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*UN Development Account Capacity Building Project  
on Interregional Transport Linkages*

**2<sup>nd</sup> Expert Group Meeting on Developing Euro-Asian Transport Linkages**  
(3 – 5 November 2004, Odessa, Ukraine)

**Selection of Main Routes along Euro-Asian Transport Corridors  
for Further Cooperation and Development**

## **I. Introduction**

The Euro-Asian Transport Linkages, as nominated and agreed by countries, are expected to form the basis of an integrated intermodal transport network linking Europe and Asia. In some of the participating countries, the nominated links already meet international standards, while in others the nominated links do not meet these standards and/or are in poor condition. The process of developing a network out of the nominated links is therefore expected to take many years.

Given the limited resources available under the current project, the secretariat proposes that a limited number of major rail, road, and inland water transport routes be reviewed and agreed upon during the 2<sup>nd</sup> Expert Group Meeting, which can then be further analyzed in terms of their current use and potential for international transport between Europe and Asia. This analysis will be conducted under the second phase of this project (2005).

The present document describes the summary itineraries of routes which the secretariat has identified, and the criteria used for their selection. These criteria draw on the conclusions and recommendations of the 1<sup>st</sup> Expert Group Meeting, as well as a preliminary analysis of the nominated Euro-Asian Transport Linkages and existing international infrastructure agreements (especially for those countries which did not nominate links).

In view of the large number of activities already being undertaken on Euro-Asian transport, both by the countries themselves and by other organizations, it is desirable to work through existing initiatives in both the analytical and the development stages.

## **II. Criteria for selection of routes**

A number of criteria were used to identify the proposed routes. These criteria include the following:

- that they constitute elements of the major Euro-Asian corridors;
- that there is consensus that they contribute to improvement of specific Euro-Asian transport links;

- that they are within recognized UNECE/UNESCAP networks;
- that they address needs to overcome time/cost bottlenecks, etc.

Additional criteria related to the realization of operations along these routes may be also taken into account when considering those routes.

#### **A. Conclusions of the 1<sup>st</sup> Expert Group Meeting on Developing Euro-Asian Transport Linkages**

The 1<sup>st</sup> Expert Group Meeting on Developing Euro-Asian Transport Linkages agreed that the four major Euro-Asian transport corridors presented in the “Common ECE/ESCAP Strategic Vision for Euro-Asian Transport Links” should form the basis for the identification of routes. These are:

1. Transsiberian: Europe (PETCs 2, 3 and 9) – Russian Federation – Japan, with branches from the Russian Federation to:
  - a. Kazakhstan – China and Korean peninsula
  - b. Mongolia – China;
2. TRACECA: Eastern Europe (PETCs 4, 7, 8, 9) – across Black Sea – Caucasus – across Caspian Sea – Central Asia;
3. Southern: South-eastern Europe (PETC 4) – Turkey – Islamic Republic of Iran, with branches from Iran to:
  - a. Central Asia – China
  - b. South Asia – South-East Asia/Southern China;
4. North-South: North Europe (PETC 9) – Russian Federation, with branches to:
  - a. Caucasus – Persian Gulf
  - b. Central Asia – Persian Gulf
  - c. Across the Caspian Sea – Islamic Republic of Iran – Persian Gulf.

The 1<sup>st</sup> Expert Group Meeting also noted the following (see *Section III. Conclusions and Recommendations* of the report of the 1<sup>st</sup> Expert Group Meeting):

5. It was suggested that the routes of TRACECA should also include the routes passing through Turkey (para. 54).
6. The Meeting noted the possibility of adding a European side connection with PETC 5 to the Transsiberian and the North South corridors with onward connections to China through Kazakhstan (para 56).

Within the framework of these four corridors, and taking into account the additional points raised, the routes selected are based on the nominated Euro-Asian Transport Linkages (for those countries which submitted their country reports); and existing international transport networks (for those countries which had not nominated linkages). It should be noted that these routes are presented as the starting point for discussions and countries are invited to suggest changes during the 2<sup>nd</sup> Expert Group Meeting.

## **B. Geographic Scope of Project**

While recognizing the potential for all countries in the world to use the selected routes, the secretariat proposes to limit the routes to the borders of the participating countries. This is partly to avoid the risk of any route not becoming operational due to the lack of cooperation from other non-participating countries. In this regard, routes 1.b. (Transsiberian to Mongolia – China) and 3.b. (Southern to South Asia - South-East Asia/Southern China) were not included.

## **C. Which Origins and Destinations?**

While keeping within the geographic boundaries of the participating countries, it is also necessary to consider the markets beyond the participating countries, as they are the ultimate origins and destinations for the majority of transit freight. The routes selected are therefore those, which have the potential to serve international traffic moving between Europe and Asia (both directions).

### **1. *European producers/consumers***

For Europe, the origins/destinations of selected routes are given as points within the participating countries, but with onward connections through the Pan-European Transport Corridors (PETC). It is assumed that beyond these Corridors the traffic will move westwards on the European networks. In this regard, the origins/destinations of the routes are proposed as follows:

- Port of St. Petersburg (PETC 9 or to/from by sea);
- Brest, Belarus (PETC 2)
- Arad, Romania (PETC 4)
- Sophia, Bulgaria (PETC 4)

Taking into account point 5 raised in Section II.A. above, the port of Mersin on the south coast of Turkey was also chosen as an entry/exit access point to the rail TRACECA route and the rail Southern route. This was because it is part of the AGTC and is also the largest port in Turkey. However, other nominated ports which are linked by rail may also be considered (for example, Izmir, which has the largest container handling capacity, or Iskenderun which is closest to the above routes in terms of distance).

Taking into account point 6 raised in Section II.A. above, connections to Lvov, Ukraine were also included as an origin/destination given its connection to PETC 3, 5, and 9 (via Kiev).

Thus two additional origin/destination points are proposed as:

- Port of Mersin, Turkey (to/from by sea)
- Lvov, Ukraine (PETC 3, 5, and connecting to 9 via Kiev).

### **2. *Asian producers/consumers***

Keeping in mind the geographic scope of the project (point B. above), the origins/destinations of selected routes are given as points within the participating countries, but limited to maritime ports. These are proposed as:

- Ports of Vostochny/Vladivostock (Russian Federation)
- Ports of Lianyungang/Shanghai (China)
- Port of Bandar Abbas (Islamic Republic of Iran).

It should be noted that the port of Bandar Abbas in the Islamic Republic of Iran was selected because it is on the main route of the North-South Corridor, as defined by the International North-South Transport Corridor (INSTC). Other ports nominated by the Islamic Republic of Iran (Bandar Emam, Khoramshahr, and Chabahar) may also be considered.

#### **D. Access to Routes**

Given the above origin/destination points, the routes selected do not go directly through a number of countries, particularly the landlocked countries. However, the proposed itineraries indicate access links to the routes, either by road or by rail, which may also be used as alternative routings should a particular border point on the route be closed.

#### **E. Multimodal approach**

Given that transport users will choose between transport modes based on their relative strengths and weaknesses, it is proposed that as far as possible, road, rail and Inland Water Transport (where available) options should be provided to serve traffic for any particular direction. In cases where long distances are covered, it may be more pragmatic to choose the rail option, but the road option has not been excluded.

There are also a few cases whereby multimodal transport is the only option (for example, beyond the rail station of Kashi, China, transport would have to move by road through Kyrgyzstan or Tajikistan to Uzbekistan or Afghanistan). Within Turkey, there are two point on the rail routes which are currently served by Ro-Ro (across Lake Van and the Bosphoros). For both the TRACECA and North-South corridors described above, part of the selected routes involves ferry crossings (Black Sea and Caspian Sea).

Finally, there are also multimodal routes, which can be served by both road and rail. For example, Moldova may connect to Odessa Port by road or rail, while connections to the PETC 7 (Danube River) could be served either directly from the Black Sea (Romania), or by road and rail via ports in Romania and Bulgaria. For several landlocked countries, the best option may be a combination of road (to major railway stations of the selected routes) and rail (for the main part of the journey).

#### **F Other Aspects to Consider when reviewing Routes**

##### **1. Readiness**

Ideally, the routes selected should either be already operational, or be in an advanced state of “readiness” for operations. This “readiness” may be considered from both a technical perspective and from the perspective of political willingness amongst countries to cooperate on a particular route.

##### **2. Railways: Advantage is Speed**

At present, the main competitor of the land-based routes is the maritime sector. In this regard, the railway routes can only compete if they can offer something better than what the maritime sector can offer. For the countries participating in this project, the main advantage of the railways is that they cover a shorter distance than the maritime routes and, if developed, could offer faster and cheaper services. Recognizing that there are a host of other issues to be addressed before such services are offered regularly and start to attract freight away from shipping lines, this should be a primary issue to be considered by countries, especially for rail. In this regard, several parallel initiatives, such as the OSJD Euro-Asia Corridors; the project on Demonstration Block-trains on the Trans-Asian Railway Northern Corridor of UNESCAP, and the Almaty-Istanbul demonstration run project of ECO, could offer valuable information.

### **3. Roads: Advantage is flexibility**

For the road sector, the main advantage is that freight can be moved more flexibly than on rail. The proposed routes should therefore not be viewed only as through corridors, but as routes linking with each other. Ideally, transport operators should have the option of selecting their most suitable combination of routes depending on their origin and destination.

### **4. Niche markets and niche services**

Given the concerns of exporters/importers about security and risk (especially theft of goods), and given the increasing rate of containerization in the transport sector, countries may wish to focus on developing container services, particularly for rail routes.

Container transport is relatively undeveloped in some participating countries. However, it may be possible for countries to find mechanisms to overcome the weaknesses in a particular chain, particularly in addressing problems at transshipment points (borders, break-of-gauge, ports). Towards this end, they may wish to enlist the cooperation of shippers and private sector investors.

Given the vast difference in the capacity of land transport routes as compared with ships, countries may also wish to develop services for specific types of customers or commodities. Such an approach is likely to require the cooperation of other stakeholders, such as freight forwarders, transport operators, and export/importers.

While much of the analysis on routes has focused on freight transport, another possibility which could be further explored is the potential to develop passenger services (for rail) which target a certain group of international tourists. For example, the Olympic Games to be held in Beijing in 2008 are expected to draw a large number of international tourists to China, including from Europe. This event may be used as an opportunity to put in place international rail services between Europe and China, for a limited period of the year (for example, spring/summer). Such an idea would, however, need to be carefully reviewed together with the relevant authorities in China as well as tourism authorities and companies in Europe.

## **III. Proposed Itineraries**

For ease of reference, the proposed routes have been numbered. There is no value attached to the numbers (they are not ranked in any way).

## A. Rail

	Routes	Comment	AGC	TAR
	<b>“TRANSSIBERIAN” (Vladivostock/Vostochny)</b>			
1.	Brest - Minsk - Moscow - Yekaterinburg - Omsk - Novosibirsk - Ulan Ude - Karimskaya – Vladivostock (Port)/Vostochny (Port)	PETC 2; OSJD 1	E - 20	
1.a.	St. Petersburg – Yekaterinburg	PETC 9; OSJD 16	E – 10 , E -20	
1.b.	Lvov – Moscow	PETC 5, 9; OSJD 3	E - 30 , E - 95	
	<b>“TRANSSIBERIAN” (Lianyungang/Shanghai)</b>			
2.	Brest - Minsk - Moscow - Yekaterinburg – Kurgan - Astana - Drujba - Urumqi - Lianyungang (Port)/Shanghai (Port)	PETC 2; OSJD 1; section in China not nominated	E – 20, E – 24, E -50	
2.a.	St. Petersburg – Yekaterinburg	PETC 9; OSJD 16	E - 10	
	<b>“TRACECA”</b>			
3.	Arad – Bucharest – Constanta (Port) – Poti (Port) – Tbilisi – Baku (PORT) – Aktau (Port) – Beineu – Nukus – Uchkuduk – Navoi – Tashkent – Shymkent – Almaty – Dostyk – Alataw Shankou – Lianyungang (Port)/Shanghai (Port)	PETC 4, TRACECA; OSJD 6a, 8, 10, 2, 5; Black Sea; section in China not nominated	E – 54, E – 562, E – 60, E -50	
3.a.	Baku (Port) – Turkmenbashi (Port) – Ashgabat – Chardzhou – Bukhara – Navoi	TRACECA; Caspian Sea ; OSJD 10	E - 60	
3.b.	Tbilisi – Shulavery – Yerevan	TRACECA ; Access link		
3.c.	Bishkek – Lugovaya	TRACECA ; Access link		
3.d.	Osh – Andizhan – Tashkent	TRACECA ; Access link		
3.e.	Dushanbe – Termez – Bukhara	Access link		
3.f.	Mersin (Port) – Malatya – Dogukapi – Sadakhlo – Tbilisi	Access link		
3.g.	Chisinau – Tighina – Kuchurgan – Rozdil’na – Odessa (Port) – Poti (Port)	TRACECA; Black Sea ; OSJD 5a, 7; Access link	E - 95	
3.h.	Sofia – Pleven – Varna (Port) – Poti (Port)	PETC 8 ; Black Sea	E – 680,	

<b>“SOUTHERN”</b>		AGC	TAR
4.	Sofia – Svilengrad – Kapikule – Istanbul – Ankara – Malatya - Kapikoye – Razi – Tehran – Sarakhs – Mary – Chardzou – Navoi – Tashkent – Shymkent – Almaty - Dostyk – Alataw Shankou – Lianyungang (Port)/Shanghai (Port)	PETC 4, 8; OSJD 6, 10, 2, 5; part of TRACECA; section in China not nominated	E – 70, E – 60, E - 50
4.a.	Mersin (Port) – Malatya	Access link	
<b>“NORTH-SOUTH”</b>			
5.	St. Petersburg (Port) – Volgograd – Astrakhan (Port) – Anzali (Port) – Rasht – Tehran – Qom – Meybod – Bafgh – Bandar Abbas (Port)	PETC 9; OSJD 11 Caspian Sea	E – 10, E – 99, E – 50,
5.a.	Astrakhan (Port) – Amirabad (Port) – Garmsar – Tehran	Caspian Sea	
5.b.	Astrakhan (Port) – Samur – Baku – Astara (Azerbaijan) – (missing link) – Astara (Iran) – Rasht	OSJD 11; Missing link	E – 60, E - 694
5.c.	Astrakhan (Port) – Askarayskaya – Ganyuchikino – Makat – Beineu – Nukus – Uchkuduk – Bukhara – Chardzhou – Sarakhs – Garmsar	Part of TRACECA	E – 50, E - 597
<b>Additional proposed routes for consideration:</b>			
6.	Lvov – Kiev – Kharkov – Liski – Samara – Ufa – Kurgan – (connect to # 2);	PETC 3, 5	E – 30, E - 24
6.a.	Chisinau – Tighina – Rozdil’na – Zhmerynka	PETC 9; Access link	E – 95,
7.	Lvov – Zhmerynka – Fastov – Donietsk – Likhaya – Volgograd – Aksarayskaya – Makat – Beineu – (connect to # 3).	PETC 3, 5	E – 30, E – 50, E – 593, E- 597
8.	Lvov – Fastov – Krasnoarmelsk – Kvashino – Uspenskaya – Rostav-na-Donu – Veseloe – Gandtiadi – Senaki – Tbilisi – Alyat – Astara (Azerbaijan) – (missing link) - Astara (Iran)	PETC 3, 5; TRACECA Missing link; sections in Ukraine and Russian Fed. not nominated.	E – 30, E – 50, E – 593, E – 99, E - 60
8.a.	Tbilisi – Shulavery – Yerevan	TRACECA ; Access link	E - 694

## B. Road

**Note: to avoid repeating the same link many times and to encourage flexibility, the road routes are presented as shorter routes than in the case of rail. Each road route connects to another to form a chain.**

	Routes	Comment	AGR	AH
1.	St. Petersburg (Port)– Moscow - Nizhnly Novgorod – Ekaterinburg – Omsk – Vladivostock (Port)/Vostochny (Port)		E – 105, E – 22,	
2.	Brest – Moscow – Nizhnly Novgorod – Ufa - Chelyabinsk – Kurgan – Petropavlovsk – Astana – Almaty	Connect to # 1, 3, 4.	E – 85, E – 30, E – 125,	
3.	Almaty – Sary-Ozek – Khorogos – Urumqi – Xi'an – Lianyungang (Port)/Shanghai (Port)	Connect to # 2, 4, 6	E – 40, E – 013, E – 012,	
4.	Kiev - Moscow – Ryazan – Samara – Uralsk – Shymkent – Almaty	Connect to # 3, 5. (some sections in Russian Fed. not nominated)	E – 101, E – 30, E – 121, E – 38, E – 123, E - 40	
5.	Lvov – Kiev – Kharkov – Kamensk – Shahtinskiy – Volgograd – Kara-Ozek - Beineu – Nukus – Gazli – Termez – Mazar-i-Sharif	Connect to # 4, 6.	E – 40, E – 60	
6.	Masshad – Sarakhs – Mary – Bukhara – Tashkent – Shymkent – Merke – Kara Balta – Bishkek – Georgievka – Kordai – Kaskelen – Almaty	Connect to # 3.	E – 60, E – 40,	
7.	Tashkent – Andijon – Osh – Sary-Tash – Irkesthtam – Kashi – Urumqi	Connect to # 3, 7, 19.	E - 007	
8.	Bukhara – Termez – Dushanbe – Irkeshtam	Connect to # 7.	E – 60	
9.	St. Petersburg – Moscow – Volgograd – Astrakhan (Port) – Anzari (Port) – Tehran – Bandar Abbas (Port)		E – 105, E – 119/ E – 40,	
10.	Astrakhan – Samara – Baku – Astara (Azerbaijan) – Astara (Iran) – Tehran	Connect to # 9.	E - 119	
11.	Sofia – Kapikule – Merzifon – Burbulak – Qazvin – Tehran – Masshad – Herat	Connect to # 6.	E - 80	
12.	Poti (Port) – Tbilisi - Alat – Baku (Port) – Turkmenbashi (Port) – Ashgabhat – Mary	Connect to # 6.	E - 60	
13.	Tbilisi – Sadakho – Yerevan	Connect to # 12.	E - 117	
14.	Kiev/Kishinev – Odessa (Port) – Poti (Port)	Connect to # 15.	E – 95, E - 58	
15.	Arad – Bucharest – Constanta (Port) – Poti (Port)	Connect to # 15.	E - 60	
16.	Bucharest – Russe – Varna (Port) – Poti (Port)	Connect to # 15.	E – 70	
17.	Merzifon – Samsun (Port) – Sarp (Turkey) – Sarpi (Georgia) – Tbilisi	Connect to # 11, 12.	E - 95	

18.	Baku (Port) – Aktau (Port) – Beineu – (connect to #5.)	Connect to #5	E - 121	
19.	Dushanbe – Nizhniy Panj – Polekumn – Mazar-i-Sharif – Herat	Connect to # 8, 11	E - 123	

### **C. Intermodality – Trans-shipment points**

Above railway and road proposed itineraries present also a good basis for the development of combined transport operations along the Euro-Asian Transport Linkages. Therefore, wherever possible, trans-shipment points, inland container depots and intermodal freight terminals along these routes, would have to be identified and further explored.

### **IV. Next Phase of the Project (2005)**

Following the selection and agreement on the routes, the next step would be to further review the operational aspects of the routes, which will involve the further cooperation of countries and other stakeholders. In particular, this analysis would need to consider questions such as current capacity, waiting times at border crossings due to technical operations (such as break-of-gauge) or customs, risk and security issues, trade facilitation issues, regularity of services, conditions of roads, availability of rail wagons, and so on. Some of these questions can be answered from the information provided by countries already, while others may be answered from studies being undertaken as part of other initiatives. The proposed actions to be taken during the Next Phase of the Project will be discussed during the 2<sup>nd</sup> Expert Group Meeting.