeini (Iran);
- Chinese ports (Lianyuagang et al) ;
- Vladivostok (Russia) ;
- Baltik ports ;
- Poti (Georgia) ;
- Mariupol (Ukraine) ;
- Novorossiysk (Russia):

2.5 The flows

The international freight flows can be classified as transit or having one or both ends in Central Asia states (terminal traffic, national traffic, international traffic), per origin/destination, per commodity, per transport mode, per type of unitisation. Lack of proper statistical data was observed by the ADB study (national transport strategy of Uzbekistan).

For Kazakhstan there are some general forecasts of traffic in the report "Transport Strategy of the Republic of Kazakhstan up to 2015" freight traffic in Kazakhstan will be significantly increased in 1.5 and 2 times, respectively. Transit volumes through the territory of the Republic of Kazakhstan will be increased from 9.364m. t of cargo (in 2005) up to 32.2m. t of cargo; the rapid pace trade expansion with China is particularly noteworthy.

The related transport needs have been accommodated through rapidly growing container terminals on the Chinese seaboard and, hence, Shanghai emerged fast as one of the world's most important ports. In 2005 the Shanghai port had a turnover of 18.1m. TEU, thereby increasing its throughput by 24% compared to the figures from 2004. So such intensive growth of Chinese economy, particularly its western regions, today calls for necessity to ship to the global markets a wide spectrum of goods. Along with the problems related to infrastructure, transit flow through the territory of Kazakhstan faces several obstacles. The most serious obstacles are unjustified delays and procedural complexities during customs control and border control procedures (superfluous and overlapping control procedures at the both points of a common border, which can be easily solved through a single one-stop procedure-agreement, recognised by the neighbouring border control point).

Intensive growth of Chinese economy, particularly its western regions, today calls for necessity to ship to the global markets a wide spectrum of goods. Along with the problems related to infrastructure, transit flow through the territory of Kazakhstan faces several obstacles. The most serious obstacles are unjustified delays and procedural complexities during customs control and border control procedures

In 2003 the volume of China's external trade with the EU countries was 115m. t while the volume of transit traffic through the territory of the Republic of Kazakhstan in this direction was only about 3m. t. Transit traffic by transport mode in Kazakhstan is shown in Table 3 below:

Table 3: Transit traffic by transport mode in Kazakhstan

Transport Mode	Transit in 2005	Forecasted 2015
Railway, m. t	8,895	30,0
Road, m. t	0.350	3,0
Air, m. air planes-km	84,7	342,5
Sea, m. t	0,150	2,5

In Caspian region Kazakhstan has the International Port Aktau. The further development of extractive industry in Western Kazakhstan will allow raising the oil production by 2015 up to 140m. t a year what will cause growth of oil transportation through Aktau sea port of 20m. t per year. This brings the need for developing infrastructure and production capacities of the port and for construction of oil terminals.

Along with the problems related to infrastructure, transit flow through the territory of Kazakhstan faces several obstacles. The most serious obstacles are unjustified delays and procedural complexities during customs control and border control procedures.

In Kazakhstan in 2006 railways turnover was 191.2 bio-t/km, 246.9m. t were transported by rail, 195,000 TEU by rail (133,000 in 2002), 10.3m. t by rail transit traffic (6.1 in 2002).

Table 4: Freight transportation and freight turnover by modes of transport Kazakhstan (m. t)

Year	2000	2001	2002	2003	2004
All modes	1,293.1	1,404.5	1,531.1	1,687.5	1,840.5
Rail	171.8	183.8	178.7	202.7	215.6
Motor road	982.0	1,076.9	1,219.3	1,318.2	1,444.8
River	0.45	0.5	0.5	0.5	0.7
Air	0.02	0.01	0.02	0.02	0.02
Pipeline	138.8	143.3	132.6	166.1	179.4

Table 5: Freight transportation and freight turnover by modes of transport Kazakhstan (bn. ton/km)

Year	2000	2001	2002	2003	2004
All modes	207.1	225.4	232.3	258.4	283.1
Rail	125.0	135.7	133.1	147.7	163.4
Motor road	31.0	33.0	37.6	40.2	43.9
River	0.05	0.04	0.05	0.07	0.08
Air	0.1	0.04	0.05	0.09	0.07
Pipeline	50.9	56.6	61.5	70.4	75.6

Table 6: Selected freights shipped by general purpose railroad transport in m. t Kazakhstan

Year	2000	2001	2002	2003	2004
Coal	74.1	77.9	72.0	82.1	82.7
Coke	0.2	0.3	0.2	0.4	0.5
All freights	17.7	19.8	18.7	19.2	20.2
Iron & manganese ore	19.2	18.5	18.7	22.7	24.9
Ferrous metals	4.7	4.7	5.1	5.4	5.8
Chemical & mineral fertilizers	0.8	1.4	1.8	2.0	2.6
Cement	1.0	1.4	1.7	2.1	2.4
Timber freights	0.7	0.6	0.7	0.6	0.7
Grain & grinding products	6.4	4.4	5.2	8.4	5.7

It can be seen that road transport in Kazakhstan is having by far the highest share (78.5%) with rail having the 11.7%.

2.5.1 Impediments to smooth trade flows in Central Asia

Transport systems in harsh climatic environments (mountainous regions, steppes) are very costly in their usage. Thus often local roads are not well maintained, although these might be vital to the populations not able to access main transport corridors in the course of their daily trade. Borders crossing points are a major source of high costs and delays for the movement of international goods. The number of border crossings seems crucial to an explanation of trade flows: the greater the crossings, the lower the trade. Any landlocked country will therefore be at a geographical disadvantage, as this usually implies, especially in the case of Central Asia with a low economic density, transporting low volumes over large distances and crossing several land borders.

High transportation costs depress trade flows and landlocked countries face such high transportation costs, which lead to low export volumes outside the region, low export revenues, foreign exchange shortage to buy modern equipment and this ultimately creates a low income trap. The fact that border procedures are not functioning properly has both an effect on trade as well as security: (corruption, lacking communication and coordination, inadequate equipment and insufficient computerisation, lacking harmonisation of standards). Lack of territorial access to the sea (landlocked countries), remoteness and isolation from world markets and high transit costs continue to impose serious constraints on the overall socio-economic development of landlocked developing countries. Their sea borne trade unavoidably depends on transit through other countries. Additional border crossings and long distance from the market substantially increase the total expenses for the transport services.

2.6 International trends in logistics and multimodal transport

The worldwide development of intermodal (container) transport is increasing. Intermodality is in its infancy in the Central Asia region countries. To fully develop the transit potential of the area, and to cope with changing demands, it is needed to close missing links and introduce modern logistic concepts and technology, including the increased use of IT. The Globalisation of economies, trade.

Over the past decade, ESCAP member countries have benefited substantially from the process of globalisation. While the examples of China and India (where growth rates have persistently exceeded 8% and 5% respectively) are often cited, the Republic of Korea, Singapore, Thailand, and more recently the Russian Federation and the Republic of Kazakhstan, have also performed strongly.

Closer examination of this regional success, however, reveals that, in general, it is the coastal areas of the region that have benefited most, with development levels often declining in areas further away from the coastline. Many factors have influenced this process, including the higher costs of accessing international markets, as well as doing business without adequate connections, which often make inland locations less competitive. Historically, economic growth and trade in countries has been centred on seaports. As this trade has grown, it has attracted to the area both factors of production and a supply of associated services, which in turn have attracted further growth and investment.

With the coming into force of the intergovernmental agreement on the Asian highway network, and the adoption of the intergovernmental agreement on the Trans-Asian railway network, Asia has made sub-

stantial progress in creating new opportunities to expand the benefits of globalisation to inland locations and to a wider population. Connecting dry ports to the globalisation process.

According to ESCAP establishing dry ports would allow shippers to undertake consolidation and distribution activities as well as export/import procedures at inland locations that are at relatively short distances from factories and farms. Completing necessary documentation and procedures at these facilities could help reduce congestion and delays at border crossings and ports, thereby reducing transaction costs for exporters and importers. This is particularly important for landlocked countries, and is consistent with the objectives of the Almaty programme of action.

The development of a network of dry ports as load centres also has the potential to promote traffic on railways rather than roads, which could have significant environmental benefits. The extensive coverage of the Trans-Asian Railway and the Asian highway networks across the ESCAP region indicate they may provide a useful "starting point" for considering dry port locations. For example, the Intergovernmental agreement on the Trans-Asian railway network, adopted by ESCAP at its sixty-second session, in April 2006, identified stations with container terminals to handle International Standards Organisation (ISO) containers of at least 20-ft dimension in length.

2.7 The actors

The various transport operators, the forwarders, the shippers and the government authorities are the actors in freight transport. The actors and users views for the development of multimodal terminals, logistics centers are summarised in this chapter following the meetings from the missions. The actors are listed below:

Kazakhstan

- Ministry of Transport
- KazATO (Union of International Road Carriers of the Republic of Kazakhstan) (Mr T. Kaplan, Almaty)
- Kazakhstan Temir Zholy (Kazakhstan Railways);
- KazTrans Service (operator of container park), subsidiary of Kazakhstan Railways;
- Kaztemirtrans (rolling stock provider, forwarding), subsidiary of Kazakhstan Railways;
- Kazakhastan Freight Forwarders Association (KFFA or ANEK) (Mr Ilya Segal);
- TSES Trans Siberian Express Service;
- DAMU private development of LCs, Almaty, Astana, Aktobe, and more to follow;
- "Astana Contract" developer/operator of LCs.

Three state-owned enterprises are involved in rail freight transport, containers operation, terminals operation:

- KasTrans Service: a state-owned enterprise is the operator and owner of containers in Kazakhstan also processes the documents. It is not part of the railways.
- Kedentrans Service: - state-owned enterprise. It owns the terminals, the cranes, loads the wagons, performs all functions of acceptance and release of containers (weighing, seals, check, etc).

- Kazakstan Temir Zholy: Railways of Kazakhstan
  From the Statistical Yearbook of Kazakhstan it can be found that in Kazakhstan, by the end of year 2005, there were four railway transport enterprises and 877 other land transports and have transported freight of 1,840.5m. t in 2004 (out of it 215m. t by rail, 1,444 by road).It can be seen that road transport in Kazakhstan is having by far the highest share (78.5%) with rail having the 11.7%.

Kyrgyzstan

- Ministry of Transport,
- Forwarders Association of Kyrgyzstan;
- Road Transport Association of Kyrgyzstan;
- Railways Organisation.

Tajikistan

- Ministry of Transport;
- Forwarders Association of Tajikistan;
- Road Transport Association of Tajikistan (ABBAT);
- Railways Organisation.

Uzbekistan

- Asian Development Bank (ADB);
- The Uzbek Agency for Automobile and River Transport;
- Association of International Road Carriers of Uzbekistan (AIRCUZ) (has 26 member companies);
- Uzbek International Forwarders Association (UIFA) (Mr Khokim Matcanov);
- Uzvneshtrans;
- Uztemiryulkonteyner: The Joint Stock Company " Uztemiryulkonteyner " is an operator of a container park of the Uzbek Railways. They offer for railway carriages of any export and import and transit cargoes.
  - consultations on carriages organisation;
  - development of optimal scheme for cargo transportation;
  - registration of carriage and payment of frights all along the route;
  - rendering services on turning and transferring carriages/containers with humanitarian and commercial cargoes through the border crossing point Galaba Khayraton;
  - automobile delivery of large-tonnage containers from the Container Terminal Termez to the cities of Great, Kabul, Mazari-Sharif, Khayraton and executing customs procedures;
  - treatment of cargoes by a container terminal in all regions of the Republic of Uzbekistan;
  - customs clearance including transit, provision with customs warehouses;
  - transportation of export and import and transit cargoes in large-tonnage containers of international standard;
  - network of branches:

    Tashkent branch: Tashkent City;

Bukhara branch: Bukhara City;

Fergana branch: Kokand City;

Kashkadarya branch: Karshi City;

Termez branch: Termez City;

Nukus branch: Nukus City.

2.7.1 Views and policies of governments

The national strategy for LCs, the existence of relevant and sound legislation (including the site selection criteria), the availability of public financing and the rules for private financing are the important issues that the governments should assure.

A network of multimodal logistics centers (LCs) is considered necessary by the governments, the freight forwarders and the shippers. Kazakhstan and Uzbekistan as the bigger countries in Central Asia give emphasis to the development of multimodal terminals, LCs. Two kinds of LCs may be developed (for city logistics, located near big cities with good connection to rail and highway networks and for transit trade located on international corridors intersections, near ports, near border crossings, near rail hubs etc).

Governments and international/regional organisations' policy

Kazakhstan

The government policy in Kazakhstan on logistics centers is included in the report "Transport Strategy of the Republic of Kazakhstan up to 2015", approved 2006 and points out: "It is needed to develop work on forming a network of transit routes through the air of our country. Special priority will be given to establishment of the modern hubs - powerful transport centres that would allow linking not only all the cities and towns within the Republic but the largest cities of the world as well."

The priority regional development of the railways transport network will be conducted in the directions: North-South (Russia - Central Asia) and East-West (South-East Asia - China - Europe). The following new rail links will be considered:

- section Beyneu - Shalkar Station;
- section Chorgos - Saryuzek;
- section Zhezkazgan - Saxaul Station;
- section Shar Station - Ust-Kamenogorsk.

Special attention in performing international transportation along the Trans-Asian railway is given to the development of Dostyk station at the Kazakhstan-China border. In order to develop and effectively use transit potential of the Republic of Kazakhstan logistical hubs will be organised at a national level in:

- Astana;
- Almaty;
- Aktau cities;
- at Dostyk station; and
- in other industrially developed regions of Kazakhstan.

The key objectives for the development of road infrastructure are:

Complete reconstruction of six basic international transit corridors

- Tashkent - Shymkent - Taraz - Almaty - Chorgos;
- Shymkent - Kyzylorda - Aktobe - Uralsk - Samara;
- Almaty - Karaganda - Astana - Petropavlovsk;
- Astrakhan - Atyrau - Aktau - Turkmenistan border;
- Omsk - Pavlodar - Semipalatinsk - Maikapchagai;
- Astana - Kostanai - Chelyabinsk – Ekaterinburg.

Kazakhstan Ministry of Industry

As experience and international practice shows, trade-and-economic zones and transport-and-logistics centers are mainly located along the sea coast line and at the premises of basic ports or at the closest distance to them. The principal scope of activities of such zones is mainly connected with freight storage and export-oriented transport exempted from export and import duties. Goods delivered to the zone go through relevant procedures and then can be sent for re-export from the country on a duty-free basis. There are not such zones in Kazakhstan at the moment, however, the country has experienced establishment of economic and industrial zones in pursuance of the existing legislation.

Special economic zone (SEZ) is an outlined territory with exact boundary markings, where necessary conditions to enable creating a favourable environment for development of prioritised trade activities are to be set up.

In order to enhance the country's transit potential, trans-boundary trade and economic cooperation, as well as implementation of breakthrough projects and tourism development, SEZs were established in Astana and in some other cities: "Information Technologies Park", "Aktau Sea Port", "Ontystik", "National Industrial Petrochemical Technopark" and "Burabay". At the time being in order to develop a mutually beneficial cooperation between Kazakhstan, Russia and China a newly launched initiative on creation and development of SEZ "Western Gateways of Kazakhstan" (with Russia), "Dostyk" (with China), "Chorgos-Eastern Gateways" (with China) has been urged.

It's planned to design transport-and-logistics centers to enable freight unloading operations, temporal storage and transit-oriented loading operations for delivered goods and raw materials, as well as processing of goods on the basis of so-called industrial complexes. It should be mentioned, that taking into account the proposals of local executive authorities, associations and entrepreneurs' unions the List of potential industrial zones with participation of the government was adopted (Government Decree #1331 of 28 December 2007). At the moment construction works in the industrial park in Karaganda region has been launched. Industrial zone is a land plot of non-agricultural usage obtained a relevant infrastructure, which is to be provided by the government to private businesses aimed at allocating and further maintaining of appropriate industrial sites.

The basic highlight when industrial zones developing as an element of entire infrastructural network is creation of necessary pre-conditions for new industrial sites to come.

Attractiveness of SEZ is provided if granted with tax and customs benefits and preferences, including utilisation of infrastructural resources at the account of the republic's budget; as for investors' opinion - to

follow the idea for such industries to be concentrated at one location and selected on the basis of a common production trend should be always considered. Preferences and tax exemptions applied to the investors involved into logistics centers establishment are undertaken in accordance with the Law "On Investments" any additional benefits are not foreseen.

Besides, the Ministry of Industry is designing a new transport-and-logistics centre in the area of "Taskal" border crossing point to replace the project on establishment of International Border Cooperation Center. This project is under consideration of the mayor's department of the Western-Kazakhstan region and the national company "Batys" - Social And Entrepreneurial Corporation.

Kazakhstan profile, Ministry of Transport

Development of transport and logistics centers is being implemented on the basis of the "Program on Establishment and Development of the "Transport Logistics" Pilot Cluster" adopted by the Governmental Decree of June 25, 2005 #633.
In September 2007 a newly established transport-and-logistics centre ("Astana-Contract") meeting international standards was put into operation. The "Astana-Contract" is located at the premises of "Almaty-1" railway terminal; it possesses telecommunication and freight handling facilities, as well as ITC-software, which fits a widely ranged service supply of the total throughput capacity at 80,000 containers/year.
In 2007 as per information provided by the "Astana-Contract", it handled 47,697 containers using the facilities available at the site, which amounts to 57% growth in comparison with 2006.
According to 5-year development action plan designed by the "Astana-Contract" and the "Paragon Development Systems" companies a logistics centers network was planned to be located in Almaty, Astana, Karaganda, Shymkent, Aktobe, Dostyk, Chorgos and Aktau cities.
In 2008 the "Astana Contract" company envisages establishing a new transport-logistics centre both in Astana City and in Dostyk International Gateway.

Another private initiative of the "Cargo Control Kazakhstan" company is to establish a logistics centre at the Mankent Station (Southern Kazakhstan). The rationale for such construction is justified by securing a simultaneous wagon, truck, container loading/unloading operations for cotton production.
The governor's department of Mangistau region initiated construction of a new logistic centre in the framework of the "Seaport Aktau" free-economic zone. At the time being "Tzesna Corporation" made an agreement to obtain relevant land plots aimed at building the infrastructure basis for the logistic sites. According to the information of Almaty region Governor's Department newly established cargo processing terminals have been put into operation in Pervomayskiy and Otegen Batyr (Iliyskiy district) locations.

The Governor's Department of Aktobe region is studying the feasibility for establishing an international center aimed at border cooperation reinforcement at the Kazakh-Russian border crossing point on the basis of a free-economic zone project to meet the internationally recognised operational standards.
In 2008 the Amanat Invest Financial Group plans to finalise construction works and entering into operation the sites to serve transport and logistic needs ("DAMU" network) in Almaty, Astana and Aktobe cities. In collaboration with the "Kazakhstan Temir Zholy" National Company an issue of establishment of a regional transport-and-logistics centre at the "Zhem" railway junction is being studied at the moment to maintain activities of oil-processing industries.

In Astana City within the framework of "Apple City LLC" Industrial Technopark initiative a new logistics centre construction have been launched using Maersk Logistics technology. For achieving so, a land plot of 20 ha was allocated; there some activities on designing of optional infrastructural schemes are being undertaken.

Synergy Cargo Logistics company plans a construction of a new logistic centre ("Synergy Astana") of A-class with a total square area of 2 ha to the north-west from Ondiris settlement (nearby Astana City).

Within the framework of a mid-term development program for 2007-2011 in Panfilov district of Almaty region a new border trade-economic zone called "Chorgos-Eastern Gates" is planned. The basic and system-maintaining element of the zone is an international dry port (including a transport-and-logistics centre) to serve international container operations. An issue of special attention aimed at the country's transport potential developing is implementation of automobile transport corridor reconstruction at the "Western Europe-Western China" section, which is considered the shortest for a highly demanded connection of the Central Asia states with Europe, as well as an origin point for China and the South-Eastern Asia towards Russia and then Europe. The basic element of the route is being formed by the following transport corridors: "Samara - Shymkent" and "Tashkent - Shymkent – Almaty - Chorgos". The project is to be implemented by 2012. In accordance with the feasibility study of this project some aspects on establishment of a transport-logistics centre are also learnt. The final location of the centers will depend on the designing of the future-oriented industries and transit cargo-forming points.

In the framework of feasibility study on the international transit corridor reconstruction at the section of "Western Europe - Western China" a new alternative scheme to develop a transport-and-logistics system along this corridor, including 4 international and 12 regional logistics centers has been discussed.

The implementation of the initiatives mentioned above will allow shifting some part of the Chinese cargo flows from sea transport to road, thereby reducing delivery time and establishing a favourable environment to attract additional transport flows from Central Asia.

Uzbekistan

In the report National Transport Strategy for Uzbekistan (ADB study) the following points are outlined:

The development of logistics centres is a government priority. Feasibility studies have been undertaken, but no terminals have been developed, principally due to funding difficulties. Taking into account that the main export movements are through railway border stations of Keles, Karakalpakiya and Hodjidavlet, it is reasonable to consider establishing logistics centres based at the following stations:

- Chukursay for Keles border);
- Bukhara (for Karakalpakiya and Hodjidavlet borders);
- Andijan (multimodal traffic on Andijan-Osh-Irkeshtam route);
- Termez (Trans-Afghan transport corridor).

However, in order to develop an agreed common decision on establishing logistics centres, it is necessary to conduct both a preliminary examination and a detailed study." The Cotton Consolidation Center at Bukhara and the Chukursay intermodal terminal are embryonic logistics centres. The former facility was developed in association with the TRACECA programme and TA4659-Uzbekistan Transport Sector Strategy Final Report PADECO/IKS Tashkent, 2006 conceived as a logistics centre, but it became a dedicated cotton terminal. While it has handled some other commodities, it remains predominantly a cotton facility.

Information from MoFEA of Uzbekistan

The Government of the Republic of Uzbekistan pays great attention to the aspects of transport-communication development inter alia creation of new transport corridors and links, increasing transport flows and export-oriented production, enhancement of transit potential of the country. All of the mentioned targets prove high prioritisation of modern logistics centers (hubs) establishment aimed at handling trade volumes increased between Europe and Asia.

Uzbekistan has a strong transit potential that helps achieve good records of freight forwarding operations demanded in the country. Thus, the country is streamlining and harmonises its relevant legislation basis, and presents rather high and stable indicators of growth, for instance: within the first quarter of 2008 - economic development exceeded the same indicator of the last year by 8.1%; industrial growth made 10.6% growth. The principal indicators of social-economic development of Uzbekistan (in comparison with last year indicators) can be presented as follows:

- GDP 108.1%;
- industrial production volumes 110.6%;
- external trade volumes 140.0% (annual indicator);
- farm gross output 104.8%;
- capital investments 141.0%;
- commodities production 117.2%.

The Government of Uzbekistan stresses the importance of export-oriented capacities development as a priority, as well as freight handling using high technological facilities and innovative methodology/techniques. At the time being, the basic focus of the government is directed to the enhancement of chemical, engineering, aviation spheres, agricultural, production. 25% of total export volume makes machinery, tractors, pumping systems.

Every year Uzbekistan grows up to 10m. t of agricultural production, 700,000 of which is being exported and 12% is preserved - all the rest perishes. It is a discouraging situation that needs to be addressed as soon as possible. This indicates the need for the earliest possible establishment of modern logistic networks in Uzbekistan. Taking into account that the major part of export-oriented flows are being handled in the junction railway stations in Keles, Karakalpakiya and Hodjidavlet feasibility of LC location at stations of Chukursay (freight flows towards Keles), Bukhara (freight flows towards Karakalpakiya and Hodjidavlet), Andijan (multimodal transport en-route Andijan - Osh - Irkeshtam located at the section of Trans-Afghan transport corridor) can be considered the most rational. Besides, there are around 20 cotton terminals functioning in the country, which are located at the railway stations (in 2005 these terminals handled over 18 thousand wagons of cotton fiber exported).

The Ministry for Foreign Economic Affairs, Investment and Trade is authorised by the government to draft a conception of logistics network development, the main focus of which is to cover the following provisions:

- clear formulation of transport logistics network functions, presenting hereto export-oriented freight flows forecasts for the period of forthcoming 10-15 years; maintaining relevant pre-designing researches and feasibility study, identifying the mechanisms of implementation;
- harmonisation of the appropriate legal basis;
- identification of rationale and investment attractiveness of projects;
- identification of financial sources for pre-designing researches and implementation; and
- phases.

The largest Southern Korean Air Carrier - "Korean Air" and the National Air Company "Uzbekiston Havo Yullary" signed a memorandum on cooperation. This document envisages enlarging practical partnership framework up to new markets investigation, Uzbek logistics infrastructural development, experience exchange within the scope of civil aviation, personnel capacity building.

Both parties have reached an agreement upon construction of the largest logistics centre on the basis of Navoiy Airport. First Deputy Minister on foreign economic affairs, investments and trade of Uzbekistan, Mr Nasreddin Najimov, said that at the nearest future the final decisions on this issue at the governmental level of the two countries will be made. However, from now it's clear that the Korean Company will be appointed as the principle operator of the logistics centre in Navoiy City.

This is a rather complex project and it is a must to execute some preliminary market research, monitoring and the country needs. Only provided that a mature feasibility study is available, it will be possible to launch the project. The government is to select the appropriate consultant for logistics centre construction research and is to estimate the total investment funds to be allocated for this project. Many well-known air companies showed their interest in the project, SAS and Middle East companies are among them. According to the preliminary agreement aircraft of Korean Air will be undertaking transit flights connecting Korean airport "Inchkhon" and Uzbekistani "Navoiy City".

Another related subject is that the governments of the Central Asia states are not satisfied with the level of goods turnover between themselves. To solve it the presidents of Uzbekistan and Kazakhstan agreed upon establishment of a Working group aimed at investigating the opportunity for a free economic zone. This WG will be supervised by the vice prime ministers of both countries. It implies customs duties unification, establishing various preferences enhancing and improving the goods turnover. Authorities do not exclude that it will follow the Chinese pattern. The Chinese-Kazakh centre of border cooperation is being operated since 2005. It's an international transport and trade junction, which combines co-called dry port and administrative, business, cultural sub-centers and motels. There are also exhibition areas, transport and logistics terminal, banks' and insurance companies' branches, representative offices of trade and tourist agencies. A similar potential is available to create a Kazakh-Uzbek one.

Kyrgyzstan

Logistics is not developed in Kyrgyzstan. There are only some old fashioned railway terminals and a free zone. The development of LCs is regarded as an important priority. The proposed locations for LCs are Bishkek and Osh; legal framework for LCs and multimodal transport is not developed yet.

Tajikistan

Logistics are still in infancy in Tajikistan. The government intends to prepare the ground for developing the sector and more specifically to facilitate development of LCs in Dushanbe and in other locations (Khudjand, Kurgan-Tube, Khorog) after it will be proven feasible with appropriate feasibility studies.

Regional organisations

EURASEC

At the moment a draft paper on unified transport area among the Eurasian Economic Community (EURASEC) member-states (including Belorussia, Kazakhstan, Kyrgyzstan, Russia, Tajikistan and Uzbekistan) is considered to be the second regional regulative agreement (after MLA, up to now being the only one signed at the regional level) is under consideration in ministries and departments related to transport aspects. According to the document, transit transport development (railway, road, inland waterways and multimodal) is to be supported by:

1. the development of the Eurasian transport links infrastructure, first of all, of "north-south" and "west-east" corridors;
2. as for railway/transit transport - by means of increased quantities of container and trailer block trains and their relevant technical maintenance, as well as by expanding of appropriate sea ports capacities;
3. as for transit river and sea transport to direction of Azov-Black Seas and Baltic Sea basins - by means of gradual provision of Russian inland waterways for vessels with EurAzEC member states' flags;
4. as for air transit passenger and freight transport - by means of establishment of airport networks, so called hubs;
5. specialised container-processing terminals establishment; and
6. the creation of integral multimodal transport-logistics system premises serving for external trade and transit transport.

The Eurasian Economic Community is aimed at (a) simplifying and increasing trade turnover among member-states, including transit freights, thus developing economic efficiency that enables transport-based trade turnover growth among the member states by 4-5%; (b) expanding of mutual access of carriers and other transport and transport-related services agents to the markets of the member-states. Due to improved technical condition of the transport infrastructure, as well as application of up-to-date transport and logistics technologies, self costs of international freight and passenger transport will drop by 13-15%; (c) increasing of transport complexes integration located in the member states into world transport system; (d) provision of improved and affordable transport and regional development perspectives; etc.

Suggested dry port locations for Central Asia by ESCAP

On the Map of ESCAP the following sites for dry ports are shown:

- Kazakhstan: Semey, Astana, (in China near Dostyk border), Aktobe, LCs may also be developed at the existing two sea ports on the Caspian Sea (namely Aktau, Atyrau), Chimkent, Almaty, Kyzylorda, Beykonur, Abay, Taraz;
- Uzbekistan: Tashkent, Bukhara, Samarkand, Termez, Andijan;
- Tajikistan: Dushanbe;
- Kyrgyzstan: Bishkek.

3 Survey and analysis of existing or planned freight terminals and LCs

3.1 Data collection - missions and site visits

The objective of the missions was to visit as many freight terminals as possible, to understand the freight operations and to assess if any is upgradable to LC, and meet the developers/operators of new LCs to get information for the assessment of needs. As the time was limited a selection of main terminals to visit was made.
The criteria for the selection of main freight terminals or LCs to assess (existing or proposed sites) were:

a. proposed by governments or other actors and stakeholders (FF's, railways, road transporters, international organisations' reports);
b. bigger than 10 ha; and
c. not more than 100 km from ports, and/or rail terminals, and /or important border crossings, and/or big cities, and /or free zones.

Initially a questionnaire was distributed in September 2007 with the help of the local antennas. The response was poor. On 26/9/07 a site visit at the Astana rail terminal was made. Then two missions and site visits by the STE followed in March-April 2008. Some minor problems were met during the missions:

- Termez visit was cancelled due to bad weather;
- absence of meeting with officials of MoTC in Astana;
- Dostyk visit (Kazakhstan) was cancelled due to lack of permit (administrative authorisation needed).

A list of meetings is in annex 3.

3.2 The existing logistics operations and related infrastructure

Till recently there were no modern logistics centers in Central Asia, but only rail terminals and border crossing facilities. If we exclude the dedicated cotton terminal at Bukhara which is well organised and operates fairly efficiently only recently one can see new developments in the area of LCs such as the "DAMU" and "Astana Contract" developments in Almaty. The necessary information about the main rail terminals was gathered such as location, photos, information about the available land for expansion, information about equipment like cranes, stackers, about throughput and capacity, standardisation, commodities handled. Same information was gathered for border terminals/crossing facilities, and for other, private terminals.

The major existing rail terminals are:

- **In the Republic of Kazakhstan:**
  - Almaty-1;
  - Astana;
  - Atyrau;
  - Dostyk;

  - Shymkent; and
  - Aktobe.
- **In the Kyrgyz Republic:**
  - Bishkek Rail Terminal Alamedin; and
  - Osh.
- **In the Republic of Tajikistan:**
  - Dushanbe-2; and
  - Kurgan-Tube.
- **In Uzbekistan:**
  - Chukursay;
  - Sergely;
  - Tovarniy;
  - Bukhara;
  - Navoiy;
  - Andijan;
  - Kokand; and
  - Termez.

There are about 27 main cargo terminals in Uzbekistan mainly for rail, not really addressed to road or multimodal. "OK Altyn" is a private terminal 20 km from Tashkent run by Kuehne Nagel mainly for cotton but also for other cargo in containers. A second private terminal is "Muzimpex" for perishables.

3.2.1 First conclusions from the missions/site visits

The issue of developing LCs is a priority in Kazakhstan and Uzbekistan.

Kazakhstan is the most advanced in implementing LCs in Almaty and Astana and soon to start construction in Aktobe - all developed by the company DAMU with private funds thanks to special Decree allowing this.

Uzbekistan has the dedicated cotton terminal in Bukhara, which has many of the functions of a LC and Uzvneshtrans is finishing the detailed design for a new LC in Tashkent. But legislation for private investments is not available.

The governments, the Freight Forwarders Associations, ESCAP and ADB have proposed various locations for the development of LCs. ESCAP report refers to the need to develop ten LCs in Kazakhstan, and one per each other CAR. Our provisional assessment indicates that the priority locations for Kazakhstan are 6, namely Almaty, Astana, Aktobe, Aktau, Dostyk, Shymkent. For Uzbekistan the priority locations are Tashkent, Navoiy, Termez and Kokand or Andijan.

3.3 Analysis of characteristics of existing or planned LCs and/or freight terminals, criteria for developing new LCs or upgrading existing freight terminals

3.3.1 Kazakhstan

Almaty Rail Terminal 1

It is located at the south suburb of Almaty. A site visit was undertaken on 31/3/08. KazTrans Service operates the terminal (leases from Kedentrans Service). The terminal is overloaded, there is high demand for containers traffic, need to upgrade it.

Equipment:

- 2 cranes for 40 ft, 1 crane for 20 ft (plus 1 crane for 20 ft out of operation) stowing of 3 containers, ramps for wagons with cars (see photo) (in two decks); and
- 2 reach stackers in operation (1 of them is overused and was financed from TACIS), plus 1 broken.

There are two areas for unloading and two warehouses (one for confiscated goods, one for temporary storage for custom clearance). Small operators lease small warehouses. There is a traffic of 15 containers per day out of season (January - March) and 50 containers per day on season (March - December), mainly from China, Turkey, Russia and from UAE through Iran, Turkmenistan, Uzbekistan to Almaty and to Russia and also from Vladivostok to Almaty. The site is surrounded by area of small trade companies; it is not easy to expand. The equipment is old and overused (cranes, etc).

Almaty New Industrial & Logistic Centre, DAMU

A site visit was undertaken on 31/3/08.

Photo 1: DAMU1

It is located in Kazakhstan, Almaty Oblast 10 km far from Almaty centre to the north, on the Almaty - Kapchagai Road. It is also 2 km away from "Otegen Batyr" settlement and 1.5 km from "Zhetysu" Railway station. The total area is 130 ha. Of it the industrial zone is 90 ha, the warehouse facilities occupy 20 ha, the Infrastructure & logistic area takes 10 ha and the Infrastructure zone, 10 ha.
The infrastructure includes: electricity - heating - water supply system, sewage system, digital telecom, locomotive depot, office premises, hotel, catering and road and railway network. The schedule for sale or leasing to clients is for the industrial area sale: 2006, for industrial buildings sale: 2007, for administrative building for rent: 2007. The development plan foresees the following:

- warehouse facilities 100,000 pallets;
- industrial zone: 90 ha;
- auto & railway network;
- railway depot (own locomotives);
- wagon washing facility;
- switch yard;
- railway loading park;
- weight platform (for wagon & auto);
- administration unit (hotel, office premises, sport facility, parking, car wash, catering);
- sewage purifying facility;
- fire fighting facilities;
- heating system;
- sewage system;
- water supply system;
- electricity supply;
- container area;
- parking for long vehicle;
- infrastructure for multimodal transportation; and
- video monitoring.

The total area will reach 220 ha. It is still under construction but there are warehouses already in operation.
A special decree exists to install logistics centres outside city centres.
Rail siding exists to the site and a main highway in front (highway Almaty – Ust Kamenagersk to Russia). It will have its own locomotive depot and own locomotives. There are two warehouses of 17,000 m^2, 3 of 25,000 m^2 with a height of 10.5m. Agiplan (Germany) has done the master plan. They can accept 80-120 wagons (capacity) per day plus 15-20 containers/day.

The same joint venture has also under construction one LC in Astana. They are also to start shortly construction in Aktobe. They have planned also LC in Dostyk. They have signed a memorandum with KasTrans Service for joint container operation to they Almaty 1 Rail Terminal.
DAMU is totally providing the investment; they have bought the land and financed the development and operation.
A big manufacturing plant of Philip Morris exits nearby and does not have enough warehouses. Thus Philip Morris wants to use a warehouse DAMU. In addition Procter & Gamble is their client for imported

goods (from Europe). Already some warehouses operate for storage (since years). These are heated warehouses.

"Astana Contract" Transport Logistics Centre in Almaty

It is located near the international highways, airport and the biggest railway junction in Kazakhstan at the north suburb of Almaty (3 km far from airport). A site visit was undertaken on 2/4/08. It offers: Railway container terminal; commodity cash desk of Railway Station Almaty 1; customs station; modern A-class warehouse made from lightweight metal constructions; offices; twenty-four-hour parking for trucks.

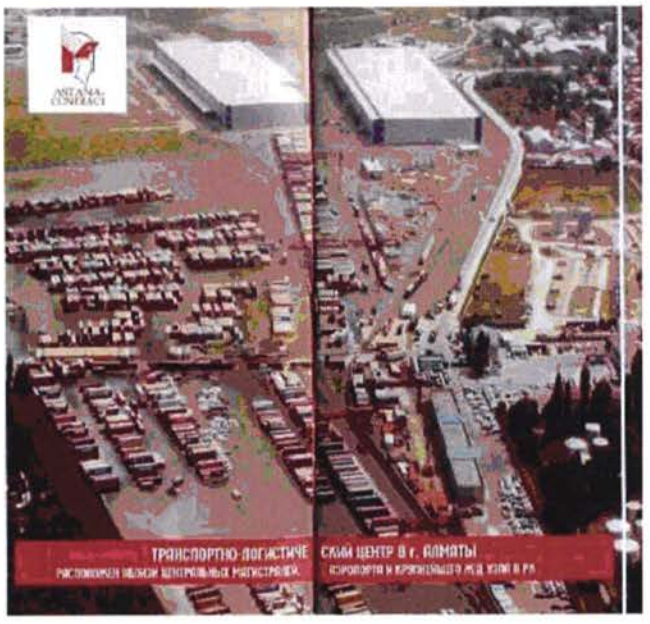
The container terminal services include:

- specialised container terminal with access railroad lines to perform all operations with large-tonnage containers (60,000 TEU per year);
- storage of containers;
- receipt and dispatch of cargoes (including oversized cargoes and motor vehicles) in freight cars and platform;
- commodity cash desk services of railway station Almaty-1;
- customs clearing services;
- professional management system;
- fiber-optic telecommunications;
- services of commercial access centre to information systems & data bases of transport department.

The warehouse logistics services include:

- safe storage of products;
- information about stock, status and movement of products in real time regime;
- customs clearing;
- address delivery of products;
- pallet-forming, orders-forming;
- co-packing, marking;
- handling of products, registration of movement and storage of products in warehouse;
- products insurance from all types of risks.

Photo 2: „Astana Contract“



The construction of this transport-logistic center, done to international standards, with application of modern information systems and technologies, has permitted during the year 2006 to operate more than 25,000 containers that are 40% more than in 2005.
The plans of the "Astana Contract" (joint-stock company) for the next five years include building of transport-logistical centers in the cities of Astana, Karaganda, Shymkent, Aktobe (Kandygash) on the Dostyk Railway Station, on the Chorgos road border crossing and the port or Aktau City. This first transport logistic center of Kazakhstan was inaugurated in Almaty on 20 September 2007. This project was started two years ago, and took 14 months to complete.

The cargo is stored, in an area of 50,000 square meters. There are permanent storage areas, and one compartment of 5,000 m^2 for temporary storages. The sites will be leased for 5-7 years. Simultaneously, 70,000 pallet - places will be stored, or 500 to 600 railcars. The terminal area is 25 ha, the 5 ha of which is a grant of Almaty Akimat. The Project cost was $50,000,000. This TLC can operate 60,000 containers today and later 80,000 per year. (Paragon Development Systems is one of developers of "Astana Contract" which has two administrative structures one joint stack (owners a done limited liability for operations). The land belongs partly to Paragon Development Systems and the rest to „Astana Contract“ which is owned by the same shareholders. Paragon Development Systems is a financing company.

"Astana Contract" leases the land from Paragon and „Astana Contract“ J. Stock company .Two warehouses class A (European standards), total 50,000 m^2 covered area height is 12m. They established also a company (CALM) to do the warehouse management. They visited three years ago 14 warehouses in NL to learn. It is divided in warehouse zone, container yard and zone for imported cars It has nine rail sidings. "Astana Contract" is mainly container terminal. They have five gantry cranes Russian or Ukrainian fro 40 ft and 20 ft and 1 reach stacker and five mobile cranes.

Almaty is major rail junction towards China and Russia and South Kazakhstan, (Karaganda is also big freight junction) near Almaty 1 rail terminal (2 km chose to Taldy Kurgan City region (to the north). Very strategic location.
The area in Sq. m for the container park is 5 ha for full, plus 12 ha for empty containers. Big problem are the empty containers, they transfer them to China or Pusan Port, South Korea and to Russia via Vladi-

vostok. They only import full containers to Kazakhstan, then most are sold to the market empty or returned back via the ports (China, Korea). They do not use empty containers for exports from Uzbekistan because there are not appropriate products as electronics, etc. They import white appliances from South Korea, China. Containers per year handled: (already the container yard operates ten years) 1,200 – 2,000 per month full, 1,000 - 15.00 empty per month X 1.7 = TEU.
Four out of the five cranes are new and can carry up to 50 t (one is older and is only for 20-ft containers) is not PPP, purely private they constructed 6 km of the approaching rail line. Thus 117 wagons an be processed they have own shunting locomotive rail terminal "Almaty 1" sends the wagons when they need them. They can double the productivity with the available resources and infrastructure. They can process up to 5,000 wagons/month.

They have plans to expand the area by 20 ha (to buy the land) and to build new warehouses. But still they don't work in full capacity (medicals from Germany, Bulgaria, Hungary) for parts Nissan use the warehouses. (There are some smaller containers yards and warehouses in the area of Almaty 15 small temporary storage warehouses around Almaty 1). They also have 8,000 m^2 bounded heated warehouses for pharmaceuticals also specialised in importing cars with special wagons. They also have trucks to carry (deliner). "Astana Contract" of Almaty the biggest container terminal/dry port in Kazakhstan. Here are also custom control, custom brokers, X-ray control. They had Dutch consultants for helping them to organise. The owners of "Astana Contract" have bought 46 ha in Astana and will develop there a new LC, too.

Astana New Industrial & Logistic Centre, DAMU

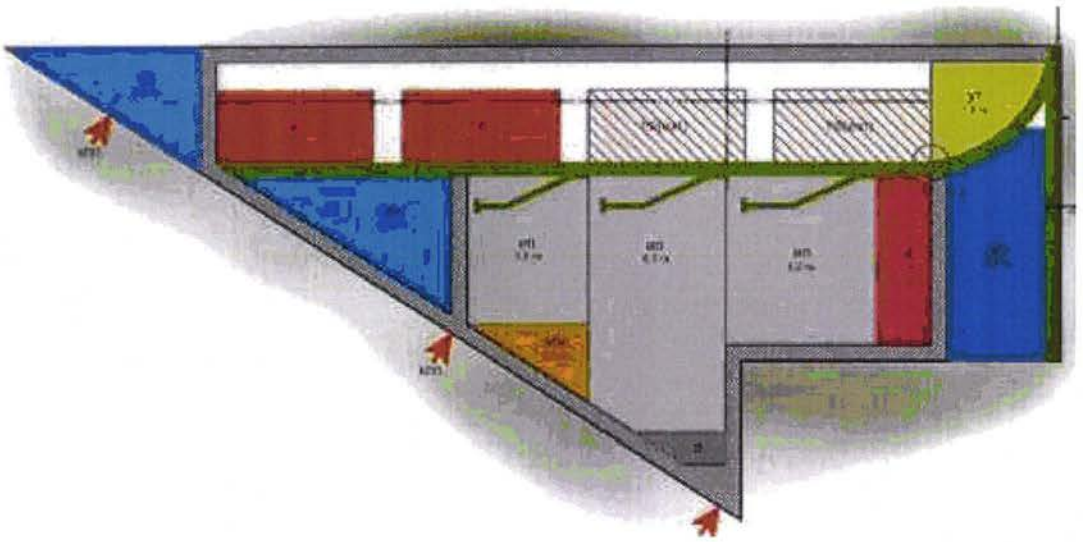
A site visit was undertaken on 4/4/08. It is located in Kazakhstan, in Akmola region, 7 km far from Astana centre to the north, on the Astana - Pavlodar and Astana-Kustanai roads. It is also 20 m away from the Railway Station no. 39. The total area is 53 ha. Of it the industrial zone is 29 ha, the warehouse facilities occupy 12 ha, the Infrastructure area takes 3 ha and the WDC zone 3 ha and the container platform 3 ha. The structure includes industrial zone, heating system, wholesale distribution centre, utilities (power station, water-well, etc.), expocentre.

The Infrastructure includes: electricity - heating - water supply system, sewage system, digital telecom, locomotive depot, office premises, hotel, catering and road and railway network. The schedule for sale or leasing to clients is for industrial area sale: 3rd quarter 2007, for warehouse facilities for rent: 3rd quarter 2007, for expocentre for rent: 3rd quarter 2007, for industrial buildings sale: 2008 and for administrative building for rent 2008. The start in operation is scheduled for end of 2008. The development plan foresees the following:

- warehouse facilities 88,000 m^2, first phase – 44,000 m^2;
- industrial zone: 53 ha;
- auto & railway network;
- railway loading park;
- weight platform (for wagon & auto);
- wagon's carriage;
- administration unit (hotel, office premises, sport facility, parking, car wash, catering);
- sewage purifying facility;
- fire fighting facilities;

- heating system;
- sewage system;
- water supply system;
- electricity supply;
- container area;
- parking for long vehicle;
- infrastructure for multimodal transportation; and
- video monitoring.

Photo 3: DAMU Astana



The forecasted freight turnover for loading/unloading operations will be 1,350 wagons per month or about 16,200 wagons per year. The types of freight to be handled will include:

1. containers;
2. construction materials;
3. construction machinery and facilities;
4. cars;
5. agro-machinery/equipment;
6. household chemicals, cellulose; and
7. other cargos (non-dangerous).

Astana Rail Terminal

A site visit was undertaken on 26/9/07. The area of the terminal is about 24 ha. It has installations for handling bulk goods and containers, central checkpoint, garages, warehouse, workshop for container repair.

For bulk goods there are warehouse of temporary storage under customs control. Goods are unloaded to the warehouses then customs clearance take place. All the cargo concerns imports to Astana, all come by rail in freight wagons with pallets.

For handling containers there are five cranes in total:

- two cranes for 24-ft containers;
- two cranes for 40-ft containers; and
- one crane for small containers (of 3-5 t).

There are also two cranes for other heavy cargo (not including containers).

The rail line has capacity for 24 platforms (wagons). Forty (40) wagons are usually unloaded per 24 hours and about twenty (20) wagons loaded, while there is a 20% spare capacity. There are 18 rail lines for loading/unloading with a total length of 3,800m. The condition of the infrastructure is mediocre, needs renovation.

An expansion is planned of the area for containers hand ling. No more space is needed to cater for the demand, presently. The storage capacity is 132 containers in one row (stack 3 on top of each other), two lines for stacking. The only container operator is KasTrans Service. There is operation room for processing transport documents in automatised system but not connected to central database. They provide info to customs for the clearance.

Needs: load lifting equipment, expand capacity of terminal for future needs, renovate the old fashioned equipment. The condition of the terminal is not coinciding with the rapid development of Astana.

Traffic in Astana Terminal

From 1 to 25 September 2007 333 wagons (all with containers) were loaded (108 small size containers of 3-5 t and 225 large containers 20-ft, 24-ft or 40-ft) and 999 wagons were unloaded (195 closed top wagons, 38 platforms, 222 open top wagons, 32 other wagons, 112 small containers, 400 large containers) while there were 2331 wagons in process of unloading (865 closed top wagons, 170 platforms, 786 open top wagons, 38 other wagons 82 with small containers and 390 with large containers).

- total loading and unloading of containers (all types) in 2005: 20,438
- total loading and unloading of containers (all types) in 2006: 19,416
- total loading and unloading of 20-ft containers in 2005: 6,298
- total loading and unloading of 20-ft containers in 2006: 5,855
- total loading and unloading of 40-ft containers in 2005: 2,062
- total loading and unloading of 40-ft containers in 2006: 2,417
- total loading and unloading of 3 t containers in 2005: 4,815
- total loading and unloading of 3 t containers in 2006: 4,114
- total loading and unloading of 5 t containers in 2005: 7,263
- total loading and unloading of 5 t containers in 2006: 7,030

Aktau Port

A site visit was undertaken on 16/4/08. The international commercial sea port of Aktau is situated on the Kaspian Sea coast and is a unique sea port at the east coast of the Republic of Kazakhstan, destined for international transportations of dry cargos, crude oil, oil products.

Port Aktau is a modern multipurpose terminal with following technological possibilities:

- four oil-loading terminals, possessing possibility for simultaneous handling of four tank ships of 12,000 t displacement;
- train-ferry dock complex permitting to realise a roll-on/roll out of cars, that run in through railway service and combined train-ferry service;
- grain terminal with planned operational capacity until 600,000 t/year and simultaneous storage of 24,000 t of grain;
- three universal moorage for general cargo and bulk cargo, one moorage for operations for "RO-RO" ships
- storage areas - around 75,000 m^2 of esplanade and sheltered transit storage 6,000 m^2.

The services provided by Aktau port, are as follows:

- loading, unloading (including stowing), separation, cargo securing/releasing, dry cleanup of cargo rooms after unloading draft freighters, announced by the port;
- forwarding services;
- terminal operations with cargos;
- transshipping of cargo on and off ships;
- handling vessels with foodstuff cargos and cargos to be stored in specialised storage places by means of "a direct option" (ship-to-train; ship-to-truck; ship-to-ship and vice versa), without storing the cargo at Aktau Port depots. Aktau Port handles dangerous cargos according to IMCO, MOPOG regulations after advance approval with the port. Cargo is delivered upon the port's confirmation;
- issue of bill of ladings, manifests, issuance of shipping and other transport documents of loaded/unloaded cargo;
- mooring operations;
- registration of ship free practice;
- supply of drinking water;
- removal of bilge, ballast, feces waters, garbage removal;
- provision of tugs for mooring operations;
- provision of refuge berths for ships;
- provision of dustbins for ships;
- dry cleanup of ship's cargo rooms;
- energy supply of ships;
- underworking of cargos (package repairing, cargo repackaging, etc.);
- cargo marking and re-marking;
- special securing of cargo on vehicles;

- miscellaneous works and services, specified in treaties (agreements), including dispatch and demurrage payments.

Aktau Port is open for ships the whole year round. The production facilities of Aktau Port permit to provide an annual transshipment around 1.5m. t of dry cargo and 10m. t of bulk-oil cargo.

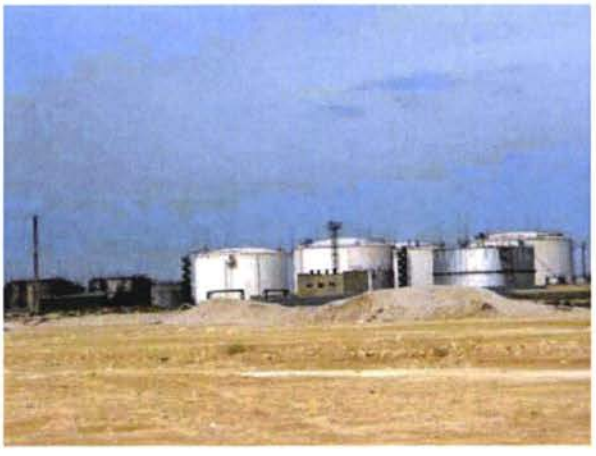
At the moment, the project "Aktau Port Enlargement for Nord Direction" is at the stage of realisation. This project is covering a construction of waterproof structures, 4 bulk-oil and 3 dry cargo docks, a dock for port-fleet and installation of channel dredging. In the result of this project the production facilities of port will be 20m. t of bulk-oil cargo and 3m. t of dry cargo annual.

During ten months of year 2007, the volume of reloading trans Aktau Port is 9,215,500 t of cargo. Oil – 7,836,000 t, metal- 93,838,000 t, Grain- 157,200 t, other cargo – 283,500 t.

Port Aktau is a part of international transport corridors -TRACECA, north-south. The general assortment of cargo of TRACECA corridor, passing through Aktau Port, are grain, metal, containers, other cargo having destination to Azerbaijan, Georgia, and via Black Sea to European countries. The transit is cargo destined for Asia from China. Till October 2007, the volume of reloading trans Aktau Port:

- in the context of TRACECA was 277,400 t;
- in the context of North-South was 7,573,500 0 t;
- in the context of Inogate was 1,364,600 t.

Photo 4: Oil terminal Aktau



More information about Aktau Port from the feasibility study of Scott Wilson is given following:

The City of Aktau was constructed in the 1960s, after oil was discovered in the region, and its main activity initially centered around the nuclear power station. (Now closed down, but potential source of pollution. Water is a problem as it comes from desalination plant but is not of good quality). The feasibility study for the expansion of Aktau Port is a regional TACIS project conducted by Scott Wilson 2008. The port of Aktau handled 11.5m. t of cargo in 2006, of which 87% was oil exports. The average growth rate was 12.6% p.a over the last five years. This growth, however, was all in oil and 'other' cargoes, with steel exports remaining flat over the five year period. The grain traffic, for which silos have been built in the port, has been volatile and not yet taken off. The limited range of cargo handled at Aktau is not a post-Soviet Union phenomenon. Even in the 1980s, Aktau handled only about 7m. t of oil and a few hundred thousand t of low value materials, such as salt and coal. In the longer term the Special Economic Zone should generate additional traffic, but it will take time.

Almost all of Aktau's cargo consists of exports. Although Kazakhstan's imports were over $25bn. in 2006, they entered the country mainly by rail, or, if they were of higher value, by road. This is because their origins are mainly in countries with land borders with Kazakhstan - e.g. Russia, Iran and China.

Almost all of Aktau's dry cargo goes to Iran at present, along with about 40% of the oil. The other main destinations for the oil are Baku in Azerbaijan (25%) and Makhachkala (35%) in Russia. The only other

destinations of Aktau's dry cargoes are Baku, for the ferry traffic, and Greece and Turkey for small volumes of steel scrap.

Aktau is served twice a week by a rail ferry from Baku. Its cargoes have consisted mainly of oil shipments in rail wagons from Aktau to Baku and mixed general cargoes on the return voyage back to Aktau (total traffic two-way 628,000 t in 2005, 308,000 t in 2006). The general cargo from Baku to Aktau has been increasing rapidly (15.6% growth p.a 2002-2006) while the opposite direction decreasing (-25.1% p.a 2002-2006).

Aktau handled only 1000 containers, an extraordinarily low number by international standards, in 2006. Almost all the southbound containers are empty.

The majority on the containers are not being returned - i.e. the trade is based on the use of one-way boxes. The container traffic, however, has doubled in the last two years. In brief, although both container and inbound Roro traffic are very low by international standards they are increasing rapidly, by 48% p.a. and 16% p.a. respectively.

Large volumes of future cargo is expected for the construction of the Aktau New City which is being planned by investors from Dubai. The project was launched in September 2007. The population is expected to reach one million people by 2020, (existing population 150,000) according to plans. The project will require large amounts of construction materials and when the city is built it will require consumers goods. Imports are expected to arrive from Turkey via Baku to Aktau by truck or rail wagon mostly in containers.

The port has now 7.5 ha of open storage and 0.6 ha of covered warehousing. A second warehouse together with additional open storage has recently been constructed by the port. The port has a single road access point in the north-east corner of the port. This road is a standard two lane road. Shipments can be sent to the port by road without passing through the city, which is sufficient to meet future demand. Around 90% of cargo through the port is carried by rail. The port has a single access line to the local rail network operated by KTS. The port is well equipped with rail-mounted portal cranes, Mobile harbour cranes, forklift loaders, port semitrailer, Bucket autoloader, Tipper truck. It also possesses a range of crane attachments for handling cargo (e.g. spreaders to handle containers: the larger one is adjustable and able to handle all sizes of container except 45-ft boxes, whereas the smaller unit can only handle 20-ft boxes).

Of the four international transport corridors which pass through the territory of Kazakhstan. Only the TRACECA corridor would be likely to use the port of Aktau. But so far Aktau has handled very little TRACECA Cargo apart from oil.
Taking in account the above, one scenario of forecasts in Scott Wilson study is that in 2020 there will be 6m. t dry cargo and 640,000 t containers traffic.

Dostyk Station

(Dostyk in Kazak or Druhzba in Russian means friendship).

Dostyk-Alashankou border - crossing plays a significant role in the Eurasian freight traffic especially in the Europe-China trade.

A 55% increase of container transport through Dostyk was observed in 2006, while 78% of all organised container trains of KasTrans Service have passed through Dostyk.

Table 7: Volume of containers through Dostyk

Year	Export	Import
2003	2,804	9,472
2006	26,822	53,398
2007	27,895	74,551

At Dostyk there are old terminals but Kedentrans Service, Kazakhstan Temir Zholy will upgrade them. (7 different terminals exist in Dostyk for different kind of cargo, owned by state, rented to Kedentrans Service and KasTrans Service). There are no warehouses; there is 1 closed terminal for containers, 1 open terminal for containers, 4 cranes, 2 reach stackers (only 1 crane of them for 32 t). Dostyk is the main logistic station between Kazakhstan and China.

Dostyk Station Terminal technical specifications

1. Total square area of the below-listed cargo yards (CY) at the Dostyk Station is 33.27 ha:

- CY no. 1 (open type) sq.area 3,840 m²;
- CY no. 2 (covered type) sq.area 4,252 m²;
- CY no. 3 (covered type) sq.area 5,700 m²;
- CY no. 4 (open type) sq.area 10,416 m²;
- CY no. 5 (covered type) sq.area 1,784.1 m²;
- CY no. 7 (open type) sq.area 7,280 m².

2. Quantity and type of loading facilities and machinery:

CY no.1

- 2 wheel-mounted crane of KC 5363 D-type;
- 5 lorry-mounted crane of QY - 25 (2008) type;
- 3 auto cranes of KC - 4572 type;
- 2 auto cranes of KTA - 25 type;
- 3 auto cranes of QY - 25 type.

CY no. 2, 3

- 12 Toyota auto loading facilities;
- 3 Toyota electric loading facilities.

CY no.4

- 2 large tonnage auto loaders of SMV SC 4527 T type.

CY no.5

- 1 vibroloader of ДП32УХЛ type and mechanical shovel

CY no.7

- 1 gantry electric crane of КС - 5042 B type;
- 1 gantry electric crane of КС - 3220 B type;
- 2 auto cranes of КС - 4572 type.

3. Covered warehouses are located at re-loading sites no. 2, no. 3, no. 5 of a total sq. area of 11,736.1 m²

4. Services offered

- reloading from Chinese wagons into Kazakh ones;
- reloading from wagons onto trucks and vice versa.

An agreement was signed between Kazakhstan, Korea, China to develop the border crossings, multimodal facilities and links to Dostyk and DAMU will be involved with KasTrans Service and a working group is established.

Photo 5: Dostyk planned LC (source ACCEPT)

Aktobe Rail Station

In 2007 at the premises of the Aktobe Station only 20,817 containers were loaded, including 6,338 of large-tonnage ones. There only 22,892 containers were unloaded, including 8,474 of large-tonnage ones. Aktobe Railway Terminal description and services offered:

1. Total square area of the terminal is 16.7 ha;
2. Quantities and types of the reloading facilities and equipment:
   - gantry crane (КК-5) - 2 units;
   - gantry crane (КК-20-25) - 1 unit;
   - gantry crane КДК - 12,5 - 1 unit;
   - gantry crane КК-20-32 - 1 unit;
   - diesel auto loader (Toyota) - 1 unit.
3. Annual turnover handled in 2007:
   - in containers – 23,815 units;
   - in wagons – 1,599 units;
4. Area and quantity of the covered warehouses:
   - 5,610 m^2 - 1 building;
5. Services offered:
   - container/wagons loading, unloading, road transport services, storage, temporal storage warehouse, crane operations.

Karaganda Rail Station

In 2007 at the premises of the Karaganda Station only 8,479 containers were loaded, including 3,067 of large-tonnage ones. There were 9,564 containers unloaded from the wagon platforms, including 4,165 ones belonged to KazTrans Service.

Karaganda Railway Terminal description and services offered:

1. Total area - 118,107 ha.
2. Quantities and types of the reloading facilities and equipment:
   - gantry crane (КК-5) - 3 units;
   - gantry crane (Takraf) - 1 unit;
   - gantry crane (КК-20) - 1 unit;
   - gantry crane (ККС-10) - 2 units;
   - gantry crane (КС 12,5) - 1 unit;
3. Annual turnover handled in 2007:
   - in containers – 7,841 units;
   - in wagons – 2,024 units.

4. Area and quantity of the covered warehouses:
   - 1,266.6 m^2 - 1 building;
5. Services offered:
   - container/wagons loading, unloading, road transport services, storage, temporal storage warehouse, crane operations.

For reference: 72 Russian regions are maintaining economic relations with the Republic of Kazakhstan. As per assessments of Kazakh experts, Russia takes 20% of Kazakh export, and 50% of import. The cross-border trade between these two countries makes 70% of the whole trade turnover.

Shymkent Freight Terminal and planned LC

A visit to Shymkent for meeting officials was undertaken on 18/3/08.

Kazakhstan has a national strategy with priorities for the development of LCs. In South Kazakhstan the aim was initially to develop LC at the airport but as there is not enough space, the idea was cancelled. Shymkent is located on the junction of corridors: China - Chorgos - Shymkent and then to Tashkent or to Samara/Russia or to West Europe (TRACECA). Actually there are three corridors beginning from Shymkent. In addition there is an industrial zone (chemicals, lead production) and a population of 500,000 people.
The objective of the regional government is to have an area of 50 ha for the LC. A final decision for site is not made yet, it will be completely new, while there is availability of national funds. Kazakhstan is divided in seven corporations for landownership (state-owned with independent management). The regional government will do an agreement with the corporation.

It is not decided yet if space will be leased to forwarders and transport operators, but of course it will be commercialised. The region's governor will regulate construction and operation. The new LC will be connected to the railway. No master plan is available yet, but a prefeasibility study exists.

The planned LC will be developed under a PPP scheme as it is needed however to attract private investment. The industrial zone is to be upgraded, thus the LC is needed. The LC will be for containers, industrial products.

The corporation (Social Enterprise Corporation, Shymkent) incorporates three regions (Shymkent, Kyzylorda, Taraz). The Ministry of Industry is involved, too. There are railway sidings to the industries. The Railways have two container yards (one of them is new). There are also warehouses.

From China to Europe the trip duration is 15 days by rail instead of 35-45 days by sea. There are different opinions about the site. The Department of Transport prefers a site near the industrial zone. The Social Corporation proposes a site near the airport. Main condition for new LC: to be near the corridor East - West - China - Chorgos - Almaty - Taraz - Shymkent - Turkmenistan - Kyzylorda - Aktau. The corporation has proposed to EBRD to finance it (the EBRD is interested, they made presentation to EBRD and orally got approval).

In Almaty a private consultant prepares a feasibility study for the corporation and the MoTC. The site is not decided yet: As Shymkent is the intersection of transport corridors with big flows for different com-

modities, it has advantages, but it is not less important to locate it in Taraz (near Kyrgyzstan) or alternatively at Kyzylorda or Turkmenistan.

Turkmenistan was of the main junctions in Silk Road. This is important asset for LC (the available area only 2 ha) (there is confusion about what an LC is). The 100% of shares of the corporation belong to government. The financing mechanism will be PPP as follows: up to 49% of corporation, 51% private investors.

They already have a PPP for a regional agri complex. In this case the private sector provides the land and the corporation the funding and the administration. 200 ha is the area of this agri complex in Shymkent. So this is the LC for agricultural produce already under PPP, now in the stage of making the legal documents.

One private forwarding company, Moda Ltd., have done feasibility in Moscow to install small LC in Kyzylorda but the corporation don't consider it seriously.

Chorgos

A logistics triangle (Chorgos – Aktau - Taskala/Saratov) is defined.

1. Chorgos, FEZ, containers operation customs clearance, special customs treatment;
2. Taskala West Kazakhstan border with Russia (Saratov) for international container operation, FEZ; and
3. in Mangistau oblast Kuryk and Aktau, FEZ in Aktau of international status also FEZ at border with Turkmenistan, Iran involvement.

FEZ's in borders are forming transboundary mutual benefits. Chorgos is a centre for border area of cooperation. 350 ha in China side with manufacturing ~ 185 ha in Kazakhstan side. Now they work on investment side, 150 facilities till year 2018 feasibility, for SEZ is conducted by MoTC. As Almaty contributes 22% of GDP without oil and gas, it will be connected to Chorgos with straight transport links.

Steps to develop a new LC in Astana, by DAMU

In order to develop a new LC in Astana, DAMU has both land from private owners, usually agricultural and have to submit business plan master plan, environmental Impact study, design study to various authorities to get permits for LC, to be included as investor to law for tax incentives, to change land use to industrial, to get connected to utilities and to railway (siding) and to motorway.

They may also buy from state the land but with auction where competition might be strong. It is purely Kazak investment. A design office in Kazakhstan has done the design and master plan. They get exclusive rights for rail siding to be manager operator for the entire site which is about 58 ha.

They start construction in April 2008 and till October 2008 they will finish one warehouse of 20,000 m^2. 12m. high and all the utility networks rail sidings, road connection and all internal networks (road, rail) three more warehouses to be constructed next year and on (of same size). They will sell plots as developers to third parties to establish light manufacturing especially new technology zone. As they are also hav-

ing customs facilities they get for LC development, a license from Customs Ministry too (among the other licenses). In Almaty they conceived the idea in 2005, it took one year to buy the land, do all the studies and get all the permits and now they already partly operate and finish constructions. So although there is no "ones to shop" the procedure walked fast.

3.3.2 Kyrgyzstan

Logistics centers in Kyrgyzstan

Logistics is at a zero position now in Kyrgyzstan. There are old fashioned cargo terminals (railway) which practically are not functioning now. The reason is that there are no substantial cargo volumes as in Soviet times. Kyrgyzstan is the end of the network, has only 422 km of rail in total, not connected between them (one ending from Uzbekistan, one from Kazakhstan).

Multimodal transport is not used due to above reason. The only hope is to connect by new rail line, Torugart from China to Uzbekistan (through Arpa River Valley, Uzgen to Karashos (near OSH Rail Station) to get to Uzbekistan network towards Andijan. They have prefeasibility study, they look for investor to do it complete feasibility study. According to the prefeasibility $1.2bn. is the cost of construction (incl. taxes, without taxes $0.8bn.). It was done by Chinese experts. The logistics centres should be located according to government policy in Bishkek and in OSH (the two big cities of Kyrgyzstan). In Bishkek will be in or near the existing Alamedin-1 rail station (obsolete now very old infrastructure).

The two big cities are elected as they are the two main junctions of rail/air /road transport. They have cranes for 20-ton containers in the rail terminal (Alamedin-1 in Bishkek) and one mobile crane provided by TRACECA for 40-ft container.

Container transport is mainly by rail transport (by road they have other traffic not containers). No sufficient quantities of transport flows. Bishkek City has about one million population. There are some private small warehouses of wholesalers around big bazaars. They sell directly to the market (Almaty is also near and multinationals as Procter & Gamble, Philip Morris distribute from there).

The legal framework for LCs, multimodal transport, freight forwarding, is not developed yet, it is a wild market. There are 3-4 free zones designated initially in Kyrgyzstan, but only two remained in the plan (Bishkek already operating and Issykul Airport not working yet), where they import tax free to assemble and export. They have difficulties because of communication networks. A strong point is that the airport is located near the FEZ. Another problem is that the FEZ is remote from rail line and of main road (the road connection existing is obsolete).

ADB has rehabilited the road Almaty - Bishkek and is mainly investing in transport infrastructure. ADB, Islamic Bank of Development, Japanese government support, Chinese government support are the international donors contributing to transport infrastructure (roads and airports).

The important railway terminals are:

- Balykchy Rail Station (Lake Issykul) has played an important role in regional transport in the past but now it operates with spare capacity (no container handling) (at Balykchy there is a private container yard - Kumtor Company).

- Alamedin Rail Station is located in the industrial are of Bishkek and operates as container yard, equipped with cranes and two reach stackers (one funded by TRACECA) (capacity of the terminals: 1,000 container/month).
- Osh Rail Station has also a crane for handling containers, but there is no room to expand.
- Dzalal Abad Rail Station has no capability to handle containers but there is area to expand and develop multimodal operations.

Government priorities: Plans approved by the government put the following priorities for LCs:

- Sary-Tash (Chinese border) logistics border terminal ,medium priority;
- At-Bashi (Naryn FTZ), logistics border terminal, high priority;
- Alamedin, multimodal hub, high priority;
- Balykchy, multimodal hub, medium priority;
- Osh, container yard, high priority;
- Kar-Sun (20 km from Osh), multimodal hub, high priority.

Rail Terminal Alamedin in Bishkek

It is located at the entrance of Bishkek. A site visit was undertaken on 9/4/08.

They have reach stacker for 40-ft.They import here white appliances; cars (second hand) from USA in containers, there are two warehouses of low height 5.15m. One stacker from TACIS is already functioning for 40-ft containers (before it was not possible for 40-ft in Kyrgyzstan).

They are enlarging the area. They bring containers from Riga through Russia - Kazakhstan, from China (Kitai) through Dostyk (Kazakhstan), from Bandar Abas - Saraks - Turkmenistan - Uzbekistan - Tashkent - OSH - Bishkek (through Kazakhstan). Also from Brest Port (Belorussia) 30 - 40 imported containers per 24 hours, also 30 - 40 reloading or empty but there is problem with empty returns of containers which are being sent to initial origin.

Two rail lines for empty containers back sending and seven cranes for 20-ft containers (Russian made) are available. There are also customs services, customs brokers, sanitary inspections/certification here and finally wagons loading/unloading (about 20 wagons in coming per 24 hours many shifts - non stop).

FEZ Bishkek

A site visit was undertaken on 9/4/08. It is located 14 km from Bishkek. LCs are of interest for them. They have brochure in English (has the legislation also) development of FEZ started in 1996, USD 800,000 invested in 1 year, 100m. investment since 1996 (foreign and local capital). By 2006 over 3,000 people employed in the two zones of FEZ (the upper zone is exhibition).

In both zones there is manufacturing. In upper zone 33 industries and in lower zone 30 industries. They try to further develop the FEZ. New construction has started. The upper zone has an area of 46 ha, while

the lower 286 ha, 70% of land has been developed (not a penny from state budget many interested companies but after 1998 benefits were reduced). Output production for twelve years over $300m.

The government has offered the land to the investors for free, each investor pays for infrastructure development, the government has also offered the utilities networks and the land for road connection. 606 entities exist now in FEZ, manufacturing production is done by 63 companies. Containers are transported in/out to the FEZ by road.70% of production is exported, last three years 2.5m. Kyrgyz sums is produced (or about $70m.). Investors from 22 countries (USA, Korea, Kazakhstan, Iran, etc.) more than 100 items produced as construction materials, timber processing, chemicals (paints), sewing.

Provided that support will be given by the parliament/government they will expand FEZ with a subzone in Chu Valley (another location), 80 km from there, where they will have rail siding and all needed communications. They already have investor, provided that the rail siding is given. They are not interested, in commercial activities but mainly in production, they have concluded that new technologies get return fast. They have one stop shop, so it is possible to register a company here in one day. They also have customs services, juridical assistance, bank.

This is the only FEZ working successfully in CAR. Zero rate taxes for manufacturing, no custom duties (0.15% for customs declarations/and 2% for infrastructure development fund from retail sales). They produce small aircrafts (4 seats) and helicopters. They also have good contacts with Dubai free zone. They need LC because for example it takes long time to send goods to Canada.

3.3.3 Tajikistan

After joining the MLA by Afghanistan in 2005 and completion of construction of a road bridge over the River Pyang (August 2007) Tajikistan, being a landlocked developing transit country, will represent one of the key links in the international transit chain between China and deep-sea ports of Bandar Abas and Karachi and Central Asia - and farther. Having in mind that 45-50% of export goods transported by road fall on the share of perishable goods (out of more then 200,000 t per year), this issue should be taken into account as one of the most important ones.

Networks of freight terminals of Tajikistan are presently under development. In Dushanbe, Kokand and Kurgan-Tube are already constructed and under operation with the turnover of 100-150 trucks per day. The relevant customs procedures are foreseen in this terminal.

ADB is financing the study on development of transport strategy for the MoTC of Tajikistan. A new national law on freight forwarding activities was elaborated and approved in 2006.

Dushanbe - 2 Rail Freight Terminal

A site visit was undertaken on 10/4/08. The Dushanbe - 2 rail freight terminal is about 17.5 ha, has no warehouses but there are old warehouses in the surrounding area. It has 1 crane for 40-ft, 1 crane for 20 ft, 8 cranes for 5-8 ft, (4 of them universal), 1 mobile crane. Quite busy terminal, imports of used cars, need for parking area. No reach stacker from TACIS, every day 12-15 containers come by rail (they have their own containers, 20 ft and 40 ft) from China, Russia, Korea, Bandar Abas.

3.3.4 Uzbekistan

General information about freight terminals in Uzbekistan

Chukursay (located north of Tashkent centre), is most appropriate for international traffic of containers, but it is also overloaded. A new rail terminal is 50% ready at Sergely for decongesting Chukursay and one crane is under operation. There are in total, five cranes at Sergely (four under preparation) one for 40-ft containers and 4 for 20-ft.The main priority is on Sergely terminal (they have partner company Uzvneshtrans). Tovarniy is second priority (they will buy reach stacker; a Russian company doing export/ import from here).

The annual container traffic in these terminals is:

Chukursay:	50,000 containers/year, but overloaded;
Sergely:	30,000 containers/year, also overloaded;
Tovarniy:	5,000 containers/year, expected to rise to 30,000 with new equipment (reach stacker).

In addition:

Sergely:	20,000 wagons with bulk per year (x 60 t each), it exists a special elevated line for unloading semi covered wagons from the side;
Chukursay:	no bulk, operates only for containers, has no warehouses only container park
Tovarniy:	traffic, not available.

The development and modernisation of the transport sector has been a government priority, given the urban population's high dependence on public transport and the importance of domestic and international trade for the economy. Restructuring of the railway, Uztemiryollari, has been proceeding and involves spinning off unrelated businesses, laying off redundant workers, and rationalising tariffs. The railway turnover of goods makes about 66% of the total share of cargoes transported in the republic. In 2006 it has been transported more than 50m. t of cargoes, that are 9% more than last year. As a result, the turnover of goods of the company has increased more than 1.2bn. t/km and made 19.28bn. t/km. The National Joint Stock Railroad Company "Uzbekistan Railways" is an important player of the Uzbek transport sector. The railway system transports the bulk of international freight. As per the indicators of 2005 the Uzbek import made 4.0m. t, exports - 4.7m. t, transit 8.0m. t. Total operational length of railways is 4,014 km, including 430 km of two-way track and 594 km of electrified track. In 2006 there 696,977.2 thousand t delivered by road transport, whereof the cargo turnover made 16,693.3m. t/km.

The ADB in end of 2006 completed study of transport development strategy of Uzbekistan. The transport development strategy of Uzbekistan in November 2006 was approved by government of Uzbekistan.

Location of potential logistic centres in Uzbekistan proposed by UIFA

In addition to the ones mentioned in the ADB report of development of transport strategy in Uzbekistan:

1. Chukursay (direction to Keles/Kazakhstan);
2. Bukhara (direction to Turkmenistan and Port Aktau;
3. Andijan (direction to China via Irkeshtam);

4. Termez, (direction to Afghanistan).

UIFA proposes for development other potential terminal around Tashkent as well:

1. Chukursay (direction to Keles North they can operate with 20-ft and 40-ft containers (70% of total freight)
2. Tashkent freight st. II/East. (20% of total freight)
3. Sergely/South (10% of total freight), specialised in bulk cargo, warehouse are partially operational.

At present it is not possible to extend the Churkursay Container Terminal. UIFA proposes to take into consideration option of development of Sergely or Yangyiol (30 km in south from Tashkent) logistic terminal (in 2002, a feasibility study was elaborate under the KWK foundation/ German Government). It should be more efficient due to large space for redevelopment.

Tashkent Tovarniy ("Goods") Rail Terminal

A site visit was undertaken on 12/3/08 .The available area is about 16.5 ha, but there is no other area for expansion, the infrastructure is old fashioned. Main activities are focused on cargo storage in accordance with cargo classifications. For this purpose there are over 20 warehouses available in the terminal, each of them has its own railway track enables cargo loading/unloading inside of the warehouse. The path-routing is divided into four railway tracks. The terminal is planned for handling of the cargoes with final destination in Uzbekistan. Loading/unloading activities of transit cargoes are not possible there.

All warehouses need renovation or better need to be built from the beginning to be taller (12 m high instead of 5 m). At the moment three warehouses with the total square area of 2,250 m^2 (750 m^2 each) are under large-scale rehabilitation financed through the budget of the company. The reconstruction is being undertaken in accordance with the European standards, main aim of which is ability to maintain certain temperature regime. However reconstruction has stopped due to lack of funds from international donors or private investors (PPP or private financing).

The cranes for 3-5 containers should be removed. The areas for stowing 3-5-ft containers should be freed as these containers are not used anymore. The location is appropriate for city logistics (it is located near the city centre).

The owner and operator is Uztemiryulkonteyner, a joint stock company of the state and of the Railways, which has branches in Bukhara (not priority for upgrading), Termez, Andijan, Tashkent, Fergana (Kokand City), Nukus and Karshi City, but not in Navoiy City (in Tinchlik station where the government is planning to develop a LC as a first priority). Containers of 3-5-20-40 ft can be processed there.

Joint Uzbek-Russian entity is located in the terminal (Uztemiryulkonteyner from the Uzbek side - and DVTG Company from the Russian side). There are five loading trucks of Japanese origin (Mitsubishi) operated in the terminal.

Chukursay Railway Terminal

Photo 6: Railway Terminal Chukursay

- suitable for 20-ft and 40-ft containers handling
- total square area of the freight yard: 18.9 ha
- platform for handling of large-, medium-tonnage and bulky containers/freights: 5
- total area of the platform: 43,100 m^2
- turnover capacity for large tonnage containers (2 levels): 1,200
- daily handling output for large tonnage containers: 300
- simultaneous wagon placing capacity: 141
- quantity of approaching ways: 13
- total length: 7 km
- availability of electric gantry cranes (8):
  - of 5 t load capacity: 2
  - of 10 t load capacity: 1
  - of 20 t capacity: 3
  - of 30 t capacity: 1
  - of 32 t capacity: 1
- availability of wheeled-facilities track for unloading: 1
- availability of reach stackers: 1

A site visit was undertaken on 12/3/08. The terminal is owned by the Open Joint-Stock Company Uz-temiryulkonteyner. The company is a transport-forwarding container fleet operator of "Uzbek Railways"

(Uztemiryollari), involved into international and domestic cargo transport. At the time being 90% of the company's assets are put out to tender.

The total square area takes 18.9 ha. There are two cranes for 20-ft containers of Russian origin and one for 40-ft containers of German origin. Also there is a crane suitable for handling of 3-5 t containers, which is practically is not under operation at the present moment. All the available facilities are being operated for over 30 years mainly for transit freights handling and are in obsolete condition causing often failures.

Accessing railway branch line has 12 path-routing tracks, on one of which all the operated cranes have been assembled. Usually 23 container platforms are handled during 1.5 hours. There are opportunities to upgrade the terminal productivity in double through spare area and available 3-shift technical personnel provided that an additional 40-ft-container crane is installed. Alternative and considerable advantage will provided through purchase of one shunting diesel locomotive (in terms of independent platforms delivering) for independent operation by technical engineering services of the terminal enable inner self planning of loading/unloading activities and awaiting time reduction.

There are a number of companies leasing the terminal area aimed at container cargo handling and presenting repair and maintenance services of railway wagons and facilities, obtaining their own equipment. They are - Shoshtrans Company and private car-repair operator and other small ones.

Photo 7: Chukursay

The Chukursay Rail Terminal is mainly operated by Shoshtrans. Shoshtrans has here a warehouse, own fleet and a new reach stacker. According to Shoshtrans Chukursay is the best location for serving Tashkent and the area. Shoshtrans is JV of Russian and Swiss investment with the State, which in essence means that this is a good example of a PPP. Shoshtrans JV has started in 1994. Five years ago there was a very limited volume, now it's growing bigger, due to a boom of textile industry; exports are expected to grow ("Daewoo Textile"). Import has grown too from China.

They own a part of Chukursay Terminal (15.000 m^2) and their capacity reaches 600 containers per month. A 32% share belongs to the UZBEK partners, while "Transsibirsk Express" is the Russian partner. The partner from Swiss is "Transrail", while Uzbek Railways is also a partner.

They are profitable but need more financing to enlarge. Their truck fleet age is over twelve years, thus they want to renew it. If they can enlarge the truck fleet by 30 trucks, they can provide full operation to Fergana avoiding passing through Tajikistan. Only Shoshtrans has in Chukursay, a throughput of 600 containers of 20 ft and 40 ft per month, only for Asaka (Daewoo) factory. They use the route through Kamchik pass to go to Fergana - Andijan where is the Daewoo Asaka factory (origin Korea, China).

Bukhara Cotton Terminal

A site visit was undertaken on 13/3/08. Bukhara is a cereal and cotton producing area, irrigated from Aral lake and rivers; however salination of waters is a problem. Bukhara Cotton Terminal is dedicated only to cotton storage and loading to trains for long distance, or trucks (minor share) for short distance. There is some container handling too, for small quantities and for cotton only. The area of the terminal is 19 ha. Warehouses exist for cotton storage; the covered area is 35,000 m^2. There is no area for expansion.

Nine factories produce cotton in the greater area of Bukhara, at a range of 70 km (125,000 t yearly) cotton comes to the Bukhara terminal for consolidation and reloading for long distance transport (on trains). Trucks are mainly used for incoming cotton except from Karakol district that are transported with rail. Wagons are loaded from the side with 18 forklifts and reach stackers. The cotton terminal is equipped with two big cranes (Kalmar) for loading containers (which they fill here with cotton). This is a very well organised and equipped cotton terminal where it is possible to have storage of cotton bought from clients. The land outside the terminal is not available (is privately owned), while there is also a refinery of oil from the other side. TRACECA is donor for equipment (reach stacker) to the Bukhara Cotton Terminal. The poor condition of access road due to heavy winter should be pointed out.

Bukhara Container Terminal of Uztemiryulkonteyner

A site visit was undertaken on 13/3/08. This rail terminal focused 80% to timber (wood), coming to this terminal with rail wagons from the Bukhara Rail Terminal -2 (2 km away) for unloading and loading to trucks for local distribution. No warehouse exist here, no covered space except a hangar.

Traffic is 4-5 containers/day with rail and 7 wagons/day from Russia, Kazakhstan, which is in turn unloaded to trucks straight to local market in Bukhara. The area is 12.8 ha. And there is no space to expand. Three cranes for containers are available and one more is to be assembled. One elevated rail line for side wagon operations (load - unloading) is also available. This terminal does not have enough activity.

Navoiy Terminal (Tinchlik Station, 15 km from Navoiy City)

Tinchlik Terminal (near Navoiy City)

- suitable for 20-ft and 40-ft containers handling
- total square area of the freight yard 4.9 ha

- platform for handling of large-, medium-tonnage and bulky containers/freights 1
- total area of the platform 5760 m^2
- turnover capacity for medium tonnage containers 364
- turnover capacity for large tonnage containers 132
- daily handling output for medium tonnage containers 177
- daily handling output for large tonnage containers 60
- simultaneous wagon placing capacity 10
- quantity of approaching ways 1
- total length 150 meters
- availability of electric gantry cranes:
  - of 12.5 t load capacity 1
  - of 20 t load capacity 1
- availability of warehouses:
  - a warehouse of common usage 1
- total area of the warehouse 781 m^2
- total height 6 m

Information was given by Uztemiryulkonteyner on 13/3/08 as no site visit has been conducted. The total area is 4.9 ha. There are two cranes (one of them is in reserve). At the moment the crane of 25 t capacity is under operation. The capacity of the one in reserve is 16 t. The terminal is operating only for container-processing activities. In Soviet Union times the terminal was used for metallurgical plant needs, located at the distance of approximately 5 km far from the terminal mentioned. Now it has been stopped and the administration of the terminal is preparing a document package for Uranium export. The terminal is processing 4-5 containers/day of 20-ft - 40-ft loading. The terminal provides also some services for HTMK Factory as consultancy, logistics services, freight forwarding, cleaning of the wagons. Navoiy/Tinchlik Station deals with small production equipment/machinery transportation. There are two railway lines. One is for containers; another (elevated) is for bulk freights. There is possibility to expand.

Navoiy City is located near ancient Silk Road. With a population of 117,600 (1999), Lat. 40° 5'4N, Lon. 65° 22'45E, altitude 382m, is the capital of Navoiy Province, sitting on the road and rail connecting Samarkand to Bukhara (Tinchlik Rail Station), about 420 km far from Tashkent and named after Uzbek national hero. Old name was Karmana. It is connected with airplane to Tashkent. Heavy industry exists in the area (gold mining, chemicals, textiles, foodstuffs, perishable goods) and the biggest gold mine is also nearby (Muruntau).

There is a need to forward goods produced here for export to Europe through Turkmenbasy or Aktau or through Iran - Turkey. A new LC is planned here by the government (not proposed in ADB study as a location for LC development but suggested by government and by National Secretary TRACECA, Mr Buranov)

Sergely Terminal

- suitable for 20-ft and 40-ft containers handling
- total square area of the freight yard 21.7 ha
- platform for handling of large-tonnage and bulky containers/freights 3
- total area of the platform 29,100 m^2
- daily handling output for large tonnage containers 120
- simultaneous wagon placing capacity 85
- quantity of approaching ways 5
- total length 1,275 m
- availability of electric gantry cranes (9):
  - of 5 t load capacity 1
  - of 10 t load capacity 3
  - of 12,5 t capacity 3
  - of 25 t capacity 1
  - of 32 t capacity 1
- availability of the elevated railway track for bulky goods handling 1
- availability of common usage warehouses 1
- total square area of the warehouse 846 m^2

Termez

A site visit was cancelled due to "Afghan stormy wind" and flight cancellation. Termez (established by Alexander the Great) is a city located on river Amu Darya on the border of Afghanistan. It is the only point with railways and a road bridge ("Bridge of Friendship") to pass from Uzbekistan to Afghanistan to Kabul and to Mazar I sharif.

- suitable for 20-ft and 40-ft containers handling
- total square area of the freight yard 3.8 ha
- platform for handling of medium- and large-tonnage and bulky containers/freights 1
- total area of the platform 2,330 m^2
- turnover capacity for medium tonnage containers 126
- turnover capacity for large tonnage containers 200
- daily handling output for medium tonnage containers 177
- daily handling output for large tonnage containers 60
- simultaneous wagon placing capacity 15
- quantity of approaching ways 3
- total length 225 m

- availability of electric gantry cranes (2):
  - of 6.3 t load capacity 1
  - of 32 t load capacity 1
- availability of the elevated railway track for bulky goods handling 1
- availability of common usage warehouses 1
- total square area of the warehouse 72 m^2
- height 3,5 m
- availability of a tractor loader 1

BK Trans Road Terminal in Tashkent

A site visit was undertaken on 17/3/08. BK Trans was called Uzins Trans, they are initiators of international road transport in Uzbekistan). Road transport has a 70% share for national transport in Uzbekistan as it is more flexible than rail. BK Trans is the only company totally privately owned, having 70 trailers with semi trailers. Major destinations for exports are Iran, Turkey, Afghanistan, and Russia. From Turkey they carry back loads, e.g. equipment whereas from Afghanistan they come back empty. The transport fee Tashkent - Istanbul - Tashkent (done in 20 days) is $12,000.

The problems in their operations are the big tax imposed to buy new fleet, and the difficulty to find spare parts and maintenance. Due to this tax they are not able to renew the fleet and they cannot compete with Iranian, Turkish carriers. They are very busy with orders but don't want to buy additional trucks due to taxes. The EURO - 1 trucks which they have, next year will not be accepted also in Russia.

Turnover in t: 2,500 t transported to abroad in 2007. About 82,000 t were transported in 2007 to national destinations in Uzbekistan all by road (from 300 to 5,000 km distances).

They have international multilingual department for forwarding (good capacity building) with all utilities, office buildings. They own big area (8.5 ha) in the periphery of Tashkent with warehouses for 14,000 m^3. Mercedes approached them to build Mercedes maintenance center. They may expand another 30-40 ha. 200 trucks can park in BK Trans Park.

They plan to develop LC here with warehouse, self financed. Uzkitai Dor Trans J.V. (Kitai is China in Russian language). They have especially transit China - Afghanistan. Turkish, Iranian trucks are not allowed to pass Kamchik pass (road Tashkent to Fergana) due to high gradient (not in IRU standards) and unload in BK Trans Park, they reload to Uzbekistan trucks which can pass the Kamchik.

KN Ibrakom FZCO (Kuehne + Nagel)

1ST Proezd Nukus 4, Tashkent 700063, Uzbekistan, e-mail: info.Tashkent@kuehne-nagel.com, www.kuehne-nagel.com
KN Ibrakom has a management contract with Cotton Terminal "Akaltynskaya BHP"/ Syrdarya region with status of free zone with storage capacity for 50,000m. t of cotton and arranges further delivery to CIS, Europe, Central Asia and Far East.

Photo 8: KN Ibrakom container terminal

The company has a container terminal of 10,000 m^2 with own loading/unloading equipment of containers (20-30 t). Total terminal area is 200,000 m^2.

Photo 9: KN Ibrakom container terminal

Having its own 1.4 km railhead to terminal, modern equipment of handling of containers such as 18 fork-lifts and 1 x 45 t reach stacker, as well as trained staff, can carry out acceptance, loading and shipping out cotton-fiber and various transit cargoes in 20-ft and 40-ft containers, by railway wagons and by trucks in the shortest time.

3.3.5 Tables summarising the characteristics of the freight centers visited

A table summarises below the information gathered for the freight centers visited.

Kazakhstan

Characteristics		Name of freight center visited				
		Astana Rail Terminal	Almaty Rail-1 Terminal	Aktau Port Rail Terminal	"Astana Contract" Almaty LC Multimodal	DAM U Almaty LC Multimodal
Location	Geographical location	Astana suburb	Almaty suburb	Aktau port	Almaty suburb	Almaty suburb
	large scale consumption (big city) or production (manufacturing, mining, agriculture, etc.) near the site	Big city (consumption)	Big city (consumption)	Transhipment, transit	Big city (consumption)	Big city (consumption)
	Major transit corridor and/or major border crossing nearby	Yes			Yes	Yes
	Near ports	No	No	Onsite	No	No
	Near rail terminals	Onsite	Onsite	Connected to rail	Connected to rail	Connected to rail
Owner/ Operator	Owner	Kedentrans Service	Kedentrans Service	Port Authority	Astana Contract	DAMU
	Operator	Kedentrans Service	Kedentrans Service	Kaztemirzoly	Astana Contract	DAMU
Area	Sizes, dimensions of land and buildings	24 ha	n/a		17 ha	130 ha
Technical description, functions, facilities	Type of freight center*	Rail/road	Rail/road	Rail/road	Rail/road	Rail/road
	Equipment**		3 cranes, 2 reach stackers			
	Depots for dried products as well as for cargos of various types	Yes	Yes	No	Yes 50,000 m^2	Yes 110,000 m^2
	Depots for controlled temperature products	No	No	No	Yes	Yes
	Buildings of common usage (e.g. banks, hotel, post office)	No	No	No	Yes	Yes
	Commodities handled	Containerised & bulk	Containerised & bulk	Containerised & bulk	Containerised & bulk	Containerised & bulk
	Capacity				60,000 TEU per year	120 wagons per day plus 20 cont. per day
Traffic	Throughput annual	14,000 cont		1,000 cont		
Occupancy	Occupancy rating in relation to capacity and size	Quite busy	Very busy	Low (not busy)	Busy	Not busy yet
	Comments	Obsolete infrastructure	Obsolete infrastructure	Only 1,000 cont. per year	Biggest LC operating in Central Asia	Construction on going still

* *Road rail/sea/bimodal/multimodal*
** *Cranes/stackers/straddle/carriers/etc.*

Kyrgyzstan/Tajikistan

Characteristics		Name of freight center visited			
		Bishkek Alamedin -1 Rail Terminal	**FEZ Bishkek**	**Dushanbe road terminal of ABBAT**	**Dushanbe-2 Rail Terminal**
Location	Geographical location	Bishkek suburb	Periphery of Bishkek	Dushanbe suburb	Dushanbe suburb
	Large scale consumption (big city) or production (manufacturing, mining, agriculture, etc.) near the site	Big city consumption and manufacturing	Production (manufacturing)	Big city consumption and manufacturing	Big city consumption and manufacturing
	Major transit corridor and/or major border crossing nearby	Yes	No	Yes	Yes
	Near ports	No	No	No	No
	Near rail terminals	Onsite	No	No	Onsite
Owner/ Operator	Owner	Kyrgyz railways	FEZ	ABBAT	Tajik Railways
	Operator	Kyrgyz railways	FEZ	ABBAT	Tajik Railways
Area	Sizes, dimensions of land and buildings	n/a	332 ha	2.5 ha	17.5 ha
Technical description, functions, facilities	Type of freight center*	Road/rail	Road	Road	Road/rail
	Equipment**	7 cranes, stackers	Forklifts	Forklifts	11 cranes
	Depots for dried products as well as for cargos of various types	Yes	Yes	A small one	No
	Depots for controlled temperature products	No	n/a	No	No
	Buildings of common usage (e.g. banks, hotel, post office)	No	Yes	Some facilities	No
	Commodities handled	Containerised and bulk	Containerised and bulk	Containerised and bulk	Containerised and bulk
	Capacity				
Traffic	Throughput annual	7,000 wagons		n/a	5,500 cont.
Occupancy	Occupancy rating in relation to capacity and size	Quite busy	Not very busy	Not very busy	Quite busy
	Comments	2 warehouses		Some common facilities	No warehouses

Uzbekistan

Characteristics		Name of freight center visited				
		Tashkent Chukursay	Tashkent Tovarniy	Bukhara Cotton Terminal	Taskent Sergely	BK Trans
Location	Geographical location	Located north suburbs of Tashkent	Located at centre of Taskhent	At periphery of Bukhara	South suburbs	Tashkent suburbs
	Large scale consumption (big city) or production (manufacturing, mining, agriculture, etc.) near the site	Big city consumption, manufacturing	In the center of Tashkent (consumption)	Bukhara city consumption and cotton production area	Tashkent city (consumption)	Tashkent city (consumption)
	Major transit corridor and/or major border crossing nearby	Near border crossing Uzbekistan - Kazakhstan	No	Yes	Yes	Yes
	Near ports	No	No	No	No	No
	Near rail terminals	Onsite	Onsite	Onsite	Onsite	No
Owner/ Operator	Owner	UzTemirYul container	UzTemirYul container	Uzvneshtrans	UzTemirYul container	BK Trans
	Operator	Shoshtrans, etc.	UzTemirYul container	Uzvneshtrans	UzTemirYul container	BK Trans
Area	Sizes, dimensions of land and buildings	18.9 ha	20 ha	1.7 ha	21.7 ha	8.5 ha
Technical description, functions, facilities	Type of freight center*	Road/rail	Road/rail	Road/rail	Road/rail	Road terminal
	Equipment**	2 cranes for 20-ft containers 1 crane for 40-ft containers 1 crane for 3 -5 ft containers	3 cranes, 1 for 20-ft-40-ft containers and 2 for 3 ft - 5 ft	18 forklifts and reach stackers, many cranes	1 cane 5 t, 3 cranes10t, 3 cranes 12,5 t, 1 crane 25 t 1 crane 32 t	No cranes
	Depots for dried products as well as for cargos of various types	FEW	Many old (20)	Many new (35.000 M^2)	One (846 m^2)	Yes
	Depots for controlled temperature products	No	No	No	No	No
	Buildings of common usage (e.g. banks, hotel, post office)	No	No	No	No	Some services available
	Commodities handled	Containerised and bulk	Containerised and bulk	Cotton only	Containerised and bulk	Containerised and bulk
	Capacity	23 container platforms can be handled in 1.5 hours			120 cont. daily, 85 wagons	
Traffic	Throughput annual	300 cont. daily 141 wagons daily		125,000 t		85,000 t
Occupancy	Occupancy rating in relation to capacity and size	Very busy	Not very busy	Very busy in season	Quite busy	Not busy
	Comments	Cranes in obsolete condition, terminal to be privatised, 12 rail tracks, Shoshtrans & other leasing area	4 rail lines, lots of old warehouses, obsolete equipment	Well organised and equipped	Old cranes, no warehouses	No rail connection, only road, private, covered space under reconstruction

3.3.6 Functions fulfilled in each facility

In the following table are summarised the functions fulfilled in each facility. The degree or the quality of fulfilment is not assessed in this report (this will be the objective of the new project under tender procedure).

Table 8: Summary of functions fulfilled in each facility

Name of freight center	Inland container depot ICD and container freight station CFS	Import processing zone containers	Industrial park	Export processing zone	Special economic zone	Logistics and other value added services	Cargo consolidation	Goods distribution	Customs clearance and inspections, tax payment,	Storage	Intermodal connections
Tashkent Tovarniy Rail	Yes							Yes	Yes	Yes	Yes
Tashkent Chukursay Rail	Yes							Yes	Yes	Yes	Yes
Tashkent Sergely Rail	Yes							Yes	Yes	Yes	Yes
Bukhara Cotton Terminal	Yes			Yes		Yes	Yes	Yes	Yes	Yes	Yes
Bukhara Rail Container and Gen. Cargo Terminal	Yes							Yes	Yes		Yes
BKTrans Road Terminal	Yes						Yes	Yes	Yes		No
Almaty Rail - 1	Yes						Yes	Yes	Yes	Yes	Yes
DAMU in Almaty LC multimodal	Yes	Yes				Yes	Yes	Yes	Yes	Yes	Yes
Dostyk	Yes										Yes
"Astana Contract" in Almaty, LC multimodal	Yes	Yes				Yes	Yes	Yes	Yes	Yes	Yes
Chorgos Road Terminal (border crossing)											No
(DAMU in Astana)	(Yes)	(Yes)				(Yes)	(Yes)	(Yes)	(Yes)	(Yes)	(Yes)
Astana Rail Terminal	Yes							Yes	Yes	Yes	Yes
Aktau Port Container Terminal					Yes						Yes
Bishkek Alamedin-1 Rail Terminal	Yes						Yes	Yes	Yes	Yes	Yes
Dushanbe – 2 Rail Terminal	Yes						Yes	Yes	Yes	Yes	Yes
Dushanbe Road Terminal of ABBAT								Yes	Yes	Yes	NO
FEZ Bishkek			Yes	Yes						Yes	NO

Note: Container yard is a part of an ICD or CFS which include container handling facilities

3.3.7 Planned LCs

DAMU Aktobe

"DAMU Aktobe" LC will be developed at the north-western region of Kazakhstan, and will be involved in import-export operations dealing with the western neighbours of the country. It will have its own infrastructure and industrial zone, which will allow the development of various industries in the territory of this logistics center. A value added factor is that all facilities of the LC will be autonomous and will not depend on external factors.

The infrastructure will include: heating system, sewerage, optical-fiber telecommunication networks, private locomotive depot, car-maintenance depot, Water-pumping wells equipped with a self-cleaning facilities, Network of automobile and railway approaching ways to each warehouse of the LC, shunting yard, heat-insulated elevated approach, weighing facilities for wagons and trucks, container yard with a gantry crane of 40 t capacity, temporal storage warehouse, fire tanks, illuminated fence around the area, video supervision along the whole perimeter of the area, parking place for transport vehicles (including for Euro trucks).

The buildings will include: business centre, canteen, customs and brokerage department, conference hall, medical care department, motel, heated garages. The area of the site available for the construction of the Trade-and-logistics centre (suitable for wholesale and retail trade and warehouse storage) is 240 ha.

The land plot is located in the Aktobe region, 1.5 km far from Aktobe City, along the highway section (Samara - Astrakhan); the closest "Alzhan" Railway Station is located at 2.5 km from the site.

The LC planned by UZVNESHTRANS in Sergely (Tashkent)

A meeting with management was held on 19/3/08. Uzvneshtrans is a Transport FF company established 1991 as a joint stock company, having branches in all regions of Uzbekistan. They offer also the functions of customs brokers and of freight insurance for freight coordination of cotton consolidation in Bukhara Terminal (it's their terminal). Main cargo is cotton fiber export. They are the basic player in fiber export from Uzbekistan, while 30% of their activity goes to metal, fertilizers, grain transport

In 1998 they have established a JV "UZ Georgia Trans" with Georgian partners, within MLA agreement they have had 5 ~50% discounts on rail way tariffs. On Trans-Caucasus corridor which is part of TRACECA, within four years, with the above JV, they have managed to transport 270,000 t of cotton. Then discounts were cancelled and it became a non viable operation. They are mostly interested again to operate on this corridor and more. Specifically from Turkmenbasy (by ferry) to Baku then by rail to Poti in 15 days or from Aktau port by ferry to Baku, then by rail to Poti (a trip duration of 15 days is expected in both cases). Now they obligations go to Bandar Abas by rail or to Ilytsevsk by rail through Kazakhstan and Russia in 25 days.

Two (2) years ago the president of Uzbekistan has signed a resolution for establishing LCs. The idea existed as of 1998. Dornier has consulted them, they already have a master plan for a LC in Sergely; they will start construction in a plot of 19 ha, for 50,000 m^2 of covered warehouses (10 m high), with special custom zone and hotel. For refrigerated storage warehouses of 10,000 m^2 are foreseen for commodities

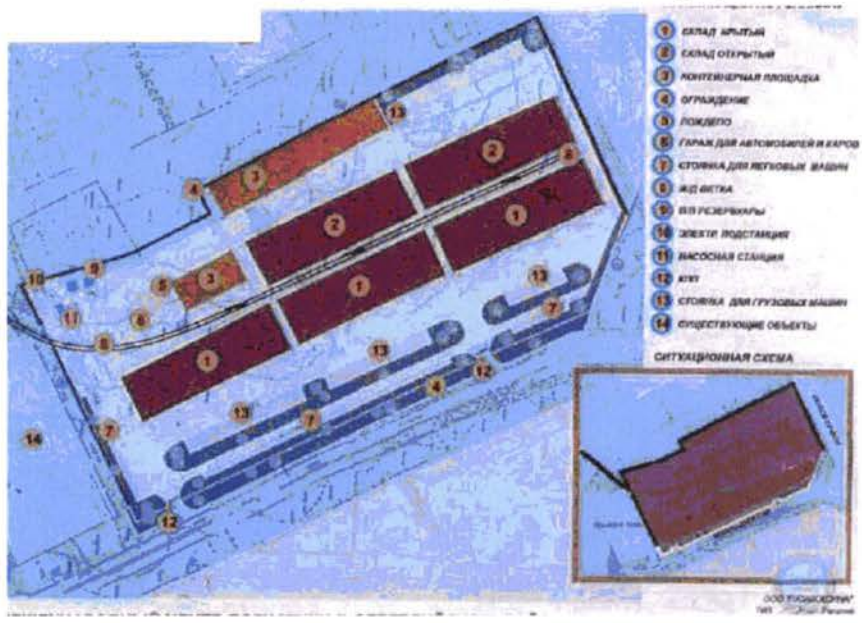
warehouses 20,000 m^2 (electronics, white appliances), 10,000 m^2 for cotton products (fibre), 10,000 m^2 for metal, timber and two container yards, independent to speed the process. It will be financed by Uzvneshtrans but also welcome private investors because it is a huge project of €15m.

The Uztsasprom national design company, having experience from Kazakhstan of such LC's design, has conducted the Sergely LC master plan and detailed design, (they have branch in Almaty). It is not a part of the existing rail terminal and they will construct a rail siding 800 m long, to connect it. It will be for international transportation, will be the first LC in Uzbekistan, will serve all regions up to Bukhara.

They plan to establish a second one in Termez, which is a junction for borders of Afghanistan, Turkmenistan, and Tajikistan. It will be nearby the river port. They operate vessels to Turkmenistan, Tajikistan, Afghanistan (limited volumes 200,000 t/year for humanitarian aid, charcoal, construction materials). The capacity of the port is 2-3m. t. They do not have their own fleet of trucks but are planning to buy within the new Sergely LC project budget. They use rail wagons or containers (of which there are many available in Uzbekistan).

Photo 10: New LC planned at Sergely site by Uszvneshtrans

Photo 11: Master plan of new LC planned at Sergely site Byuszvnehtrans



Ways to reach ocean ports from Uzbekistan *(source: Uzvneshtrans)*:

- the Russian-Baltic corridor from Uzbekistan Sari-Agach (Uzbekistan) (north of Tashkent, border with Kazakhstan, Keles border) - Ozinki - Posin - Riga, length 4,354 km, trip duration 24 days, or Oazis (Uzbekistan) (north-east of Nukus Karakalpakiya border with Kazahkstan) - Aksarayskaya - Posin - Riga, length 3,343 km, trip duration 19 days;
- the Ukrainian corridor from Uzbekistan Sari - Agach - Ozinki - Solovey - Ilechvsk (Ukraine), length 4,237 km, trip duration 23 days, or Oazis - Aksarayskaya - Uspenskaya - Ilechevsk, length 2,964 km, trip duration 18 days;
- the Transcaucasian ecorridor: Farab (Uzbekistan) (south of Buhkara) border with Turkey (Hodjidavlet border) - Turkmenbasy - Baku - Poti - Burgas (Bulgaria), length 3,750 km, trip duration 20 days;
- the north-south corridor: Farab (Uzbekistan) - Serahs - Meshhed - Teheran - Bafk – Bandar Abas (Iran), length 2,909 km trip duration 15-20 days, (if Teheran is bypassed, length 2,109 km, trip duration 16 days);
- the Chinese corridor: Sari-Agach - Dostyk Alashenkou - Urumchi - Lyanyunggang, length 6,631 km, trip duration 38 days.

Table 9: Volumes of cargoes transported by "Uzbekistan Railways" through boundary transitions (in t) 2005-2006 years

Year 2005	Year 2006
3,523,282	3,889,874
3,163,009	4,025,811
5,917,060	6,974,310

Table 10: Densities by kinds of transports (%)

Year	2004	2005
Air export	0.12	0.14
Air import	0.31	0.35
Auto export	10.18	9.48
Auto import	23.85	26.85
R/W export	89.69	90.35
R/W import	75.82	72.78

Table 11: Volumes of cargoes transported by "Uzbekistan Railways" through boundary transitions (in t) 2006 year

	St. Sari-Agach	St. Farab	St. Oazis
Export	2,533,155	1,005,330	351,389
Import	3,449,448	85,115	491,248
Transit	4,338,531	1,722,802	912,977

Distances from the International LC "Tashkent" at Sergely district: 24 km from railway station Sergely, 7 km from airport, 3 km from Tashkent ring road, 43 km from Keles border.

3.4 Meetings with actors during missions

Meeting with Mr O. Buranov- Secretariat TRACECA in Uzbekistan, 16/3/08

Currently the Uzbekistan government is preparing a law for transit road and rail traffic. UIFFA is involved in the drafting of the law and also will be involved in the new logistics project.

New rail link Termez 10 km - Friendship Bridge (bimodal bridge rail/road) (Galapa stations supported by TRACECA, border with Afghanistan) then Hayraton Town, five rail branches there for 250 wagons no more railway then in Afghanistan. There is trilateral agreement for transit transport corridor Uzbekistan - Afghanistan - Iran - Masarisarif - Herat (660 km).

Hayraton is 64 km away from Masarisarif (Uzbekistan elaborated project proposal, feasibility was done for upgrading the road Masarisarif- Herat, ADB has tendered, Koreans won the reconstruction. Herat - Mashad (Iran): there is road, Uzbekistan builds new rail through mountainous terrain Gruzaz - Bajsum - Kumgrurgan.

They have terminal in Kokand (near Tajikistan border) which is considered very important junction and Andijan close to Kyrgyzstan border (while Tashkent near Kazakhstan border) and Bukhara near Turkmen border).

In Kokand many commodities from China through Kyrgyzstan mainly by road or loaded on rail (from Osh or Dzalal Abad in Kyrgyzstan) but crossing Uzbekistan territory, over 3,000 m height mountainous passes. Parity agreement 1,000 wagons permits from Uzbekistan to Tajikistan or from Tajikistan to Uz-

bekistan. New rail link in operation (year 2006) Navoiy - Kyzylkuduk - Nukus (this is why Navoiy becomes important railway junction).

UIFA, Meeting Mr Mukhidov, Mr Khamraev, Mr Urunov, Mr Shukrat Sattarov, to discuss needs for LCs in Uzbekistan, 12/3/08

UIFA is one of the initiators of the new study for LCs to be tendered and may play a role of coordinator and beneficiary for Uzbekistan for the new project. UIFA has done a lot of preparatory work to realise it, since 2004. Thus UIFA specialists have visited all alternative sites; their work was used by ADB for national strategy (PADECO Consultants).

Their priorities for LC development: Bukhara, Termez, Tashkent (at Keles border with Kazakhstan or near Chukyrsay for north direction). "Of course Fergana - Andijan, Navoiy have their own potential".

"We have to foresee traffic trends for each potential LC location in traffic, types of cargo, O/D and take care of possible reassignments of flows due to new transport infrastructure. E.g. traffic flows can be redirected due to construction of new bridges in Tajikistan, Turkmenistan over Amu Darya ..."

A new law on cargo transit for Uzbekistan will be prepared and UIFA is the coordinator (by December 2008 the draft will be considered by Cabinet of Ministers). At the moment they do assessment of cargo flows in Uzbekistan/with support of GTZ. Thus it is not yet the right moment to put the priorities for LCs.

A seminar was held on 28/3/08 for strengthening legal basis for transit in Uzbekistan. UIFA will appreciate the invitation of the Union of National Associations of Forwarders and Carriers for the five countries of Central Asia which was created in October 2007 with initiative of UIFA (chairman is UIFA), to the events of our project.

UI FA also suggests Khiva/Nukus for dry port. According to UIFA:

- Of the three rail terminals around Tashkent, namely Tashkent Tovarniy, Chukursay, Sergely, the first two are congested and have no space for expansion. Through Chukursay the 70% of cargo is moved, there is capacity for handling 20-ft, 40-ft containers, but there are no warehouses.
- Chukursay Sergely (or even better further away at Yangiyu, 30 km from center of Tashkent, 40 ha available) is better than Chukursay for developing the logistics center for Tashkent due to low density, existence of land for expansion to include bonded warehouses, manufacturing, free zone law for free zones exists
- UIFA is proposing five LCs (dry ports) including a new at Khiva or Nukus Termez border crossing is the proper location for the development of a logistic center, a big population of sixty million (Uzbekistan 28, Afghanistan 36, Tajikistan, Turkmenistan) is around Termez which is a focal point.

Meeting with Mr Topalidis Valeriy (logistics expert)

In terms of policy coordination Uzbekistan and Tajikistan must sign an agreement for rail transit from Uzbekistan through Tajikistan to Kokand, so that no high tolls will be applied in Tajikistan as currently (this service was operating in the past but now is replaced by road transport over longer distance inside Uzbekistan for carrying crude oil for processing (100 to 350 trucks per day).

A way to reach the sea from Uzbekistan for containers, is by rail to Aktau (from Navoiy link) through Beyneu (1 day from Tashkent) then on sea/river vessels from Aktau to Astrakhan and then to Volga river

and to the channel connecting it to Don river (currently one way but under construction to become two-way) then through Don River to Rostov Port - Black Sea.

There is strong demand for LCs in Uzbekistan. Currently there are 27 rail terminals but these no way can be considered as LCs (these terminals have no warehouses, no logistics services are offered, the emphasis is on rail and no appropriate facilities for road transport are available). Terminals work 24 hours with shifts. Two terminals are privatised already (OK Altin for perishables and KN (Kuehne Nagel) – KN Ibrakom for cotton and operate very well. In Uzbekistan there is need for training about what exactly what is logistics, logistics centres, global logistics business, the benefits you can get, how much you can profit out of it.

According to Mr Ilya Segal (Executive Director KFFA):

- Mainly railway, (seventy percent of total freight transport), in Kazakhstan logistics centres are needed near China or other borders because of need to change tractors and drivers.
- Shymkent is another possible location for logistics Centre KTS and Kedem companies operate container yards.

According to Mr Dzhangozin, deputy head customs control, head for non tariff regulation:

- Big problem the lack of LCs as it contributes to illegal actions, thus state policy is to develop them in order to fight corruption a free zone is developed in Astana, Almaty and Aktau.
- Common border facilities will be established with Russia (already pilot scheme in Scerbakty near Pavlodar), and possibly with Uzbekistan, China, Kyrgyzstan.

According to Ms Saltanat Rakhimbekova, head of transport policy department, MOT of Kazakhstan:

In the web site of the ministry one can see the project: "Investment model of international transport corridor "Western Europe - Western China". It concerns a length of 8,445 km. Length of the corridor in the territory of the Republic of Kazakhstan is 2,787 km. Realisation of the project includes reconstruction of 2,309 km of roads of Kazakhstan. Including, 1,158 km (Almaty - Chorgos, Korday - Taraz - Shymkent - Turkmenistan, Shymkent - Tashkent) - by the 1st technical category, 1,151 km - by the 2nd technical category. Preliminary cost of reconstruction is tenge286bn. ($2.3bn.). Corridor passing through Aktobe, Kyzylorda, Shymkent will permit to transit corridor to go out not only to Russia and China, but also to countries of the Southern Asia through Uzbekistan and Kyrgyzstan. World Bank chief of program in transport sector has given comments, to divide the section "the border of Aktobe oblast - Shymkent" with length 1,024 km into three projects: the border of Aktobe oblast - Zhusali - 400 km Zhusali - Kyzylorda - Turkmenistan - 405 km Turkmenistan - Shymkent - 170 km

The Ministry of Industry is responsible for logistic centers (action for local antenna: contact it to get info on policy about logistic centers, and technical characteristics for major rail terminals and border crossings such as site plans, capacity, equipment, turnover, photos, services offered discussed sites for development of LCs with private investment (Dostyk, Chorgos, Aktau, Astana-near completion-, Almaty -feasibility stage-, Russian border).Through Dostyk rail border crossing in 2001 7m. t cargo by rail and in 2006 13m. t .Traffic through Chorgos from/to China is also expected to increase considerably especially container traffic will increase. Aktau Port capacity will be increased to 23m. t till 2015.

Trans Siberian Express Service/TSES

A meeting was done on 1/4/08. TSES is 100% owned by Moscow office which belongs to Maersk Logistics (AP Moeller Group). TSES is a general agent of Maersk Logistics. It leases with permanent agreement (rail operator) rail wagons from Kazakhstan, Russia and it does terminal handling and containers terminal operation. They move empty containers to the ports front/to Kazakhstan, transit block trains between China to Europe via Mongolia, also pilot block train with their containers and consigners form China, transload at Dostyk from China to Ukraine (at Chop transload again). Only at Dostyk it is possible for rail due to boogie change facilities, while Chorgos is only for road.

They just transport, then consigner does customs clearance and storage. Only container management and not cargo management is their objective. They import 1,000 containers per year to Kazakhstan and they send the empty back. Empty containers are the problem, the 40 ft go to China ports and the empty 20-ft containers go to Russian ports. They have as of this year direct agreement with Kedentrans Service (owner of rail terminals). For Almaty to China ports the transit time is 1 month (as it is empty and due to lack of platforms, no priority is given, they try to solve this problem).

"Astana Contract" private terminal in Almaty is very competitive and new equipment better organised than Kedentrans Service. The old rail terminals in Kazakhstan need upgrade.

Main rail centers in Kazakhstan together with Almaty that need improvement: As far as rail terminal in Astana needs improvement. Shipment terminal in Astana needs improvement. Karaganda, Actobe, Pavloder, Aktau or Atyrau.

Uztemiryulkonteyner

The Joint Stock Company " Uztemiryulkonteyner " is an operator of a container park of the Uzbek Railways, operating railway carriages of any export and import and transit cargoes, providing consultations on carriages organisation, doing development of optimal scheme for cargo transportation, registration of carriage and payment of frights all along the route and rendering services on turning and transferring carriages/containers with humanitarian and commercial cargoes through the border crossing point Galaba Khayraton. They offer automobile delivery of large-tonnage containers from the container terminal Termez to the cities of Great, Kabul, Mazari-Sharif, Khayraton and executing customs procedures and provide treatment of cargoes by a container terminal in all regions of the Republic of Uzbekistan, customs clearance including transit, provision with customs warehouses and transportation of export and import and transit cargoes in large-tonnage containers of international standard. They have a network of branches: Tashkent branch (Tashkent City), Bukhara branch (Bukhara City), Fergana branch (Kokand City), Kashkadarya branch (Karshi City), Termez branch (Termez City), Nukus branch (Nukus City).

ADB, 17/3/08

ADB approved a loan of 75m. $ to rehabilitate road sections in Uzbekistan. State-owned enterprise Uzatuyol wants to participate. ADB has criteria that state-owned enterprises should be independent in terms of management. ADB hired two individual consultants to assess the level of independency (they also worked in Vietnam, as it has a lot of similarities with Uzbekistan, they are lawyers).

ADB was approached to finance LCs but did not include it yet as priority. IFI's have divided the scope of work. ADB is in charge to rehabilitate track. EBRD for rolling stock. KFW for electrification. UIFA has proposed to ADB a project (to finance LCs).

Then from the Ministry of Foreign Economic Relations ADB can consider through private sector financing not through public sector window.

It is not clear which model the government prefers, the state to take lead and consider it as transport entity, or other financial - value-added.

Trade facilitation is important for ADB. Long stay (5-10 years) is also important for ADB (multi trans finance facilities).

If ADB enters the sector of LCs should have a clear vision, not only for one LC but for 2-3 or more (the government should have a long term vision on this). ADB wants to understand the road map of the government. Trade patterns are also very important but not processed at the required level. O/D may exist in customs but are not processed.

4 Best practices from international experience

In this chapter is presented the experience from countries mainly in Europe and USA, in terms of logistic centers infrastructure development. Logistics business accounts for 8% of Europe's GNP (€ 800 Bio). Logistics business employs more than 6.5m. people in EU.

4.1 Experience from landlocked countries in Europe

Austria and Hungary have similarities with Central Asian countries, as they are landlocked too and positioned in the center of freight flows for Europe, as Central Asian countries are for Asia.

4.1.1 Austria

Austria is an example of what a landlocked country can do to act as a hub for international logistics. Austria is a distribution center (logistic hub) for multinational companies (HP, Peugeot, Volvo, Danfoss) due to location, efficiency, transport infrastructure, modern terminals, communications (internet and mobile), high productivity, know-how and regular transport services. Transit time to other Central European countries including customs formalities is only one day. "Rail Cargo Austria", a subsidiary of OBB (Austrian Rail), has established seven logistics centers in Austria and six multifunctional logistics centers.

4.1.2 Hungary

Hungary, (a landlocked country in the center of freight flows across Europe), is also modernising its logistics infrastructure the last 15 years including:

- transport and communication systems and other infrastructure;
- building modern logistics centers eliminating missing links (by building river bridges, etc.)

4.2 France

France has a privileged geographical position and long experience in logistics. "Logistics", employs more than 887,000 people in France. Although modern logistics has military origins, at the end of the 20th century it had become a full, and most often strategic, function of business management. Its importance can be judged from the fact that French companies devote 8% to 12% of sales revenue (€120bn.) to logistics.

France's central position at the heart of a market of 380m. inhabitants and GNP of $916bn. in 2,000 (greater than that of the USA and double that of Japan), is an undeniable advantage.

The French workforce is well qualified, with an hourly cost that is 15% to 40% lower than in the countries of Northern Europe. France is a first-class multi-modal point of entry to the European Union. Placed firmly at the centre of logistics organisation plans, the logistics platform is no longer seen as a mere warehouse. Its location is as crucial a choice as its design in determining an enterprise's performance.

Operated directly or via an external service provider (a 3PL provider), warehouses are today much more than simply space to store goods. Last-minute customisation of goods (known as "late differentiation"), packaging, and handling of administrative or customs procedures have been added to the traditional order preparing activities.

Rail in France carried more than 55 bio t-km in year 2001 (of it 20% combined road - rail). Rail has an important role in multimodal transport.

The Nord Pas-de-Calais is France's second region for logistics and boasts dozens of platforms, including the 260 ha multi-modal centre at Dourges built by "Logistis" and "ProLogis".
The local government and economic decision-makers in the Lyon region have an ambitiously aggressive policy on logistics. Under the "Lyon Logistics" label they are pursuing a policy of joint international promotion, putting the advantages of their region to the fore. This strategy has met with great success and a very large number of enterprises of international stature have arrived in the region.

The Japanese logistics service provider, "New Wave Logistics" (a subsidiary of the NYK shipping line), runs a 20,000 m^2 warehouse for Yamaha Motors at Lyon - l'Isle d 'Abeau. Koyo Steering Europe, the world leader in automotive steering systems, has decided to build its new HQ and European R&D centre on the southern outskirts of Lyon. DaimlerChrysler has built a distribution centre at Etoile-sur-Rhône, in the Drôme département. In 2001, the economic impact of logistics activities on the Lyon region has been estimated at more than FRF9bn.; 46 sites of more than 10,000 m^2 have been created in five years, corresponding to 4,000 jobs.

Ile de France, the most highly developed centre in France with 955m. m^2 of warehousing and 12m. consumers, is the favoured location for new sites. The port areas of Marseille-Fos, Le Havre-Rouen, Dunkerque, and the airport zones of Roissy-CDG, Marseille Marignane, Lyon Saint-Exupéry, Vatry, and Châteauroux-Déols (linked to Paris airport operator ADP), are confirming their role as logistics centres.

Some companies choose to locate their operations on the edge of the so called Blue Banana Belt (which extends from London to Milan, passing through Frankfurt), near to rail, motorway or waterway centres in the Nord/Picardie, South East, Lorraine and Champagne regions. The Lorraine region has a large number of exceptional logistics centres chosen by world-class businesses, for example the multi-modal platforms at Nancy, Eurotransit at Ennery, and the Pôle Européen de Développement at Metz.

Ikea has opened a logistics platform with a 165,000 m^3 storage facility at La Maxe; this is operated by logistics service provider Norbert Dentressangle Logistics. - Cat Logistics, a subsidiary of Caterpillar Inc, chose Lorraine in 1993 as a base to manage supply flows of its customers Chrysler, Land Rover, H i a b, Electrolux etc. in a 32,000 m^2 logistics warehouse.

GE Lighting operates from the Eurotransit platform at Ennery.

Tenneco Automotive, a manufacturer of automotive exhaust and suspension systems, is located at Fameck (Moselle).

Smart (SCC) has set up its worldwide logistics centre at Hatten (Bas-Rhin).

Port zones: The Marseille port authority, PAM (Port Autonome de Marseille) has set up a 160 ha logistics zone at Fos named "Distriport", where such firms are present as Danone, Kawasaki (which has a distribution centre managed by Lorafret and P&O-Nedlloyd), Dole Foods, and logistics specialist TNT. Since

1999, the "Clésud" 260 ha multi-modal platform, chosen by Rexel, Nortène and by logistics service providers La Flèche and Giraud Logistics, has provided further capacity.

The US company ProLogis the world leader in logistics, has bought Garonor (450,000 m^2) in Paris. ProLogis has also built a 125,000 m^2 logistics platform on the Le Hode site at Le Havre. At Rouen, the Antwerp-based giant "Westermund", the world's largest forestry products distributor, has set up a 13,500 m terminal to serve its customers UPM, Kymene and M-Real and to export its pulp and kraft paper to as far as China.
Dunkerque has a 20 ha multi-modal platform where such world-class firms as Coca-Cola, Dupont de Nemours, Cynamid, Ajinomoto, Nutrasweet, Péchiney, Maersk Logistics, Lego and Falcon have operations.
Investors can rely on the expertise of the major construction companies to design and build turnkey platforms.

Even though the world leader in logistics warehouses, the US company ProLogis, has been very present in France since the purchase of Garonor (450,000 m^2), French companies are also well established in this market. Bouygues and its specialised subsidiary Parcolog have plans to build ten major logistics parks between now and 2005, for a total area of 550,000 m^2. GSE manages properties totalling 8,000,000 m^2 in twelve countries. Logistis, a subsidiary of Caisse des Dépôts, manages ware house capacity of 600,000 m^2. Sogaris, which was the initiator of such platforms in France at Rungis, has a total capacity of 350,000 m^2 in Lyon, Rouen, and Bayonne, and is involved in a 200,000 m^2 project in the Pont de Normandie Logistics Park at Le Havre. Coming from the building and public works sector, these companies have been able to follow the evolution of the logistics sector and have become real specialists in platform engineering.

How much does a 20,000 m^2 logistics centre cost?

Land costs of €2m. + construction costs of €5m. = €7m., or there is an annual rent of € 0.82m (€41.16 per m^2). These high construction costs are due to the ancillary aspects of warehouse construction, covering quality landscaping, with trees, lawns and flower beds, as well as:

- anti-theft and fire-prevention systems;
- ergonomic design of the work environment;
- lighting of 150 lux in storage areas, 200 lux in order preparation areas, 250 lux in offices;
- more pleasant central lighting through the roof to provide 6% of the total lighting; and
- heating, ensuring a minimum temperature of +7°C in warehouses.

In the future, the needs of e-commerce for storage and distribution facilities could lead to the appearance of smaller sites closer to large urban centres, resulting in even higher property costs.
A sign of things to come was the inauguration, in April 2001, of a 16,000 m^2 telehousing platform at Garonor (Paris), which brings together all the communication equipment for internet-based trading required by the e-merchants present on the site.

Platform operators 3PL, 4PL, LLP

The trend towards enterprises focussing on their core activities has also affected logistics. By abandoning this function, enterprises have allowed a true market for service provision to emerge in the sector, in particular in the field of platform management.

Daher, a company formed in about 1880, now derives more than 1/5 of its sales from logistics (€157.17m. out of a total of €760m. in 2001) and employs 2,205 people of whom 550 are engaged in logistics. It manages 675,000 m^2 of warehousing on five sites. Daher transports airframe sections for Airbus and ATR. In the chemical industry sector, Daher runs 21,000 m^2 of special category storage. For the automobile industry, Daher stores, prepares, and delivers goods.

Bils Deroo, which made sales of € 833m in 2001 and employs 1,800 people on 40 platforms with a total area of 450,000 m^2, is a good illustration of this participation by a 3PL provider in the optimisation of upstream logistics. The company provides services for Renault or for PSA such as:

- assembly and distribution of spare wheels;
- distribution of parts; and
- holding of safety stocks.

The logistics revolution is coming from the new capabilities provided by information technology for database storage and management (DBMS) and for their processing by various software solutions. These tools either allow various sections of an enterprise to communicate with each other, or handle logistics activities in particular. Some also enable action to be taken on flows during production processes.

Specialised logistics services

1. upper stream and "last-mile" logistics;
2. returned goods logistics; and
3. e-logistics.

4.3 Germany

Logistics costs in Germany are €180bn. (2006) or 8% of GDP! The logistics net Berlin Brandenburg is a PPP "Public Private Partnership" to promote the German capital region as a region for logistics. It was founded in January 2006 on the initiative of the German Federal States of Berlin and Brandenburg. It has 27 members: Agiplan, BEHALA, Gazeley, Investor Center Ostbrandenburg, ReiCo Spedition, Rieck Logistik, Ulrich Transport, Verband Verkehr und Logistik, Wagener & Herbst, ZAB Zukunfts-Agentur Brandenburg, Flughafen Berlin Schoenefeld and other.

The history of the development of freight villages (LCs)

1965	The first sea container was landed in the port of Bremen.
1970s	First visions of scientists and transport managers to shift forwarders from narrow, expensive town centres to outside estates and to shift transport from road to rail.

1972	Establishment of a terminal for combined transport road/rail (piggyback, swap body, container) Bremen.
1974-84	Bremen regional administration investigated and planned the development of a freight village in the former agricultural area Niedervieland (Bremen).
1985/86	Bremen administration developed industrial estate with public financing (40m. Euro). Establishment of the first German freight village Bremen. Foundation of the GVZe Managing Company by the first six enterprises settled in the freight village and by the Bremen industrial promotion agency.
2005	After 20 years the freight village in Bremen consists of 360 ha (165 ha free), since 1985 260m. Euro public investment, 200m. Euro private investment, 150 enterprises with 5,000 employee.

LCs (freight villages) in Germany (2008)

- 32 freight villages in operation;
- 4 freight villages in planning;
- 1,300 enterprises in freight villages with 45.000 employees average total area 150 ha;
- average utilisation 50%;
- average land costs €50/m^2 (between €10 and €200/m^2);
- German FV Society with 22 FV.

Seven (7) locations are selected for LCs (freight villages) in Berlin region:

1. City FV BEHALA;
2. FV Berlin West Wustermark;
3. FV Berlin South Grobbeeren;
4. FV Berlin East Freienbrink;
5. Logistics Park Berlin - Schoenefelder Kreuz;
6. FV ETTC Frankfurt/Oder;
7. Magnapark Berlin/Werder.

For example in the freight village "Berlin South (Grobbeeren)", the services offered include car wash, restaurants, gasoline station, private rail access, leasing trailers center, maintenance of refrigerated units and container service. It is located 5 km far from Berlin, 15 km from Potsdam near motorways B 101, near KV rail terminal (700 m lines, two portal cranes) near Berlin Schoenefeld Aiport and access to S-Bahn. Buildings available sizes range from 3,000 to 60,000 m^2. The investors are GFODIS, REWE, Lidl, Rhenus AG. The LCs in Berlin region are gateways to Eastern Europe. For example the Container Train Eastwind, is running three times a week Berlin - Moscow/Kazakhstan, operated by Intercontainer - Interfrigo. Thus there are approximately 20 connections from Western Europe through the Eastwind and 2,000 connections to Eastern Europe regions.

Advantages and disadvantages of LCs (freight villages)

Advantages	Disadvantages
For administration • less congestion, better city logistics; • better access of the region through intermodal connections; • focus of infrastructure investments; • spatial planning; • higher corporate and income taxes; • environmental protection	**For administration** • initial efforts and investments needed; • risk of long planning; • risk of utilisation
For enterprises • faster and easier realisation of logistic location (buy or rent); • access to rail and intermodal terminal; • auxiliary services; • state support	**For enterprises** • cost per m^2 may be higher; • must wait until fv is ready; • sometimes fear of competition

For successful development of LCs a joint effort of state and industry is needed. An organisation responsible for development and management should be established. There should be openess and initial financing, maybe state subsidies, too.

4.3.1 Deutsche Umschlaggesellschaft Schiene-Stabe (DUSS)

The company Deutsche Umschlaggesellschaft Schiene-Straße (DUSS) was founded in November 1982 by Deutsche Bundesbahn, Transfracht Deutsche Transportgesellschaft mbH and Deutsche Gesellschaft für kombinierten Güterverkehr mbH. It operates plans and constructs intermodal terminals and "rolling highway" loading facilities right around the transport modes rail and road. Furthermore it also contributes with its know-how to different research and development projects.
Besides of its older intermodal terminals in Mannheim and Stuttgart DUSS also operates since 1 January 2003 the terminals taken over from DB Netz and PKV Duisburg. In total DUSS operates a number of important intermodal terminals in Germany.

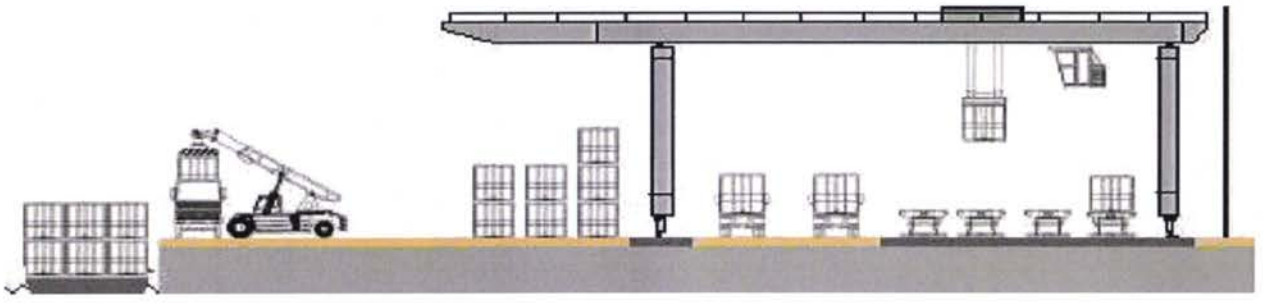
Facts and figures:

Employees:	approx. 470 (incl. headquarters);
Turnover:	approx. €50m./year;
Handlings:	2.1m./year;
Terminals:	26;
Iron highway facilities:	2 locations;
Gantry cranes:	50;
Mobile equipment:	10 reach stackers;
Services:	handling rail/road, deposit of loaded and empty units, agent services for operators, IT-support, office rental.

The company takes care of the development, planning, planning and realisation of intermodal terminals, deposits and service facilities as well as with the procurement of all necessary equipment, of private pro-

jects. It guarantees competent consultation and support of special projects, which can be made e.g. on the basis of the following work packages in coordination with the client:

- consultation and investigation of the feasibilities for intermodal terminals, depots and service facilities, in particular:
  - development of facility concept including possible variants;
  - system outlines of different local and technological variants;
  - cost estimations and if necessary the calculation of handling charges;
- initiation and support includes a basic evaluation of permission, realisation, location service and documentation;
- support for getting required permissions and construction realisation;
- consultation for procuring the appropriate equipment;
- support for application forms, project descriptions, etc. according to the guidelines for intermodal terminals (Förderrichtlinie);
- development of financing agreements for intermodal terminals according to federal railway development law (BSchwAG) and guidelines for intermodal terminals (Förderrichtlinie);
- consultation and development as well as co-ordination for the realisation of your manual or IT-supported terminal operating system;
- analysis and consultation for the improvement of terminal operation methods.



4.3.2 Rhenus AG

The Rhenus AG is a part of the Rethmann Group (a group with a turnover of more than €7.9bn.* and a workforce of 35,500*) involved in water and lifecycle, logistics and Bio-industry. The company for logistics is called Rhenus Logistics with a turnover €3.3bn. and 15,000 employees.

Rhenus is one of Europe's leading logistics companies. It is active in contract logistics (automotive, media, office systems, industry goods, consumer goods, pharmaceuticals, healthcare, air logistics), freight logistics (domestic alliance, euro network, euro charter, parcel network, rail services, air freight, sea freight, SCM, solutions, consulting), port logistics (inland ports, sea ports, shipping, rail und road, intermodal, handling and warehousing, transport chains, services, IT-Support) and public transport (public passenger road transportation, public passenger rail transportation). An overview of the Rhenus - key facts is given following:

- over 230 locations in 38 countries;
- own network in Asia;

- 14,000 employees;
- turnover of €3bn.;
- over 2m. m^2 covered warehousing space;
- over 3,500 trucks daily;
- over 9m. t per anno transport volume;
- over 36m. t of bulk cargo per anno transhipped at inland and sea ports;
- over 15,000 customers;
- special solutions in document disposal, glass recycling, returnable bottle systems, publishing house services and the management of information and business data.

The services offered in contract logistics are:

- supplier logistics centres;
- inbound warehouse;
- plant logistics;
- pre-assembly;
- distribution warehouse;
- picking;
- packing;
- co-packing;
- promotional campaigns;
- home delivery;
- air-handling;
- mail, archive & data destruction.

The services offered in freight logistics are:

- road & rail;
- domestic alliance;
- euro network;
- euro charter;
- parcel network;
- rail services;
- overseas;
- sea;
- air;
- supply chain management;
- solutions;
- customs;
- inbound logistics;
- dispatch management;
- express;

- consulting services.

The services offered in port logistics are:

- land and waterside transshipment vessel/truck/rail;
- warehousing and supplementary services;
- short sea and inland shipping with own fleet;
- intermodal container transports;
- Ro/Ro services;
- pre and on-carriage by truck, rail and inland navigation vessels;
- overseas imports and exports;
- agency and clearance;
- permissions for waste and recycling materials;
- customs clearance and fiscal representation.

4.4 Port Barcelona in Spain

In the case of the port of Barcelona in Spain, expansion is underway for increasing capacity.

Capacity/year	2004	2008/2010	2016/2018
Millions t	50	85	130
Millions containers (TEU)	2.4	4.5	10

It is planned to build 250,000 m^2 warehouses and 45,000 m^2 offices. More than 50 companies with 4,000 employees are located here such as logistics operators, freight forwarders, manufacturers and distributors. In Zaragosa an inland terminal is connected to the port of Barcelona, located in the center of the main industrial and logistics area of Spain and includes 10,000 m^2 heavy truck parking, 8,300 m^2 reefer warehouse 21,000 m^2 logistics warehouse, 50,000 m^2 rail terminal and 21,000 m^2 depot for containers.

4.5 MSC Belgium n.v.

MSC Belgium n.v. is a maritime shipping agency founded and established in Antwerp, Belgium in 1999, as direct agents of the Mediterranean Shipping Company S.A. (MSC) of Geneva, Switzerland. Upon the formation of MSC Belgium, the company took over the personnel of Deckers & Wirtz B.V.B.A. which was, at that time, acting as the agent of MSC S.A in Antwerp since 1976.

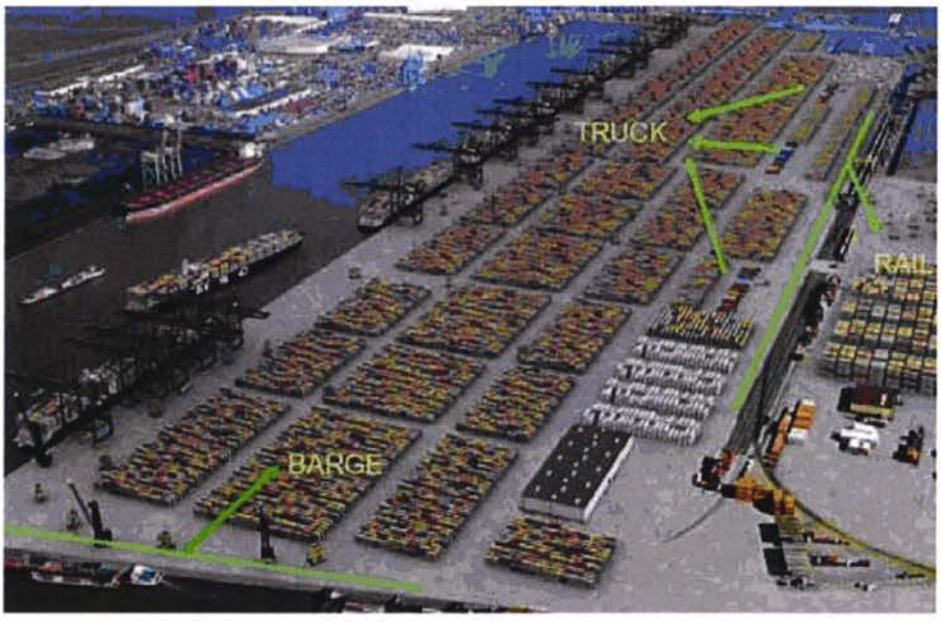
MSC Belgium is regarded by its Principals as a leading agent, together with the Port of Antwerp which is undoubtedly the port with the highest strategic importance for MSC. This is due to the fact that 300m. of the world's richest consumers happen to live within 700 km of the docks of Antwerp, due to Antwerp being the main transhipment hub for the global operations of MSC, and due to the sheer depth of local expertise available within MSC Belgium.

MSC Belgium facilitates the transportation of containerised cargo to and from all five continents with weekly scheduled sailings and arrivals to and from the Port of Antwerp. Moreover, except the traditional

shipping agency services, MSC Belgium offers today, via its intermodal partner, modern and innovative door-to-door tri-modal services (truck, rail, barge).

Together with all its various partners and affiliates in Antwerp, MSC is a major contributor to the local economy, being one of the biggest employers in the Port of Antwerp.

Photo 12: Biggest employers in the port of Antwerp



During recent years MSC's maritime fleet has expanded substantially to consolidate its position as the second largest carrier in respect of container slot capacity and of the number of container vessels operated. Such spectacular growth has been achieved internally through organic growth rather than through acquisitions or mergers. Complementing the core business of container vessels and containers, MSC has now also become a significant player in container terminals. Currently MSC has investments in key transshipment hubs around the world and many more joint venture container terminal operations are planned in the future.

MSC Belgium is an ISO approved company since July 2004 and operates under an ISO-certified quality management system.

Quality assurance is of high importance to the daily activities of MSC Belgium with the aim to continuously evaluate and improve the services provided.

As with various other types of cargo, perishable and deep frozen cargo is shifting more and more towards containerisation and the MSC Belgium Reefer Department is very active.

4.6 LC's developers, ProLogis and Stirling Capital

4.6.1 ProLogis

ProLogis is a multi national company, one of the biggest of the distribution and logistics market in the world. The company operates in 118 markets across North America, Asia and Europe, with more than 46,000,000 m² owned, managed or under development. Its customer base includes manufacturers, retailers, distributors, transportation companies, third-party logistics providers and other companies with large-scale distribution needs. ProLogis has entered the European market in 1997. ProLogis was established in 1993.

Table 12: ProLogis logistics parks in Europe

	No. of logistic parks	Leasable m² (000)	Rail served	Rail m² (000)
Belgium	2	43.5	1	21
Czech Republic	8	136	-	-
France	106	2,026.1	17	746.4
Hungary	14	179.5	1	23
Germany	19	275.1	-	-
Italy	17	475	8	248.1
The Netherlands	23	500.7	-	-
Poland	19	353.4	7	81
Spain	10	235.1	-	-
Sweden	4	111.6	1	45.9
U.K.	41	679	5	88.9
Total	**263**	**5,015.2**	**40**	**1,254.4**
	100%	**100%**	**15%**	**25%**

Since entering Europe in 1997, ProLogis has expanded its presence in strategic distribution markets in European countries. The rapid growth is directly linked to customer demand throughout the region, enabling it to create a distribution network that serves some of Europe's largest manufacturers, retailers and third-party logistics providers (3PLs).

ProLogis currently owns and operates more than 9.4m. m² of distribution facilities in 37 markets throughout Europe. ProLogis' European Customer Services Headquarters is based at Schiphol Airport, Amsterdam. ProLogis has more than 263 logistics parks in Europe. The 15% of them are rail served. These figures show the important which is given by ProLogis to the multimodality.

ProLogis received the "European Deal of the Year" award for its successful acquisition of Parkridge in February 2007, and the "Green" award for its sustainable development of ProLogis Park Pineham in the Midlands, United Kingdom. The park is being constructed using a variety of advanced environmental features and technologies designed to significantly reduce energy consumption and carbon emissions at the site.

ProLogis leasing activity in inland China

ProLogis announced April 21, 2008 strong leasing activity at major new distribution parks under construction in inland China.
At ProLogis Park Jiangning in Nanjing, the capital of China's Jiangsu Province, ProLogis has leased 100% of a 234,000-ft^2 distribution center to Anji-TNT Logistics, a leading provider of logistics services for automotive parts. Anji-TNT will operate the space on behalf of Fiat, the Italian automobile maker, serving customers throughout China.
ProLogis Park Jiangning, which is located in a government-sponsored economic development zone adjacent to the Nanjing Lukou International Airport, will comprise six facilities totalling more than 140,000 m^2 at full build-out.

ProLogis initiated operations in five of China's major inland markets - Changsha, Chengdu, Chongqing, Nanjing and Wuhan - during 2007 and since then has experienced a significant increase in demand from the region's manufacturers, retailers and third-party logistics providers.

Also, ProLogis announced that the first phase of construction at ProLogis Park Chongqing is 100% leased. The new park is being developed in the City of Chongqing, the largest city in China with a population of 30m. people. The site, which currently contains one distribution center totalling 18,200 m^2, will comprise eight facilities totalling approximately 120,000 m^2 at full build-out. The next phase of construction at the park is scheduled to begin during the summer of 2008.

In aggregate, ProLogis expects to develop 901,000 m^2 of distribution space on land it previously secured in these five cities, with a total expected investment of more than US$360m. ProLogis is one of the leading providers of industrial distribution space in China with more than 1.05m. m^2 in operation and another 1m. square m under development at 31 December 2007. Major customers in China include Adidas, Best Buy, DHL, L'Oreal, Menlo Worldwide, Nokia, NYK, Samsung, UPS and Yum! Brands.

ProLogis in France

France has exceptional road, air, train and river networks. These assets attract industrial companies and logistics operators who count on the growth and quality of their exchanges. As part of its global strategy, ProLogis continues its development policy focussing on the most important economic French poles located on the north-south axis of European exchanges, and providing its customers with distribution facilities in strategic markets.

ProLogis in Hungary

The Hungarian economy in 2007 developed at a considerably more moderate pace than that observed for the past few years. The growth of the Hungarian economy arises mainly from the increasing gross value added of industry, which contributed significantly to the increase in export. Over the past years, Hungary has stabilised itself as a strategic location for distribution and logistics in the EU. The country's central location is still the main drive behind the success of the Hungarian logistics market. By the end of December 2007, in accordance with the Schengen treaty there will be no border control between Hungary and other Schengen countries, which will speed up the logistics processes even more. The majority of the fast developing logistic facilities in Hungary are located around Budapest, the central location of the Hungarian logistics market.

ProLogis environmentally friendly facilities

Sustainability has long been central to the way of doing business at ProLogis. Implementing leading-edge, environmentally friendly features in distribution facilities is a basic aim. They have launched numerous pilot projects around the world that have given world-class expertise in sustainable warehouse design. For example, they are implementing an interior lighting retrofit program in the United States that can reduce electricity usage by up to 75%. In the United Kingdom, they have begun development at a new distribution park that will evaluate a number of cutting-edge, environmentally friendly building materials and construction methods. And in Japan, they recently completed an industrial facility in Osaka that utilises a new pavement technology for neutralising vehicle carbon emissions.

ProLogis is active in brownfield redevelopment, a complex process that involves cleaning up and developing contaminated land as well as redeveloping land that has been unproductively developed and/or is considered to have a low landscape value. They are also involved in urban redevelopment, the creation of master-planned, mixed-use developments at the site of former airports and military bases. In recent years, several of their sustainability-related efforts have been publicly recognised, certified or rewarded:

- ProLogis Park Chanteloup in France was recognised with a 2005 Logistics Innovation Award. The park's state-of-the-art design features one of the largest solar panel installations in France.
- ProLogis was a 2006 recipient of the "Leader in the Light" award for sustained energy use practices.

ProLogis is exploring several sustainable warehouse design features:

- recycled and locally sourced construction materials that reduce environmental impact;
- skylights and clerestory windows that increase natural light, thereby lowering electricity usage and improving work environments for warehouse personnel;
- T5 and T8 energy-efficient fluorescent lights that offer significantly improved energy performance over traditional metal halide systems;
- high-reflectance, white thermoplastic polyolefin (TPO) roofing that offers the same performance as traditional black EPDM rubber roofing at essentially the same cost but with less load on the building's cooling system;
- air-tight building construction that reduces air leakage, thereby permanently lowering costs for heating and air conditioning;
- solar and wind power that provide alternative energy systems, especially photovoltaic solar cells and wind turbines;
- low-usage water systems that utilise treated "gray" water and recycled rainwater, resulting in lower water consumption at facilities; and
- special landscaping that can help to minimise water consumption and reduce net carbon emissions.

Their developments are increasingly combining multiple sustainability-related features. For example, ProLogis announced in February 2007 that it will develop a 530,000 ft^2 industrial facility in the Midlands area of the United Kingdom for leading supermarket chain Sainsbury's. The facility will utilise a variety of technologies and environmental features designed to significantly reduce on-site energy consumption and carbon emissions such as:

- solar walls that generate heat from sunlight;
- wall-mounted photovoltaic panels that generate electricity;
- an on-site power plant that reuses the heat produced by air conditioning;

- an on-site recycling facility;
- energy-efficient lighting systems; and
- air-tight exterior building construction.

4.6.2 Stirling Capital Investments Southern California LC

Stirling Capital Investments, a joint venture between Stirling Enterprises, a Foothill Ranch, California-based development company and Denver, CO-based DCT Industrial Trust Inc., a leading industrial real estate investment trust, announced it has commenced construction on two speculative, multi-tenant industrial buildings totalling 223,773 ft^2 at Southern California Logistics Centre (SCLC) in Victorville, California.

The multi-tenant buildings are part of overall phase I development plans which total 6.5m. ft^2 of industrial space over 350 acres of land. Completion of the multi-tenant facilities is anticipated for February 2008. The two buildings, which will offer suites from 3,500 ft^2 to more than 20,000 ft^2, are expected to generate between 100 and 200 new jobs for the region.

Southern California Logistics, the all encompassing 8,500-acre multimodal freight transportation hub supported by air, ground and rail connections, continues to be a catalyst for the region's economic growth and vitality. Upon build out, Southern California Logistics is projected to create more than 24,000 jobs and support another 18,500 jobs in the surrounding area. Additionally, at build out it is anticipated to generate more than $3bn. in tax revenue for the Inland Empire's growing economy, according to a draft economic impact study.

About Southern California Logistics Southern California Logistics, the former George Air Force Base in Victorville, California, is an 8,500-acre multimodal freight transportation hub supported by air, ground and rail connections. Southern California Logistics is comprised of Southern California Logistics Airport (SCLA), a 2,500-acre world-class air cargo and aviation facility; Southern California Logistics Centre (SCLC), a 2,500-acre commercial and industrial complex entitled for 65m. ft^2 of development; and Southern California Rail Complex (SCRC), a planned 3,500-acre intermodal and multimodal complex entailing rail-served facilities.

Stirling and the City of Victorville have teamed up to redevelop the former George Air Force Base into Southern California Logistics, the largest fully-integrated commercial development in the region, which is anticipated to bring more than 30,000 jobs to the area. Southern California Logistics offers 24-hour, seven-day-a-week operations with onsite U.S. Customs. It has been designated a foreign trade zone and a local agency military base recovery act zone by the federal government. It has two intercontinental runways and can accommodate all current-flying commercial and military aircraft with 24-hour, seven-day-a-week air tower operations and emergency response capabilities comparable to that of the world's largest airports.

4.7 Greece

A new logistics center, the first of its kind in Greece, is to be developed at Thriassion (Athens). The concession period will be 30 years with possible ten years extension. It is located besides the freight terminal of Greek Railways, 46 km from Athens International Airport, 17 km from port of Piraeus (connected by new rail line), 20 km from Athens centre, just on the "Attiki Odos" peripheral motorway of Athens, on the

Suburban railway and on new high speed rail line connecting Athens to Patras Port and to Thessaloniki/Balkans - Turkey. The total area is 588,000 m^2, while the permitted building area is 40% or 235,000 m^2. The permitted building height is 13.5m. The planned buildings include according to the Master Plan 200,000 m^2 of warehouses, 14,115 m^2 of offices, 1,110 m^2 of restaurants/coffee shops, 2,800 m2 of hotel, 1,200 m^2 of shopping, services and 1,875 m^2 of other facilities. In addition are foreseen parking areas for cars, trucks, container terminal, customs, fire station, security kiosks. The LC will offer cross-docking warehouses for courier, forwarding and parcels, warehouses for bulk loads served by rail. For stowing containers an area of 20,000 m^2 will be available with 190 spaces for containers (2-3 containers stowed at each space).

4.8 Iran

Dry port in Aprin *(Source: Mehr News, January 15, 2008)*

A dry port is to be built at the rail linked Aprin and in connection with this the ports and shipping organisation, Iran Customs Administration, Iran Railways are expected to become active in this region.

The proposed dry port is expected to have a capacity to take care of 50 vessels with a total capacity of 2,467 t. Iran Shipping Lines (IRISL) will be built in Tehran's Aprin region in the near future a dry port. The Aprin region is linked to the railway. Indian Railways have agreed (April 2008) to help Iran in constructing a crucial rail link that is also a part of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP)'s Trans-Asian Railway (TAR) project. India was keen on this project as the direct India-Iran rail link was pending for long because of the 545 km-long missing railway line between Iran and Pakistan. India will help Iran to develop the Chabahar Port and Aprin Dry Port. Leading Indian consultancy firms including RITES Ltd. and CONCOR Ltd. are likely to carry out feasibility reports for integrated planning for development of these ports and rail links.

4.9 Benchmarking

From international experience the logistic centres may be grouped in terms of size (total area, covered area/warehouses), costs of usage, quality, transit and processing time, reliability, TEU throughput and distance from generators.
The LCs usually at least 30 ha and up to 100 ha of total area may be characterised as small size, from 100 to 200 ha medium size and above 200 ha of big size.

4.9.1 Benchmarks for site selection and quantity of dry ports

The paper "Cross cutting issue for managing globalisation related to trade and transport: promoting dry ports as means of sharing the benefits of globalisation with inland locations" (Ref. 1), identifies the need for the creation of a network of dry ports in Eurasia, connected to sea ports by multimodal transport and especially to the Trans Asian Railway and to the Asian Highway networks. A map is included also showing proposed locations of dry ports in Central Asia. It also includes benchmarks of dry ports from Europe/USA (200 dry ports in Europe 2005, 370 major in USA and 200 smaller, 100 facilities in ESCAP region.

Seaport container throughput is a good predictor of the number of dry ports in many Asian countries (more effective than output measures such as GDP). ESCAP secretariat estimates one dry port per million

TEU of containers handled at a country's seaport (not reflecting land locked countries in Central Asia, where existing facilities are under used or need modernisation). In addition India has one dry port per 140,000 TEC of containers handled at port. The predictor is not valid for Europe, USA (one dry port for each city with an output exceeding $2.5bn. Where GDP and population density in USA are very high, dry ports tend to be lager and generally located 10,000 km^2 apart.

In Europe one dry port may serve more than one countries. ESCAP estimates the need for an additional 200 dry ports for the region by 2015 to reach a total of about 312 (of these 130 in China, 61 in India, 10 in Kazakhstan and one each in Tajikistan, Kyrgyzstan, Uzbekistan). In Europe dry ports size throughout:

- 40,000 to 1.9m. TEU/year;
- land: 30 - 200 ha;
- number of firms: 25-100; and
- overall employment: 7,000 to 37,000.

There are more dry ports of smaller size in highly urbanised countries. In Nepal a dry port at Birgunj (38 ha capacity of 200,000 TEU per year) offers rail/road transshipment, storage and custom facilities for containerised, break-bulk and bulk cargo moving by rail.

Successful dry ports requirements according to ESCAP:
Cooperation of government with private sector, PPP, appropriate policy environment (reduced transport costs, environmental benefits, modal shift to rail, transport networks, communications, regional and SME policies, trade and investment attraction policies, prices of labour, capital and land).

In the European Union, there is considerable variation in the average size of dry ports (typically 40,000 to 1.9m. TEU throughputs per year), land area (typically 30-200 ha), number of firms (typically 25-100) and overall employment (approximately 7,000 to around 37,000 people).

4.10 Conclusions from best practices

There are many international developers who finance, develop and operate LCs in developed or developing countries. The governments of CAR should aim to attract such developers, in order to transfer the risk of spend for developing and operating LCs, to them (or share this risk with them), as the costs are high.

Significant benefits result from the development of LCs for the economy of the countries. The high employment in the LCs is a strong asset.

Multimodal transport and the railways play a crucial role in LC's operation. Even land locked countries in Europe, such as Austria and Hungary, act as hubs for international logistics, in order to serve transit traffic. Prerequisites are modern and well maintained transport infrastructure, modern LCs, good communications, high productivity, know-how and regularity in transport services.
The objective with LCs is to develop environmentally friendly ("green") facilities using energy self efficiency, energy saving techniques (solar walls) and recycling on site.

Many LCs have been developed on the edge of large cities in Europe. If proven feasible it may be appropriate to develop more than one LC on the periphery of big cities in Central Asia (e.g. Almaty, where already two LCs are operating) under the proviso that these existing LCs are operating at capacity, and that

feasibility studies are conducted. LCs are also promoted in Europe to decongest cities and protect the environment.

5 SWOT, multicriteria assessment (needs assessment)

5.1 SWOT analysis for the countries

Below are pointed out the strong and weak points of present and future logistics supply, the prospects (opportunities) and risks (threats) for logistic centre structures in order to draw preliminary conclusions concerning the market potential of logistics centres.

Republic of Kazakhstan

Strengths	Weaknesses
• vast country, lot of physical resources; • oil and gas rich; • high GDP, high financing capacity; • ports on Caspian Sea; • borders with China; • sustainable rail network; • political stability; • special decree for establishing LCs; • private LC constructed in Almaty (DAMU); • second private LC under construction in Astana (DAMU); • private container terminal and LC operating in Almaty ("Astana Contract"); • reorganisation of railways, split in companies; • economy liberalised and strong PPP legislation; • Almaty very developed in comparison to other AR cities in terms of LCs (Astana also follows); • rather quick approval for the development application, in case of DAMU Astana, (although it was a very complicated and bureaucratic process); • inland navigation via the Caspian Sea helps facilitating its landlocked problem; • not much need for aid or advice, already have advanced and realised LC', a paradigm for other CAR; • multinationals (Procter &Gamble, Philip Morris establish regional LCs or lease space in DAMU or „Astana Contract“	• vast country, low density of population; • landlocked; • bogie change needed at Dostyk, the only rail-crossing to China; • old fashioned rail terminals, old equipment and obsolete rolling stock, that need upgrading; • big traffic problems in cities (Almaty, Astana hinder the proper operation of business - need for traffic management and infrastructure projects on roads; • border crossing delays due to lack of unified controls with the bordering country and lots of formalities; • problem with empty container handling, huge quantities of which take lots of space in terminals; • deficit of r/w platforms for container transshipments; • bureaucracy
Opportunities	**Threats**
• new rail link may be built to Iran sea port; • new ongoing construction of r/w links from Khromtau to Altynsarin ($244.7m.) and from Yeralievo to Kuryk ($4.7m.); • road construction / reconstruction of "Astana - Borovoye" highway section (close to DAMU LG in Astana) with value of $222.5m. allocated from the state budget; • allocation of $3.5bn. for construction of "Trans-Kazakhstan Railway" (82% of the budget will be provided through loans, the rest is from the national budget); • more LCs are planned: the biggest in Aktobe (main international junction) and in Dostyk by DAMU, • rising income in Kazakhstan will increase demand for distribution centres (LCs)	• bureaucratic procedures; • overdesign (Astana), excess spending

Republic of Uzbekistan

Strengths	Weaknesses
• extended rail network; • geographic location, (silk road); • relative political stability; • lot of various natural resources and products, such as uranium, gold, textiles, agricultural fresh produce (perishables), cotton, UZ; • Daewoo cars, machinery (tractors for farming), natural gas; • very well organised Cotton Terminal Buchara (with TACIS funding too); • dense, wide rail network (with a density of 9 km per 1,000 m^2); • lot (27) of rail terminals - container yards, good road network- limited river transport; • 9-10% GDP increase per annum; • silk road, old treasures (Bukhara, Khiva, Samarkand), tourism development potential; • considerable transit potential; • good telecom systems; • junction with international corridors; • cheap labour/resources, high population, good education; • strategic location of Tashkent, Termez, Navoiy; • in relation to international corridors; • • new rail connections Navoiy - Nukus and Termez Friendship Bridge; • drastic railway/highways modernisation/ rehabilitation/electrification program supported by IFIs (including Termez-Galaba reconstruction supported by TRACECA investment funding); • construction/reconstruction of E-40 international corridor; • two private freight terminals KN Ibrakom, OK Altin	• doubly landlocked; • low financing capacity; • no analytical national strategy/policy for LCs; • lack of expertise and of know-how for LCs and logistics, no University courses for logistics; • high tariffs for rail in crossing Tajikistan (for Kokand) and in Trans Caucasus; • obsolete railway rolling stock; • no clear policy for PPP, no decisions yet; • high taxes on trade; • old fleet of trucks (EURO1, EURO2) due high to customs duties on import/taxation, which impedes free access to European states; • long delays in border crossings, not unified controls, bureaucracy; • unclear what logistics is, for many players; • lack of funds; • generally no warehouses in rail terminals and limited facilities for container handling; • international road transport not so developed; • lack of relevant statistics data; • no O/D survey for freight, no O/D database (data exist but not appropriately processed)
Opportunities	**Threats**
• new investments, PPP projects, international donors; • new LC to be developed in Sergely (final design); • possible new LC in Termez River Port; • new legal framework for PPP, LCs; • more regulation and market liberalisation (cut taxes)	• political instability in surrounding countries; • slow deregulation

Kyrgyz Republic

Strengths	Weaknesses
• borders with China; • liberalised economy; • textiles, gold, agricultural, defence industries; • free economic zones legislation and one working; • tourist wise attractive mountainous country, no heavy traffic potential for tourism development	• landlocked; • low GDP, low financing capacity, weak economy; • difficult terrain; • not enough rail; • free zones experiment not very successful; • logistics is nearly unknown word; • no logistics centres or mature plans; • only two lines of railway as dead ends (not connected between them) from Uzbekistan and Kazakhstan (no rail network in essence, obsolete infra-structure); • no legislation for multimodal transport, FF, LCs; • lack of relevant expertise and statistics; • other FEZ foreseen not realised yet; • not enough cargo volumes as it was the case in Soviet times
Opportunities	**Threats**
• new rail China – Osh; • new railroad connection Balykchy - Dzalal Abad - Torugart (China border) will reduce the distance between Europe and South East Asia by 1,100 km in comparison with Trans Sib, and by 300 km in comparison with Friendship Railway in Kazakhstan; • private initiatives; • donors financing infrastructure	• political disputes, (instability); • unemployment and not employment

Republic of Tajikistan

Strengths	Weaknesses
• borders with China; • low wages, work force; • nice nature for tourism; • fresh produce	• landlocked; • no oil reserves; • difficult terrain; • low GDP, low financing capacity; • not enough rail connections; • lacks basic infrastructure and reliable electricity supplies (energy shortages); • ancient transport and communication systems; • weak economy; • not enough transport infrastructure; • rail lines ending, no rail network; • few rail terminals; • roads in need of rehabilitation; • no legislation for LCs; • no big awareness about LC; • too many mountains, difficult terrain makes costly the building of transport infrastructure; • low density - low population; • difficult high mountainous passes at the borders with China
Opportunities	**Threats**
• exploit hydropower to eliminate electricity problems (two new hydroelectric power station under construction); • government is thinking to open free zones; • new bridge connections opened to Afghanistan may boost traffic; • to become transit country for China; • Chinese want to build and finance road connections China - Tajikistan – Afghanistan; • ABBAT and FF want to develop LCs and border terminals but need investors; • International donors finance roads USAID, ADB, Chinese, EuropeAid; • Develop LC in "Dushanbe - 2" rail terminal expanding the area; • Examine feasibility for developing LC in Tursunzade; • MoTC has selected location for LCs and FEZ and pro-gram for railways development, also welcomes PPP/private investors	• no foreign investors coming here; • not enough traffic to justify LCs; • political instability in the region (bordering with Afghanistan)

5.2 SWOT for the LCs

SWOT Tashkent Tovarniy

Strengths	Weaknesses
• city centre location	• old equipment; • old warehouses; • low traffic
Opportunities	**Threats**
• most proper for city logistics but also import/export; • funds from PPP or international donor (e.g. ADB)	• lack of funds

SWOT FEZ, Bishkek

Strengths	Weaknesses
• FEZ is good to reduce poverty in the area (3;000 employed)	• no rail connection, in the FEZ only by road; • Airport Manas is very near (was before considered in the zone, now it is not thus there problem are delays in procedures); • no gas connection; • communications weak
Opportunities	**Threats**
•	• competition from offer FEZ which could develop in the wider region

SWOT Aktau Port

Strengths	Weaknesses
• Aktau Port is an equipped and operating port on the Caspian, is one of the two entries to Central Asia (together with Turkmenbasy) from Caspian Sea laying on the TRACECA; • the sea is an asset for creating development and nice living conditions; • oil port for rail ferry to Baku; • nearest point of Central Asia to Baku	• far away from other living areas, point in the desert; • old nuclear station covered by sarcophagi but still dangerous; • "lake" for evaporation - cooling of nuclear station, possibly communicating with the sea; • desalination plant to supply city with water, takes water near the "lake"; • lack of potable water sources; • very bad quality of water from desalination; • poor quality of life, poor environment, harsh climate, very cold windy winters, very hot summers, desert or steppe around to more than 600 km; • the sea has not been yet exploited for tourism and for the inhabitants; • very low container movements (1.000 per year only); • not a lively city, development not aggressive

Opportunities	Threats
• new city investment by Dubai investors; • special economic zone to take off; • taxes on port to be decreased; • measures in cooperation with Baku, Poti and Azeri - Georgian authorities to give incentives to TRACECA; • plans to develop LC	• Dubai investors not coming to develop the new city, banks not giving loans! • no interest for special economic zone; • taxes on port usage not lifted

SWOT Atyrau

Strengths	Weaknesses
• lively city, developing more aggressively; • better environment than Aktau, river Uralsk providing water; • near many other cities, inhabited areas; • big railway station; • preferred by foreign companies for working and living; • nearest city to Russian border and to South Russia - Ukraine - South Europe from Central Asia – Kazakhstan; • oil fields, strong economy of the oblast; • closer to Astana - Almaty -China than Aktau by existing networks; • the river; • air connections to Europe	• river port abandoned 15 years ago, only recently some operation again, but is the second port of Kazakhstan in Caspian Sea
Opportunities	**Threats**
• river port operating again fully and developing; • KLM, Air France seek to develop air hub here; • airport under expansion and upgrade is already operated as cargo hub by Cargolux; • combination of all transport modes in a junction; • develop LC	• lack of interest from international and local investors.

5.3 Conclusions from SWOT analysis

Kazakhstan and Uzbekistan have more strengths than weaknesses, while this is not the case for the other two countries in terms of potential LC development. If specific cases are examined as it is done for three examples (more specifically Tovarniy, Aktau, Atyrau) it can be seen that the first has a lot of weaknesses but also opportunities, while about Atyrau it can be concluded that it has more potential than Aktau, in the west region of Kazakhstan, as a priority site for the development of a LC.

5.4 Assessment of existing freight terminals in terms of potential for upgrading

Name of freight center	Availability and suitability of land	Existence of O/D data	Existence of traffic, environmental impact EIA studies for the site	Availability of funds	Consensus on location gov, operators, investors	In case of LCs on borders consensus with neighboring countries	Existence of large scale consumption or production	Major transit corridor and /or border crossing	Major railway or multimodal node, motorways junction	Availability of Utility networks,	Availability of labour force,	Existence of preliminary financial feasibility and viability studies	Tax advantages
Tashkent Tovarniy Rail	L	No	No	L	No		Yes	Yes	Yes	Yes	Yes	No	No
Tashkent Chukursay Rail	Another 28 ha available (at least) for expansion	No	No	M	No		Yes	Yes	Yes	Yes	Yes	No	No
Tashkent Sergely Rail	M	No	No	H	Yes		Yes	Yes	Yes	Yes	Yes	No	No
Bukhara Cotton Terminal	L	No	No	H	No		Yes	Yes	Yes	Yes	Yes	Yes	No
Bukhara Rail Container and Gen. Cargo Terminal	L	No	No	L	No		Yes	Yes	No	Yes	Yes	No	No
Navoiy Rail Terminal	M	No	No	H	No		Yes	Yes	Yes	Yes	Yes	Yes	No
BK Trans Road Terminal	M	No	No	M	Not needed		Yes	Yes	Yes	Yes	Yes	No	No
Almaty Rail - 1	L	No	No	L	No		Yes	Yes	Yes	Yes	Yes	No	No
DAMU in Almaty LC multimodal	H	No	No	H	Yes		Yes	Yes	Yes	Yes	Yes	Yes	No
Dostyk	H	No	No	H	Yes	Yes				Yes	Yes	Yes	No
"Astana Contract" in Almaty, LC multimodal	H	No	No	H	Yes		Yes	Yes	Yes	Yes	Yes	Yes	
Chorgos Road Terminal (border crossing)	H	No	No	H	Yes	Yes		Yes	Yes	Yes	Yes	Yes	No
DAMU in Astana	H	No	No	H	Yes		Yes	Yes	Yes	Yes	Yes	Yes	No
Astana Rail Terminal	M	No	No	L	No		Yes	Yes	Yes	Yes	Yes	No	No
Aktau Port Container Terminal	M	No	No	M	No		No	No	No	Yes	Yes	Yes	Yes
Bishkek Alamedin-1 Rail Terminal	L	No	No	L	No		Yes	Yes	Yes	Yes	Yes	No	No
Dushanbe - 2 Rail Terminal	L	No	No	L	No		Yes	Yes	Yes	Yes	Yes	No	No
FEZ Bishkek		No	No	M	No		Yes	No	No	Yes	Yes	No	No

From the above table, it is concluded that a lot has to be done in terms of creating a network of LCs in Central Asia, especially in the other CAR, except Kazakhstan, where there are already operating or under construction LCs. But also in all CAR there is a need to upgrade the rail terminals. The demand however is not very high in all cases but there could be latent demand which will show up when a network of LCs would be created and growth goes on with the same trend as during recent years. Thus it is needed to put under a time schedule the planned developments and categorise the proposed LCs in sizes, depending on various criteria. This is done in the following chapters. Of the above rail terminals some may be upgraded to LCs as there is available land, the location is adequate. Primarily of course a series of studies (feasibility, viability, master plans, technical design) have to be conducted.

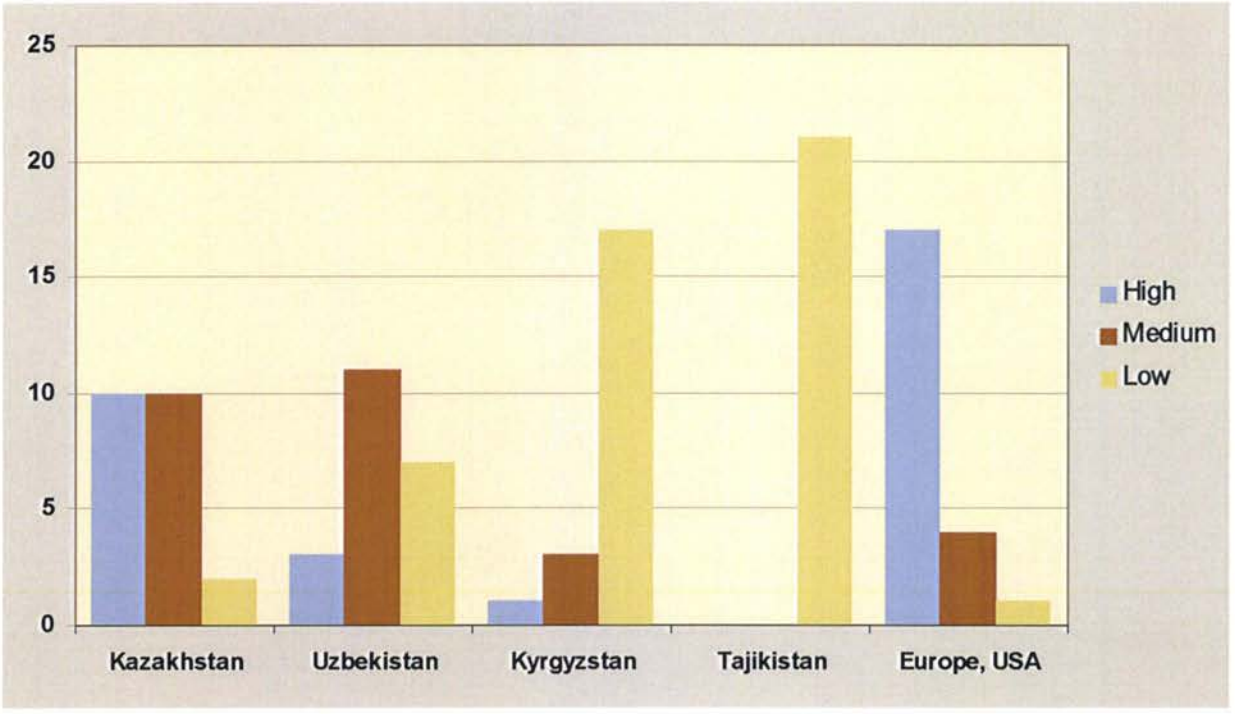
5.5 Comparison of the four countries LC's development with Europe, USA in terms of potential

If we would like to compare the four countries, in terms of potential for LC's development with Europe, USA, we might arrive to the following table:

Table 13: Comparison of CAR with Europe, USA

Criteria	Kazakhstan	Uzbekistan	Kyrgyzstan	Tajikistan	Europe, USA
GDP	Medium	Low	Low	Low	High
Traffic demand	High	Medium	Low	Low	High
Retail chains development	Medium	Low	Low	Low	High
Consumption	Medium	Low	Low	Low	High
Exports of containerisable products	Low	Medium	Low	Low	High
Imports of containerisable products	High	Medium	Low	Low	High
Growth	High	High	Medium	Low	Medium
Rail transport share	High	High	Low	Low	High
Multimodal transport development	Medium	Medium	Low	Low	High
Transport networks development	Medium	Medium	Low	Low	High
Communication networks development	Medium	Medium	Low	Low	High
Know-how	Medium	Low	Low	Low	High
Freight forwarding business development	Medium	Medium	Low	Low	High
Private financing availability	High	Low	Low	Low	Medium
Public financing capacity	High	Low	Low	Low	Medium
International donors financing willingness	High	Medium	Medium	Low	Low
LC's development	Low	None	None	None	High
Demand for LCs	High	Medium	Low	Low	High
Transit traffic potential	High	High	Low	Low	High
Level of deregulation	Medium	Low	High	Low	High
Geopolitical stability	High	Medium	Medium	Low	High
Consensus of actors	Medium	Medium	Low	Low	Medium
H	10	3	1	0	17
M	10	11	3	0	4
L	2	7	17	21	1

Figure 3: Ranking of CAR in comparison to Europe, USA in terms of potential for LC development



The above exercise shows that Kazakhstan is more mature for LC development (and this is actually happening now at high speed). Uzbekistan is also having enough strength for LC development, but appropriate feasibility studies should study each case there in more detail. The other two countries (Kyrgyzstan, Tajikistan) are having lower priority for LC development but again in these cases a detailed feasibility research should be conducted to quantify the important parameters.

6 Conclusions about where and how to develop new or about upgrading existing facilities and catalogue of good practice

6.1 General findings and recommendations

The globalisation of economy and the growth in Asia (basically in China), has created a strong potential for increasing transit freight flows through Central Asia along the Eurasian corridors. The trends are not easy either to project or to follow (e.g. through Dostyk rail border crossing, on Kazakhstan border with China, in 2001 7m. t cargo by rail and in 2006 13m. t !!!).

The disintegration of Soviet Union, earlier, has also redirected the flows or changed the type of raw materials or final products transported. Although Kazakhstan is advancing very fast in liberalising transport sector, Uzbekistan has still enough government control in transport sector and not enough deregulation, advancing at very slow speed. Kazakhstan and Uzbekistan have recently conducted national transport strategies, while Kyrgyzstan and Tajikistan are conducting such plans with support from ADB.

The changing methods of transport and the further development of multimodal transport have and are imposing new needs for infrastructure, especially multimodal terminals which internationally are developing to logistic centers incorporating all related functions of international transport and logistics.

There is need for training in International freight operations, freight forwarding, multimodal transport, logistics organisation. In addition there is need for cooperation between the countries of Central Asia in order to develop a regional network and not isolated LCs, which will cater for transit, imports and exports and regional distribution.

Upcoming new tender for feasibility of LCs in CAR by EC budgeted €2m., will examine the feasibility for those LCs having priority.
In Kyrgyzstan subject to feasibility study findings it is reasonable to consider establishing one LC in Bishkek during the next five years and a second one at Osh or Issykul.

The international trend is to develop LCs with the cooperation of private sector under PPP schemes, always involving big players in the international logistics market (with appropriate know-how, already operating big LCs. The institutional and legal framework should be adapted to allow for such PPP schemes in all the countries of Central Asia.

No proper origin/destination data are available in CAR, which are necessary for any planning and for feasibility studies. Thus there is a need to establish an inventory for transport sector in Central Asia according to the example of EC (PANORAMA) and of West Balkans, in order to collect information on flows, fleets, networks, O/D surveys, monitor implementation of policies, accidents, projects/works, schedules and to establish databases and GIS, maintain these by common funds in regular basis.

LCs is no more an unknown development in Central Asia. In Kazakhstan there is already an LC in full operation ("Astana Contract" in the north suburbs of Almaty), while another one is under construction nearly to finish and partly operating too ("DAMU Almaty") also located north of the Almaty city centre.

Kazakhstan is advanced compared to the other CAR in the development of its network of LCs. But there is no clear strategy yet and no clear legislation for FF and logistics, neither clear rules of how and where, who may develop LCs.

However DAMU, a private fund is considering starting the construction of a second one LC at Astana on a greenfield site north-east of the centre of the city. They move very fast irrespective of the bureaucracy and the big number of permits they have to get. They are also planning to start development of a third huge LC of 250 ha at Aktobe (Aktubinsk), while planning another at Dostyk. "Astana Contract" also plans to develop one at Astana and recently bought the land.

In Kazakhstan according to KFFA (ANEK) the terms logistics and logistics centers are not well understood yet. There is lack of trained human resources, thus capacity building is needed with appropriate courses, from the KFFA training centre or from the universities. In addition the LCs referred above do not operate as full LCs offering the full spectrum of services but rather as warehouses and container yards.

Uzbekistan is also in the final stage of developing a LC in Tashkent near Sergely Rail Station. The planning is done by Uzvneshtrans a state company, however private capital is welcome for the development and operation, but the rules of participation are not set yet.
Moreover operates in Uzbekistan the very well organised Bukhara Cotton Terminal which gathers a lot of the functions of a LC, but is dedicated to one product.
There are also two small kinds of LCs (KN Ibrakom and another for perishables) near Tashkent.

Tajikistan and Kyrgyzstan are way behind in developments, but the need is widely recognised, strategic ideas are discussed, finance is missing and therefore a lot of steps are to be done. In the two countries the retail is done through bazaars where they bring directly containers (e.g. with shoes imports from China or Turkey) and sell directly from the inside of the container.

In general in the countries of the region one can identify:

- different levels of deregulation and of liberalisation of economy,
- different levels of recognition by the respective governments, of the benefits of LCs; and
- a lack of clear policies and legislation in FF and logistics.

Multimodal logistics network cannot exist without proper rail terminals. Railway is very important ingredient in a logistics network. Railways were very strong in old Soviet Union and there is a lot of infrastructure especially in Uzbekistan and Kazakhstan left from its heritage that should be maintained for not being neglected with its role in comparison to the road transport.
The rail terminals need renovation in general and better road connections. Some rail terminals need parking and manoeuvre areas for truck and warehouses. Some are congested as Chukursay and Almaty, but most other underutilised such as Bishkek and Tovarniy.

Kazakhstan can be seen as a model (a benchmark) in the area in terms of developments in logistics, but training, capacity building is needed in all four countries.

6.2 Conclusions per country in the particular sector (logistics centres)

Kazakhstan

Special decree, open economy allowing joint ventures of foreign capital and local partners in joint stock companies with possibility to convert and export currency for profits-can be used as model for the rest of the CAR

- two large-scale projects aimed at establishment of modern highly-technological logistic centres in Almaty and Astana cities are under implementation; in Almaty the LC mentioned has been put into operation (DAMU, „Astana Contract");
- availability of sufficient private financing;
- supporting state legal basis (strong governmental political will);
- availability of relevant expertise (on the basis of best western practices);
- new governmental program to develop Chorgos endorsed by the president

Uzbekistan

No policy still but under processing, closed economy, no free convertibility of currency, not allowed to export the profits, foreign capital welcome, but not proper legal and institutional environment to allow flexibility

- strong GDP-rising tendency (forecasted at 10% growth by 2009);
- most developed railway network in Central Asia;
- new strategic railway network sections construction (Boysun-Kumkurgan-Tashguzar section as a straight link with the southern part of Uzbekistan, in the past in order to get to another part of the country, one was forced to transit Turkmenistan);
- governmental policy on transport sector development defines a priority for Navoiy Logistic Centre development;
- industries development (mainly, textile, chemicals, machinery production) export-oriented, will have as effect the increasing of international cargo transportation;
- external trade development at 140%;
- financial support by IFIs provided that a mature feasibility study for LC establishment is presented;
- possible need for more than one logistic centre (proposed locations: Samarkand, Bukhara, Navoiy, Termez, Andijan);
- possible need for construction of controlled temperature storage premises for agriculture produce and processed vegetables/fruits (high percentage of wasted harvests);
- new agreement with Russia on aviation sector development, Uzbekistan is a member of international team transnational companies system;
- new mature LC project (Sergely district), implemented by Uzvneshtrans company, which belongs to the Ministry of Foreign Economic Affairs, Investment and Trade;
- Ministry of Economy stopped the process of selling of the cargo-processing premises in the auction, concentration on creation of a better favourable environment to attract appropriate investment inflows;
- a new law on transit is under drafting;

- establishment of a new Regional Freight Forwarders Associations Union (RFFAU) (where Uzbekistan, Kazakhstan and Kyrgyzstan among others are member-states);
- road transport is not so developed in Uzbekistan;
- Kokand City is a production center (farming, industry) and a junction of corridors; it is located in Fergana Valley (8m. people in 22,000 km^2), thus there is a consumption population too, in need of a LC for local distribution

Kyrgyzstan

- top prioritisation of new logistic centres establishment by the government;
- poor railway network due to dead-end function during Soviet times;
- strong financial support of IFIs (mainly, ADB) to construct an integrated rail/road network;
- an alternative study for LC establishment within the framework of the RFFAU mentioned above is under development;
- quite developed free-economic zone in "Bishkek", presenting good records of export-oriented production;
- working group established exceptionally for Almaty action program purposes, aimed at efficient resolving of landlocked countries problems;
- European Commission financing funds (together with UNDP) allocated for a new modern trans-border control point construction in Akjol (90% of readiness)

Tajikistan

- Tajikistan is not at all advanced in the sector of logistics; however the government under stands the need for the development of LCs and also examines the creation of free zones;
- however feasibility studies are needed in order to decide which locations are feasible and in order to put priorities;
- no legislation for logistics and multimodal transport;
- poor railway network;
- no decisions yet for financing of logistics infrastructure through PPP or private funds

6.3 Proposed possible locations for LCs

Following are given some proposed locations but under the precondition that full feasibility study will be conducted first.

In Kazakhstan which already possess two LCs in Almaty and one under construction in Astana it is thought that in these two cities more LCs may be needed after five years, but in other cities or locations, LCs may be developed earlier, after careful consideration with feasibility studies. Such locations are:

1. Atyrau and/or Aktau cities;

2. Dostyk Station for rail and Chorgos for road transport;
3. Shymkent City;
4. Aktobe; and
5. other industrially developed regions of Kazakhstan (ESCAP estimates that, by 2015, there may be a need for ten dry ports in Kazakhstan)

In Aktau the development of the new city planned to reach one million population in 2020 will be implemented.
Highest priority at Dostyk Station for rail and Chorgos for road transport due to the pressure of transit from China and in other industrially developed regions of Kazakhstan such as Shymkent, Aktobe, Atyrau (the nearest to the Central Europe big city through land, transport corridors)

In Kyrgyzstan: Bishkek, Osh, Issykul (Balykchy)

In Tajikistan:
1. Dushanbe, possible upgrading of the rail terminal; and/or
2. Tursunzade border about 80 km far from the capital Dushanbe;
3. examine also feasibility for one or more of locations such as Khudjand, Kurgan-Tube, Khorog, Nijnipiang to be developed at a later time horizon.

In Uzbekistan where no LC exists at the moment it is reasonable to consider establishing logistics centres based at the following stations:
1. Sergely Tashkent, already in final design stage by Uzvneshtrans;
2. Chukursay Tashkent (for Keles border) (examine feasibility to upgrade existing rail terminal);
3. Termez (Trans-Afghan transport corridor);
4. Bukhara or Navoiy (for Karakalpakiya and Hodjidavlet borders) area;
5. Andijan (multimodal traffic on Andijan-Osh-Irkeshtam route) or Kokand for Fergana region;
6. Nukus of lower priority;
7. a third one in the Tashkent area due to high population and high magnitude, being a junction of corridors

Table 14: Summary of characteristics of existing freight centers

Name of the freight center	Area	Description	Annual throughput	Occupancy rating
Astana Rail Terminal	24 ha		14,000 container per year	Quite busy
Almaty Rail -1	n/a	3 cranes, 2 stackers		Very busy
AKTAU Port Container Terminal	n/a	Only 1,000 container per year		Not busy
"„Astana Contract" in Almaty, LC multimodal	17 ha	50,000 m^2 warehouses, new equipment (cranes, stackers)		Very busy
DAM U in Almaty LC multimodal	130 ha			Partly operating not busy yet

Name of the freight center	Area	Description	Annual throughput	Occupancy rating
Bishkek Alamedin Rail Terminal	n/a	2 warehouses low height (5.5 m), reach stacker for 40-ft another stacker from TACIS, 2 rail lines for empty cont., 7 cranes for 20-ft containers, 20 wagons incoming per 24 hour		Quite busy
FEZ Bishkek	332 ha	The first FEZ operating in Central Asia.		Not very busy
Dushanbe Road Terminal of ABBAT	2.5 ha	Customs, small warehouse, guesthouse		Not very busy
Dushanbe - 2 Rail Terminal	17.5 ha	No warehouses, 1 crane 40-ft, 1 crane 20-ft, 8 crane 5-8 ft, 1 mobile crane, no reach stacker, 12-15 containers by rail incoming per day		Quite busy
Tashkent Chukursay Rail	28 ha	No warehouses only container park, Shoshtrans operator, very dense	50,000 cont./year	Very busy
Tashkent Tovarniy Rail	20 ha	16 old warehouses, 5 m high, old fashioned equipment, old cranes for 3-5-ft containers (should be removed), 4 rail lines, central city location	5,000 cont./year	Not very busy
Bukhara Cotton Terminal	19 ha	Dedicated cotton terminal, 35,000 m^2 covered space for cotton storage, 18 for klifts and reach stackers, many cranes	125,000 t cotton	Busy to very busy in season
Tashkent Sergely Rail	n/a	No warehouses, available space for upgrading	30,000 cont./year 20,000 wagon/year (of cotton)	Quite busy
BKTrans Road Terminal	8.5 ha			Not busy
Bukhara Rail Container and Gen. Cargo Terminal	12.8 ha	No warehouses, some old cranes, no space available for upgrading		Quite busy
Navoiy Rail Terminal	4.2 ha	2 cranes		
Dostyk	n/a	7 different rail terminals for different kind of cargo, no warehouses, 1 closed terminal for containers, 1 open terminal for containers, 4 cranes, 2 reach stackers only 1 crane of them for 32 t		Very busy
DAMU in Astana	58 ha	10 km north of Astana centre start construction of 2 warehouses of 20000 m^2, 12 m high till October 2008, 3 more later		Green field
Astana Rail Terminal	24 ha		14,000 cont. per year	Quite busy

Table 15: Sites where to develop LCs, or existing freight terminals which have potential for upgrading

Site	Proposed by governments and/or other actors	Proposed by this assessment for further examination	Site visit conducted
Dostyk Rail	S		N
Chorgos Road Terminal (border crossing)			N
Atyrau		S	N
Aktobe			N
Shymkent			
Aktau Port Container Terminal	S		Y
Tashkent Chukursay Rail			Y
Tashkent Sergely			Y
Navoiy City	S		N
Termez			N
Andijan			N
Samarkand	S		N
Kokand			N
Nukus			N
Bishkek (Alamedin Rail Terminal or other site)			Y
Osh			N
Issykul (Balykchy)	S		N
Dushanbe - 2 Rail Terminal or other site			Y
Tursunzade			N

6.4 Catalogue of good practice

6.4.1 Is the LC concept appropriate for the Central Asia?

The development of freight villages should show similar benefits as in Europe.

- It is reasonable that the municipal and regional administrations coordinate the spatial planning. The state is responsible for infrastructure development (roads, rail, waterways, ports, terminal concept).
- So the LC concept appears appropriate in general, but Central Asian countries specifics must be considered.
- The private sector could/should play a bigger role in development and financing (development funds, development enterprises).
- Openness of the freight villages should be ensured, monopolies should be avoided. Railways involvement is necessary (intermodal terminals).
- Pilot projects to learn from should be encouraged. Locally different solutions are possible. An umbrella organisation and masterplanning would be helpful.

Possible government and private sector roles

From international experience in seaport ownership and operation it is shown that the state usually has the ownership and is responsible for the regulation, while operation and management is given with concession agreements to private sector. Government also cares about improving transport infrastructure links to ports and ensuring competition in the sector.

6.4.2 Criteria for site selection for developing new LCs or upgrading existing ones

Which are the criteria in order to decide:

- where to develop, why, how;
- who is eligible to develop - finance, operate and which;
- type of LC (exports, imports, transit, border, city distribution, perishable to develop).

The LCs should be located on major transport corridors, on intersections of such corridors, near ports, airports or rail terminals, in the periphery of big cities, near major border crossings near FEZ. The availability of cheap land, ample space for possible expansion is very important. An initial space of 10 to 30 ha is a prerequisite.

The location should have all required permits by the government for such land use, should have EIA and environmental terms and should not negatively affect other sensitive land uses such as residential housing.

The LCs are potentially very important for improving transport operations and for contributing to the economic development of the region. Potential benefits of logistic centres include: reduced transport costs and resulting improvements in export competitiveness; increased supply and use of logistics and associated services in business; potential employment creation as services are attracted to supply the dry ports; and environmental benefits, if a modal shift towards rail is encouraged.

LC's ports would allow shippers to undertake consolidation and distribution activities as well as export/import procedures at inland locations that are at relatively short distances from factories and farms. These facilities could help reduce congestion and delays at border crossings and ports, thereby reducing transaction costs for exporters and importers. This is particularly important for landlocked countries.

LCs can be developed with PPP. Depending on the legislation of each country and the site ownership various combinations of public private partnerships will be examined such as concessions - DBFMO, DBFT, and others - with possible involvement of IFI's, too.

In summary the required conditions for preliminary assessment of needs and selection of location for the development of logistics centers are:

- existence of O/D data by commodity, sub region for national, international and transit;
- movements of freight;
- availability of land;
- traffic, environmental impact studies for the site;

- availability of funds;
- consensus on location between government, local authorities, transport unions, forwarders, railways, transport operators, etc.;
- existence of large scale consumption (big city) or production (manufacturing, mining, agriculture, etc.) near the site;
- major transit corridor and/or major border crossing nearby;
- major railway node, multimodal node, motorways junction nearby;
- in case of LCs near borders, consensus with neighbouring countries; and
- preliminary financial feasibility studies.

6.4.3 What a LC should incorporate?

Functions

The objective of a logistic center is the consolidation and distribution of goods. The functions are similar to those of a seaport, and should include customs clearance services. Functions that could be expected to be typically present at a LC include:

- container (and possibly bulk) handling facilities;
- consolidation of cargo;
- distribution of goods;
- intermodal infrastructure connections;
- a geographical grouping of independent companies and bodies dealing with freight transport (including, for example, freight forwarders, shippers and transport operators);
- customs inspections;
- tax payment, customs clearance;
- storage;
- maintenance and repair; and
- banking and information communication technology connections.

Buildings

A logistic centre may include various buildings such as:

- depots for dried products as well as for cargos of various types;
- depots for frozen products;
- cargo distribution centre;
- regulation terminal of cargo transported in containers;
- multimodal terminal; and
- buildings of common usage.

Expansion of functions

The potential expansion of functions at an inland intermodal facility may be the following:

- container yard;
- container freight station;
- inland container depot;
- import processing zone;
- industrial park;
- export processing zone;
- special economic zone; and
- logistics and other value added services.

6.4.4 Priorities & time programming

With the available info the following programming is tentatively proposed.

Table 16: Time programming priorities

		To be developed		
LC site	**Under development or operation**	**2008-2012**	**2013-2017**	**Later**
Almaty	(2 are under construction already)	*		
Astana	One under construction	*		
Shymkent			*	
Aktau			*	
Atyrau		*		
Dostyk		*		
Chorgos		*		
Bishkek		*		
Osh			*	
Dushanbe		*		
Tursunzade			*	
Tashkent		*1st	* 2nd	
Bukhara / Navoiy			*	
Termez		*		
Fergana			*	
Nukus				*

7 Proposals for further actions (relation to new TRACECA project about LCs to be launched)

7.1 Need for OD surveys

In order to proceed to a master plan for the development of LCs in Central Asia, select the locations, prepare demand forecasts and design supply facilities to match the demand, it is necessary to measure this demand with specialised surveys on the origin and destination of international freight traffic, per commodity, type and unitisation. These survey data are also necessary for the feasibility studies for the financing of such centres.

7.2 Feasibility study for freight centers

The methodology which should be implemented in order to access the feasibility and the preconditions for developing the freight logistics centers includes the following steps:

- Evaluation of the overall freight traffic within the range influenced by the freight logistics center, and especially the cargo, that can be engaged by the freight logistics center in a number of time horizons, through research, questionnaires, forecasts of similar studies and other data.
- It will be important to undertake logistic centre network modelling for the freight forecasts using origin-destination data collected in the study, assignments to minimum cost/distance paths (given known constraints), and separation between door-to-door and break-bulk consignments. The objective is to estimate future point-to-point freight flows, by major commodity, mode of transport and type of loading unit that would be potential traffic for the logistic centres.
- services to be offered
- dimensioning: conversion of freight traffic to the necessary space of land in order to accommodate the services to be offered, but also taking into account international experience and the appropriate transportation coefficients.
- survey of the locations which satisfy the demand in terms of available land for the operation of the freight logistics center.
- analysis of the strengths, weaknesses opportunities and threats (SWOT analysis) for the alternative locations.
- final selection of the appropriate locations for the allocation of the freight logistics center.
- EIA
- financing means
- interest rates and other assumptions
- costing for construction, operation, maintenance
- financial feasibility (IRR, NPV, cash flows), economic and financial evaluation of the investment for all the scenarios of freight movement (basic, optimistic and pessimistic).

To conclude the input data required for the feasibility are:

- demand forecasts;
- costs for infrastructure of freight centres;

- costs for operation; and
- charges, income.

The above data combined with standards for spaces, buildings by service provided can give the needed data for IRR, B/C, NPV calculation. A more detailed description of the content of a feasibility study is given in the annex.

7.3 Need for training seminar for international road freight operations, multimodal transport, logistics organisation

Throughout the missions and during the meetings with actors, there was recognition of needs for training seminars on the subjects related to multimodal transport and logistics to be given by international and regional experts. The new project to be assigned by TRACECA about FF is related to this need:

Tender: TACIS — Strengthening of transport training capacities in NIS countries (EuropeAid/126298/C/SER/Multi), TACIS, 2008/S 20-024812.

The objective of the project is to develop train-the-trainer courses and strengthen existing transport training institutions in TRACECA countries. The project will provide support for the development of new curricula and modern organisational structures of transport training institutes. The project will improve pedagogical skills in transport training institutes through familiarisation with modern teaching techniques and curricula development methods. The project will develop an in-depth appraisal for the establishment of regional training centre in the field of transport and will familiarise teaching staff and students with latest transport planning and investment appraisal techniques and tools.

- maximum budget: EUR 2,000,000;
- Provisional date of invitation to tender: mid March 2008;
- provisional commencement date of the contract: October 2008;
- initial period of execution and possible extension of the contract: 24 months;
- deadline for receipt of applications: 5 March 2008.

7.4 Need for cooperation between the countries of Central Asia

The CAR should cooperate in order to develop a regional network and not isolated LCs, which will cater for transit, imports and exports.

7.5 New tender for feasibility of LCs in CAR (by EC, budgeted 2m. Euro)

Tender: International Logistics Centres/Nodes Network for Central Asia
(EuropeAid/125727/C/SER/MULTI), E.C., TACIS programme

The specific objective of this project is to develop a financial, technical, environmental and institutional conditions and studies for a network of logistical centres along the TRACECA corridor. The consultant will provide a set of feasibility or pre-feasibility studies for selected logistic centres to be developed on

the TRACECA corridor, with a focus on public private partnerships and efficient customs services. The studies will include needs assessment and surveys of the current logistical capacities, the preliminary design for different categories of required services, equipments and investments, business and organisation plans, financial and economic analyses in order to promote realistic and sustainable projects for further investment.

- maximum budget: EUR 2,000,000;
- provisional date of invitation to tender: July 2008;
- provisional commencement date of the contract: November 2008;
- initial period of execution and possible extension of the contract: 24 months;
- deadline for receipt of applications: 23 July 2008.

7.6 Expert working group 2 on private finance, PPP and logistics

The EWG on private finance, PPP's and logistics would have the following features:

Rationale:
Central Asian countries are supposed to invest roughly €12bn. per year or electricity, roads, telecommunications, major inter-urban routes, rail route, water and sanitation infrastructures. To achieve this goal public private partnerships are necessary because of constraints on public as well as efficiency if adequately designed and implemented. This solution is particularly appropriate for the transport infrastructure sector due to high capital value of investments for roads, motorways as well as logistic centres, main requirement for multi-modal transport. This efficient way of transportation is still underdeveloped in Central Asia, due to:

- a lack of equipment to handle ISO containers outside of a limited number of major terminals;
- high price on containers;
- limited demand patterns for regular two-way movement of full containers;
- interference with a smooth border crossings;
- regulations and working practices that follow those of the individual modes.

Problems in infrastructure and multi-modal transport are inter-related. At a regional level, at least in coordination among Central Asian countries, transport infrastructure development and logistics centres should be planned (e.g. roads connecting large production centres, markets, and ports). As well, the maintenance of available infrastructures is an attractive proposition for PPP.
In addition, users benefit from better maintained infrastructure because the private sector operators have both an interest and a responsibility to maintain properly these infrastructures.

Main objective:
- to contribute to the improvement of the transport infrastructure in the Central Asian countries.

Specific objective:
- to enhance the participation of private interest in transport, (including logistic centres), infrastructure construction and maintenance.

Working group composition:

- national officials from MOTs, MoFs, bank, IFIs representatives;
- representatives of non-governmental organisations concerned with road transport and freight forwarding;
- IRF representative.

Scope of work:

- PPP policy;
- infrastructure gap;
- capacity building;
- PPP coordination unit organisation, mandate and chain of command;
- financially sustainable projects;

Expected results:

1. assessment of the PPP readiness in each country (questionnaire attached);
2. agreed principles to allow the drafting of a legal text "law on private participation in infrastructure";
3. proposals for identification and management of PPP on transport;
4. identification of potential PPP related to infrastructure, taking into account the interest of a network of logistic centres;
5. guidelines for feasibility studies and financing, incorporating EU experience on financial guarantee mechanisms in the first phase of a transport corridor.

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Glossary and terms

Dry port
A dry port is a yard used to place containers or conventional bulk cargo, and which is usually connected to a seaport by rail or road and has services like, storage, consolidation, and maintenance of containers and customs clearance. They may be used for shipping, receiving and distribution centers designed to relieve the congestion in increasingly busy seaports, like an inland port.

Industrial park
An industrial estate is an area of land set aside for industrial development. Industrial parks are usually located close to transport facilities, especially where more than one transport modalities coincide: highways, railroads, airports, and navigable rivers.

Special economic zone
A special economic zone (SEZ) is a geographical region that has economic laws that are more liberal than a country's typical economic laws. The category 'SEZ' covers a broad range of more specific zone types, including free trade zones (FTZ), export processing zones (EPZ), free zones (FZ), industrial estates (IE), free ports, urban enterprise zones and others. Usually the goal of an SEZ structure is to increase foreign investment. One of the earliest and the most famous special economic zones were founded by the government of the People's Republic of China under Deng Xiaoping in the early 1980s. The most successful special economic zone in China, Shenzhen, has developed from a small village into a city with a population over 10m. within 20 years. Following the Chinese examples, special economic zones have been established in several countries, including Brazil, India, Iran, Jordan, Kazakhstan (Astana and Aktau port), Pakistan, the Philippines, Poland, Russia, and Ukraine.

Container terminal
A container terminal is a facility where cargo containers are transhipped between different transport vehicles, for onward transportation. The transhipment may be between ships and land vehicles, for example trains or trucks, in which case the terminal is described as a maritime container terminal. Alternatively the transhipment may be between land vehicles, typically between train and truck, in which case the terminal is described as an inland container terminal.
Maritime container terminals tend to be part of a larger port, and the biggest maritime container terminals can be found situated around major harbours. Inland container terminals tend to be located in or near major cities, with good rail connections to maritime container terminals.
Both maritime and inland container terminals usually also provide storage facilities for both loaded and empty containers. Loaded containers are stored for relatively short periods, whilst waiting for onward transportation, whilst unloaded containers may be stored for longer periods awaiting their next use. Containers are normally stacked for storage, and the resulting stores are known as container stacks.

Inland container depot (ICD) and container freight station (CFS)
An inland container depot/container freight station may be defined as a common user facility with public authority status equipped with fixed installations and offering services for handling and temporary storage of import/export laden and empty containers carried under customs control and with customs and other agencies competent to clear goods for home use, warehousing, temporary admissions, re-export, temporary storage for onward transit and outright export. Transhipment of cargo can also take place from such stations.
Functionally there is no distinction between an ICD/CFS as both are transit facilities, which offer services for containerisation of break bulk cargo and vice-versa. These could be served by rail and/ or road trans-

port. An ICD is generally located in the interiors (outside the port towns) of the country away from the servicing ports. CFS, on the other hand, is an off dock facility located near the servicing ports which helps in decongesting the port by shifting cargo and customs related activities outside the port area. CFSs are largely expected to deal with break-bulk cargo originating/terminating in the immediate hinterland of a port any may also deal with rail borne traffic to and from inland locations.

The primary functions of ICD/CFS are:

- receipt and dispatch/delivery of cargo;
- stuffing and stripping of containers;
- transit operations by rail/road to and from serving ports;
- customs clearance;
- consolidation and desegregation of LCL (less than container load)cargo;
- temporary storage of cargo and containers;
- reworking of containers;
- maintenance and repair of container units.

The main benefits from ICDs/CFSs are

- concentration points for long distance cargoes and its unitisation;
- service as a transit facility;
- customs clearance facility available near the centres of production and consumption;
- reduced level of demurrage and pilferage;
- no customs required at gateway ports;
- issuance of through bill of lading by shipping lines, hereby resuming full liability of shipments;
- reduced overall level of empty container movement;
- competitive transport cost; and
- reduced inventory cost and increased trade flows.

Rail siding

The place where container trains are received, dispatched and handled in a terminal. Similarly, the containers are loaded on and unloaded from rail wagons at the siding through overhead cranes and/or other lifting equipments.

Container yard

Container yard occupies the largest area in the ICD, CFS. It is stacking area were the export containers are aggregated prior to dispatch to port; import containers are stored till customs clearance and where empties await onward movement. Likewise, some stacking areas are earmarked for keeping special containers such as refrigerated, hazardous, overweight/over-length, etc.

Warehouse

A covered space/shed where export cargo is received and import cargo stored/delivered; containers are stuffed/stripped or reworked; LCL exports are consolidated and import LCLs are unpacked; and cargo is physically examined by customs. Export and import consignments are generally handled either at separate areas in a warehouse or in different nominated warehouses/sheds.

Gate complex

The gate complex regulates the entry and exist of road vehicles carrying cargo and containers through the terminal. It is place where documentation, security and container inspection procedures are undertaken.

Free trade zone
A free trade zone (FTZ) or export processing zone (EPZ) is one or more special areas of a country where some normal trade barriers such as tariffs and quotas are eliminated and bureaucratic requirements are lowered in hopes of attracting new business and foreign investments. Free trade zones can be defined as labour intensive manufacturing centers that involve the import of raw materials or components and the export of factory products.
Most FTZs are located in developing countries. Bureaucracy is typically minimised by outsourcing it to the FTZ operator and corporations setting up in the zone may be given tax breaks as an additional incentive. Usually, these zones are set up in underdeveloped parts of the host country, the rationale being that the zones will attract employers and thus reduce poverty and unemployment and stimulate the area's economy. These zones are often used by multinational corporations to set up factories to produce goods (such as clothing or shoes).

Containerisation
is a system of intermodal freight transport cargo transport using standard ISO containers (known as shipping containers or isotainers) that can be loaded and sealed intact onto container ships, railroad cars, planes, and trucks.

Transshipment
is the shipment of goods to an intermediate destination, and then from there to yet another destination. One possible reason is to change the means of transport during the journey (for example from ship transport to road transport), known as intermodal freight overhead travelling cranes and gantry cranes are types of crane which lift objects by a hoist which is fitted in a trolley and can move horizontally on a rail or pair of rails fitted under a beam.

CFS (container freight station)
The term CFS at loading port means the location designated by carriers for the receiving of cargo to be loaded into containers by the carrier. At discharge or destination ports, the term CFS means the bonded location designated by carriers for devanning of containerised cargo.

CFS/CFS (pier to pier)
The term CFS/CFS refers to cargo delivered at origin in less-than-containerload quantities to a container freight station (CFS) to be loaded into containers and to be unloaded from the container at destination CFS.

CFS charge (container freight station charge)
The charge assessed for services performed at the origin or destination for loading or unloading of cargo into/from containers at a CFS.

Consignee
The individual or company, to whom a seller or shipper sends merchandise and who, upon presentation of necessary documents, is recognised as the merchandise owner for the purpose of declaring and paying customs duties.

Consignor

A term used to describe any person who consigns goods to himself or to another party in a bill of lading or equivalent document. A consignor might be the owner of the goods, or a freight forwarder who consigns goods on behalf of his principal.

Consolidated shipment
A method of shipping whereby an agent (freight forwarder or consolidator) combines individual consignments from various shippers into one shipment made to a destination agent, for the benefit of preferential rates (also called "groupage"). The consolidation is then de-consolidated by the destination agent into its original component consignments and made available to consignees. Consolidation provides shippers access to better rates than would be otherwise attainable.

Consolidator
An agent who brings together a number of shipments for one destination to qualify for preferential rates.

The difference between free trade zones and special economic zones (which were pioneered in China)
is that free trade zones tend to limit their concessionary terms and conditions to exports, while Special Economic Zones also cater for goods produced for the local market. In most ways, however, they are very similar. Its terms and conditions are similar to those offered in other countries, including Jebel Ali.

In particular, there are:
- no import duties, although this concession applies only to a selected list of goods;
- no corporation tax;
- no property tax;
- no VAT or customs duties on goods imported for personal needs.

3PL
Third party logistics: sub-contractors that play a traditional execution role, managing and performing a specific logistic function using their own assets and resources for the account of another party.

4PL
Fourth party logistics: sub-contractors that undertake scheduling and planning work that do not have their own resources but that steer, combine, optimise and sub-contract the entire physical and data flows of their customers.

Co-manufacturing
is the repackaging on demand, assembly of several products at the storage site to meet customers' orders.

Co-packing
is grouping products by batch for promotional operations.

Cross-docking
is transforming a groupage/break-bulk warehouse (without storage) into a profit centre, adding value to primary tasks.

EDI
Electronic data interchange.

ERP
Enterprise resource planning: software packages that organise data flows and enable them to be connected within an enterprise in order to create a single database covering accounting, commercial and production management functions.

JIT
Just in time: a production method under which all the manufacturing processes are launched on the basis of firm orders and not forecasts, as was the case under MRP2.

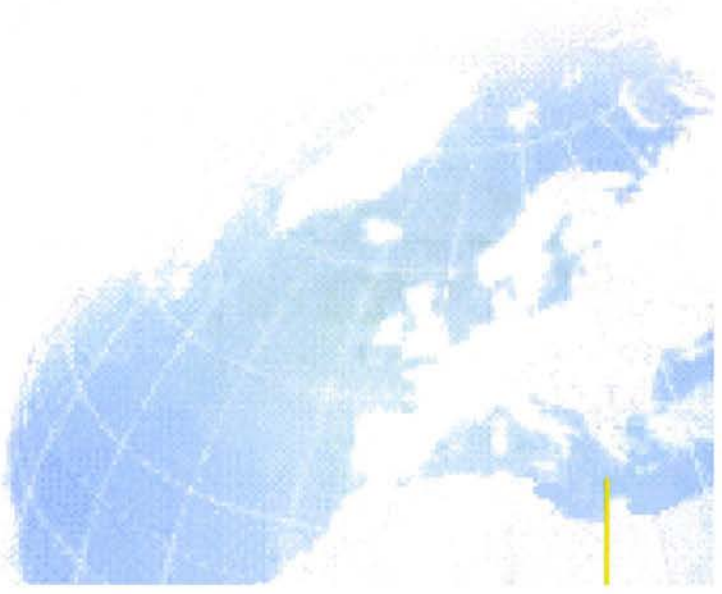
SCM
Supply chain management: software package that allows flows of good and information to be managed, in a chain running from the supplier's suppliers to the customers' customer, in four major processes scheduling, material supply, manufacture delivery.

TEU
stands for "twenty-foot equivalent unit,"
The ISO un of measurement in containerisation (= 6.06m in maritime supply chains, one 40-ft container counts as 2 TEU.
The EU has recently put into force the new concept of co-modality: The efficient use of different modes both individually and in combination that will result in an optimal and sustainable utilisation of resources.

Druzhba (Russian) = friendship;
= Dostyk (Kazakhstan);
= Doslyk (Uzbekistan).

Annex 1

Country profiles



Annex 1: Country profiles

A short profile of the five countries are given below in terms of:

- GDP, exports, imports;
- transit trade;
- transport modes shares, multimodality;
- government freight transport policy;
- current coordination between the five countries in international freight transport, agreements and conventions signed, participation in international organizations in relation to freight transport; and
- existing infrastructure for freight transport and multimodal operations.

The Central Asia Region

The Central Asia region, borders to Russia, China, Iran, Afghanistan and Caspian Sea and includes five countries namely the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Tajikistan, the Republic of Uzbekistan and the Republic of Turkmenistan with the following characteristics (which are necessary to know when assessing the needs for LCs, i.e. GDP, imports exports, transport networks, etc.):

1 Republic of Kazakhstan

Capital:	Astana
Surface area:	2,717,300 km^2
Population:	15.3m.
Railways' length:	13,700 km
Roads' length:	90,018 km
Major sea port:	Aktau

GDP - per capita (PPP):	$9,100 (2006 est.) 10,6% growth 2006
GDP - composition by sector:	Agriculture: 6.3% Industry: 41.1% Services: 52.7% (2006 est.)
Oil - exports:	1m. bbl/day (2005 est.)
Oil - imports:	47,000 bbl/day (2003)
Natural gas - exports:	7.01bn. m^3 (2004 est.)
Natural gas - imports	2.27bn. m^3 (2004 est.)
Exports:	$35.55bn. f.o.b. (2006 est.)
Exports - commodities:	oil and oil products 58%, ferrous metals 24%, chemicals 5%, machinery 3%, grain, wool, meat, coal (2001)
Exports - partners:	Russia 12.4%, Germany 12%, China 11.2%, Italy 8.9%, France 8.6%, Romania 5.1%, US 4.5% (2005)
Imports	$22bn. f.o.b. (2006 est.)
Imports - commodities:	machinery and equipment 41%, metal products 28%, foodstuffs 8% (2001)
Imports – partners 2005:	Russia 35.7%, China 21.3%, Germany 7.1%
Airports - with paved runways:	Total: 67, over 3,047 m: 9 2,438 to 3,047 m: 27, 1,524 to 2,437 m: 17 914 to 1,523 m: 4, under 914 m: 10 (2006)
Railways:	Total: 13,700 km Broad gauge: 13,700 km 1.520-m gauge (3,700 km electrified) (2005)
Roadways:	Total: 90,018 km paved: 84,104 km Unpaved: 5,914 km (2004)
Waterways:	4,000 km (on the Ertis (Irtysh River) (80%) and Syr Darya ((Syrdariya)) River) (2005)
Ports and terminals	Aktau (Shevchenko), Atyrau (Gur'yev), Oskemen (Ust-Kamenogorsk), Pavlodar, Semey (Semipalatinsk)

1.1 Characteristics of Kazakhstan (*Source: Transport Strategy of the Republic of Kazakhstan up to 2015)*

- Geography (vast territory, land locking, uneven dislocation of the settlements and natural resources) contributes to high transport costs.
- Due to location at the edge of Europe and Asia, Kazakhstan obtains substantial transit potential between Asian countries, Russia and Europe. Neighbours to the states with the huge markets (China, Russia, etc.).
- Relatively plain landscape[1] allows for easy and low cost development of the railway and road transport systems.
- The transport network consists mainly of roads and railways (88,400 and 14,000 km, respectively).
- The length of water ways is 3,900 km.
- Density of the transport network per 1,000 m^2 of territory is 5.1 km of the railways, 32.4 km of roads with solid cover, 1.5 km of the domestic water ways. The choice of Kazakhstan towards the market economy made in the beginning of 90-ies and the reforms already initiated significantly changed the conditions of transport operation and the nature of demand for transport services.
- For the period of 2000-2005 transport services' annual growth was: for passenger transport - 7.8%, cargo shipping - 9.5% at the average annual economic growth of 10.3%. Unbalanced distribution of transport network throughout the whole territory of the country impedes the development of a single economic space and increasing mobility of population. Industrially oriented network of railway and road networks was developing without considering territorial boundaries of former Soviet states[2].
- Incompatibility of several technical parameters of transport infrastructure with international standards and the systems of operating trade partners of Kazakhstan[3] is a serious obstacle for regional integration and development of trade and transport connections. Significant increase in all the types of traffic, including those related to the coal import, oil-filled cargo, metal products, chemical and petrochemical products, other freight, is limited by insufficient capacity.

1.2 Economy growth (*Source: Transport Strategy of the Republic of Kazakhstan up to 2015)*

During 2000 -2004 economic growth of Kazakhstan was 42.7% of GDP. At the same time the freight traffic volume by all transport modes increased by 28.5%. As a result existing capacities of transport infrastructure hamper the paces of economic growth. Prospects for economic development of Kazakhstan with expected keeping the paces of GDP growth at the level of 8.8-9.2% annually will inevitably cause increase of transport system load.

[1] Except for some regions in Kazakhstan mainly on the east and south-east.
[2] Several sections of the Kazakhstan' railways lie on the territories of Russia (on the north) and Kyrgyz Republic (on the south). Similarly, some sections of the Russian and Kyrgyz Railways pass through the territory of the Republic of Kazakhstan.
[3] Particularly, different width of railway gauge typical for Europe and former USSR, also the parameters of the railway machinery are not compatible with the dimensions tolerance in some adjacent states (for instance, in China).

2 Republic of Uzbekistan

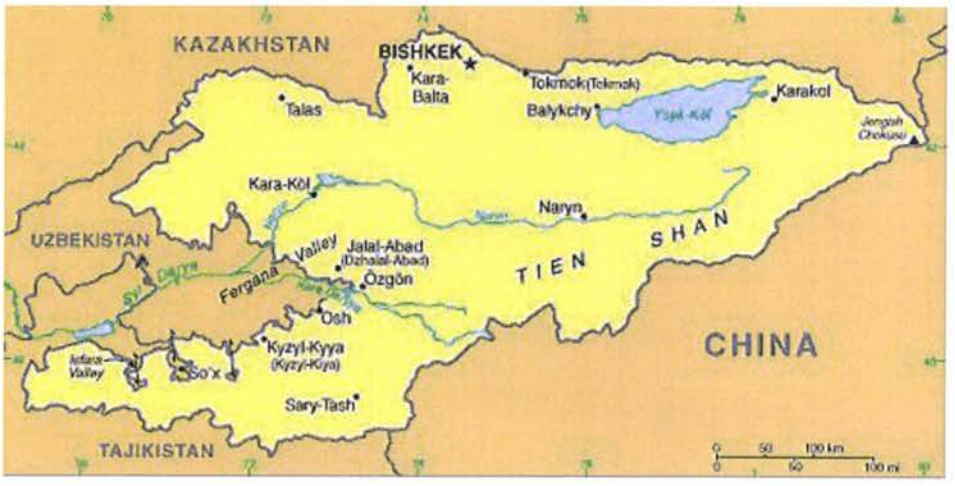
Capital:	Tashkent
Surface area:	447,400 km^2
Population:	27.7m.
Railways' length:	3,986 km
Roads' length:	82,000 km

GDP - per capita (PPP):	$2,000 (2006 est.) 7.3% growth 2006
GDP - composition by sector:	Agriculture: 31.1% Industry: 25.7% Services: 43.2% (2006 est.)
Oil - exports:	NA bbl/day
Oil - imports:	NA
Natural gas - exports:	12.5bn. m^3 (2006 est.)
Natural gas - imports	NA
Exports:	$5.51bn. f.o.b. (2006 est.)
Exports - commodities:	Cotton, gold, energy products, mineral fertilizers, ferrous and non-ferrous metals, textiles, food products, machinery, automobiles
Exports - partners:	Russia 23.8%, China 11.9%, Kazakhstan 6.9%, Turkey 6.9%, Ukraine 5.4%, Bangladesh 4.7%, Poland 4.2%, Tajikistan 4% (2005)
Imports	$3.99bn. f.o.b. (2006 est.)
Imports - commodities:	Machinery and equipment, foodstuffs, chemicals, ferrous and non-ferrous metals

Imports – partners 2005:	Russia 26.6%, South Korea 15.2%, Germany 8.8%, Kazakhstan 7.1%, China 7.1%, Turkey 4.7%, Ukraine 4.7% (2005)
Airports - with paved runways:	Total:27 2,438 to 3,047 m: 2 Under 914 m: 25 (2006)
Railways:	Total: 3,950 km Broad gauge: 3,950 km 1,520-m gauge (620 km electrified) (2005)
Roadways:	Total: 81,600 km paved: 71,237 km Unpaved: 10,363 km (1999)
Waterways:	1,100 km (2006)
Ports and terminals	Termez (Amu Darya)

3 Kyrgyz Republic

Capital:	Bishkek
Surface area:	198,500 km^2
Population:	5.3m.
Railways' length:	470 km
Roads' length:	18,500 km



GDP - per capita (PPP):	$2,000 (2006 est.) 2,7% growth 2006
GDP - composition by sector:	Agriculture: 34.5% Industry: 19.5% Services: 46.1% (2006 est.)
Oil - exports:	NA bbl/day
Oil - imports:	NA bbl/day
Natural gas - exports:	0 m^3 (2004 est.)
Natural gas - imports	890m. m^3 (2004 est.)
Exports:	$701.8m. f.o.b. (2006 est.)
Exports - commodities:	Cotton, wool, meat, tobacco; gold, mercury, uranium, natural gas, hydropower; machinery; shoes
Exports - partners:	UAE 35.6%, Russia 18.6%, China 13.4%, Kazakhstan 13% (2005)
Imports	$1.177bn. f.o.b. (2006 est.)
Imports - commodities:	Oil and gas, machinery and equipment, chemicals, foodstuffs
Imports – partners 2005:	China 43%, Russia 19.7%, Kazakhstan 12.1%, Turkey 4.4% (2005); 4.7% (2005)
Airports - with paved runways:	Total: 18 Over 3,047 m: 1 2,438 to 3,047 m: 3 1,524 to 2,437 m: 11 under 914 m: 3 (2006)
Railways:	Total: 470 km Broad gauge: 470 km 1,520-m gauge (2005)
Roadways:	Total: 18,500 km Paved: 16,854 km Unpaved: 1,646 km (1999)
Waterways:	600 km (2006)
Ports and terminals	Balykchy (Issykul or Rybach'ye)

4 Republic of Tajikistan

Capital:	Dushanbe
Surface area:	143,100 km^2
Population:	7.1m.
Railways' length:	482 km
Roads' length:	30,000 km

GDP - per capita (PPP):	$1,300 (2006 est.) 7% growth 2006
GDP - composition by sector:	Agriculture: 22.7% /industry: 28.5% Services: 48.8% (2006 est.)
Oil – exports:	NA bbl/day
Oil – imports:	NA bbl/day
Natural gas - exports:	0 cu m (2004 est.)
Natural gas - imports	1.35bn. m^3 (2004 est.)
Exports:	$1.16bn. f.o.b. (2006 est.)
Exports - commodities:	Aluminium, electricity, cotton, fruits, vegetable oil, textiles
Exports - partners:	Netherlands 46.6%, Turkey 15.8%, Russia 9.1%, Uzbekistan 7.3%, Latvia 4.9%, Iran 4% (2005)
Imports	$1.513bn. f.o.b. (2006 est.)
Imports - commodities:	Electricity, petroleum products, aluminium oxide, machinery and equipment, foodstuffs
Imports - partners:	Russia 19.3%, Kazakhstan 12.7%, Uzbekistan 11.5%, Azerbaijan 8.6%,

	China 7%, Ukraine 6.2%, Romania 4.6%, Turkmenistan 4% (2005)
Airports - with paved runways:	Total: 17 /over 3,047 m: 2 2,438 to 3,047 m: 4 /1,524 to 2,437 m: 5 914 to 1,523 m: 3 Under 914 m: 3 (2006)
Railways:	Total: 482 km Broad gauge: 482 km 1.520-m gauge (2005)
Roadways:	Total: 27,767 km (2000)
Waterways:	200 km (along Vakhsh River) (2006)

5 Republic of Turkmenistan

Capital:	Ashgabat
Surface area:	488,100 km^2
Population:	5.1m.
Railways' length:	2,446 km
Roads' length:	24,000 km
Major sea port:	Turkmenbasy

GDP - per capita (PPP):	$8,900 (2006 est.) 7% growth 2006
GDP - composition by sector:	Agriculture: 24.4% /industry: 33.9% Services: 41.7% (2006 est.)
Oil - exports:	170,000 bbl/day (2004 est.)
Oil - imports:	NA bbl/day
Natural gas - exports:	42bn. m^3 (2004 est.)
Natural gas - imports	0 cu m (2004 est.)

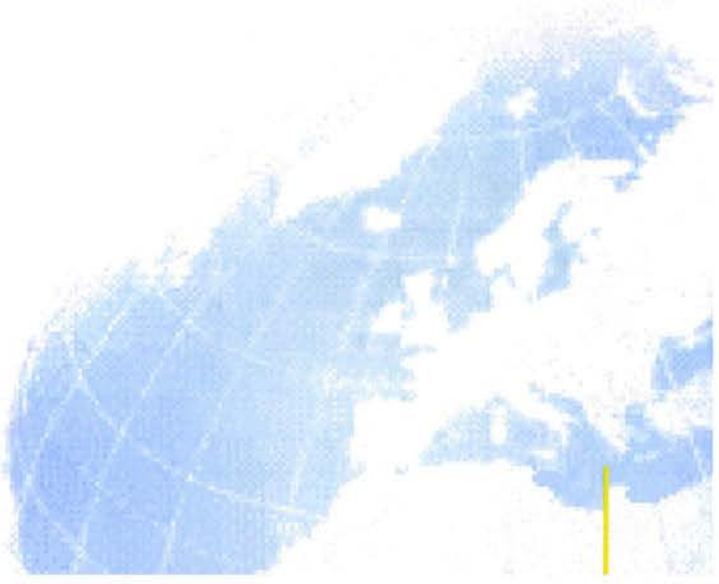
Exports:	$5.421bn. f.o.b. (2006 est.)
Exports - commodities:	Gas, crude oil, petrochemicals, cotton fiber, textiles
Exports - partners:	Ukraine 42.8%, Iran 14.8%, Hungary 5.3% (2005)
Imports	$3.936bn. f.o.b. (2006 est.)
Imports - commodities:	Machinery and equipment, chemicals, foodstuffs
Imports – partners 2005:	UAE 12.7%, Azerbaijan 11.1%, US 9.6%, Russia 9.1%, Ukraine 7.6%, Turkey 7.3%, Iran 6.2%, Germany 5.4% (2005)
Airports - with paved runways:	Total: 22 /over 3,047 m: 1 2,438 to 3,047 m: 11 1,524 to 2,437 m: 8 914 to 1,523 m: 2 (2006)
Railways:	Total: 2,440 km Broad gauge: 2,440 km 1.520-m gauge (2005)
Roadways:	Total: 24,000 km Paved: 19,488 km Unpaved: 4,512 km (1999)
Waterways:	1,300 km (Amu Darya and Karakum Canal important inland waterways) (2006)
Ports and terminals	Turkmenbasy

6 Countries comparison

- only Kazakhstan and Turkmenistan have sea ports;
- GDP varies a lot due to oil;
- most of the countries of the region present high growth rates;
- growth is associated with increased freight flows;
- biggest population and density in Uzbekistan;
- different levels of deregulation and of liberalization of economy;
- different level of recognition by the respective governments, of the benefits of LCs

Annex 2

Feasibility study freight centers



Annex 2: Feasibility study for freight centres outline

1 Methodology

The methodology which can be implemented in order to access the feasibility and the preconditions for developing the freight logistics centers included the following steps:

- evaluation of the overall freight traffic within the range influenced by the freight logistics center, and especially the cargo, that can be engaged by the freight logistics center in a number of time horizons, through research, questionnaires, forecasts of similar studies and other data;
- it will be important to undertake logistic centre network modelling for the freight forecasts using origin-destination data collected in the study, assignments to minimum cost/distance paths (given known constraints), and separation between door-to-door and break-bulk consignments; the objective is to estimate future point-to-point freight flows, by major commodity, mode of transport and type of loading unit that would be potential traffic for the logistic centres.;
- the conversion of freight traffic to the necessary space of land in order to be accommodated, but also taking into account international experience and the appropriate transportation coefficients;
- survey of the locations which satisfy the demand in terms of available land for the operation of the freight logistics center;
- analysis of the strengths, weaknesses opportunities and threats (SWOT analysis) for the alternative locations;
- final selection of the appropriate locations for the allocation of the freight logistics center
- financial plan proposals, economic and financial evaluation of the investment for all the scenarios of freight movement (basic, optimistic and pessimistic).

2 Freight traffic forecasting for the freight logistics center

Medium- and long-term predictions for the years 2010, 2015 and 2020.

For the evaluation of the cargo's latent demand which the freight logistics center can serve, similar experience from the establishment of such centers can be used and the type of the freight movement (for example if the movement is internal, export, import or transit), but also the origin or the destination. Based on international experience, the latent demand of cargo at a freight logistics center is differentiated between 1.5 and 25% depending on the time horizon and the scenario which may be basic, optimistic and pessimistic.

Freight traffic attracted I, j = scenario $_x$ coefficient * freight traffic i

Where:

Scenario $_x$	=	Scenario (basic, optimistic or pessimistic)
Freight traffic i; j	=	Freight traffic for each time horizon and category
j	=	Category (transit, import, export, local)
I	=	Time horizon (2010, 2015, 2020)

3 Assessment of the necessary spaces required for the freight logistics center

For the final selection of the appropriate scenario for the development of the freight logistics center it is necessary to specify the type of facilities which will be constructed and specify their dimensions. For this reason, development and transportation flow scenarios are used, also taking into account their disaggregating in flows which have origin - destination to the freight logistic center, imports- exports, local distribution and transit. The transit flows concern international transit cargo. Depending on the distinction of the flows, different facilities are required in order to handle the cargo.

In order to calculate the necessary spaces required for the facilities (including the secondary buildings, the car park area and car manoeuvre's area) conversion indicators are used for the transportation cargo to spaces needed in accordance to studies and practice in Europe (EURO-PLATFORMS, 1996) which are shown in the following table:

Table 1: Freight cargo per category, scenario and time horizon

Freight village services	Conversion indicators	Comments
General storage	45 m^2/per t per day	Building facilities
International transit	6 m^2/per t per day	Temporary area for unaccompanied cargo
Local distribution	84 m^2/per t per day	Logistics and storage services
Parking and maneuver's area	60% of the total building facilities	150 m^2/per lorry
Other, support services	10% of the total building facilities	Other services (bank, offices, motel, etc.)

Based on the above and taking into consideration the cargo we conclude the required surfaces for each time horizon (2010, 2015, 2020), but also for each scenario of growth (pessimistic, basic, optimistic) as it is shown in the following table:

Table 2: Freight cargo per category, scenario and time horizon

Function	2010			2015			2020		
	Pessimistic	Basic	Optimistic	Pessimistic	Basic	Optimistic	Pessimistic	Basic	Optimistic
Local distribution									
General storage (imports-exports)									
Areas for unaccompanied cargo and transit									
Sub total									
Parking and maneuver's area									
Assisting services									
Total									

4 Location allocation of the freight logistics center, survey and assessment of alternatives sites

5 Analysis of the strengths, weaknesses, opportunities and threats (SWOT analysis) for the alternative positions

6 Investment and financial plan for the freight logistics center

The cost of the investment for the construction of the freight logistics center arises from the evaluation of the need for open air areas, infrastructure, storage and other building facilities and equipment. On the other hand the dimensioning of the infrastructure in order to service the later mentioned needs is based on qualitative and quantitative analysis of the freight cargo traffic that is estimated to be serviced by the freight logistic center. The analysis of the need for grounds, transportation and infrastructure, storage buildings and equipment can be estimated by taking into account the basic scenarios' for each target time horizon (2010, 2015, 2020)

7 Construction cost - example unit prices, Greece, 2005

Cost of earthworks	7.5 €/m^3
Construction cost of storage areas	500 €/m^2
Construction cost of facilities support	1,000 €/m^2
Cost of parking and maneuver's area	100 €/m^2
Cost of utilities	500 €/m^2

8 Investment cost (example from Olig Freight Centre, Greece)

Category of investment cost	Cost in 2010	Cost in 2015	Cost in 2020
Cost of land*	270,000	330,000	870,000
Paving – parking areas	1,900,000	2,300,000	6,100,000
Road networks**	900,000	1,200,000	3,000,000
Storage buildings	15,800,000	19,200,000	52,000,000
Support services	3,150,000	3,850,000	10,200,000
Mechanical equipment***	1,000,000	4,500,000	
Total	24,020,000	31,080,000	72,170,000

(*) It has been calculated that the cost is around 30,000 €/acre.
(**) It is assumed that 10 km of internal road network and network which will connect with motorways will be constructed.
(***) It includes 2 gantry cranes and 10 straddle carriers.

9 Income, revenues

The calculation of the freight logistics center's income on an annual basis includes the income from the movements of freight cargo units, logistic services, customs clearance services, rent of storage facilities and buildings for a number of different services.

In order to calculate economically and financially the financing of the investment, three investment plans can be proposed for the three different scenarios (basic, optimistic, pessimistic) which are:

- plan 1: 25% own capital, 55% financed by national and IFO funds and 20% 20 year duration loans with 6% interest rate;
- plan 2: 45% own capital and 55% financed by IFO funds;
- plan 3: 25% own capital, 40% financed by national and IFO funds and 25% 25 year duration loans with 6% interest rate.

The economic indicators which were calculated for all possible combinations of freight cargo traffic and financial investment plans are demonstrated in the table below:

Table 3: Economic indicators (Olig example)

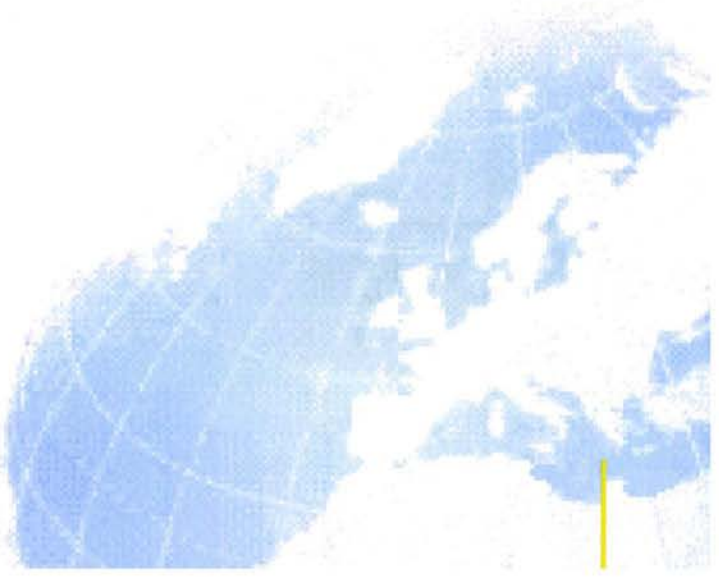
Investment plan	Financial schemes	NPV m. €	IRR*
Basic scenario			
Plan 1	25% own capital – 20% loan– 55% financing	1,142	7.9%
Plan 2	45% own capital – 55% financing	-8,662	Out of the limit
Plan 3	25% own capital – 35% loan – 40% financing	-2,876	1.0%
Optimistic scenario			
Plan 1	25% own capital – 20% loan – 55% financing	5,903	13.3%
Plan 2	45% own capital – 55% financing	-5,905	-0.5%
Plan 3	25% own capital – 35% loan– 40% financing	1,336	7.7%
Pessimistic scenario			
Plan 1	25% own capital – 20% loan – 55% financing	1,867	10.2%
Plan 2	45% own capital – 55% financing	-6,720	Out of the limit
Plan 3	25% own capital – 35% loan – 40% financing	-1,018	3.6%

* IRR equals' net profit - own capital"

Annex
Excel spreadsheet for the calculation of IRR, NPV, etc.

Annex 3

List of meetings



Annex 3: List of meetings and site visits

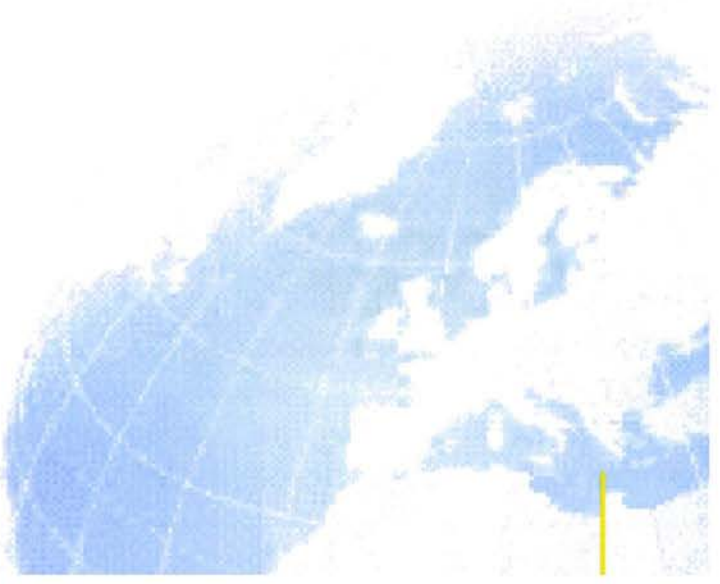
1	26/9/07	Site visit at the Astana Rail Terminal and meeting with: Anuar Kuspakov, head of division cargo and commercial work, Aitbekov Erik, head of division for KasTrans Service, Amarbevok Knat, deputy director of Kedentrans Service, Musabekov Aikem, head of division for freight container documents (KasTrans Service)
2	12/3/08	Site visit Tashkent Tovarniy Railway Freight Terminal in the center of Tashkent and meeting the operator Uztemiryulkonteyner, Mr Ahad Yusudov, chairman
3	12/3/08	Site visit Tashkent Chukursay Railway Freight Terminal in the north of Tashkent and meeting managers of Shoshtrans operator, Mr Minosyan
4	12/3/08	Meeting with A. Mukhidov, D. Khamraev, A. Urunov, head of general department, Shukrat (member of the EWG), Sattarov at UIFFA, Tashkent
5	13/3/08	Site visit Bukhara Cotton Terminal at Bukhara, Mr Rustam Davron
6	13/3/08	Site visit railway terminal of Uztemiryulkonteyner at Bukhara
7	14/3/08	Meeting with regional expert in logistics, Mr V. Topalidi
8	16/3/08	Meeting with National Secretary TRACECA in Uzbekistan, Mr Buranov
9	16/3/08	Trip to Termez for site visit t o rail terminal and meetings with officials cancelled due to flight cancellation due to Afghanistan stormy winds
10	17/3/08	Meeting BK Trans Road Terminal, road operators, freight forwarders Tashkent, Mr Batir Kasimov, general director
11	17/3/08	Meeting ADB, Mr Rafael Nadyrshin
12	18/3/08	Travel to Shymkent, meetings with MoTC of South Kazakhstan, Mr. Adugaterevits
13	18/3/08	Meeting Mr Arman Yenviev, first vice – chairman – national company, Social Enterprise Corporation Shymkent (Kazakhstan)
14	19/3/08	Meeting Mr F. Zargarov, Uzvneshtrans, national transport and FF company having designed the first LC to be developed in Tashkent
15	19/3/08	Meeting Dr Abd. Kashimov, director of in department in Ministry of Foreign Economic Relations, Investment and Trade of Uzbekistan
16	20/3/08	Return to Athens
17	30/3/08	Fly from Athens to Almaty

18	31/3/08	Meeting Mr Murat Begmagambetov, National Secretary TRACECA in Kazakhstan
19	31/3/08	Site visit Almaty Rail Freight Terminal –1 KasTrans Service operator (leasing from Kedentrans Service)
20	31/3/08	Site visit DAMU Almaty logistic centre under construction, Dussembaeva Aigul, project manager, Medet Babaev, sales of floors space
21	1/4/08	Meeting Transiberian FF, Almaty, Temiz Bakbergenov, director, Ardak Baizhigitova, sales manager
22	2/4/08	Site visit "Astana Contract" LC in Almaty and meeting with director Mr Nikolay Romasov
23	3/4/08	Fly to Astana meetings in MoTC, Ministry of Industry which did not take place
24	4/4/08	Meeting with DAMU Astana and site visit to the Greenfield north outskirts of Astana where they start now construction of a new LC
25	4/4/08	Return to Almaty
26	7/4/08	Running to acquire Tajik visa and office work
27	8/4/08	Road trip to Bishkek
28	8/4/08	Meeting Mr Temir Niazbekov, head of international relations department MoTC, National Secretariat of TRACECA in Kyrgyzstan, Bishkek
29	8/4/08	Meeting Mr Kim Victor, ex president of FF Association of Kyrgyzstan, director Railtrank Freight Forwarders
30	9/4/08	Visiting rail freight terminal Alamedin –1 at Bishkek
31	9/4/08	Meeting general director of Railway Construction of Kyrgyzstan, Mr Ablesov Kachimbek
32	9/4/08	Meeting Mr Assam Rysmendiev, deputy of general director of Rail of Kyrgyzstan
33	9/4/08	Site visit FEZ Bishkek, meeting Mr A. Izambekov, general director and Mr B. Toktonaliev, director
34	10/4/08	Fly to Dushanbe
35	10/4/08	Meeting ABBAT Association of Road Transporters of Tajikistan, M. Shokirov, president, Eshonov, vice president, site visit to the road transport terminal of ABBAT at Dushanbe
36	10/4/08	Meeting with S. Muminov, National Secretariat TRACECA in Tajikistan

37	10/4/08	Meeting with Mr Boboev, deputy minister transport in Tajikistan
38	10/4/08	Site visit Dushanbe – 2 Rail Freight Terminal
39	11/4/08	Meeting with Habibov Muhamad Homidovitch, head of transport section at Presidential Administration of Tajikistan
40	11/4/08	Fly back to Almaty
41	11/4/08	Office work
42	12/4/08	Office work
43	14/4/08	Union of International FF of Kazakhstan, Ilya Segal, executive director KFFA (Anek), Bolat Zulpibekov, head of Union of Customs Brokers (ACCEPT customs brokers), Ms Yelena Vasilevska, responsible for training at KFFA, Almaty
44	14/4/08	Meeting Kazato Road Carriers, Mr Denishienko A., Almaty
45	15/4/08	Office work and fly to Aktau
46	15/4/08	Briefing from STE Mr Vadim Turzeladze about the existing situation and the developments in Aktau Port and region
47	16/4/08	Attending the Caspian Investment Forum in Aktau, a very important conference for the development of the area with distinguished guests from the world and with special session about logistics and the needed infrastructure in the area
48	16/4/08	Meetings with Mr Rakhimbek Amirzhanov, head of financial department; Mr Kasiev Zinula, director SEZ Aktau
49	16/4/08	Visit to Aktau Port
50	17/4/08	Fly to Atyrau and meeting with Transsystem and STL, Saga Group, Mr Andrea Simojin
51	18/4/08	Fly to Athens
52	1/4/08	Meeting with project officer Ms G. Dusupova of the EC Delegation

Annex 4

Photos of container terminals



Annex 4: Photos of terminals

Photo 1 Chukursay, Tashkent, 20' feet crane

Photo 2 Chukursay, Tashkent, 40' feet crane

Photo 3 Chukursay, Tashkent

Photo 4 Chukursay, Tashkent

Photo 5 Chukursay, Tashkent

Photo 6 Chukursay, Tashkent

Photo 7 Chukursay, Tashkent

Photo 8 Friendship Bridge, near Termez

Photo 9 Empty container handling, Tovarniy, Tashkent

Photo 10 Tovarniy, Tashkent

Photo 11 Tovarniy, Tashkent

Photo 12 Tovarniy, Tashkent

Photo 13 Tovarniy, Tashkent

Photo 14 Tovarniy, Tashkent

Photo 15 Tovarniy, Tashkent

Photo 16 Sergely, Tashkent

Photo 17 Sergely, Tashkent

Photo 18 Sergely, Tashkent

Photo 19 Bukhara, cotton terminal

Photo 20 Bukhara, cotton terminal

Photo 21 Bukhara, cotton terminal

Photo 22 Bukhara, cotton terminal

Photo 23 Bukhara, cotton terminal

Photo 24 Bukhara, cotton terminal

Photo 25 BKTrans, Tashkent

Photo 26 BKTrans, Tashkent

Photo 27 Astana Rail

Photo 28 Astana Rail

Photo 29 Astana Rail

Photo 30 Astana Rail

Photo 31 Astana Rail

Photo 32 Almaty Rail

Photo 33 Almaty Rail

Photo 34 Almaty Rail

Photo 35 DAMU Almaty

Photo 36 DAMU Almaty

Photo 37 "Astana Contract", Almaty

Photo 38 "Astana Contract", Almaty

Photo 39 "Astana Contract", Almaty

Photo 40 DAMU Astana

Photo 41 Bishkek, Alamedin-1

Photo 42 Bishkek, Alamedin-1

Photo 43 Bishkek, Alamedin-1

Photo 44 Bishkek, Alamedin-1

Photo 45 FEZ, Bishkek

Photo 46 ABBAT Road Terminal, Dushanbe

Photo 47 ABBAT Road Terminal, Dushanbe

Photo 48 Dushanbe Rail

Photo 49 Dushanbe Rail

Photo 50 Dushanbe Rail

Photo 51 Aktau Port

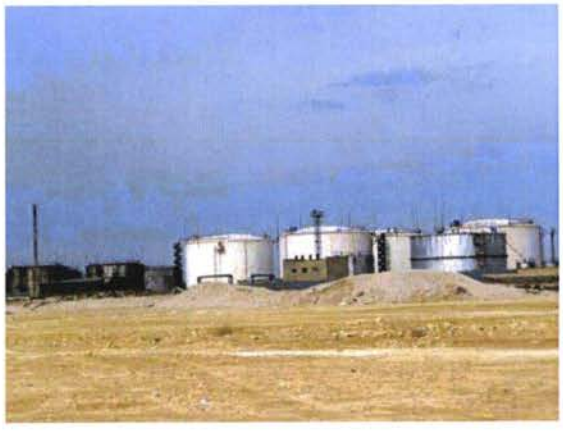


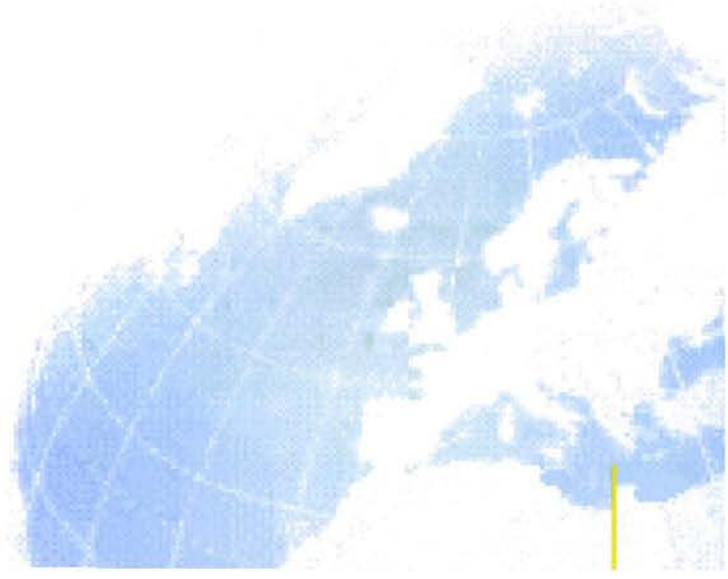
Photo 52 Aktau Port

Photo 53 Aktau Port

Photo 54 Site for LC, Aktau

Annex 5

Kazakhstan freight flow



Annex 5: Kazakhstan freight flows

Table 1: Large tonnage transit container traffic from Uzbekistan, Tajikistan, Kyrgyzstan, Turkmenistan via Kazakhstan as per final destination countries, in containers

Origin country	Final destination country	Container type ft	2004	2005	2006	2007
Uzbekistan						
	Kyrgyzstan	20	29	38	12	22
		40	8	12	13	18
	Russia	20	1,086	885	671	668
		40	298	273	1,111	642
	Belgium	20	27	37	9	11
		40	637	439	499	480
	Korea	20	41	37	31	27
		40	483	411	301	552
	Portugal	40	451	330	335	466
	Germany	20	546	511	15	86
		40	275	277	362	239
	China	20	5	14	79	214
		40	646	218	369	71
	Poland	20	5	37	18	22
		40	40	62	81	247
	Netherlands	20	80	55	88	78
		40	84	99	112	170
	Ukraine	20	197	206	215	179
		40	63	46	40	21
	Italy	20	3	3	11	10
		40	160	51	44	67
	Spain	40	195	92	85	160
	Belorussia	20	13	39	57	43
		40	44	112	77	83
	Turkey	40	47	5	2	106
	Great Britain	20	6	3	18	22
		40	61	31	31	39
	Latvia	20	13	8	10	2
		40	6	10	29	43
	Israel	40	5	37	31	63
	Japan	20	22	24	6	4
		40	56	82	98	48
	USA	20	96	89	28	20
		40	26	39	22	15
	Others		305	338	507	289
Uzbekistan - total			**6,059**	**4,950**	**5,417**	**5,227**

Origin country	Final destination country	Container type ft	2004	2005	2006	2007
Tajikistan						
	Russia	20	112	120	202	184
		40	6	6	18	17
	Belgium	20	25	5	6	4
		40	132	88	79	36
		40	107	71	18	39
	Portugal	40	71	86	41	38
	China	40	92	117	78	39
	Poland	20	5	20		2
		40	4	13	2	18
	Netherlands	20			4	23
	Ukraine	20	9	18	25	20
	Italy	20	35	39	58	43
		40	49	47	63	63
	Spain	40	33	20	23	8
	Turkey	40	9	20	22	11
	Others		62	58	40	49
Tajikistan - total			**751**	**728**	**679**	**594**
Kyrgyzstan						
	Tajikistan	20	17	12	24	19
		40	5	17	15	4
	Russia	20	278	248	227	298
		40	11	5	14	11
	Belgium	40	9	11	21	25
	Korea	20	66	16	44	64
		40	13	16	16	4
	Portugal	40	35	48	45	26
	Germany	20	26	41	17	28
		40	1		1	21
	China	20	9	13	23	19
		40	1	6	7	5
	Others		297	214	113	141
Kyrgyzstan – total			**768**	**647**	**567**	**665**
Turkmenistan						
	Kyrgyzstan	20	1		23	8
		40		66	223	283
	Russia	20	74	66	76	88
	Ukraine	20	9	9	13	14
	Others		11	3	3	4
Turkmenistan – total			**95**	**144**	**338**	**397**
Grand total			**7,673**	**6,469**	**7,001**	**6,883**

Table 2: Large tonnage transit container traffic to Uzbekistan, Tajikistan, Kyrgyzstan, Turkmenistan via Kazakhstan as per final destination countries, in containers

Origin country	Final destination country	Container type ft	2004	2005	2006	2007
Uzbekistan						
	China	20	1,015	1,905	3,319	5,704
		40	4,677	7,061	9,591	12,349
	Korea	20	1,606	1,847	1,567	1,028
		40	2,191	2,858	4,806	5,426
	Russia	20	1,161	1,108	1,042	1,122
		40	125	37	111	291
	Poland	20	993	419	321	373
		40	869	558	535	784
	USA	20	89	125	57	25
		40	465	382	134	123
	Romania	20	3	367	207	
		40	2	3	233	582
	Ukraine	20	161	176	263	277
		40	33	29	113	101
	Hungary	20	84	47	66	69
		40	271	148	201	241
	Turkey	20	114	145	87	67
		40	149	110	108	93
	Belgium	20	71	83	83	70
		40	113	113	63	99
	Germany	20	37	19	22	36
		40	120	109	76	276
	Belorussia	20	104	117	157	200
	Finland	20	39	65	66	63
		40	66	72	54	72
	Great Britain	20	46	91	12	18
		40	94	92	49	81
	Lithuania	20	53	59	75	131
		40	30	14	67	26
	Latvia	20	30	52	56	31
		40	7	21	88	36
	Italy	20	50	17	2	13
		40	71	37	35	73
	Estonia	20	15	5	56	39
		40	35	32	71	40
	Others		689	494	462	286
Uzbekistan – total			**15,678**	**18,817**	**24,255**	**30,245**

Origin country	Final destination country	Container type ft	2004	2005	2006	2007
Kyrgyzstan						
	China	20	350	445	689	967
		40	481	1,121	2,738	6,519
	Russia	20	511	484	589	659
		40	19	13	222	106
	USA	20	31	32	66	50
		40	301	515	220	885
	Poland	20	529	137	136	204
		40	280	101	96	160
	Korea	20	536	503	388	358
		40	213	383	45	122
	Turkey	20	127	101	40	59
		40	170	136	53	130
	Lithuania	20	5	10	8	458
		40	15	1	93	187
	Iran	20	23	105	47	116
		40	133	134	30	97
	Turkmenistan	40		66	223	283
	Netherlands	20	2	2	54	141
		40	1	57	83	251
	Germany	20	35	8	56	21
		40	14	63	114	166
	Ukraine	20	65	56	94	112
		40	13	22	70	39
	Canada	20	25	41	2	117
		40	70	62	70	34
	Belorussia	20	23	21	45	90
		40		2	15	31
	Finland	20	30	43	15	9
		40	41	32	16	19
	Hungary	20	17	11	16	29
		40	12	23	13	48
	Belgium	40	18	28	35	59
	Others		274	375	309	338
Kyrgyzstan - total			**4,364**	**5,133**	**6,690**	**12,864**
Tajikistan						
	China	20	41	45	189	751
		40	721	1,488	2,451	4,995
	Russia	20	378	594	713	728
		40	28	18	70	47
	Poland	20	1,014	237	151	169
		40	175	108	81	129

Origin country	Final destination country	Container type ft	2004	2005	2006	2007
	Lithuania	20	170	350	77	959
		40			4	67
	Germany	20	34	299	74	264
		40	78	31	19	48
	Hungary	20	102	86	56	77
		40	21	86	12	68
	Belorussia	20	22	14	105	161
		40		3	18	22
	USA	20	41	15	11	6
		40	49	62	63	96
	Korea	20	42	44	85	70
		40	201	457	160	17
	Ukraine	20	25	26	54	74
		40	2	7	33	42
	Netherlands	20	1	12	77	
		40		10	24	10
	Great Britain	20	17	23	5	12
		40	29	28	12	6
	Kyrgyzstan	20	17	12	24	19
		40	5	17	15	4
	Others		119	153	168	89
Tajikistan - total			**3,332**	**4,225**	**4,751**	**8,930**
Turkmenistan						
	China	20	186	142	302	739
		40	407	471	387	851
	Poland	20	312	275	235	272
		40	213	37	47	102
	Russia	20	204	146	155	278
		40	2	2	21	49
	Ukraine	20	56	69	50	55
		40	5	13	17	24
	Germany	40	104	23	29	30
	USA	40	12	130	15	29
	Belorussia	20	18	30	61	54
	Finland	20	10	20	12	14
		40	15	22	23	29
	Belgium	20	40	1		45
		40	3	1	8	29
	Others		179	81	104	177
Turkmenistan - total			**1,766**	**1,463**	**1,466**	**2,777**
Grand total			**25,140**	**29,638**	**37,162**	**54,816**

Table 3: Large tonnage export container traffic to Uzbekistan, Tajikistan, Kyrgyzstan, Turkmenistan from Kazakhstan as per final destination countries, in containers

Destination state	Container type ft	2003	2004	2005	2006	2007
Uzbekistan	20	60	29	22	23	16
	40	182	20	66	78	175
Uzbekistan - total		242	49	88	101	191
Kyrgyzstan	20	12	26	13	13	8
	40	3	1	3	15	25
Kyrgyzstan- total		15	27	16	28	33
Tajikistan	20	16	11	10	9	8
	40	10	1		16	27
Tajikistan - total		26	12	10	25	35
Turkmenistan	20	16	10	1	14	7
	40	4	27	2	6	10
Turkmenistan - total		20	37	3	20	17
Grand total		**303**	**125**	**117**	**174**	**276**

Table 4: Large tonnage import container traffic to Uzbekistan, Tajikistan, Kyrgyzstan, Turkmenistan to Kazakhstan as per origin countries, in containers

Origin country	Container type ft	2003	2004	2005	2006	2007
Turkmenistan	20	64	92	70	132	194
	40	11	99	197	275	298
Turkmenistan –total		75	191	267	407	492
Uzbekistan	20	423	320	346	275	295
	40	66	58	61	28	96
Uzbekistan – total		489	378	407	303	391
Kyrgyzstan	20	16	68	18	1	21
	40	1	2	4		1
Kyrgyzstan –total		17	70	22	1	22
Tajikistan	20	3	10	4	7	5
	40	1	4			1
Tajikistan –total		4	14	4	7	6
Grand total		**585**	**653**	**700**	**718**	**911**

DEVELOPMENT OF THE COORDINATED NATIONAL TRANSPORT POLICIES

REPUBLIC OF KAZAKHSTAN, THE KYRGYZ REPUBLIC, REPUBLIC OF TAJIKISTAN, REPUBLIC OF TURKMENISTAN, REPUBLIC OF UZBEKISTAN

Possible Opportunities for Logistics Centers in Central Asia

REFERENCE: EUROPEAID/122076/C/SER/MULTI

DEVELOPMENT OF CO-ORDINATED NATIONAL TRANSPORT POLICIES

REPUBLIC OF KAZAKHSTAN, KYRGYZ REPUBLIC, REPUBLIC OF TAJIKISTAN, REPUBLIC OF TURKMENISTAN, REPUBLIC OF UZBEKISTAN

ENG 2 PPP & LOGISTICS

Samarkand 10 October 2008

"Possible Opportunities For Logistics Centers in Central Asia"

by G. Emmanoulopoulos

TRADEMCO

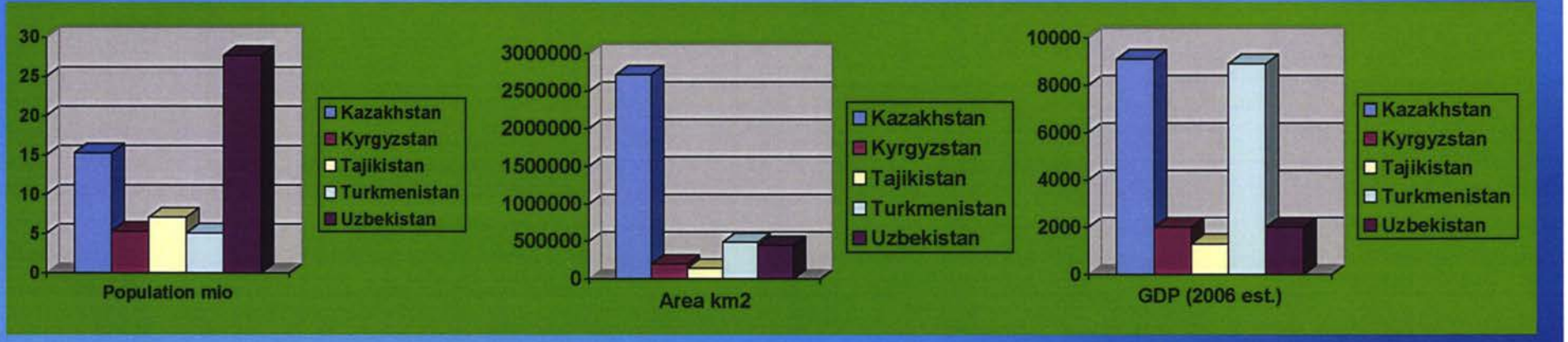
THE OBJECTIVE OF THE REPORT PREPARED WAS:

"A PRE SCREENNING OF THE EXISTING LOGISTIC CENTRES / MAJOR
CARGO PROCESSING TERMINALS AND NEED ASSESSMENT FOR CA COUNTRIES
(LOGISTICS CENTERS REPORT)"

REGION PROFILE

Differences in area, density of population , GDP

Country	Area km^2	Population mio	GDP (2006 est.)
Kazakhstan	2717300	15,3	9100
Kyrgyzstan	198500	5,3	2000
Tajikistan	143100	7,1	1300
Turkmenistan	488100	5,1	8900
Uzbekistan	447400	27,7	2000



DEFINITIONS LOGISTICS CENTERS (1/2)

- *The Logistic Centers (Lc's) Or Freight Villages Are Usually Developed:*
- *on the most important international corridors with big flows,*
- *near ports, airports or rail terminals,*
- *near borders,*
- *near big cities or major production sites*

and serve the international transport operations by providing

- *space for parking,*
- *container (and possibly bulk) handling facilities,*
- *intermodal infrastructure connections;*
- *grouping of independent companies and bodies dealing with freight transport (freight forwarders, shippers and transport operators);*
- *customs inspections, tax payment,*
- *storage, maintenance and repair,*
- *banking and information communication technology connections.*

- *The LC's in inland locations or those located in landlocked countries are also called Dry Ports.*

- *A Logistic Centre may include various buildings such as:*

  - *Depots for dried products as well as for cargos of various types*
  - *Depots for frozen products*
  - *Cargo distribution centre*
  - *Regulation terminal of cargo transported in containers*
  - *Multimodal terminal*
  - *Buildings of common usage*

DEFINITIONS LOGISTICS CENTERS (2/2)

Logistics centres - a comparatively new phenomenon - has not yet an agreed name. Main terms for logistics centres known in Europe :

- In Great Britain logistics centres are called "Freight Villages",
- In France – "Plate Forme Logistique" or "Plat Forme Multimodales",
- In Italy – "Interporto",
- In Denmark – "Transport Centre".

Most widely used term in Japan, Singapore, China and the USA is "logistics centre". With the growth of popularity of logistics centres and the profit they make it is likely that the term "logistics centre" will be the most appropriate one.

Tsamboulas, D. A. referred to a logistics centre as an "integrator' of various transport modes, able to promote intermodal transport". He also identified logistics centres with "an intermodal terminal, which is the principal component of the intermodal transport chain, constituting the node where the transshipment of goods from one mode to the other takes place".

EUROPLATFORMS (European Association of Freight Villages), defined a logistics centre as "an area within which all activities relating to transport, logistics and the distribution of goods, both for national transport and international transit, are carried out from various operators".

The Purpose of a Logistics centre is to stimulate international trade and economic growth in a region.

THE POTENTIAL EXPANSION OF FUNCTIONS AT AN INLAND INTERMODAL FACILITY

May be the following:

- Container Yard
- Container Freight Station
- Inland Container Depot
- Import Processing Zone
- Industrial Park
- Export Processing Zone
- Special Economic Zone
- Logistics and other Value Added Services

DEFINITIONS OF MULTIMODAL TRANSPORT

- **Multimodal transport** uses two or more different means of transport through the use of transhipment (intermediate handling), organized by one carrier (Multimodal Transport Operator), under one contract, with one freight document,under one liability and one price.
- **Intermodal transport** is a type of multimodal transport, is the use of several means of transport while the goods remain in the same loading unit (e.g. container), without intermediate handling of the goods themselves when changing modes (road vehicle, trailer, swap body, container).
- **Combined transport** is intermodal transport, which is principally carried out by rail, inland waterways, or by sea, with the trips beginning and ending by road (e.g. piggyback, roll-on roll-off systems) (one transport mode (passive) is carried by another (active) which provides the traction).

POSSIBLE GOVERNMENT AND PRIVATE SECTOR ROLES

- From international experience in seaport ownership and operation it is shown that the state usually has the ownership and is responsible for the regulation, while operation and management is given with concession agreements to private sector.

- Thus around 90 of the 100 largest container and seaports globally operate in this manner, including those in Asia.

- Government also cares about improving transport infrastructure links to ports and ensuring competition in the sector.

- This experience is transferable to dry ports too.

EXISTING FREIGHT CENTRES IN CAR

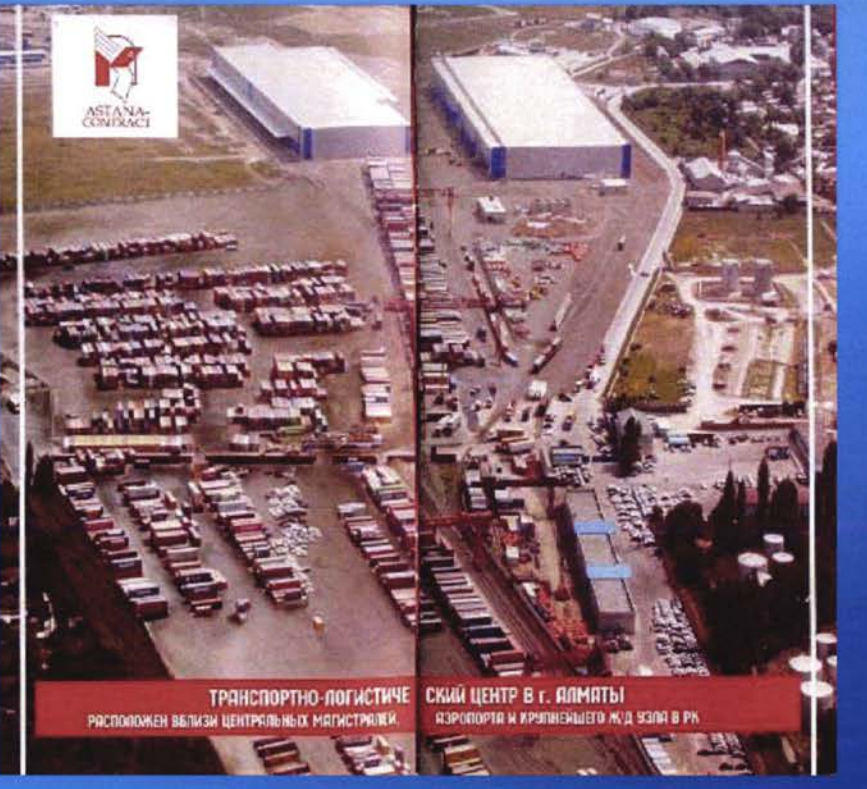
- Till recently there were no modern Logistics Centers in C. Asia, but only Rail terminals and border crossing facilities.
- Expect of the dedicated cotton terminal at Bukhara which is well organized and operates fairly efficiently only recently one can see new developments in the area of LC's such as the "DAMU" and "ASTANA CONTRACT" developments in ALMATY.
- In Republic of Kazakhstan, the major existing Rail Terminals are: Almaty-1, Astana, Atyrau, Dostyk, Shymkent, Aktobe.
- In Kyrgyz Republic the major existing Rail Terminals are: Bishkek rail treminal Alamedin, and Osh.
- In Republic of Tajikistan the major existing Rail Terminals are: Dushanbe-2, Kyrgan-Tube.
- In Uzbekistan the major existing Rail Terminals are: Chukursay, Sergely, Tovarniy, Bukhara, Navoi, Andijan, Khokhand, and Termez.There are about 27 main cargo terminals in Uzbekistan mainly for rail, not really addressed to road or multimodal. "OK Altyn" is a private terminal 20 kms from Tashkent run by Kuhne Nagel mainly for cotton but also for other cargo in containers. A second private terminal is "Muzimpex" for perishables.

THIS INFRASTRUCTURE HAS TO BE INTEGRATED TO THE LC'S NETWORK!

EXISTING PRIVATE LC's IN ALMATY

Almaty new Industrial & Logistic Centre, DAMU

"ASTANA CONTRACT" Transport-Logistics Centre in Almaty



FUNCTIONS FULLFILLED IN THE EXISTING FREIGHT CENTRES IN CAR's

In the following table are summarised the functions fulfilled in each facility. The degree or the quality of fulfillment is not assessed.

NAME OF FREIGHT CENTER	Inland Container Depot ICD and Container Freight Station CFS	Import Processing Zone containers	Industrial Park	Export Processing Zone	Special Economic Zone	Logistics and other Value Added Services	Cargo consolidation	goods distribution	customs clearance and inspections, tax payment;	storage	intermodal connections;
Tashkent Tovarniy Rail	Y							Y	Y	Y	Y
Tashkent Chukursay Rail	Y							Y	Y	Y	Y
Tashkent Sergely Rail	Y							Y	Y	Y	Y
Bukhara cotton terminal	Y			Y		Y	Y	Y	Y	Y	Y
Bukhara rail container and gen. cargo terminal	Y							Y	Y		Y
BKTrans Road terminal	Y						Y	Y	Y		NO
Almaty rail - 1	Y						Y	Y	Y	Y	Y
DAMU in Almaty LC multimodal	Y	Y				Y	Y	Y	Y	Y	Y
DOSTYK	Y										Y
"Astana Contract" in Almaty, LC multimodal	Y	Y				Y	Y	Y	Y	Y	Y
CHORGOS road terminal (border crossing)											NO
(DAMU in Astana)	(Y)	(Y)				(Y)	(Y)	(Y)	(Y)	(Y)	(Y)
Astana rail terminal	Y							Y	Y	Y	Y
AKTAU port container terminal					Y						Y
Biskhek Alamedin-1 Rail terminal	Y						Y	Y	Y	Y	Y
Dushanbe – 2 rail terminal	Y						Y	Y	Y	Y	Y
Dushanbe road terminal of ABBAT								Y	Y	Y	NO
FEZ Bishkek			Y	Y						Y	NO

Y=YES

Note: CONTAINER YARD is a part of an ICD or CFS which include container handling facilities

PLANNED FREIGHT CENTRES IN CAR

Many ongoing plans by DAMU, ASTANA CONTRACT and other private investors or by governments.

See also below the NEW LC PLANNED AT SERGELY SITE / TASHKENT, BY USZVNESHTRANS

INTERNATIONAL BEST PRACTICES for LC's (1/4)

Experience from countries in Europe and USA:

- *Logistics business accounts for **8% of Europe's GNP** (€ 800 Bio).*
- *Logistics business **employs more than 6,5 million people in EU.***
- ***Austria** is an example of what a landlocked country can do to act as a hub for international logistics.*
- ***France** has a privileged geographical position and long experience in logistics.*
- *"Logistics", employs more than 887,000 people in France. French companies devote 8% to 12% of sales revenue (€ 120 billion) to logistics.*
- *Logistics platform is no longer seen as a mere warehouse in France.*

Operated directly or via an external service provider (a 3PL provider), **warehouses are today much more than simply space to store goods**. **Last-minute customisation of goods (known as "late differentiation"), packaging, and handling of administrative or customs procedures have been added to the traditional order preparing activities.**

In the future, the needs of e-commerce for storage and distribution facilities could lead to the appearance of smaller sites closer to large urban centres, resulting in even higher property costs.

INTERNATIONAL BEST PRACTICES (2/4)

LC's (Freight villages) in Germany

- 32 freight villages in operation
- 4 freight villages in planning
- 1.300 enterprises in freight villages
- with 45.000 employees
- average total area 150 ha
- average utilization 50%

Greece

- A new Logistics Centre, the first of its kind in Greece, is to be developed at Thriassion (Athens, Greece)with a concession (with private financing).
- The total area is 588.000 sq.m. (200.000 sq.m. of warehouses, 14.115 sq.m. of offices, 1.110 sq.m of restaurants / coffee shops, 2.800 sq.m of hotel, 1.200 sq.m. of shopping, services and 1.875 sq.m. of other facilities).
- Near the port of Piraeus and the international airport of Athens, served by railway and motorway

INTERNATIONAL BEST PRACTICES (3/4)
private financing: Prologis

- **PROLOGIS is a multi national company**, one of the biggest of the distribution and logistics market in the world. The company operates in 118 markets across North America, Asia and Europe, with more than 46,000,000 m² owned, managed or under development. Its customer base includes manufacturers, retailers, distributors, transportation companies, third-party logistics providers and other companies with large-scale distribution needs. Prologis has entered the European market in 1997. Prologis was established in 1993.

- ProLogis, announced April 21, 2008 strong leasing activity at major new distribution parks under construction in inland CHINA.

  At ProLogis Park Jiangning in Nanjing, the capital of China's Jiangsu Province, ProLogis has leased 100 percent of a 234,000-square-foot distribution center to Anji-TNT Logistics, a leading provider of logistics services for automotive parts.

INTERNATIONAL BEST PRACTICES (4/4)
environmental management : Prologis

ProLogis Environmentally Friendly Facilities

Sustainability has long been central to the way of doing business at ProLogis. Implementing leading-edge, environmentally friendly features in distribution facilities is a basic aim.

Technologies used:

- **Recycled and locally sourced construction materials**
- **Energy-efficient lights**
- **High-reflectance roofing**
- **Air-tight building construction**
- **Solar and wind power**
- **Low-usage water systems**
- **Special landscaping that can help to minimize water consumption and reduce net carbon emissions**

CONCLUSIONS FROM BEST PRACTICES 1/2

• **Lot of international developers finance, develop and operate LC's** . Governments of CAR's **should aim to attract such developers**, **in order to** transfer the risk of spending for developing and operating LC's, to them (or share this risk with them), as the costs are high

• From the development of LC's a lot of **benefits** result for the **economy** of the countries. The high **employment** in the LC's is a strong asset. Multimodal transport and the railways play a crucial role in LC's operation.

• Even **landlocked countries** in Europe, such as Austria and Hungary, act as hubs for internationally logistics, in order to serve transit traffic. **Prerequisites are modern and well maintained transport infrastructure, modern LC's, good communications, high productivity, know how and regularity in transport services**.

CONCLUSIONS FROM BEST PRACTICES 2/2

- The trend in LC's development is to develop **environmentally friendly** ("green") facilities using energy self efficiency and energy saving techniques (solar walls) and recycling on site.
- A lot of LC's are developed **around big cities** in Europe,

which means that if it is proven feasible and viable (which is examined properly in advance by the developers),

it can be the case to develop **more than one LC in the periphery of big cities in C.A.**

(the case if Almaty where already 2 LC's are developed, proves this, under the prerequisite of course that these LC's will operate at capacity and that the feasibility studies were properly conducted in advance, before developing them).

- **LC's are promoted in Europe to decongest cities and protect environment.**

BENCHMARKS

In the European Union, there is considerable variation in the average **size** of dry ports (typically 40,000 to 1.9 million TEU throughput per year), land area (**typically 30-200 hectares**), number of firms (typically 25-100) and overall **employment** (approximately 7,000 to around 37,000 people). Even the smallest countries in the European Union tend to have at least one dry port. The rules governing the operation of the common market make dry port operation relatively straightforward, meaning they often service an area that crosses national borders, thereby facilitating optimal location choices without having to consider international access risks.

ESCAP secretariat estimates one dry port per million TEU of containers handled at a country's seaport (not reflecting land locked countries in C. Asia, where existing facilities are underused or need modernization). In addition India has one dry port per 140.000 TEU of containers handled at port. The predictor is not valid for Europe, USA (one dry port for each city with an output exceeding $ 2,5 billion. Where GDP and population density in USA are very high, dry ports tend to be lager and generally located 10.000 km^2 apart.

SUCCESSFUL DRY PORTS REQUIREMENTS AND NEEDS ASSESSMENT ACCORDING TO UNESCAP

- Cooperation of government with private sector, (PPP).

- Appropriate policy environment - incentives (reduced transport costs, environmental benefits, modal shift to rail, efficient transport networks,good communications, regional and SME policies, trade and investment attraction policies, prices of labour, capital and land).

- The UNESCAP secretariat estimates that, by 2015, there may be a need for 130 dry ports in China, 69 in India, **10 in Kazakhstan**, 12 in the Republic of Korea, 4 in Sri Lanka, 3 in Thailand, 2 in Bangladesh, and **1 each elsewhere** (note: this maybe an underestimation especially for Uzbekistan but also for Kyrgystan and Tajikistan).

SWOT (1/4)

- *In SWOT one examines Strengths, Weaknesses, Opportunities and Threats for the development of LC's .*
- *Kazakhstan and Uzbekistan have more strengths than weaknesses, while this is not the case for the other two countries in terms of potential LC development.*
- *If specific cases are examined, as it is done in the report,for 3 examples (more specifically Tovarniy, Aktau, Atyrau) it can be seen that the first has a lot of weaknesses but also opportunities, while about Atyrau it can be concluded that it has more potential than Aktau, in the west region of Kazakhstan, as a priority site for the development of a LC.*

SWOT (2/4)

Strengths

Kazakhstan	Uzbekistan	Kyrgyzstan	Tajikistan
• vast country, lot of physical resources • oil and gas rich • high GDP, high financing capacity • ports on Caspian sea • borders with China • sustainable rail network • political stability • special decree for establishing LC's • private LC constructed in Almaty (DAMU) • economy liberalised and strong PPP legislation	• extended rail network • geogr. location, (silk road) • political stability • lot of various natural resources and products, • lot (27) of rail terminals – container yards, • good road network – limited river transport • cheap labour/resources, high population, good education	• borders with China • liberalised economy • textiles, gold, agricultural, defence industries • free Econ. Zones legislation and one • Working	• borders with China • low wages, work force

SWOT (3/4)

Weaknesses

Kazakhstan	Uzbekistan	Kyrgyzstan	Tajikistan
• vast country, low density of population • LANDLOCKED • Boogie change needed at Dostyk • Old fashioned rail terminals, old equipment and obsolete rolling stock, that need upgrading • Border crossing delays due to lack of unified controls with the bordering country and lots of formalities • Problem with empty container handling, huge quantities of which take lots of space in terminals • Deficit of r/w platforms for container transshipments • Bureaucracy	• doubly landlocked • low financing capacity • no analytical national strategy/policy for LC's • obsolete railway rolling stock • no clear policy for PPP, no decisions yet • high taxes on trade • long delays in border crossings, not unified controls, bureaucracy • generally no warehouses in rail terminals and limited facilities for container handling • international road transport not so developed	• landlocked • low GDP, low financing capacity, weak • economy • difficult terrain • not enough rail • free zones experiment not very successful • logistics is nearly unknown word • no logistics centres or mature plans	• landlocked • difficult terrain • low GDP, low financing capacity • not enough rail connections • lacks basic infrastructure roads in need of rehabilitation • no legislation for LC's

SWOT (4/4)

Opportunities

Kazakhstan	Uzbekistan	Kyrgyzstan	Tajikistan
• new rail link to be built to Iran sea port • rising income in KAZAKHSTAN will increase demand for distribution centres (LC's)	• new investments, PPP projects, international donors • more regulation and market liberalisation (cut taxes)	• new rail China – Osh • private initiatives • donors financing infrastructure	• to become transit country for China • International donors finance

Threats

Kazakhstan	Uzbekistan	Kyrgyzstan	Tajikistan
• bureaucratic procedures • overdesign (Astana), excess spending	• political instability in neighbour countries • slow deregulation	• political disputes, (instability) • unemployment	• no foreign investors • not enough traffic to justify LC's • political instability in the region

POTENTIAL FOR UPGRADING EXISTING TERMINALS (1/2)

NAME OF FREIGHT CENTER	Availability and suitability of land	Existence of O/D data	Existence of Traffic, environmental impact EIA studies for the site	Availability of funds	Consensus on location Gov., operators, investors	In case of LC's on borders consensus with neighboring countries	Existence of large scale consumption or production	Major transit corridor and /or border crossing	Major railway or multimodal node, motorways junction	Availability of Utility networks	Availability of labour force	Existence of Preliminary Financial feasibility and viability studies	Tax advantages
Tashkent Tovarniy Rail	L	NO	NO	L	NO		YES	YES	YES	YES	YES	NO	NO
Tashkent Chukursay Rail	Another 28 hectares available (at least)	NO	NO	M	NO		YES	YES	YES	YES	YES	NO	NO
Tashkent Sergely Rail	M	NO	NO	H	YES		YES	YES	YES	YES	YES	NO	NO
Bukhara cotton terminal	L	NO	NO	H	NO		YES	YES	YES	YES	YES	YES	NO
Bukhara rail container and gen. cargo terminal	L	NO	NO	L	NO		YES	YES	NO	YES	YES	NO	NO
Navoi rail terminal	M	NO	NO	H	NO		YES	YES	YES	YES	YES	YES	NO
BKTrans Road terminal	M	NO	NO	M	Not		YES	YES	YES	YES	YES	NO	NO
Almaty rail - 1	L	NO	NO	L	NO		YES	YES	YES	YES	YES	NO	NO
DAMU in Almaty LC multimodal	H	NO	NO	H	YES		YES	YES	YES	YES	YES	YES	NO
DOSTYK	H	NO	NO	H	YES	YES				YES	YES	YES	NO
"Astana Contract" in Almaty, LC multimodal	H	NO	NO	H	YES		YES	YES	YES	YES	YES	YES	NO
CHORGOS road terminal (border crossing)	H	NO	NO	H	YES	YES		YES	YES	YES	YES	YES	NO
DAMU in Astana	H	NO	NO	H	YES		YES	YES	YES	YES	YES	YES	NO
Astana rail terminal	M	NO	NO	L	NO		YES	YES	YES	YES	YES	NO	NO
AKTAU port container terminal	M	NO	NO	M	NO		NO	NO	NO	YES	YES	YES	YES
Biskhek Alamedin-1 Rail terminal	L	NO	NO	L	NO		YES	YES	YES	YES	YES	NO	NO
Dushanbe – 2 rail terminal	L	NO	NO	L	NO		YES	YES	YES	YES	YES	NO	NO
FEZ Bishkek		NO	NO	M	NO		YES	NO	NO	YES	YES	NO	NO

POTENTIAL FOR UPGRADING EXISTING TERMINALS (2/2)

- From the above table, it is concluded that a lot has to be done in terms of creating a network of LC's in CA, especially in the other CAR's, except of Kazakhstan, where there are already operating or under construction LC's and a network is under planning.
- But also in all CAR's there is a need to upgrade the rail terminals.
- The demand however is not very high in all cases but there could be **latent demand** which will show up when a network of LC's would be created and growth goes on with the same trend as during recent years.
- Thus it is needed to put under a time schedule the planned developments and categorise the proposed LC's in sizes, depending on various criteria.
- Of the existing major rail terminals some may be upgraded to LC's as there is available land or the location is adequate.
- **Primarily of course a series of studies (feasibility, viability, master plans, technical design) have to be conducted.**

CONCLUSIONS ABOUT NEEDS, TIME SCHEDULE, PRIORITIES (1/3)

- LC's is no more an unknown development in Central Asia. In Kazakhstan there is already an LC in full operation ("ASTANA CONTRACT" in the north suburbs of Almaty), while another one is under construction nearly to finish and partly operating too ("DAMU Almaty") also located north of the Almaty city centre.
- **Kazakhstan is advanced compared to the other CAR's** in the development of its network of LC's. But there is no clear strategy yet and no clear legislation for FF and Logistics, neither clear rules of how and where, who may develop LC's.
- DAMU, a private fund, is constructing a second LC at Astana. They will start development of a third big LC of 250 HA at Aktobe (Aktubinsk), while planning another at Dostyk.
- "ASTANA CONTRACT" also plans to develop one at Astana and recently bought the land.
- **In CAR's** the terms Logistics and Logistics Centres are not always well understood yet. There is **need for capacity building** with appropriate courses, from the existing training centres or from the universities. The LC's referred above do not operate as full LC's offering the full spectrum of services but rather as warehouses and container yards.

CONCLUSIONS ABOUT NEEDS, TIME SCHEDULE, PRIORITIES (2/3)

- **Uzbekistan** is also in the final stage of developing a LC in Tashkent near Sergely rail station. The planning is done by UZVNESHTRANS a state company, however private capital is welcome for the development and operation, but the rules of participation are not set yet.

  Moreover operates in Uzbekistan the very well organised Bukhara cotton terminal which gathers a lot of the functions of a LC, but is dedicated to one product.

  There are also two small kinds of LC's (KN IBRAKOM and another for perishables) near Tashkent.
- **Tajikistan and Kyrgystan** are way behind in developments, but the need is widely recognised, strategic ideas are discussed, finance is missing and therefore a lot of steps are to be done. In the two countries the retail is done through bazaars where they bring directly containers (e.g. with shoes imports from China or Turkey) and sell directly from the inside of the container.
- **In general in the countries of the region one can identify**:
  - Different levels of deregulation and of liberalization of economy.
  - Different level of recognition by the respective governments, of the benefits of LC's
  - Lack of clear policies and legislation in FF and Logistics

CONCLUSIONS ABOUT NEEDS, TIME SCHEDULE, PRIORITIES (3/3)

Also important to note:

- Multimodal logistics network cannot exist without proper rail terminals.
- Railway is very important ingredient in a logistics network. Railways were very strong in old Soviet Union and there is a lot of infrastructure especially in Uzbekistan and Kazakhstan left from its heritage, that should be maintained for not being neglected with its role in comparison to the road transport.
- The Rail Terminals need renovation in general and better road connections. Some rail terminals need parking and manoeuvre areas for truck and warehouses. Some are congested as Chukursay and Almaty, but most other underutilized such as Bishkek, Tovarniny.
- Kazakhstan can be seen as a model (a benchmark) in the area in terms of developments in Logistics, but training, capacity building is needed in all 4 countries.

PROPOSED LOCATIONS

Following are given some proposed locations but under the precondition that full feasibility study will be conducted first.

- In **Kazakhstan** it looks reasonable to consider establishing logistics centres based at the following sites: Almaty (more than 2 are possible as 2 exist already i.e DAMU, ASTANA CONTRACT), Astana more than one (DAMU, ASTANA CONTRACT already proceeding), Atyrau (the nearest to the C. Europe big city through land transport corridors) , or in Aktau where the development of the new city planned to reach 1 mio population in 2020 will be implemented; priority should be given to Dostyk station for rail and Chorgos for road transport due to the pressure of transit from China, and in other industrially developed regions of Kazakhstan such as Shymkent, Aktobe
- In **Uzbekistan** it is reasonable to consider establishing logistics centres based at the following stations: Sergely Tashkent, already in final design stage by UZVNESH TRANS, Chukursay Tashkent (for Keles border) after careful consideration of the feasibility to upgrade the existing rail terminal; Termez (Trans- Afghan transport corridor), Bukhara or Navoyi (for Karakalpakiya and Hodjidavlet borders); Andijan (multimodal traffic on Andijan-Osh-Irkeshtam route) or Kokand for Fergana region; Nukus of lower priority, a third one in the Tashkent area due to high population and high magnitude, being a junction of corridors
- In **Kyrgyzstan**: Bishkek, Osh, IssyKuul (Balykshy)
- In **Tajikistan**: Dushanbe (possible upgrading of the rail terminal), and/or Tursunzade border about 80 kms far from the capital Dushanbe, examine also feasibility for one or more of locations such as Khudjand, KurganTube, Khorg. Nijnipiang to be developed at a later time horizon.

ASSESSMENT OF A TIME SCHEDULE, PRIORITIES

		To be developed		
LC Site	**Under devel. or operation**	**2008-2012**	**2013-2017**	**Later**
Almaty	(2 are under construction already)	*	* 3rd	
Astana	One under construction	*		
Shymkent			*	
Aktau			*	
Atyrau		*		
Dostyk		*		
Chorgos		*		
Bishkek		*		
Osh			*	
Dushanbe		*		
Turshujade			*	
Taskhent		* 1st	* 2nd	
Bukhara / Navoi			*	
Termez		*		
Fergana			*	
Nukus				*

PROPOSALS FOR FURTHER ACTIONS

- Connection to National Strategy and Investment Projects (PPP or Private Finance)
- Need for OD Surveys, Observatory for Transport
- Need for Conducting a Feasibility Study for Freight Centers
- Need for Training Seminars for International Road Freight Operations, Multimodal Transport, Logistics Organisation
- Need for Cooperation between the Countries of C.A.

METHODOLOGY FOR CONDUCTING A FEASIBILITY STUDY FOR FREIGHT CENTERS (1/2)

The methodology which should be implemented in order to access the feasibility and the preconditions for developing the freight logistics centers includes the following steps:

- Evaluation of the overall freight traffic within the range influenced by the freight logistics center, and especially the cargo, that can be engaged by the freight logistics center in a number of time horizons, through research, questionnaires, forecasts of similar studies and other data.
- Services to be offered
- Dimensioning: conversion of freight traffic to the necessary space of land in order to accommodate the services to be offered, but also taking into account international experience and the appropriate transportation coefficients.
- Survey of the locations which satisfy the demand in terms of available land for the operation of the freight logistics center.
- Analysis of the strengths, weaknesses opportunities and threats (SWOT Analysis) for the alternative locations.
- Final selection of the appropriate locations for the allocation of the Freight Logistics Center.
- **EIA**
- Assess Financing means
- Interest rates and other assumptions
- Costing for construction, operation, maintenance
- Financial feasibility (IRR, NPV, CASHFLOWS), economic and financial evaluation of the investment for all the scenarios of freight movement (basic, optimistic and pessimistic)

METHODOLOGY FOR CONDUCTING A FEASIBILITY STUDY FOR FREIGHT CENTERS(2/2)

To conclude the input data required for the Feasibility are:

- demand forecasts
- costs for infrastructure of freight centres
- costs for operation
- charges, income

The above data combined with standards for spaces, buildings by service provided can give the needed data for IRR, B/C, NPV calculation.

PHOTOS OF EXISTING FREIGHT CENTRES (1/3)

CHUKURSAY, TASKENT

TOVARNIY, TASKENT

SERGELY, TASKENT

BUKHARA, COTTON TERMINAL

PHOTOS OF EXISTING FREIGHT CENTRES (2/3)

BUKHARA, COTTON TERMINAL

ASTANA RAIL

ALMATY RAIL

DAMU ALMATY

PHOTOS OF EXISTING FREIGHT CENTRES (3/3)

"ASTANA CONTRACT", ALMATY

BISHKEK, ALAMEDIN-1

DUSHANBE RAIL

Thank you!!!

DEVELOPMENT OF THE COORDINATED NATIONAL TRANSPORT POLICIES

REPUBLIC OF KAZAKHSTAN, THE KYRGYZ REPUBLIC, REPUBLIC OF TAJIKISTAN, REPUBLIC OF TURKMENISTAN, REPUBLIC OF UZBEKISTAN

Brief report
Public-private partnership development in the region of the Central Asian States

REFERENCE: EUROPEAID/122076/C/SER/MULTI

DEVELOPMENT OF COORDINATED NATIONAL TRANSPORT POLICIES OF THE REPUBLIC OF KAZAKHSTAN, KYRGYZ REPUBLIC, REPUBLIC OF TAJIKISTAN, REPUBLIC OF TURLMENISTAN, REPUBLIC OF UZBEKISTAN

REF.NUMBER: EUROPEAID/122076/C/SER/MULTI

BRIEF REPORT

PRESENTED BY THE EXPERT ON TRANSPORT LEGAL ISSUES OF THE CENTRAL ASIAN STATES

SUBJECT: PUBLIC-PRIVATE PARTNERSHIP DEVELOPMENT IN THE REGION OF THE CENTRAL ASIAN STATES

Almaty, 2008

Introduction

Last fifteen year period for the major number of states in the world was the period of economic efficiency elevation and competition acceleration enabling, occurred in the environment of harsh "infrastructure deficit". As a result thereof, an aspect of private capital funds attraction, as well as new coordination mechanisms designing between the private sector and respective Governments (PPPs) arisen helps bringing together the best tools from these two "orbs", i.e. the private sector is to input its resources, managerial skills and technologies, whereas the public Sector- its regulating ability and power of operational market ambiance adjustment.

For the CA states, that have been launching a set of large-scaled infrastructure projects quite recently, the issue how to address PPP-formula the most efficiently is vastly recognized. Due to the mentioned, to evaluate current state-of-affairs taken place in the PPP sphere in the CA region is urged for identification of bottlenecks to be overcome, as well as PPPs to enhance economic development policies and achieve socially-oriented benefits.

PPPs enabling is a pillar aimed at providing appropriate planning, financing, implementation and operation of the sites/premises, as well as public sector services. The key peculiarities are considered to be as follows:

a) Long-term nature of the services available;
b) Risk sharing or/and risk transferring to the private sector;
c) Variety of long-tem contracts to be selected by parties (juridical persons and governmental and municipal structures) while concluding agreements.

Within the project implementation based on PPP formula, the private sector is to input its funds and managerial potential to cover anticipated deadlines and budgets, whilst the public sector is to assure its continuous and solid political will for provision of the specified services to population through obtaining foreseen incomes and socially-oriented positive impacts, as well as economic maturity and national living standards enhancement.

In spite of the variety of PPP types, there are only two categories to be emphasized as the basic, as (1) institutional PPPs, embracing all joint-ventures formations between public and private counterparts; (2) contractual PPPs.

The figure 1 below shows the basic PPP models and the extent of the public and private sectors involvement with its relevant risk-transfer-grading.

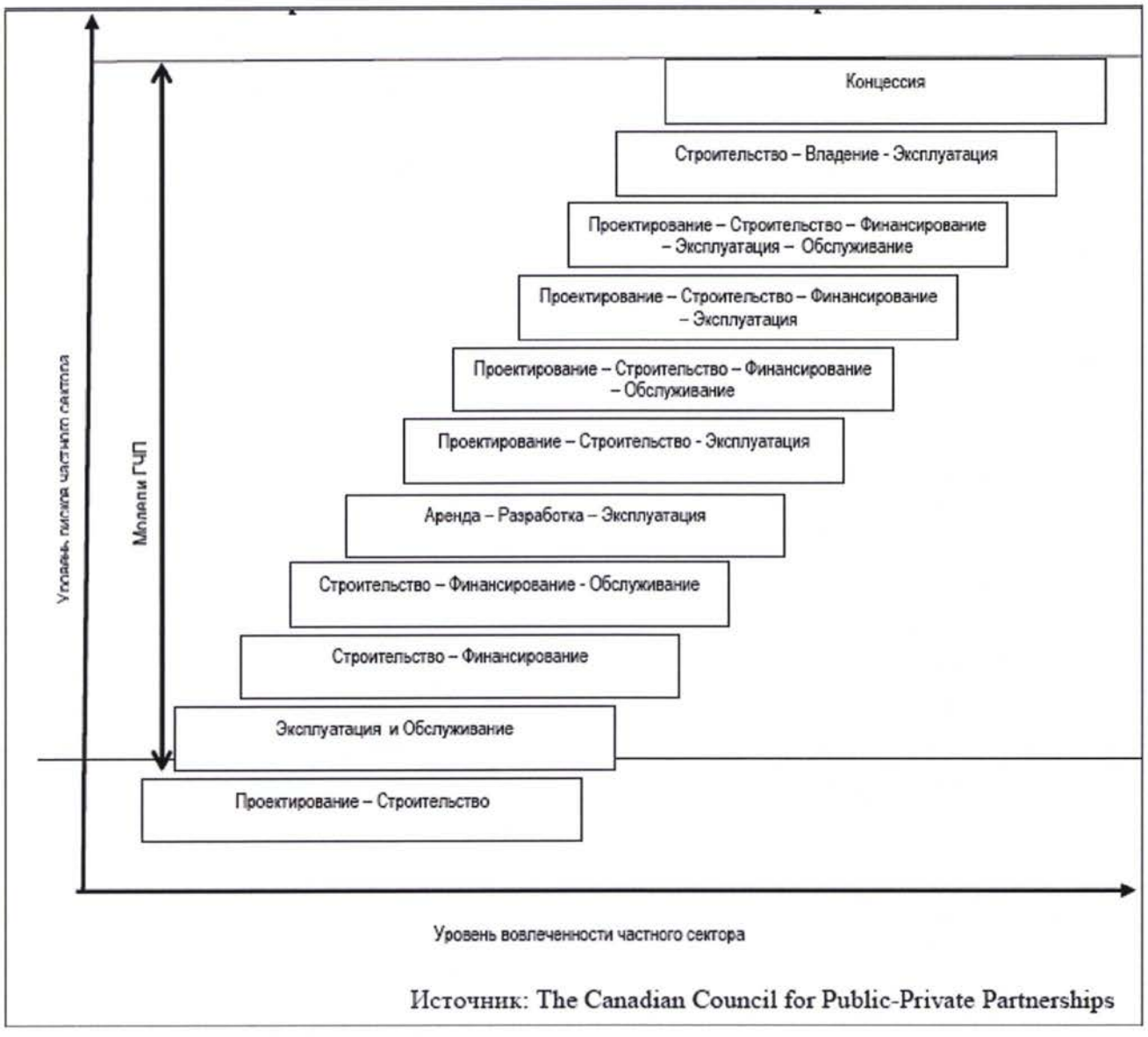


Figure 1 Basic PPP models: risk transfer and private sector involvement

Availability of different PPP models friendly impacts extensive capabilities spectre which entails to guaranteed fulfilment of project and provision of socially-oriented services. However, it's wrong to consider PPPs privatization for its state involvement and responsibilities to be run in terms of site operation and services provision, as well as due to the fact, that the public sector still remains the owner of the site/premises.

Experts assume, that prior to enabling full operation of PPP program the involved states are to undergo through some definite stages to accomplish (Table 1). The

major part of these states is at the first stage, and the number of truly mature projects among them is still scarce. Only having reached the third stage, the states, quantity of which becomes very limited, incline to consider PPP Programs sustainable. At this stage, a set of institutions is to be established, such as PPP operational units, capital markets, as well as new technologies and decision-making "know-how"s are to be presented. Also it maintains implementation of more complex projects using appropriate financing schemes.

Table 1 – Three stages of PPP readiness

First	Second	Third
-Political decision making -Evaluation in terms of the current legislation compliance -Designing of PPPs business case -Elaboration of principal conceptions -Best practices to be implemented in other sectors -Initial market-establishing arrangements	- Undertaking of apt legal reforms - Publication of strategic and practical directive principles - Establishment of Specific Units to be dealt with for PPP aspects - Clarification of PPP models - Market maturity promotion aimed at PPPs development -Enlarged PPPs business case and involvement of other sectors - Attraction of new alternative financial sources	- Setting up logically framed and comprehensive system - Elimination of existing juridical barriers - PPP models clarification and implementation - Complex risk-transferring packages - Setting up a guaranteed project portfolio - Securing of long-term political consensus - Availing entire arsenal of financial sources - Introducing investment favorable market for the infrastructure development projects, taking into account also pension and private joint stock funds - Involvement of competent experts on PPP aspects from state and municipal institutions

Information source: Practical Manual on PPP Effective Management aspects, UNECE, 2008

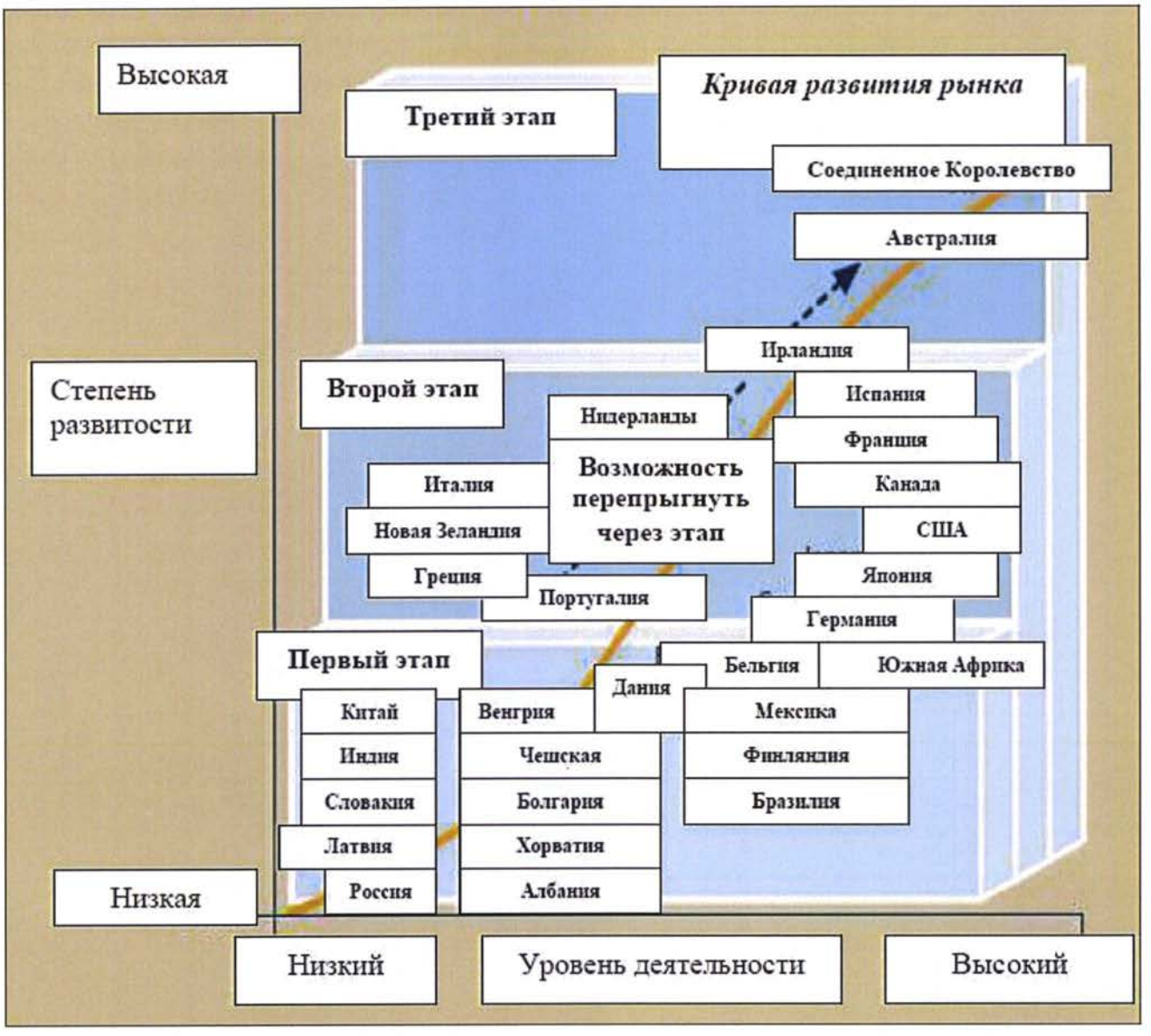


Figure 2. "PPP Market Maturity Evaluation Curve"

Information source: Deloitte and Touche USA LLP

One of the aims to present the Diagram above was willingness to demonstrate what position in the "PPP Market Maturity Evaluation Curve" is taken by some selected countries, as well as their efficiency in existing barriers overcoming. Upward movement along the Curve is not automatic, but provides the grade how feasible essential institutional development, as well as capacity building and decision making are. To ensure successful PPPs' performance a sturdy state sector is required. It should be adjusted properly enough to its new function and explore new competence scopes.

Empowering private sector with the right to provide state services implies sooner increasing, than diminishing of the responsibilities to be carried out by state and self-managed local municipal authorities; however it could be mistakenly assumed initially.

PPPs in the CA area

In spite of the fact, that now all the CA states are at the initial stage of project pipelining arrangements aimed at elaboration of feasible and sustainable PPP system, though their maturity levels differ from country to country. Perhaps, Kazakhstan is considered to be the leader in terms of PPP favourable environment enabling. However it retains some factors of the second PPP readiness stage (legislative reforming, mainly regarding concessions; establishment PPP Units), yet lack of clear and transparent clauses for basic conceptions and scarce expertise in terms of practical appliance of different PPP models[1] loudly says, that the state is still at the beginning of its development.

Basic PPP models, tried to be implemented nowadays in Kazakhstan, are concession, "Build-finance-…" models and establishment of so called social-and-business corporations (SBC s).

Secondary model of PPP is - first of all- related to implementation of socially important and noncommercial project called "Construction of 100 schools and 100 hospitals on the basis of PPP formula" (please, see figure 3). At the time being, there are not concretely formulated terms and conditions of the Construction Contracts in the Education and Health Protection spheres, in particular, it's not explicit whether the mentioned projects are to be operated by private partners during some specified period, or not, and what will be the ways of cost reimbursement to the private sector.

Social-and-business corporations are considered by the Government as the most important new instrument for development of non-oil-and-gas sectors in the domestic economy with an emphasis to the regional progress[2]. First pilot project of the SBC was implemented under the name of "National Company – SBC Saryarka"[3], established in the form of Joint-stock company with 100% share of the Government in its Charter Capital. The activities of the SBC were focused on economic enhancement of a number of regions of the republic through: public and private sectors consolidation, creation of sole economic market environment on the cluster-based approach, setting up a favorable economic conditions attractive for investments and innovations to come, participation and implementation of programs aimed at social development of the regions, as well as exploring, extracting and processing mineral resources, including those of a common usage (excluding gas, oil, uranium). This pilot project was assessed as successful (please, see Appendix 1). At the present moment SBC "Saryarka" involves 22 companies, undertaking activities in the following spheres:

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[1] Kazakhstan enjoys some experience with implementing of some concession and other modern PPP forms in the field of land use (agreement on production division, licensing, etc.), however the specific expertise of this sphere won't be applied broadly and directly in other infrastructure projects (unless adapted accordingly).

[2] see. Conception on establishing regional SBC s, approved by the Government of Kazakhstan of May 31, 2006 № 483

[3] http://www.spk-saryarka.kz/?dat=news5

- Production of alternative fuels;
- Designing of industrial and civil sites, as well as engineering networks;
- Engineering, manufacturing and assembling of automation devices;
- Renovation and mounting of lifts;
- Architect and planning work;
- Assessment for rational land usage;
- Medicine manufacturing and retail trading;
- Agro-production storage and sales;
- Extraction of coal, iron, copper and other mineral resources;
- Construction;
- Handling and utilisation of solid discharges;
- Transport and logistics.

At the current moment in Kazakhstan the SBC s following beneath have been established:

1. SBC «Saryarka» - covers Akmola, Karaganda regions, located in Astana city;
2. SBC «Ontustik» - covers South-Kazakhstan, Zambyl and Kyzylorda regions, located in Shymkent city;
3. SBC «Zhetisu» - covers Almaty region and Almaty city, located in Taldykorgan city;
4. SBC «Tobol» - covers Northern Kazakhstan and Kostanay regions, located in Kostanay city;
5. SBC «Ertik» - covers Eastern Kazakhstan and Pavlodar regions, located in Semipalatinsk city;
6. SBC «Batys» - covers Western Kazakhstan and Artyubinsk regions, located in Aktobe city;
7. SBC «Kaspiy» - covers Atyrau and Mangystau regions, located in Aktau city.

Each SBC by itself is a regional institution of development, maintaining transferred state assets management in the specified region of the country, as well as acting as project generator to attract necessary investments. Every SBC initiates establishment and implementation of joint projects on the basis of own, foreign and domestic private funds.

In order to fulfil the expected targets every SBC are provided with[4]:

- Financial funds for Charter Capital capitalization;
- Land plots for investment projects implementation;
- Land usage rights;
- Infrastructure sites/premises, engineering communications and relevant networks capable to generate incomes from operational fees obtained;
- Movables and real estate state owned;
- Joint stock shares, limited liability partnerships shares and state owned enterprises.

The transferring of the mentioned above resources are taken as principally important measures positively influencing on SBC s' activities, that allows the corporations to enter business-projects with their own assets (see figure 4).

SBC s are representing new and rather specific type of a business structure, cooperation principles between state authorities and private business circles of which, as well as decision making guidelines are supposed to be regulated by means of special legislation and other related legal acts. Appendix 2 presents a draft of the Kazakh Law "On Social and Business Corporations" introduced to the Majilis (Parliament) of the Republic of Kazakhstan.

Concessions – is the model of a basic focus in Kazakhstan. First of all, it is being expressed by special concession legislation. First Law "On concessions in the Republic of Kazakhstan" was adopted in December 23, 1991 and called on to regulate administrative, economic and legal environment concession agreements in Kazakhstan only for foreign investors.

In accordance with the Law on Concessions of 1991, term "concession" implied transferring concession assets to a foreign juridical entity or a physical person – concessionaire – on a leasing basis. The concession asset could be properties, natural resources, whereas the concessionaire had the right to purchase the property under the lease (although it was not applied in the cases with land and natural resources). The first law «On concessions" was recognised invalid already in April 1993. However, some traces of concession relations still remain in the republic, and some standards and regulations were included both to Civil Code and Special Legislation (for instance, Law "On the Earth's interior and its usage".

[4]See Resolution of the Government of Kazakhstan dated December 29, 2007 № 1403

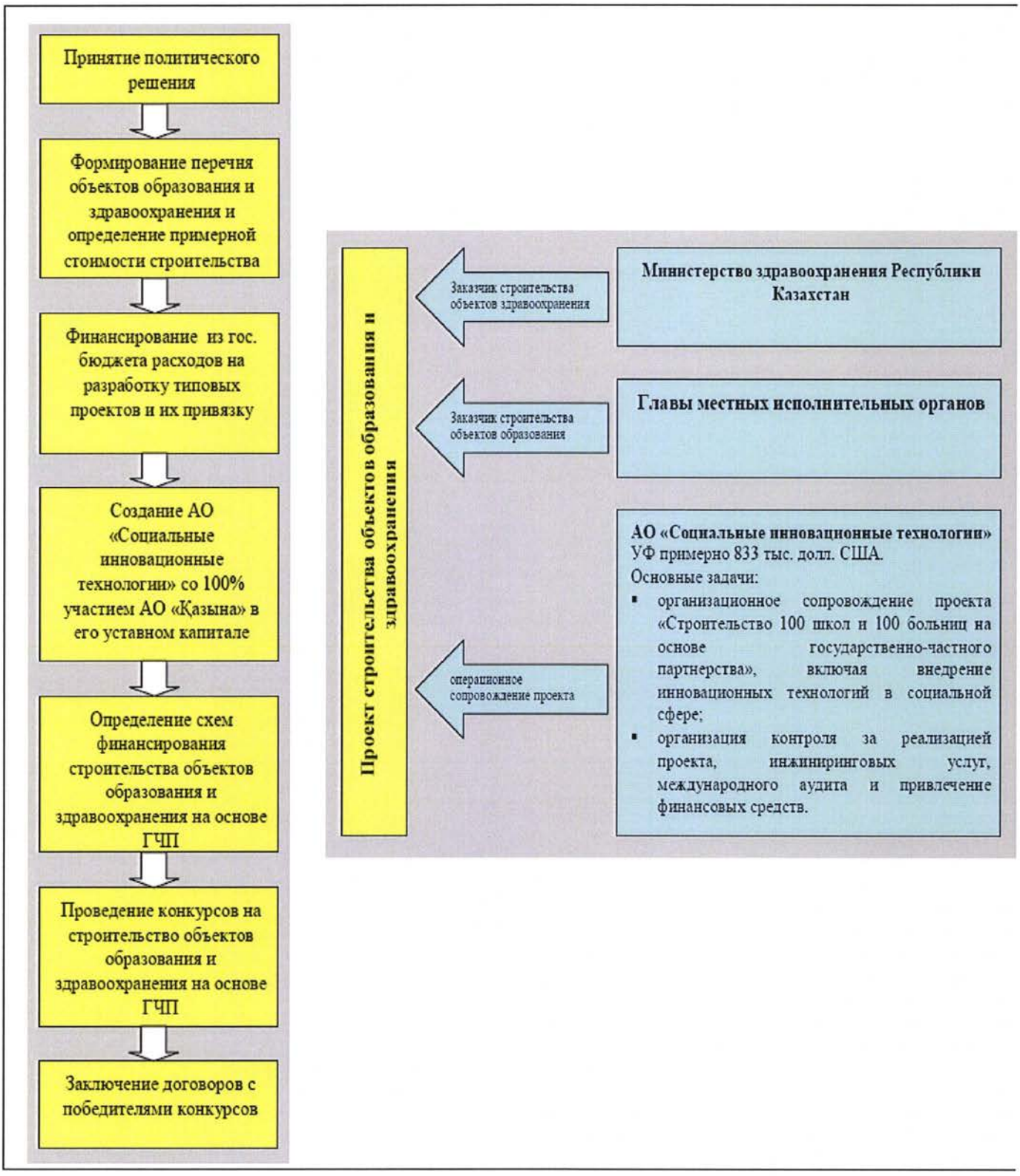


Figure 3 Implementation of project "Construction of 100 schools and 100 hospitals on the basis of PPP formula"

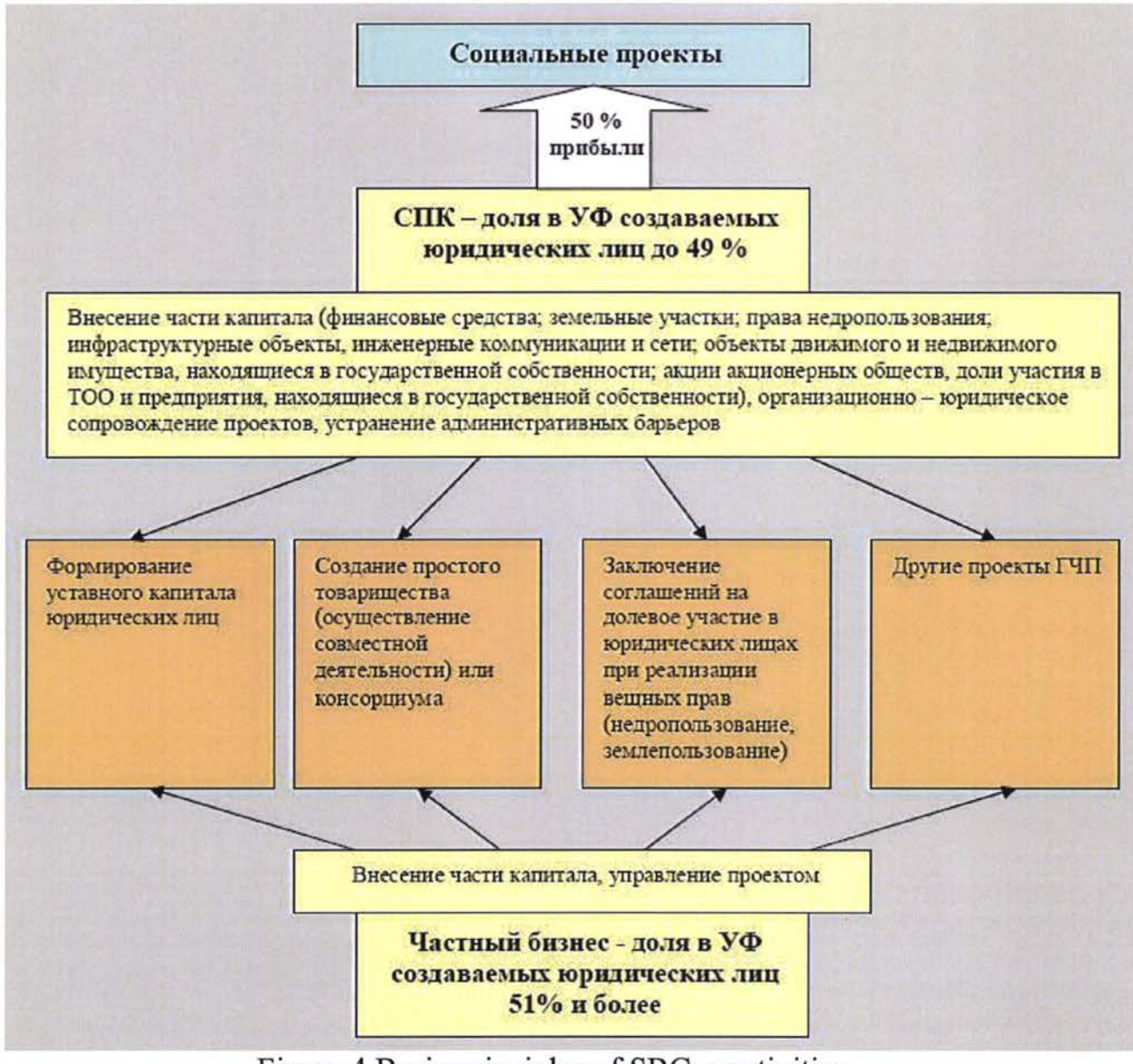


Figure 4 Basic principles of SBC s activities

Concession is mentioned in Article 541 of Chapter 29 in the Civil Code of the Republic of Kazakhstan, formulated as "Premises for Property Leasing", namely, point 4 says the following "The legislation acts can set specific terms and conditions for residential areas, land plots, earth's interior and other special natural sites subject to leasing, including on the basis of *concession agreements*, as well as in other cases". Depending on the type of the agreement subject (residential areas, land plots, earth's interior and other special natural landscapes, etc.) under the lease allowed to categorise Concessions into various civil agreements on property lease.

The Law of the RK "On earth's interior and its usage" envisages application of Concession agreements together with typical agreements being concluded for operational purposes. Based on the terms and conditions of concrete operations in the sphere of the earth's interior usage and other related activities, it is allowed to design combined and other types of contracts. It should be noticed, that the model

of concession regulations in the field of the earth's interior has some deviations compared with the one approved at the time being in the Law of the RK "On Concessions".

Basic regulative and legislative acts handling PPP aspects in Kazakhstan today are as follows:

- Law of the Republic of Kazakhstan of 7 July, 2006 "On Concessions";
- Resolution of the President of the Republic of Kazakhstan of 5 March, 2007 №294 «On the List of Premises are not Subject to Concession»;
- Resolution of the Government of the Republic of Kazakhstan of 25 August, 2006 №814 «On approving the Rules on Submission, Evaluation and Selection of Proposals concerning Premises Legalized to be Transferred to Concession, as well as on Tender Procedures for Transferring Premises to Concession";
- Resolution of the Government of the Republic of Kazakhstan of 4 September 2006, №836 «On Commission Establishment to deal with Concession aspects related to the Premises Belonged to Republican Property";
- Resolution of the Government of the Republic of Kazakhstan of 28 November, 2006, №1127 «On Approval the List of Premises Proposed to Concession Transferring for a Mid-term Period (within 2007-2009)";
- Resolution of the Government of the Republic of Kazakhstan of 18 August 2006, №783 «On Confirming Criteria to be applied to Concession Projects";
- Resolution of the Government of the Republic of Kazakhstan of 29 December 2006, № 1326 «On Approval of Model Agreements on Concession in Different Spheres of Economy»;
- Resolution of the Government of the Republic of Kazakhstan of 23 December 2006, №1254 «On Approval of the Rules on Proceedings in terms of Concession Agreements Registration, as well as Provided State Guarantees and Bails»;
- Order of the Ministry of Finance of the Republic of Kazakhstan dated 15 November 2006, №443 «On Approval of Methodology on Cost Assessment of the State Support to be rendered to Concessionaire»;
- Resolution of the Government of the Republic of Kazakhstan of 18 September 2008, № 864 «On Approval of Tariff-Making (fees, rates) or Ceiling Price-formation Procedures for provision of Administrated Services (Commodities, Products, Services) undertaken in Natural Monopolies, involved in Concession Implementation";
- Resolution of the Government of the Republic of Kazakhstan of 25 September 2008 № 885 «On Approval Consultancy Support Rules for Projects under Concession»

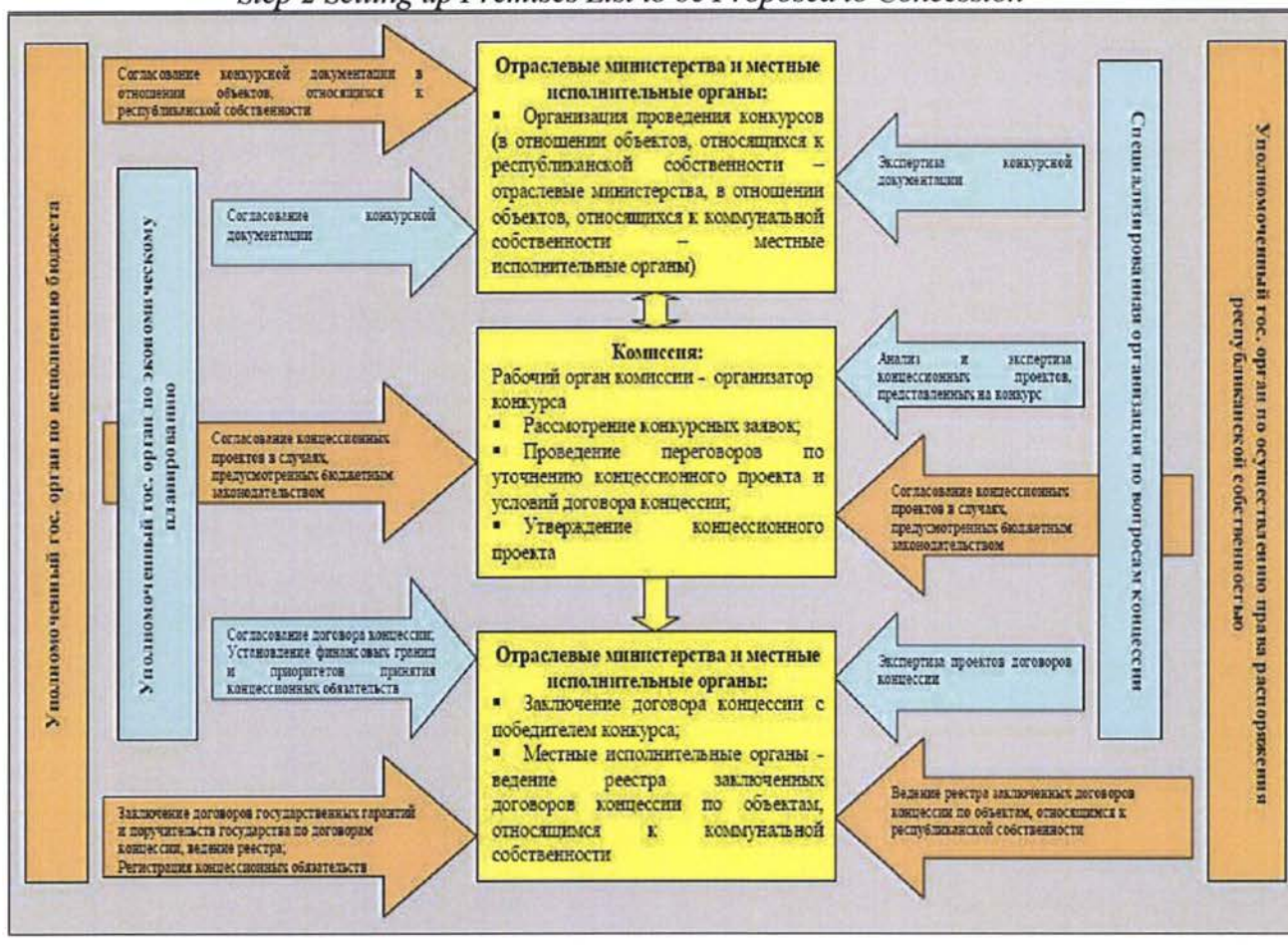
According to the Law "On Concessions", **concession** [5] is a contractual transfer of premises of state belonging to temporal usage on the basis of concession agreement aimed at enhancing and efficient operation, as well as transfer of rights enables new construction activities at the account of concessionaires or on the basis of shared financing by a Concessor (public partner). The operation of the premises is to be followed by their further returning back to the Government, where the Concessionaire is granted with ownership and operation rights with or without state support. Herewith the concession premises are interpreted as the premises belonging to the Government and premises are to be erected as a result of fulfilled concession agreement registered accordingly. Concession scope can cover any sectors of economy, excluding those that are subject to regulating by the special Presidential list. Concession Agreement can be concluded for the period to 30 years. It can be prolonged by concluding a new direct concession agreement for an additional period of time to be set through achieving mutual consensus between the parties to the agreement, provided that all previous contractual terms and conditions (liabilities) have been fully fulfilled by the concessionaire.

Figure 5 shows the basic proceeding steps of permission obtaining for being transferred to concession envisaged by the Legislation of Kazakhstan.

Step 1 Proposal Drafting related allowed Concession Premises Transfer

[5] It should be noted, that in accordance with point 1, Article 2 of the Law, its provisions will not cover those affairs, that are related to the concession for Earth's interior usage.

Step 2 Setting up Premises List to be Proposed to Concession



Step 3 Tendering and Concession Contract Concluding

Figure 5 Basic steps of premises transferring to concession (on the basis of Concession Law of the Republic of Kazakhstan)

Appendix 3 to the given Document provides Proposals of the Ministry of Transport and Communications of the RK in relation to the projects suggested for the implementation on the concession basis.

The List of the premises proposed to the concession for the mid-term period (2007-2009) and approved by the Resolution of the Government of the RK dated 28 November, 2006 № 1127 at the time being includes the following below premises (see Table 2). However the List does not include all proposals presented by the Ministry of Transport and Communications.

Table 2 – Premises list proposed to Concession

№	Name	Tendering Organization
1	2	3
Premises, construction and operation of which will be fulfilled on the concession agreement basis		
1.	Railway section "Mangyshlak – Bautino"	MoTC
2.	Railway section "Eralievo-Kuryk"	MoTC
3.	Railway section "Korgas – Zhetigen"	MoTC
4.	Electrification of railway section "Makkat – Kandyagash"	MoTC
5.	Electrification of railway section "Almaty – Aktogay"	MoTC
6.	Electrification of railway section "Dostyk – Aktogay"	MoTC
7.	Electrification of railway section "Aktogay – Mointy"	MoTC
8.	Gas-turbine electric station in Kandyagash city (Aktubinsk region)	MoEMR
9.	Diesel-electric main-3 in Astana city	Mayor's Department of Astana city
10.	Main Ring Almaty Road	MoTC
11.	Infrastructure Support Premises for Integrated Oil-Chemical Complex in Atyrau region	MoEMR
12.	Passenger terminal in international airport of Aktau	Mayor's Department of Mangustau region
Remarks: *MoTC – Ministry of Transport and Communications;* *МЭМР – Ministry of Energy and Mineral Resources*		

At the present moment the below listed concession contracts have been concluded and aim at implementation of transport-related projects:

- Concession contract concluded with JSC «Doszhan temir zholy» for the construction of railway section "Shar – Ustkamenogorsk" (Pilot project), project value makes 178 million USD, concession period is 23 years (till December 2028). The construction works have been launched on 27 August, 2005. The implementation of the project was undertaken through issuing of infrastructure bonds with involvement accumulative pension fund allocations;
- Concession contract concluded with LLP «Nurzhol ENERGY» (Almaty city) for electrification of "Makat – Kandyagash", project value makes 298 million USD, concession period is 22 years (till 2030);
- Concession contract concluded with LLP «ENRC Logistics» for construction of "Khorgos – Zhetigen" railway SBC tion, project value makes 775 million USD, concession period is 28 years (till 2036);
- Concession contract concluded with LLP «Astana-AREK» for construction of "Eralievo - Kuryk" railway SBC tion, project value makes 63 million USD, concession period is 22 years (till 2030)

It is necessary to stress, that Concession law of Kazakhstan and its premises' transfer procedures are often imposed to revision. For example, till the recent time

evaluation of proposals and concession projects has been conveyed by an independent experts' team, identified by the Government of the Republic of Kazakhstan .

Nowadays (please, see figure 5) this function is imposed onto the special Commission on Concession aspects.

JSC "Kazakhstanskiy Center of Public-Private Partnerships" is acting as a specialised institution on Concession aspects in Kazakhstan, where the share of the Government in its Charter Capital makes 100%. It was established by the Resolution of the Government dated 17 July 2008 № 693.

The principal activities are to envisage:

1. assessment of proposals related to the premises permitted for concession transferring;
2. evaluation and assessment of Feasibility studies of allowed concession premises transactions from economic point of view;
3. evaluation of tendering documentation for concession premises' transferring;
4. assessment and expertise evaluation of the concession projects, proposed by the participants of the tender aimed at Concessionaire selecting;
5. draft concession agreements evaluation;
6. economic evaluation of budget investment projects (programmes).

The Board of Directors of the JSC "Kazakhstanskiy Center of Public-Private Partnership" is headed by the Vice-minister of Economy and Budget Planning. Considerable changes have been taking place in other concession law aspects. Thus the List of Governmental Support Proposals has been significantly extended and now it includes the following:

1) Bails of the Government in Infrastructure Bonds within the framework of Concession Agreements;
2) Government Guarantees for loans allocated in order to finance the projects under concession;
3) Transfer Exclusivity rights for the operation of the premises under concession;
4) Provision of in-kind grants in accordance with the procedures stipulated by the Government of the Republic of Kazakhstan ;
5) Concession project co-financing;
6) Guaranteed consumption of production (provided in the form of services, work) in the case, if the principal customer of the production manufactured (or provided) by a concessionaire is the Government itself;

7) Compensation of a certain volume of cost done by concessionaire within the stipulated periods of time and amounts during implementation of the Concession agreement

Concessionaire can be provided with one or several types of the above-mentioned Government support, but averagely summarised value of such support shall not exceed the project value to be implemented (being implemented) at the budget of the concessionaire within the framework of the Concession agreement.

Concurrently concessionaire is imposed with some liabilities – while experiencing Governmental support and in accordance with points 2), 3), 5), 6) and 7) the concessionaire shall provide infrastructure bonds in the volume of not less than 20% of the project value under concession.

Volume and conditions upon placing such bonds are to be discussed while concluding Concession agreement.

Concessionaire can enjoy even such types of Governmental support, as investment tax preferences and exemption from customs duties imposing. Essential condition for obtaining such investment preferences is the observance to requirements stipulated by Article 15 of the Law of the RK "On Investments", namely:

1) Compliance of the foreseen investment activities to the List of Prioritised Spheres, approved by the Government of the RK (including some activities in the transport sphere);
2) Investment to fixed assets of juridical person of the Republic of Kazakhstan aimed at creating new, extending and upgrading existing industries providing input of modern and innovative technologies;
3) Provision of evidences confirming availability of financial, technical and organizational opportunities of the juridical person, applied for participation in the investment project tender.

The Concession legislation of the RK is being upgrading. At the moment 9 regulative acts have been drafted and sent for further approval proceedings and signing in the Ministers of Finance and Justice of the Republic of Kazakhstan :

1) Draft Resolution of the Government of the RK "On Approval of Rules on submission, evaluation and awarding of the proposals concerning premises to be transferred to concessions, as well as on tendering of the selected premises by concessionaire (replaces the Resolution of the Government of Republic of Kazakhstan dated 25 August, 2006 №814);
2) Draft Resolution of the Government of the Republic of Kazakhstan "On Approving the Rules on Compensation Procedures to be applied whilst Reimbursement of Investments project costs under concession";
3) Draft Resolution of the Government of the Republic of Kazakhstan "On Approving Rules on Formulating the List of Concession projects requiring co-financing";

4) Draft Resolution of the Government of the Republic of Kazakhstan "On Approval Rules on Concession projects co-financing";
5) Draft order of the Minister of Economy and Budget Planning of the Republic of Kazakhstan "On Approval Requirements related to the Premises proposed to be transferred to concession";
6) Draft order of the Minister of Economy and Budget Planning of the Republic of Kazakhstan "On Approval Requirements to Designing and Evaluation of Feasibility Studies of the Projects under Concession";
7) Draft order of the Minister of Economy and Budget Planning of the Republic of Kazakhstan "On Establishment of Financial frameworks and Priorities for Imposing Concession Liabilities"

At the current time the JSC "ЦМАИ" which is a member of "Kazyna" Fund in collaboration with the World Bank and EBRD is being implemented some activities aimed at establishment of comprehensive institutional PPP infrastructure, including PPP-Unit initiation.

PPP-Unit is operative working component called upon assuring and/or undertaking certain activities enable proper PPP functioning, as well as preparation, promotion and monitoring concession projects implementation.

According to the evaluation of the WB based in Uzbekistan within the period of 1992 to 2005 8 large-scaled projects on the basis of PPP scheme were executed, investment allocations of which made 794 million USD provided through private funds (see Table 3). Two projects out these eight, share of which was estimated at 47% of the private investments were later suspended[6].

Table 3 – Large-Scale Public-Private Partnerships (PPP) in Uzbekistan

Год	Количество вновь начатых проектов	Отрасль	Тип проекта	Частные инвестиции (млн. долл.)
1992	1	Телеком	Новый объект	3
1996	4	Телеком	Новый объект	351
1997	2	Телеком	Новый объект	118
1998				31
1999				13
2000				26
2001	1	Водоснабжение	Контракт на управление	130
2002				23
2003				10
2004				3
2005				85
Всего	8			794
Источник: Private Participation in Infrastructure Database, World Bank				

[6] Report "Private and Public Partnership in Uzbekistan: challenges, opportunities and implementation options", Tashkent, 2007

Year	Number of newly initiated projects	Branch	Type of the project	Private investments (mln. US dollar)
1992	1	Telecom	New object	3
1996	4	Telecom	New object	351
1997	2	Telecom	New object	118
1998				31
1999				13
2000				26
2001	1	Water supply	Management contract	130
2002				23
2003				10
2004				3
2005				85
Total	8			794

Source: Private Participation in Infrastructure Database, World bank

Besides of that, PPP is practiced at the micro level in the sphere of municipal-housing economy. The regulation "About further measures on the development of housing private owner partnership and formation of housing services real market" passed by the Cabinet of Ministers in 2006 stipulates for creation of the specialized management and service organizations providing services to the housing private owner partnerships on a contractual basis. As of the beginning of 2007, there were 143 private management companies in Uzbekistan engaged in the field of provision of operational, repair and emergency-control services.

Partial privatization of infrastructural enterprises of Uzbekistan by selling blocks of stock to private investors may also be considered as a form of PPP. However, in these cases allocation of rights and obligations between the state and private partner differs from the generally accepted SSP pattern: in these cases each stockholder is entitled only to that portion of the supervisory and income rights, which are determined by the size of his blocks of stock, whereas under the traditional PPP pattern the private partner acquires total commercial independence and profit, while the state reserves the regulatory functions.

This difference is of principal importance for the private investor, especially in the cases when the state reserves the controlling block of stock. Very likely that properly understanding of this situation conditioned adoption by the State Property

Committee of the Republic of Uzbekistan of the Regulation # 01/06-18/03, dd. July 8, 2005, "On approval of the Provision regarding the order of granting to the investors acquiring minority shareholding (shares) but placing a considerable volume of investments into modernization and technical upgrading of enterprises, of the right to administer the state share without holding a tender". According to this regulation, the state share may be given into the trust management of the investor having minor shareholding (form 25 to 50% of the registered fund of the enterprise) but placing a considerable volume of investments into modernization and technical upgrading of the enterprise (in the volume of 51-100% of the investment demands of the enterprise, or not less than 40% of its assets).

However the rates of private investments into the PPP projects are incommensurable with the rate of "investment spread" in the infrastructure constituting several percents of the GDP. Large volume private investments into the infrastructure are so far limited to the cellular communication – one of the less risky for the investor section of the infrastructural branch, which may be hardly attributed to the priority ones regarding the needs of socio-economic development of the Republic of Uzbekistan.

One of the main factors restricting sphere of application of PPP in Uzbekistan is poor development of the corresponding regulatory and legal framework.

In 1995, Uzbekistan was one of the first ex-soviet states which adopted Law "On concessions". This document has the same principal drawbacks as the Law "On concessions in the Republic of Kazakhstan" of 1991. First of all it should be mentioned that concessionary base is represented only by the foreign investors. For instance, Article 1 of the Law interpreters concession as "a permit issued on behalf of the state to *a foreign investor* for execution of a certain type of economic activity involving provision of assets, land plots and subsurface resources to the foreign investor on the concession agreement basis". Concession is considered as a form of tenancy, which objects may be represented by the assets, land plots and subsurface resources. However, the law does not accord the concessionary a right to establish new objects.

The law restricts the concession agreement duration to 15 years (against generally accepted 30-50) that restrains making agreements on large objects with the long lasting pay-back periods[7].

Lack of the special concessionary supporting instruments, such as the state guarantees to procure certain volume of goods (works, services), to recover a part

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[7] According to article 17 of the Law, in certain cases the concession agreement may be extended on the decision of the Cabinet of Ministers. However, uncertainty regarding this issue for the moment of signing the concession agreement has an adverse effect on the potential investor's decision. It should be also mentioned that legal regime in the field of subsoil use considerably differs from the provisions of the Law on concessions. For instance, according to the decree of the President of the Republic of Uzbekistan "About the measures on attraction of direct foreign investments into the sphere of gas and oil exploration and production" newly discovered oil and gas fields may be provided to the foreign companies for the development on the concession terms for a period of up to 25 years with a right to extend the development period. The investors may be also granted other numerous privileges and preferences.

of the concessionary's expenses, etc. should be considered as considerable drawbacks of the current concession legislation of the Republic of Uzbekistan.

At the same time, the concessionary has a right to obtain privileges and preferences which are stipulated by the investment legislation of the Republic of Uzbekistan. For instance, Article 4 of the Law of the RUz "On the investment activity" considers acquisition of concessions, including concession for exploration, development, production or utilization of natural resources, as a form of the investment policy, thus applying provisions of the investment legislation to the investment activity.

According to the Law of the RUz "On the investment activity" agents of the investment activity may be granted the additional guarantees and investment protection measures that may include: issuing of guarantees by the government, rendering assistance in financing of the investment projects, establishing of the special tax and payment regime, governmental control over implementation of the projects, and other measures. Additional guarantees and investment protection measures are granted by the decisions of the Cabinet of Ministers of the Republic of Uzbekistan.

One of the most important conditions for obtaining the investment privileges and preferences is placing investments into the priority branches of the economy that ensure sustainable economic growth and progressive structural changes in the economy of the country, or into the priority projects that ensure strengthening and expansion of the export potential of the republic and its integration into the world economic relations. Meanwhile, the transport infrastructural projects for some reasons are not included into the list of the priority projects[8].

According to decree of the President of the Republic of Uzbekistan # UP-3594, dated April 11, 2005, "About additional measures on promoting the attraction of direct private foreign investments" enterprises of a number of economic branches may be exempted from income (profit) taxes, property tax, social infrastructure improvement and development tax, single tax for micro firms and small enterprises, as well as from the compulsory allocations to the Republican road fund provided that the enterprises have attracted the direct private foreign investments in the volume of:

- from 300 thousands US dollars to 3 millions US dollars – relief period is 3 years;
- over 3 millions US dollars to 10 millions US dollars - 5 years;
- over 10 millions US dollars - 7 years.

The above stated privileges are granted on the condition that the corresponding industry is included into the register of the economic industries that enjoy the privileges granted to the direct private foreign investments; privileges may be also granted upon a number of other conditions:

- foreign investors execute private direct foreign investments without furnishing the guarantee of the Republic of Uzbekistan;

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[8] See http://www.investuzbekistan.uz

- share of foreign participants in the registered capital of the enterprise shall not be less than 50 %;
- private direct foreign investments are made only after the state registration of the mentioned enterprises;
- foreign investments are made in the form of hard currency or in the form of a new up-to-date technological equipment;
- income resulted from the enjoying of the above mentioned privileges within the period of their validity is reinvested for the purpose of further development of the enterprise.

It should be mentioned that there are a number of legislative instruments in the Republic of Uzbekistan that stipulate granting of privileges to the enterprises of one or another economic industry. This fact considerably hampers the investor's ability to objectively assess the investment climate of the republic.

Figure 6 shows the qualitative parameters of the concession legislation of the Republic of Uzbekistan by estimate of the EBRD. From the diagram it can be seen that the concession legislation of the Republic of Uzbekistan "on paper" in general does not meet the international standards, though a number of concession projects realized in the republic proved to be rather effective.

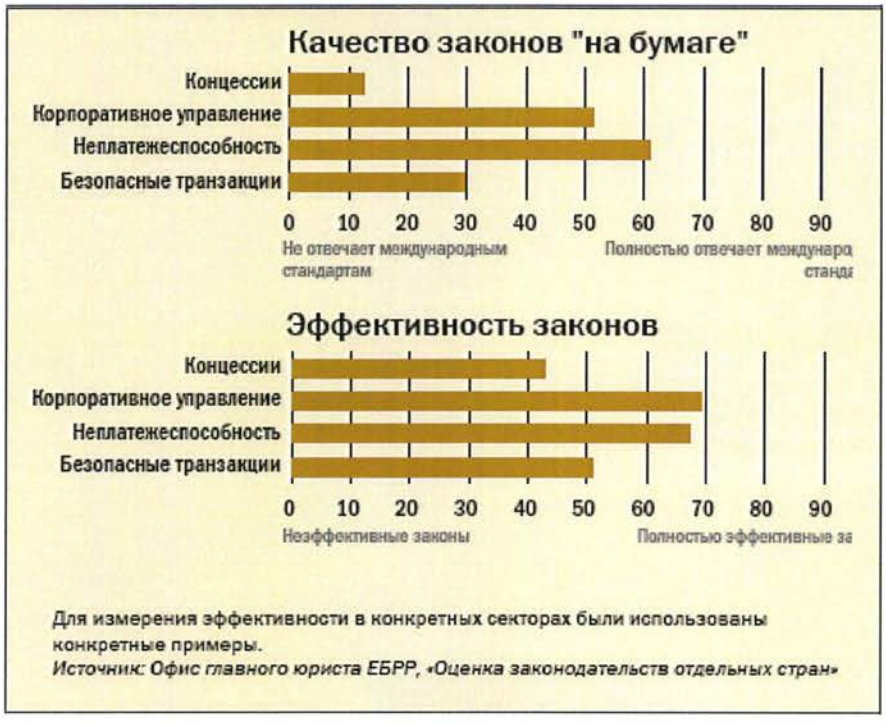

Figure 6: Qualitative parameters of the concession legislation of the Republic of Uzbekistan

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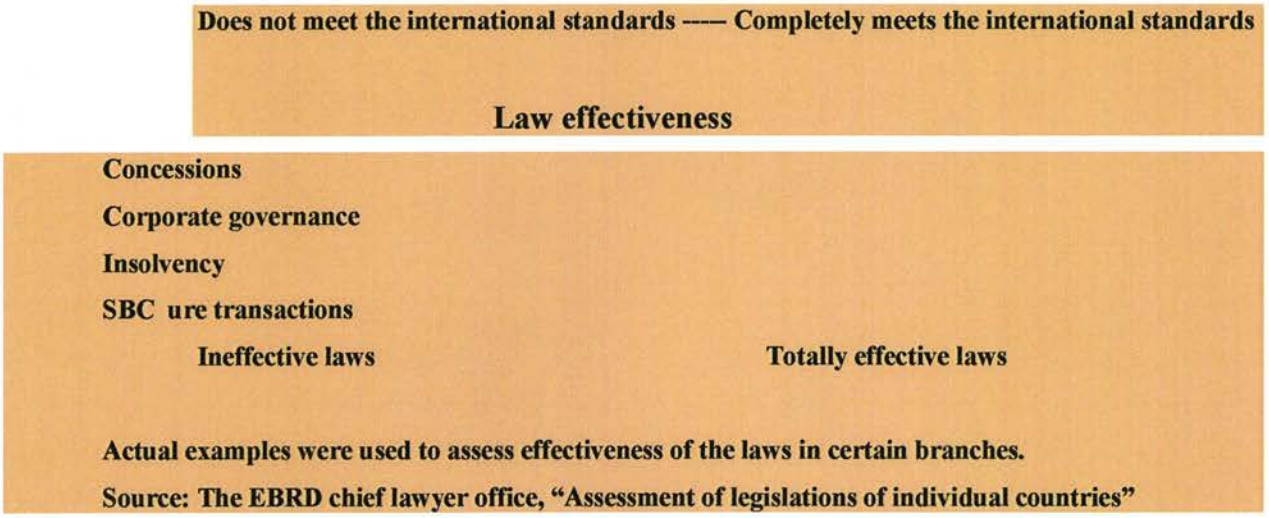
"On paper" quality of laws

Concessions

Corporate governance

Insolvency

SBC ure transactions



Nowadays, the PPP establishment issue is one of the most actual ones in **Kyrgyzstan**. Due to the high level of its foreign debt, Kyrgyzstan has a limited loan potential that considerably restrains infrastructural reforms.

The basic legal instrument regulating concession relations in Kyrgyzstan is Law of 1992 "On concessions and concession enterprises in the Kyrgyz Republic (KR)". In addition to this Law, separate aspects of the concession relations are regulated by the Civil Code, laws of the Kyrgyz Republic, such as "About the investments in the Kyrgyz Republic", "About the general principles of denationalization, privatization and business activity" and other legislative instruments regulating the investment and business activities in the territory of the Kyrgyz Republic.

The KR Law interprets concession as "a permit issued by the Government of the Kyrgyz Republic to an investor for execution of a certain type of entrepreneurial activity involving provision of assets, lands and subsurface resources in temporary use of the investor".

Land, its depths, assets, as well as certain types of economic activities in the certain territory may be considered as objects of the concession agreement. A stock company's assets (stock company, where the state share is not less than 2/3 of the total shares) may also be considered as the concession agreement object, provided that the Government of the Kyrgyz Republic, supported by the KR Jogorky Kenesh (Parliament), has taken the appropriate decision.

Thereat, in the instances when a stock company's assets are transferred to the concession, the KR Law "On concessions" sets a number of limitations on the concessionary, namely:

- The KR Government reserves vote and concession agreement object disposition rights;
- A concessionary has no right to sell and dispose the stock company's assets (except for the assets and property specified by the concession

agreement) to lease or contribute it as a share (participatory interest) into the registered capital of the economic societies and partnerships, or dispose it by any other means without sanction of the KR Jogorky Kenesh and the appropriate decisions taken by the KR Government and the stockholders' general meeting.

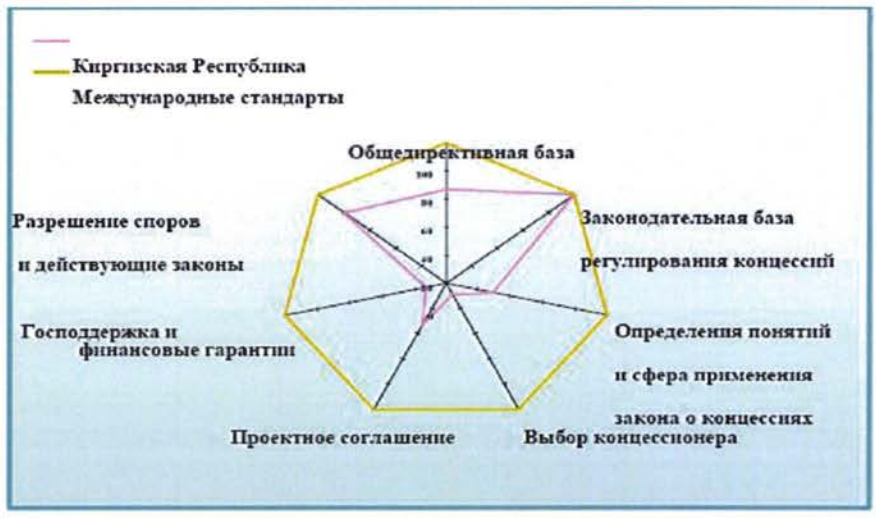
The proposed concession model, in contrast to the traditional PPP model, does not provide to a private partner any commercial autonomy, thus considerably decreasing its liability.

The KR Law "On concessions and concession enterprises in the Kyrgyz Republic" is characterized by a number of positive elements. Thus, a concession agreement may be concluded for a period up to 50 years. The Law clearly specifies regulations for the payment of indemnities in case of unilateral dissolution of concession agreements (including lost profit) or upon "inseparable improvements" of the concession object.

However, in general, the Law does not provide essentially reliable legal framework for attracting the private sector to the participation in the infrastructural projects. The Law "On concessions" is characterized by a number of drawbacks; for instance, the excessive indistinctness and fuzziness of the majority of its basic elements may be attributed to the most serious drawbacks. Thus, notwithstanding the fact that the Law stipulates compiling the list of assets, which are allowed or prohibited to be transferred into concession, such lists are not available in the free access. Actually nothing is said about the issues regarding holding of tenders and winner selection criteria. For instance, Article 9 «Holding of a tender" specifies only a provision that investors should submit the concession granting applications to the concession authorities. The Article does not specify basic principles of holding a tender and criteria for selection of the best application. According to the Law, the list of application supporting documents and tender holding procedure shall be determined by the Government of the Republic.

Though the Law specifies possibility of obtaining tax privileges, nothing is said concerning the possibility of obtaining the state support and financial guarantees; in these instances, the Law refers to the Law "About investments in the Kyrgyz Republic", but it should be mentioned that the latter Law also does not include the list of the specified privileges.

Figure 7 shows the qualitative parameters of the concession legislation of the Kyrgyz Republic (2005).



Примечание. Крайние границы каждой оси представляют собой высший балл в соответствии с международными стандартами, такими как Законодательное руководство ЮНСИТРАЛ для инфраструктурных проектов, финансируемых из частных источников страны. Чем шире «паутина», тем больше законодательство страны, регулирующее концессии, соответствует этим принципам.

Источник. Оценка концессионного сектора, ЕБРР, 2005 год.

Figure 7: Qualitative parameters of the concession legislation of the Kyrgyz Republic (2005)

The Kyrgyz Republic

International standards

General directive framework

Dispute resolution and laws in force

Concession regulation legislative framework

State support and financial guarantees application

Formulations and sphere of concession agreement

Project agreement

Selection of a concessionary

NOTE: The edge limits of each axis represent the highest score according to the international standards, such as Legislative direction UNSITRAL for the infrastructural projects financed from the private sources of the country. The wideness of the "net" shows to what extent the concession regulating legislation of the country corresponds to these principles.

Source: **Concession Sector assessment, EBRD, 2005.**

In 2005, the EBRD made assessment of the KR concession legislation; according to the assessment results, the KR concession legislation was attributed to the category of legislations that "poorly correspond" to the internationally accepted standards in this field. As it clear from the Figure, the principles regulating most of the aspects, in particular, definition of terms and sphere of application, selection of a concessionary, availability of financial instruments and the state support, – all these principles need essential improvement.

Pressing necessity for attraction of the additional investments into the economy of the Republic makes the KR Government to take new steps in this direction. Thus, the Action Program of the KR Government for 2008 (approved by the KR Government Resolution # 14, dd. January 19, 2008) stipulates the development of the legal framework for the PPP related issues as one of the key measures aimed at business development; this framework shall clearly specify allocation of obligations of the public and private sector in realization (co-financing) of the investment projects.

The Strategic Plan of the KR Ministry of Economic Development and Trade specifies that Law "On the public-private partnership in the Kyrgyz Republic" will be elaborated not later than by March 1, 2009.

In **Tajikistan**, Law "On concessions" of 1997 is the basic legal-regulatory instrument in the field of concessions. Like laws on concessions, adopted by the other Central Asian countries in the nineties of the XX century, the Law of the Republic of Tajikistan (RT) regulates only those relations, where a concessionary is represented by a foreign investor.

Concession is interpreted as an agreement on the transfer to a foreign investor (on the basis of the specified terms) of the state enterprises (associations), land (with a right for mining operations), construction of objects, waters, water and air areas, flora and fauna, as well as other natural resources of the RT not prohibited by the RT legislation; all the above mentioned assets are transferred into temporary use only.

It should be mentioned that there are some differences in setting a concession agreement validity term. With reference to Article 13 of the RT Law "On concessions", a concession agreement is concluded for a period of maximum 50 years. However, the Article specifies certain exceptions for the projects associated with mining activities (exploitation of mineral deposits) requiring large volumes of capital investments and characterized by a long lasting pay-back periods: for such projects the maximum concession agreement validity term is set to 99 years.

The positive moment of the Law is that it specifies notification of all tender participants of the tender results and provides for the right of appeal. Besides, the Law stipulates registration of the agreement[9] and has a provision on "non-involvement into a concessionary's economic activity". The Law also specifies possibility of unilateral dissolution of the agreement by the state partner, but this may be done only in cases if a concessionary provided misleading information.

Such facts, as indistinctness of the majority of formulations and evident discrimination of domestic investors should be attributed to the drawbacks of this Law of the Tajik Republic. A concessionary selection procedure should be also defined more exactly and specified more clearly. Though there are a number of special rules[10], in many instances they just reiterate provisions of the framework law and do not touch upon many of the principally important aspects. For instance,

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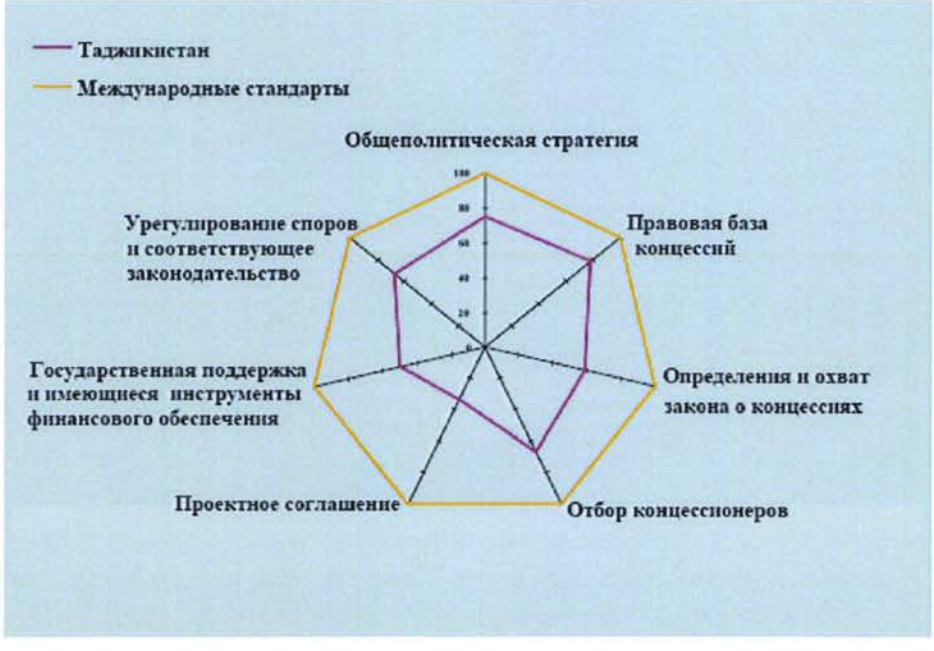
[9] See: The TR Government Resolution # 154, dd. April 3, 2005, "On the state registration of concession agreements".

[10] See: The TR Government Resolution # 503, dd. December 29, 2000, "Procedure and terms of holding concession granting tenders and auctions".

nothing is said about the pre-selection procedure, grounds for direct negotiations are unclear, winner selection criteria are not clearly determined ("A winner is selected by the tender committee on the basis of winner selection criteria set by this committee"). State support and financial guaranty issues are other weak points of the Law.

Thus, Law "On concessions" does not provide essentially reliable legal framework for the expansion of private sector participation in the infrastructural development of Tajikistan. This conclusion is supported by the qualitative assessment of the TR concession agreement made by the EBRD (Figure 8). The diagram shows, that practically all key aspects of the concession mechanism need additional improvement.



Примечание. Конечная точка каждой оси представляет собой идеальный показатель, соответствующий международным стандартам, таким, как Руководство ЮНСИТРАЛ для законодателей по инфраструктурным проектам частного финансирования. Чем полнее "паутинка", тем выше степень соответствия национальных законов о концессиях этим стандартам.

Источник: Оценка ЕБРР концессионного сектора, 2004 год.

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Figure 8: Qualitative parameters of the concession legislation of the Republic of Tajikistan

Tajikistan

International standards

General political strategy

Dispute resolution and corresponding legislation — **Concession legal base**

State support and existing instruments of financing — **Definition and coverage of concession law**

Project agreement — **Selection of concessionaries**

NOTE: The edge point of each axis represent the highest score according to the international standards, such as Legislative direction UNSITRAL for the infrastructural projects financed from the private sources of the country. The wideness of the "net" shows to what extent the concession regulating legislation of the country corresponds to these principles.

Source: **Concession Sector assessment, EBRD, 2004.**

The National Development Strategy of the Republic of Tajikistan for the period up to 2015 specifies the following tasks - **private sector development and attraction of investments on the basis of expansion of economic freedom, strengthening of property rights and legality, as well as development of PPP** – as the top priority and important tasks in the development of the country.

The Strategy specifies that development of the key industries supporting economic growth of Tajikistan (agro-industrial complex (AIC), industry, power engineering, infrastructure) will enable creating the material base for the sustainable economic growth of the country and, owing to that, decrease of population poverty level (objective 1 ЦРТ); establishment of PPP and attraction of investments will promote achievement of these objectives.

General trend of activities involves creation of the effective PPP mechanisms for the rehabilitation and further development of the existing large-scale industries or creation at their base (with participation of foreign investments) of large industrial and industrial/power engineering complexes (clusters) of the regional importance (involving construction of new HPS). Certain measures will be taken to stimulate inflow to the advance processing of the produced raw materials (cotton, other agricultural produce, aluminum, precious metals and stones).

Annex 4 provides data on the volumes of the attracted foreign investments into the economy of the Republic of Tajikistan during the period of 2000-2005 years and forecast for the period up to 2015. (Refer to the Economic Development Program of the Republic of Tajikistan for the period up to 2015).

High-level parameters for the development of the production industries, set by the Economic Development Program of the Republic of Tajikistan for the period up to 2015, anticipate attraction of the essential volumes of the domestic and foreign investments. It is anticipated, that during the period of 2006-2010 years the volumes of the domestic investments will increase by 21.2%; in 2011-2015 - by 13.9%; foreign investment volumes will increase, correspondingly, by 38.8% и 1.2%. To ensure attraction of the stated investment volumes, it is necessary to solve the following tasks:

- Improvement and further development of the legal-regulatory framework to activate foreign investors' activities with regard to the interests of the Republic of Tajikistan;
- Accounting of socio-economic development priorities of the republic upon development and realization of the large-scale investment projects;
- Creation of the favorable investment climate, maintaining of the favorable tax and custom regime for the foreign investors meeting up-to-date market requirements, introduction of practical instruments for the protection of the investors' rights and interests upon realization of the investment projects;
- Strengthening of the social aspects of the investment and innovative activities, increasing of allocations to the fundamental and applied sciences;
- Establishment of the foreign investment insurance system, practicing of mortgage relations.

Annex 1

Investment memorandum of the SBC "Saryarka"

Co-financing scheme	
SBC "Saryarka"	From 60 to 600 mln tenge (but not more than 49%)
Entrepreneur	51% and more
Project branches	
Akmola region	Agricultural product processing, building industry, tourism and recreation;
Karaganda region	Metallurgy and metalworking production, building industry, power engineering, transport-logistic center (TLC);
City of Astana	Building industry, greenhouses, TLC
Project stages	At any stage of the project
Partnership principles	Transparency of relationship between the project participants. The entrepreneur reserves the project property possession and administration privileges.
Non-financial resources	
SBC "Saryarka"	Legal-regulatory framework, abatement of the administrative barriers
Entrepreneur	The project initiative, business administration
Additional capacities of the SBC	Participation in the projects by provision of land, property and underground resources in the territory of the above mentioned regions

The SBC "Saryarka" running projects

Bio-ethanol production plant in Esil town of Akmola region

The project is implemented together with "Korlea Invest" company (Switzerland - Slovakia).
Production capacity – 80 thousand tons per year.
Total investment – 176 mln US dollars.
Start-up is planned for 2009.

Domestic solid waste recycling in the Schuchinsk-Borovoye resort area

Partner – TOO "ErkServisBurabay"
Total investments - 933 thousand US dollars
Majority of economic agents (hotels, rest houses, sanatoriums, children health establishments) of the Schuchinsk-Borovoye resort area are planned to be covered by the services by the end of 2009.

The SBC "Saryarka" projects: search for investors

Industrial park "Metallurgy – Metalwork" in Karaganda

Area - 540 ha (5.4 km^2)
Location – Karaganda (TPS-3 area)
Allocations – 6 billions tenge
Specialization: - metallurgy and metalwork
The 4th quarter of 2008 – commissioning of the substation, 32 km of 220 kv electric power lines.
The 2nd quarter of 2008 – commissioning of 13 km of railroads.

More detailed information is on the TOO "Metallurgy – Metalwork" industrial park's web-site www.ipm.kz

Construction TPS-4 (capacity - of 660 mW) in Karaganda

TPS capacity:
electric power – 660 mW
thermal power – 1400 Hcal
The project is implemented to provide generating capacities electric for the developing economy in the Karaganda region. As of today, electric power demand in the region is over 500 mW. The SBC "Saryarka" privilege in this project – availability of the required raw-material base (coal). The SBC is also planning to contribute land and TPS.

Construction of transport-logistic center

Location – city of Astana
Total land plot area - 9 ha
Project objective – construction of the class "A'" total cycle transport-logistic center (garage facilities, rail roads, completing and handling area)
Cost of the project – 1.2 billions tenge

Construction of three service centers at the Astana-Schuchinsk track

Three land plots (10 ha each) at the 7th, 97th and 223rd km of the first six-lane autobahn of Kazakhstan were given as a payment to the registered capital. The project allows for earthwork, utilities, construction of petrol stations, hotels, fast-food centers, TIR car-parks, car washing plants.

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Block 1:

The SBC and partner cooperation scheme

SBC - 49% ---------- 51% Investor
50 mln US dollars ---------- 77 mln US dollars
Land area (540 ha)
Industrial park

Joint possession

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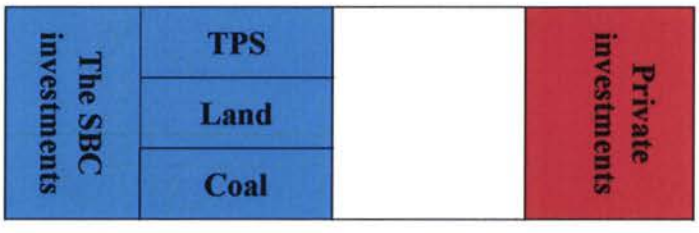
Block 2:

Composition of investments



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Annex 2

About the Draft Law of the Republic of Kazakhstan "Social & Business Corporations»

Resolution # 660, of the Government of the Republic of Kazakhstan, dated June 30, 2008,

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The Government of the Republic of Kazakhstan **RESOLVES:**

to introduce the Draft Law of the Republic of Kazakhstan "Social & business Corporations" (SBC) for the consideration of Majilis Parliament of the Republic of Kazakhstan.

The Prime Minister of the Republic of Kazakhstan *K. Masimov*

Draft

LAW

OF THE REPUBLIC OF KAZAKHSTAN SOCIAL & BUSINESS CORPORATIONS

The present Law specifies legal status of the Social & business Corporations in the Republic of Kazakhstan, as well as procedures for their establishment, functioning and dissolution.

Section 1: General provisions

Article 1: Social & business Corporations

1. SBC is a legal entity established as a stock company, and Government of the Republic of Kazakhstan is the only promoter of the company.

The SBC acts as a national company, i.e. it has a national company status.

2. The SBC practices the entrepreneurial activity and a share of the profit resulted from that activity is subject to reinvestment into the projects aimed at the social development (hereinafter referred to as social projects) of the region the SBC was established in.

Article 2: Legislation of the Republic of Kazakhstan regarding socio - entrepreneurial corporations

The RK legislation Social & business Corporations is based on the Constitution of the Republic of Kazakhstan and includes provisions of the Civil Code, the present Law and other legal-regulatory instruments of the Republic of Kazakhstan.

Article 3: SBC objectives and tasks

1. SBC is established for the purpose of promoting the development of the regional economy, its integration into the national economic system of the Republic of Kazakhstan, creation of favorable conditions for the entrepreneurial activity by consolidating the state and private interests, as well as for promoting the increase of living standards resulting from the implementation of social projects in the corresponding region.

2. Primary objectives of the SBC:

1) promotion of the development of the entrepreneurial activities in the regions and to increase investment attractiveness of the national manufacturers at the local and external markets;

2) promotion of the development of the competitive productions, including rehabilitation and restructuring of unprofitable organizations;

3) implementation and/or participation in implementation of the social projects.

Article 4: SBC operational policy

SBC operational policy is based on the following principles:

1) legitimacy;

2) openness and transparency of administration system;

3) cooperation and balancing of the private and state SBC tors' interests;

4) priority of implementation of the socially important projects of the region;

5) proper use of the assets transferred to the SBC .

Article 5: Functions of the SBC

1) administration of assets transferred to the registered capital (ownership) of the SBC;

2) creation of conditions for the development of the entrepreneurship;

3) rehabilitation and restructuring of the organizations transferred by the state as a payment for the declared stocks of the SBC, and creation on their basis of new productions;

4) participation in the development and implementation of the investment projects in the partnership with the private business, including attraction of investments;

5) development of interregional economic relations and projects in the territory of the Republic of Kazakhstan;

6) creation of conditions for the development of industrial areas, service yards, special economic zones;

7) development and realization of programs aimed at the development of the social structure of the corresponding region.

Section 2: SBC establishment procedure

Article 6: SBC establishment procedure

1. Decision on the establishment and location of SBC is taken by the Government of the Republic of Kazakhstan by order of President of the Republic of Kazakhstan.

2. SBC is established in a certain area in the territory of several regions and/or towns of the republican importance, or capital of the republic.

3. SBC acts in accordance with the provisions of the present Law, legislation of the Republic of Kazakhstan on the stock companies and the Statute.

Article 7: SBC name and location

1. The name of the SBC includes data on its form of corporation, as well as words «national company" and "SBC".

2. According to the present Law, name of a legal entity, which is not registered as a SBC, cannot include words "SBC".

3. Place of performance of the SBC executive board is recognized as location of the SBC .

Article 8: SBC's property

1. SBC's property includes current and non-current assets; the value of these assets is recorded in the autonomous balance sheet of the SBC.

2. SBC's property is formed by the state owned objects transferred as a contribution to the registered capital (property), including money, land plots, stock companies' shares, partnership shares in the state owned limited liability partnerships; income resulted from the entrepreneurial activity.

3. SBC shall quarterly submit information to the authorized body. The information shall include data on its activity, property composition, property formation sources, outlays for implementation of social projects, and shall be submitted by the 10th of the month next to the reporting period.

Section 3: State control and administration in the field of SBC activities

Article 9: Competence of the Government of the Republic of Kazakhstan

The Government of the Republic of Kazakhstan has the following competence in the field of SBC activities:

1) develops the basic trends of the state policy in the field of SBC activities;

2) approves the Regulation on the Specialized Council dealing with the SBC activity issues (hereinafter referred to as Specialized Council); approves setting up and changing of the Specialized Council composition;

3) takes decision regarding the list of assets, except for the land plots to be transferred as a payment to the registered capital (property) of the SBC;

4) approves memorials on the basic trends of the SBCs' investment and social activities; the memorials, *inter alia*, set investment and social priorities, project selection procedures, feasible conditions, dates and terms of participation in the projects, quantitative restrictions on the attraction of the borrowed assets.

Article 10: Competence of the authorized body

1. Authorized body in the field of SBC activity is a state body effecting governmental control over the SBCs' activities (hereinafter referred to as the authorized bogy).

2. The authorized body:

1) submits proposals to the Government of the Republic of Kazakhstan regarding the basic trends of the SBC activity;

2) administers coordination of the state and other agencies' actions in the field of SBC s' activities;

3) develops Regulation for the Specialized Council; the authorized body is considered as the executive instrument of the Specialized Council;

4) submits proposals to the Government of the Republic of Kazakhstan regarding the list of assets, except for the land plots to be transferred to the registered capital (property) of the SBC;

5) annually hears and submits to the consideration of the Specialized Council reports on the SBC activity, as well as reports on the implemented and planned to be implemented social projects and the intended use of assets.

Article 11: Competence of the local executive bodies

As regards the SBC activity, competence of the local executive bodies covers the following aspects:

1) allocation of land plots to the SBC in accordance with legislation of the Republic of Kazakhstan;

2) furnishing the SBC with the information on the availability of land plots;

3) arranging transfer of the state assets (except for land plots) to the SBC according to the decision of the Government of the Republic of Kazakhstan;

4) participation in selection of the social projects being implemented in the territory of the corresponding region.

Article 12: Specialized Council

1. Specialized Council is an advisory-deliberative body under the Government of the Republic of Kazakhstan and is set up by the decision of the Government of the Republic of Kazakhstan.

The Specialized Council comprises:

- representatives of the authorized body and other governmental agencies;
- heads of the SBCs' executive bodies.

The Specialized Council may also comprise representatives of social organizations of entrepreneurs, NGOs, independent advisers and experts.

The Specialized Council personnel composition is determined by the Government of the Republic of Kazakhstan.

2. The Specialized Council:

1) makes proposals on coordination of the activities of the SBC s established in the Republic of Kazakhstan;

2) provides recommendations on the development of SBCs;

3) submits recommendations on implementation of social projects in the corresponding region to the consideration of the SBC;

4) annually hears the authorized body's report on the SBC activity, as well as reports on the implemented and planned to be implemented social projects and the intended use of assets.

Section 4: Specifics of the SBC activity

Article 13: Rights and obligations of the SBC

1. The SBC has a right to:

1) request from the corresponding state agencies the information on the availability of the state assets that may be transferred as a payment to the registered capital (property) of the SBC;

2) propose the authorized body regarding the state assets that may be included into the list of assets to be transferred to the registered capital (property) of the SBC.

2. The SBC is obliged to:

1) act in accordance with the Memorial on the basic trends of the investment and social activities approved by the Government of the Republic of Kazakhstan;

2) select social projects to be implemented in the region, where the SBC was established;

3) submit to the authorized body annual report on the SBC activity, as well as reports on the implemented and planned to be implemented social projects and the intended use of assets;

4) reinvest no less than 50% of the net profit into implementation of the social projects in behalf of the population of the regions, where it was established;

5) consider applications of physical and legal persons on the issues regarding the activity of the SBC in the corresponding region;

6) annually publish information on the basic trends of its activity and on the implemented and planned to be implemented social projects; the information should be published in the periodicals distributed in the territory of the corresponding region.

3. The Statute of the SBC may also specify other rights and obligations not conflicting with the laws of the Republic of Kazakhstan.

Article 14: Cooperation of the SBC with the private enterprise entities

1. According to legislation of the Republic of Kazakhstan, the SBC cooperates with other private enterprise entities in the form of:

1) participation of the SBC in the formation of the registered capital of the legal entities;

2) establishment of special partnership (joint cooperation) or a consortium with the private enterprise entities;

3) making agreements for participatory share participation in the legal entities upon realization of the proprietary rights (use of subsoil resources, land use);

4) financing of measures on implementation of social projects selected by the SBC;

5) other civil law relations except as otherwise provided by the legislation of the Republic of Kazakhstan.

2. Participatory interest of the SBC in the registered capital of the legal entities, established by the private enterprise entities, shall not exceed forty nine percent (49%).

Article 15: Specifics of the SBC activity in the field of land relations

1. To ensure the SBC participation in the investment and innovative projects, the local executive bodies on application of the SBC allocate to it land plots as a payment to its registered capital (property) in accordance with the order established by the Land Code of the Republic of Kazakhstan;

the mentioned land plots are allocated out of the state-owned lands. The application for allocation of land plots to the SBC shall include characteristics of the land plot required for implementation of the investment and innovative projects (location, size, designation).

2. It is prohibited to transfer land plots, required for implementation of the investment and innovative projects, regarding which the SBC has submitted application requesting to allocate the mentioned land plots as a payment to its registered capital (property) in accordance with order established by the Land Code of the Republic of Kazakhstan.

3. In case that the local executive body has taken decision to put up the land plots for auction, it (within five working days, starting with the day the decision was taken, and prior to submitting the decision for approval of the local representative body) shall forward to the SBC the list of land plots planned to be put up for auction.

The SBC shall within ten working days submit to the local executive body the application for allocation of the land plot(s) (specified in the provided list) to the SBC or shall notify the executive body of its non-intention to acquire the mentioned land plot(s).

Land plots, regarding which the SBC has submitted application requesting to allocate them as a payment to the registered capital (property), are excluded by the local executive body from the list of lands put up for the auction.

Article 16: Specifics of the SBC activity in the field of the state assets management

1. To ensure the SBC participation in the investment and innovative projects, the central and local executive bodies transfer to the registered capital (property) of the SBC the state assets specified in the list approved by the Government of the Republic of Kazakhstan, except for communal and social structure objects.

2. The state agency, responsible for administration of the state property before preparation to privatization, shall submit to the authorized body the list of the republican and communal property objects planned for privatization.

Within a 30 calendar day period, starting with the day of receiving the information, the authorized body forwards to the state agency, responsible for administration of the state property, the list of the republican and communal property objects that need to be transferred to the SBC.

3. The state property objects, requested for the SBC for implementation of the investment and innovative projects, are prohibited to be transferred pending the corresponding decision of the Government of the Republic of Kazakhstan.

Section 5: Implementation of social projects

Article 17: Social projects with participation of the SBC

1. The SBC, with the view to prioritize implementation of the social projects of the region, monitors the social development requirements of the region by undertaking public inquiries and analyzing proposals made by the local executive and representative bodies, local authorities and NGOs.

The SBC annually approves the list of social projects, subject to implementation in the region, proceeding from the social development requirements monitoring results.

2. Social projects subject to implementation in the region are selected based on the criteria of their social importance and priority with due account of the specifics of the socio-economic development of the region. It should be mentioned, that only those social projects should be selected, which are not planned to be implemented at the expense of the republican and local budgets.

Upon selection of the social projects, priorities should be given to the projects in the field of social protection of population, public health, motherhood and childhood protection, ecology, sports, culture and development of the communal infrastructure of the regions.

3. The initiative for implementation of the social projects may be advanced by the citizens of the Republic of Kazakhstan, local executive and representative bodies, local authorities and NGOs of the region, where SBC

was established and operates.

4. The SBC shall annually consider its own financial capacities when selecting social projects subject to implementation.

5. Applicants for implementation of the social projects are selected in accordance with the legislation on public procurements of the Republic of Kazakhstan.

Section 6: Reorganization and dissolution of the SBC

Article 18: Reorganization of the SBC

A SBC is reorganized by the decision of the Government of the Republic of Kazakhstan in accordance with the Civil Code of the Republic of Kazakhstan with regard to the stock company specifics specified by the legislative enactment of the Republic of Kazakhstan.

Article 19: Dissolution of SBC

1. A SBC is dissolved by the decision of the Government of the Republic of Kazakhstan by order of the President of the Republic of Kazakhstan.

2. The Government of the Republic of Kazakhstan is the owner of the dissolved SBC 's property.

3. After satisfying the claims of all creditors, revenue resulted from the realizing of the remaining property should be used for the social development of the region, where SBC was established, except as otherwise provided by the decision of the Government of the Republic of Kazakhstan.

Section 7: Closing and transiting provisions

Article 20: Transiting provisions

Legal entities, registered prior to promulgation of the present Law, which names comprise words "SBC" and which do not conform to the requirements specified in paragraph 1 of Article 1 of the present Law are subject to the state re-registration within a three-month period starting with the date when the present Law was promulgated in accordance with the procedure established by the legislation of the Republic of Kazakhstan.

Article 21: The present Law promulgation procedure

The present Law is promulgated on expiry of 10 (ten) calendar days starting with the date of its first official publication.

President of the Republic of Kazakhstan

Annex 4

Volumes of foreign investments attracted and to be attracted into the economy of the Republic of Tajikistan during the period up to 2015
(Thousand US dollars)

2000	2001	2002	2003-2005			2006-2015		2001-2015
			2003	2004	4005	2006-2010	2011-2015	
Agriculture								
4000	4492.5	1673.9	10816.8	10816.8	10130	56030	11000	104960
Irrigation and water supply in the rural area								
216	233.4	9582.4	8112.6	7397	7398.6	9000	-	41724
Municipal water supply and sewerage systems								
-	154.2	170.3	6243	8943	12489.5	19500	0	48500
Education								
1466.7	883.3	11630	10935	7350	8850	19900	-	59548.3
Public health								
522	1357.7	6859.4	5140	1382.9	7000	23000	-	44740
Social sector								
10155.2	1461.8	2250	4933	2500	7000	19400	-	37544.8
Light industry								
-	-	-	1000	1000	3000	10950	10500	26450
Heavy industry								
-	520	5600	12600	34350	41350	98920	104860	308200
Mining and processing of precious and semi-precious metals								
-	-	-	-	-	6500	38000	160900	205400
Oil and gas industry								
-	-	-	2286	1150	963	41000	442900	488299
Transport								
3634.5	5433.2	19015.6	24971.4	28971.4	30848.9	369755	127255	606250.5
Power engineering								

-	-	2500	7400	139452	171348	427500	312600	1127400
Tele-radio communications								
-	-	-	1500	3650	365	3500	-	12300
Development of private and institutional sectors								
81.7	1416.7	1400	2900.8	7400.8	7500	20000	-	40618.3
Emergency assistance								
-	54.7	255.3	2163	2000	3000	-	-	7473
TOTAL								
20076.1	16007.5	70936.9	167601.6	256363.9	322028			
					1156455	1170015		3159407.9

DEVELOPMENT OF THE COORDINATED NATIONAL TRANSPORT POLICIES

REPUBLIC OF KAZAKHSTAN, THE KYRGYZ REPUBLIC, REPUBLIC OF TAJIKISTAN, REPUBLIC OF TURKMENISTAN, REPUBLIC OF UZBEKISTAN

Public private partnership (PPP) in highways

REFERENCE: EUROPEAID/122076/C/SER/MULTI

PUBLIC PRIVATE PARTNERSHIP (PPP) IN HIGHWAYS

(Based on World Bank Toolkit)

- **Key issues**
  - General failure to maintain and develop road networks in Central Asian countries
  - Stable funding needed (not subject to annual government budget constraints)
  - Success of PPP depends on acceptance of "user pays" arrangements (tolls)
  - Separation of "client" and "producer" functions (i.e. contracting out implementation and operation to private sector with government as facilitator/regulator/manager)

- **Expected Benefits from PPP in Highways**

  - Increased efficiency and innovation in project implementation and operation
  - Reduced size of public sector – freeing scarce public funds for other uses (where private investment is inappropriate)
  - Reduced risk for public sector - transfer part of risk to private partners
  - Projects are moved off budget, thus easing fiscal problems
  - Better response to road user needs
  - More efficient mobilization of financial resources

- **Why is Private Sector likely to be more efficient than Public Sector?**
  - Avoids political interference in operations
  - Avoids public sector budget constraints
  - Skills scarce in public sector
  - More flexible procurement rules – speeds up implementation
  - Allows for competition and therefore lower prices and higher levels of service
  - Provides profit incentive – therefore greater motivation for efficiency
  - Flexibility in adjusting responses to changing situations
  - Better access to technology

- **Alternative PPP Options**

1. **Maintenance and management contracts**
   - Quantity based maintenance contracts
   - Performance-based maintenance contracts
   - Management contracts
2. **Concessions** (our main interest). Government delegates to a private company (concessionaire) responsibility for providing and maintaining a specified level of service for road users in exchange for right to collect revenues (tolls) from those users

- Different types of concessions

1. **Operation and maintenance concessions** - private sector operates and maintains existing road and charges user tolls to help finance improved performance

2. **Build, Operate, Transfer (BOT)** – type of concessions. Our main interest. Private concessionaire finances, constructs, operates and maintains road. He collects tolls from road users to pay for this. At end of operation period (perhaps 20-30 years) assets transferred to Government. High initial investment required and therefore long concession period. High risk project due to long construction period, uncertain traffic volumes, and novelty of toll roads in CAR's

- **Conditions for Successful PPP in Highways**
  - Would toll system generate sufficient revenue to pay back investment?
  - Would road users accept toll system?
  - Need efficient combination of private international and local firms.
  - Capacity and capabilities of local private construction, financial and consulting sectors? Extent of competition?

- ***Conditions for Successful PPP in Highways - continued***

  - Existence of favorable business, legal and political environment?

  - Private firms need to see that Government is really committed to project

  - Government's role becomes regulator and enabler of competition

- **Key Problems**
  - PPP on local or urban roads problematic because of difficulty of excluding users who do not pay
  - PPP difficult where congestion or air pollution – usually need Government involvement
  - Inserting a toll link in an otherwise toll-free network is by definition high risk
  - When traffic flows low, profitability from tolls also likely to be low

- ***Key Problems - continued***

  - Relief of congestion on other roads caused by diversion of traffic to toll road is an economic benefit. However, this benefit cannot be "captured" in the toll road operators' revenues

  - Best to start with simple projects. Step by step approach.

  - Government should select "bankable" projects that meet economic, safety, social, environmental and financial targets, i.e. sound enough to attract loans from banking/finance sector

- **Potential Risks for Private Sector in BOT Highways**
  - Background Risks
    - Political, legal and regulatory risks
    - Monetary, exchange rate and macro-economic risks
  - Cost Risks
    - Project preparation risk
    - Social acceptability of the project
    - Design risks
    - Construction risks
    - Project management risks
    - Technical operation risks

- ***Potential Risks for Private Sector in BOT Highways - continued***

Revenue Risks

- Tolls set at level that does not maximize profits
- Government constructs competing link
- Traffic levels overestimated
- Government or public pressure to reduce tolls

- ***Potential Risks for Private Sector in BOT Highways - continued***

  - It is essential that all project risks are assessed in detail by all partners before the project goes ahead

  - Whilst the private sector is expected to shoulder its share of the risks it is not in the interests of the private sector, the Government or the public that there should be project failure

  - If risk is too high private sector will demand high risk premium in form of high toll rates (implying reduced economic benefits) and/or excessive guarantees and "protection" from government

- **Toll Roads – Financial versus Economic Evaluation**

  - The level of toll that maximizes financial returns for the operator (who has a degree of monopoly power) may be too high and cause traffic diversion to an alternative non-toll road, which may be economically inefficient.

  - The free access public (non-toll) road, which is likely to be of lower capacity, lower level of service, and less well maintained, gets more traffic than is economically efficient, while the newly built toll road is under-used

- ***Toll Roads – Financial versus Economic Evaluation - continued***

  - There is thus usually a trade-off between financial and economic returns – government should try to ensure an acceptable balance

  - It is essential to get a good idea of users' "willingness to pay" (WTP) so that efficient tolls may be set. However WTP is difficult to estimate and is in effect an estimate of elasticity of demand

  - This WTP (from demand side) should be compared with required tolls calculated from the costs side. (i.e. toll levels needed to recover costs)

  - Several methods exist to estimate WTP eg. the time saving principle; diversion ratio curve; and even stated preference interviews

• Public Sector Functions

- Government becomes enabler of competition and custodian of environmental road safety and social interests
- Responsible for managing land use acquisition and resettlement issues
- Ensure the maximization of economic returns (net benefit) from the road project. Essentially this usually means maximizing vehicle operating cost (VOC), travel time, level of service and accident savings. Alleviation of poverty and minimized adverse environmental impacts are also very important
- Ensure public participation in the road planning process
- Establishing strategic road network planning framework (20-30 years), within which privately operated toll roads should fit
- In other words the toll road project should emanate from strategic prioritization study procedures – not from an unsolicited approach by a private promoter. The corridor, approximate alignment, extent of land acquisition and construction cost estimates should all be considered by Government before approaching the private sector

- ***Public Sector Functions – continued***

- Set up a suitable legal, institutional and technical framework
  - reduction in execution tasks (no longer a supplier of services)
  - more commercial approach
  - more planning and facilitating activities
  - need more financial staff and engineers with experience in contract management, law and arbitration procedures

- Legal expertise – drafting procurement procedures and PPP contracts, risk allocation principles, concession laws, dispute resolution, foreign ownership regulation etc.

• *Public Sector Functions – continued*

- Financial expertise – financial modeling, debt structuring etc.
- Technical expertise – performance indicators; competitive bidding procedures; contract management and supervision; monitoring user satisfaction; regulation of tolls, level of service, safety etc
- Government must undertake its own traffic demand analysis, including:
  - Origin destination surveys and matrices;
  - Forecasting
  - Distribution
  - Assignment (including sensitivity of traffic to toll rates);

This is even more important with PPP – must take account of alternative "free" routes and impact of toll on demand.

- Intensive training of public sector staff will be needed in many of the areas identified above, which are relatively new functions for government to take on.

- **Reconciling Objectives**

Government objectives

- Complete project to Governments specification as quickly as possible
- Adequate safeguards on safety
- Minimize use of Governments own funds or borrowings
- Transfer risk from public sector to private sector
- Maximize economic and social returns

Private Sector Objectives

- Maximizing profits
- Retaining as much control of the project as long as it can

These different objectives need to be reconciled in risk sharing arrangements

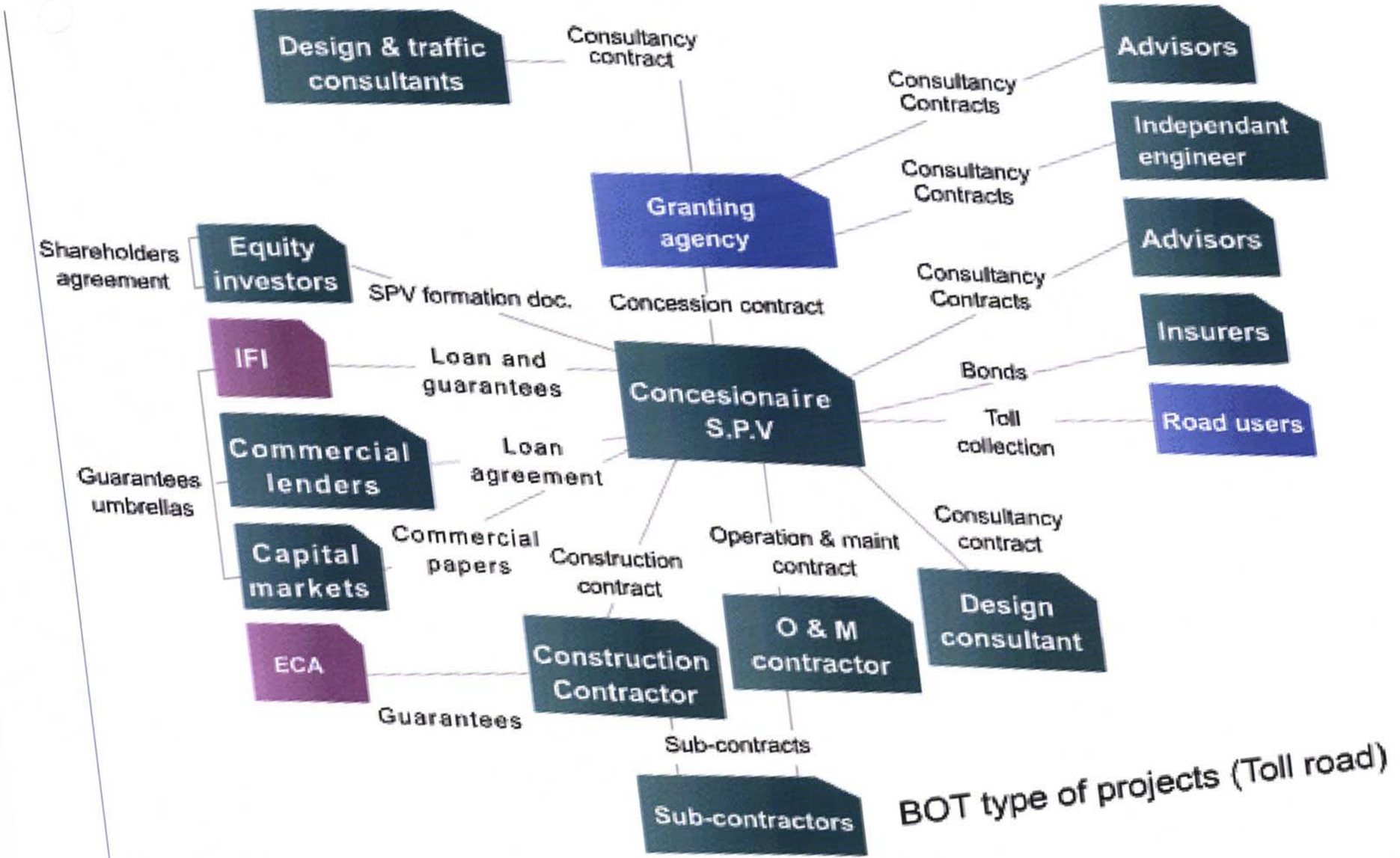
• Government Support and Guarantees

- For some toll road projects Government support may be unavoidable – especially in CAR's where traffic levels and incomes are relatively low
- This support may take the form of tax holidays, subsidized loans, VAT relief, provision of land, possibly capital grants etc
- However, any kind of subsidies or guarantees relating to traffic volumes and revenues should be resisted – absolutely a last resort because of the adverse effects it will have on private sector incentives and efficiency. Private sector will not be bearing its share of risk
- It will also be difficult for Government to guarantee not to build other roads in the future that may take traffic away from the project road

- **Legislation framework**
  - Before a PPP contractual framework is developed there must be legislation enabling concessions to be awarded to private companies to construct, operate and charge tolls for highway projects
  - Most important are foreign investment laws – control versus encouragement of foreign investment
  - Procurement law – process of competitive bidding, tendering and awarding contract should be understood by all potential bidders - inspires confidence in fairness and transparency
  - Toll Road Law/ Concession Law – concession agreement is foundation of any PPP Project. Government will need to promulgate special legislation that allows the public sector to transfer some of its authority to private sector. Typically laws identify government agency responsible for overseeing toll road projects – tendering procedures, terms of concession, methods of financing etc.
  - Dispute resolution laws, including international arbitration, foreign exchange and taxation laws also important.

- **Institutional Relationships for PPP in Highways**

  - The following flowchart shows a typical relationship between the public and private sector actors involved in a PPP for a BOT toll road project. SPV = Special Purpose Vehicle (or company)
  - Many actors are involved, each with their own objectives and interests



BOT type of projects (Toll road)

- Organizing and Preparing a PPP Project

  - Need for "champions" – key senior individuals in Government need to show great interest and push project forward
  - Organize a Project Steering Committee - with the help of consultants it will

    - Produce the concession agreement;
    - Market the project to the public and bidders;
    - Push the project through the approval process;

  - The Project Steering Committee will make recommendations for approval of at least five documents:

    - PPP strategy;
    - Procurement rules;
    - Pre-qualification of bidders;
    - Draft contract;
    - Contract award;

- **Typical Main Steps in Two Stage Competitive Bidding Process for PPP Concessions**

1. Preparation of the process - setting up Steering Committee and clarifying approval process
2. Pre-qualification – preparation of pre-qualification documents; advertising; distribute pre-qualification documents; evaluate bidders; inform selected firms
3. Early preparation of a draft concession agreement – advice needed from domestic and foreign legal advisers. This will be included in bidding documents
4. Consultations - elicit prospective bidders' feelings at an early stage including non-committal comments on draft concession agreement

5. Bidding Stage 1
6. Clarification and amendment of bidding documents
7. Bidding Stage 2
8. Awards, negotiations and signature

- The two-stage procedure allows for consideration of technical alternatives and options suggested in Stage 1 before actual selection

• Tender Evaluation Criteria

- Competitive tenders should be requested from the private sector. The criteria for selecting the winner should include the following:
  - Lowest toll charge (variations to be controlled by Government during operation according to an agreed formula to account for inflation, foreign currency fluctuations etc)
  - Highest level of service (including commitment to acceptable levels of maintenance and safety)
  - Shortest concession period (before handover to Government)
  - Financial strength (including preference for higher equity/debt ratio)
  - Previous BOT toll road experience
  - Responsiveness to tender specifications etc