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INLAND TRANSPORT COMMITTEE

Working Party on Transport Trends and Economics
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**IMPLEMENTATION OF PAN-EUROPEAN TRANSPORT
CORRIDORS AND AREAS**

**Proposal for the update of the report on infrastructure bottlenecks
and missing links in the European transport network**

Transmitted by the Government of the Russian Federation*

* The UNECE Transport Division has submitted the present document after the official documentation deadline due to resource constraints.

1. Current capacity problems with inland transport infrastructure (road, rail, inland water)

1.1 The Russian Federation is constantly striving to develop the European network of roads, railways, inland waterways and combined transport links; it favours the eastward expansion of these networks to link up with the corresponding Asian networks under the United Nations Joint Programme on Developing Eurasian Transport Linkages.

1.2 Details of bottlenecks in the Pan-European transport-corridor and transport-area infrastructure in the Russian Federation are given in Table 1. All the bottlenecks cited do or will impede the efficient flow of domestic and international passenger and freight traffic, delay the arrival of passengers and goods and drive up transport costs. Bottlenecks have a particularly significant impact on road infrastructure, where the problem is systemic and is getting worse every year as the number of road vehicles increases.

2. Regulatory measures to eliminate bottlenecks

2.1 To eliminate bottlenecks in a systematic fashion, the Government of the Russian Federation has approved a special federal programme “Modernization of the Russian Transport System (2002-2010)”. This formulates a comprehensive approach to the development of all modes of transport and is intended to promote more effective utilization of material, financial and human resources. It comprises 11 subprogrammes, two of which, “information systems” and “international transport corridors”, are crucial and provide the backbone for the other subprogrammes.

2.2 Since the main railway lines in the Russian Federation have significant unused track and rolling-stock capacity, yet mostly conform to international standards in terms of their technical equipment, their subsequent development under the federal programme will be in the area of upgrading and modernizing infrastructure so as to increase train speeds.

2.3 On the road network, reconstruction work is planned on existing highways in order to upgrade them and improve traffic safety. Road-building will be confined to missing links on highways so as to join them into an integrated international traffic network. Provision is also being made for the development of service facilities on the road network.

2.4 The inland waterway infrastructure will be developed along Eurasian transport corridors with a view to maintaining sufficient clearances on inland waterways used by international shipping and ensuring the safe and reliable operation of such waterways.

2.5 In addition to the special federal “Modernization of the Russian Transport System (2002-2010)” programme, the Russian Federation has also drawn up a national programme to upgrade and develop the road network in the Russian Federation up to the year 2025. This latter programme aims to develop the road network in accordance with the needs of the population, the

national economy and the transport infrastructure, to ensure it meets the requisite technical, capacity and density standards, and to increase mobility and boost economic activity. It provides for:

- The establishment of a single road network including federal, local and municipal roads to meet the growing demand for road transport and ensure year-round communications between regions and communities throughout the country;
- The preservation of the existing road network and high-priority efforts to maintain, repair and upgrade existing roads;
- The establishment of a network of modern motorways in the directions of the principal road traffic flows, including international transport corridors, bringing permissible vehicle loads and dimensions up to international standards;
- The construction of new and improvement of existing roads, where appropriate, increasing the capacity of suburban roads and city streets; construction of bypasses; provision of road access to primary transport hubs, railway stations, sea and river ports, airports, terminals and other transport infrastructure facilities;
- A reduction in transport costs, an increase in traffic speeds, optimization of the road network and a reduction in the number of unnecessarily long road journeys, better and faster carriage of goods and passengers by road;
- Year-round transport links to communities, provision of timely medical treatment, increased road safety, reduction in the number and scale of losses due to road traffic incidents, and a reduction in the adverse impact of road transport on the environment;
- Better value for money spent on the roads: more effective systems for managing and financing the road infrastructure and a better system of pricing and procurement for the road network;
- Better road works through the use of new technologies and materials, the application of advances in science and technology and the development of the national road-engineering and road-building industries;
- Job creation in the highway sector, other economic sectors and in service industries connected with the road infrastructure and road transport.

3. Infrastructure measures to eliminate bottlenecks

3.1 Information about necessary routine infrastructure maintenance and upgrading and the capital investment required, with an indication of the duration of operations, is given in the table below.

4. Financing of infrastructure maintenance, upgrading and construction

4.1 The following action was taken in 2003 to develop the infrastructure of Pan-European transport corridors and Pan-European transport areas in the Russian Federation:

Corridor IX

Roads:

- Construction of bypasses around St. Petersburg (8.9 km put into operation at a cost of 9,745.6 million rubles (RUB) and Vyborg (16.6 km, RUB 410.6 million) on the highway from the Finnish border (origin Helsinki) to St. Petersburg in order to divert road transit traffic away from urban areas;
- Upgrading of the St. Petersburg-Moscow highway involving the widening of the carriageway to four lanes (13 km, RUB 42.1 million);
- Reconstruction and upgrading of the Moscow outer ring road (7.6 km, RUB 92.7 million);
- Upgrading of the approach roads to Russian seaports on the Gulf of Finland either under construction or undergoing renovation (8 km, RUB 95.8 million);
- Upgrading of the St. Petersburg-Pskov-Belarusian border highway (continuing to Vitebsk, Gomel and Kiev) (RUB 78.8 million).

Railways:

- Reconstruction of the St. Petersburg-Buslovskaya section (RUB 162.8 million);
- Development of the St. Petersburg rail hub, including the reconstruction and development of the stations serving the main port at St. Petersburg (RUB 1,020.6 million);
- Construction of stations to service new seaports (RUB 70 million);
- Development of the border station at Chernyshevskoe (Kaliningrad oblast) (RUB 46.2 million);
- Development of the border station at Suzemka (RUB 10.9 million);
- Construction of the Ladoga station in St. Petersburg (RUB 6,629.7 million).

Corridor II

Roads:

- Expansion of highway capacity along the route Belarusian border-Smolensk-Moscow-Vladimir-Nizhny Novgorod involving widening of the carriageway to four lanes and the construction of a bypass around Vladimir (RUB 388.3 million);
- Construction of a bypass around Nizhny Novgorod (RUB 254.1 million).

Barents Sea/Euro-Arctic transport area

Roads:

- Reconstruction and upgrading of the St. Petersburg-Murmansk highway and construction of a bridge spanning the Kola Gulf (25.5 km, RUB 619.2 million);
- Construction and reconstruction of sections of the highway along the route St. Petersburg-Medvezhyegorsk-Syktvykar-Perm in the Republic of Karelia (12 km, RUB 110.3 million).

Railways:

- Electrification of the Malenga-Sumsky Posad section in the Republic of Karelia (RUB 873.7 million);
- Electrification of the Idel-Svir section in the Republic of Karelia and Leningrad oblast (RUB 1,036.1 million);
- Electrification of the Ledmozero-Kochkoma line (RUB 1.0 million).

Inland waterways:

- Reconstruction of lock No. 10 on the Belomorsko-Baltic canal.

Black Sea transport area

Roads:

- Construction and reconstruction of sections of the highway along the route Voronezh-Rostov na Donu-Novorossiisk/Sochi in Rostov oblast and Krasnodar Territory (22.6 km, RUB 617.4 million);
- Construction of a bypass around Sochi (RUB 439.7 million);

- Construction and reconstruction of sections of the Maikop-Tuapse highway (RUB 70 million);
- Construction and reconstruction of sections of the Adler-Krasnaya Polyana highway (1 km, RUB 629.7 million).

Railways:

- Electrification of the Saratov-Salsk-Tikhoretskaya section in Rostov oblast and Krasnodar Territory (RUB 2,745.6 million);
- Reconstruction of the Tuapse-Adler section (RUB 23.7 million);
- Reconstruction of the Bolshoi Novorossiisky tunnel (RUB 30 million);
- Reconstruction of the Krymskaya-Anapa section (RUB 108 million);
- Development of the border stations at Gukovo (RUB 107.5 million), Uspenskaya (RUB 32.5 million), Adler (Veseloe) (RUB 25.6 million);
- Reconstruction of the port stations at Tuapse (RUB 290 million) and Novorossiisk (RUB 510 million).

Inland waterways:

- Shipping is limited by the inadequate size of the structures at Kochetovskaya on the River Don (construction of the second string of locks has not started).

Table

Infrastructure bottlenecks on Pan-European transport corridors in the Russian Federation

Country	Mode of transport	Route	Section	Traffic loading	Capacity	Extent of action			Operational by year
						Subject	Kind	Finance (US\$)	
1	2	3	4	5	6	7	8	9	10
RUSSIAN FEDERATION	RAILWAYS	In the early 1990s there was a sharp decrease in both passenger and freight traffic. Consequently many Russian railways still have spare track and rolling-stock capacity.							
		Pan-European transport corridor No. IX							
		E-10, C-E-10	Buslovskaya-St. Petersburg	6/6 pairs of passenger trains, 27/24 pairs of freight trains		Organization of high-speed traffic with maximum speeds in the range of 141-200 km/h	982.4 million* (of which I - 281.0 million, II - 701.4 million)	2005-2007	
		E-10, C-E-10	St. Petersburg-Moscow	58/58 pairs of passenger trains, 26/24 pairs of freight trains		Reconstruction of the bridge over the Moscow canal at the 633 km mark on the Moscow-Kryukovo section (main lines I, II, III)	42.3 million* (of which II - 42.3 million)	2005-2007	
E-10, C-E-10	Buslovskaya-St. Petersburg-Moscow	6/6 pairs of passenger trains, 27/24 pairs of freight trains		Reconstruction of the port stations at Primorsk and Ermilovo	34.4 million (of which II - 34.4 million)	2008-2010			

* Sources of finance to eliminate infrastructure bottlenecks: I - public funds (federal budget); II - private-sector funding.

Country	Mode of transport	Route	Section	Traffic loading	Capacity	Extent of action			Operational by year
						Subject	Kind	Finance (US\$)	
1	2	3	4	5	6	7	8	9	10
		E-10, C-E-10	Buslovskaya- St. Petersburg- Moscow	6/6 pairs of passenger trains, 27/24 pairs of freight trains		Construction of a new port station at Luzhs kaya		131.2 million dollars (of which II - 131.2 million)	2002-2010
		E-10, C-E-10	Buslovskaya- St. Petersburg- Moscow	6/6 pairs of passenger trains, 27/24 pairs of freight trains		Development of port stations at Vyborg and Vysotsk		4.1 million (of which II - 4.1 million)	2005
			Nesterov-Kaliningrad			Reconstruction and upgrading of Kaliningrad port station		2.9 million (of which II - 2.9 million)	2005-2006
			Nesterov-Kaliningrad			Development of the stations at Zapadny-Novy, Primorsk Novy and Baltiisk		2.4 million (of which II - 2.4 million)	2003-2005
			Nesterov-Kaliningrad			Construction of a port station at Baltiisk-2		10.1 million (of which I - 3.2 million, II - 6.9 million)	2003, 2008-2010
			Nesterov-Kaliningrad			Construction of a new border station at Chernyshevskoe		25.8 million (of which I - 1.4 million, II - 24.4 million)	2002-2007
			Nesterov-Kaliningrad			Reconstruction of the stations at Shipovka, Chernyakhovsk and Zheleznodorozhny		3.0 million (of which I - 0.1 million, II - 2.9 million)	2004-2006

Country	Mode of transport	Route	Section	Traffic loading	Capacity	Extent of action			Operational by year
						Subject	Kind	Finance (US\$)	
1	2	3	4	5	6	7	8	9	10
		E-95, C-E-95	Moscow-Suzemka	23/23 pairs of passenger trains, 19/20 pairs of freight trains		Development of Suzemka station to handle foreign trade and transit traffic		45.6 million (of which I - 3.9 million, II - 41.7 million)	2002-2008
Pan-European transport corridor I									
			Sovetsk-Kaliningrad-Mamonovo	1/1 pairs of passenger trains, 2/1 pairs of freight trains		Reconstruction of Mamonovo station with electrical interlocking of points		0.7 million* (of which I - 0.1 million, II - 0.6 million)	2005-2007
			Sovetsk-Kaliningrad-Mamonovo	1/1 pairs of passenger trains, 2/1 pairs of freight trains		Refurbishment of the border crossing point and development of Sovetsk station		2.1 million (of which I - 2.0 million, II - 0.1 million)	2005-2006
Pan-European transport corridor II									
		E-20, C-E-20	Krasnoe-Moscow	24/24 pairs of passenger trains, 20/27 pairs of freight trains		Organization of high-speed traffic with maximum speeds in the range of 141-200 km/h		304.4 million (of which II - 304.4 million)	2007-2010
		E-20, C-E-20	Moscow-Nizhny Novgorod	27/27 pairs of passenger trains, 26/24 pairs of freight trains		Organization of high-speed traffic with maximum speeds in the range of 141-200 km/h		226.3 million (of which II - 226.3 million)	2007-2010

Country	Mode of transport	Route	Section	Traffic loading	Capacity	Extent of action			Operational by year
						Subject	Kind	Finance (US\$)	
1	2	3	4	5	6	7	8	9	10
		Black Sea transport area							
			Krymskaya-Timashevskaya			Construction of additional main lines	836.5 million* (of which II - 836.5 million)		2004-2010
			Likhaya-Kiziterinka						2008-2010
			Tuapse-Adler						2005-2010
		E-99	Krasnodar-Novorossiisk			Reconstruction of the Bolshoi Novorossiisky tunnel	286.7 million (of which II - 286.7 million)		2003-2010
						Reconstruction of the Maly Novorossiisky tunnel			2005-2008
			Tuapse-Adler			Reconstruction of tunnels			2004-2010
			Tuapse-Goryachy Klyuch-Krivenkovskaya			Electrification of the section	37.6 million (of which II - 37.6 million)		2007-2010
		E-99	Moscow-Ryazan-Kochetovka-Likhaya-Rostov-Novorossiisk			Reconstruction and upgrading of Novorossiisk station	29.7 million (of which II - 29.7 million)		2002-2004
		E-99	Moscow-Ryazan-Kochetovka-Likhaya-Rostov-Novorossiisk			Reconstruction of Krymskaya station	1.3 million (of which II - 1.3 million)		2005

Country	Mode of transport	Route	Section	Traffic loading	Capacity	Extent of action			Operational by year
						Subject	Kind	Finance (US\$)	
1	2	3	4	5	6	7	8	9	10
		E-99	Moscow-Ryazan-Kochetovka-Likhaya-Rostov-Novorossiisk			Reconstruction of the station at Junction 9 km		21.2 million (of which II - 21.2 million)	2005-2008
		E-99	Moscow-Ryazan-Kochetovka-Likhaya-Rostov-Novorossiisk			Reconstruction and upgrading of Tuapse station		17.6 million (of which II - 17.6 million)	2002-2004
		E-99	Moscow-Ryazan-Kochetovka-Likhaya-Rostov-Novorossiisk			Development of Taranrog station		0.7 million (of which II - 0.7 million)	2006
		E-99	Moscow-Ryazan Kochetovka-Likhaya-Rostov-Novorossiisk			Refurbishment of the border station at Uspenskaya		3.9 million (of which II - 3.9 million)	2002-2005
		E-99	Moscow-Ryazan Kochetovka-Likhaya-Rostov-Novorossiisk			Refurbishment of Adler (Veseloe) station		29.8 million* (of which I - 28.5 million, II - 1.3 million)	2002-2010
	ROADS		Pan-European transport corridor IX						
		E-18	St. Petersburg-Finnish border				Completion of Vyborg bypass (total length 6 km) 396 metres, category II)		14.8 million

Country	Mode of transport	Route	Section	Traffic loading	Capacity	Extent of action			Operational by year
						Subject	Kind	Finance (US\$)	
1	2	3	4	5	6	7	8	9	10
						Construction of an approach road to the international road border crossing point at Brusnichnoe, 3.6 km, category II)		14.8 million	2005
		-	St. Petersburg ring road			Construction of the east and west sections of the ring road to category I standards with 4-6-8 lane configuration		1,600.4 million	2005-2025
		-	Coastal highways on the Gulf of Finland in Leningrad oblast			Upgrading of approaches to seaports on the northern coast of the Gulf of Finland, 254 km, category III		27.9 million (of which I - 27.9 million)	2005-2008
		E-105	Moscow-St. Petersburg			Reconstruction and upgrading to category I standards; construction and subsequent operation of a 71-km toll road on the head section between Khimki and Klin		1,340.1 million	2002-2025

Country	Mode of transport	Route	Section	Traffic loading	Capacity	Extent of action			Operational by year
						Subject	Kind	Finance (US\$)	
1	2	3	4	5	6	7	8	9	10
		-	Moscow outer ring road			Construction of bypasses around Orekhovo-Zuevo and Lukino-Dulevo (total length 26 km) to category II standards. First phase: two lanes; completed phase: four lanes, category I		35.9 million (of which I - 35.9 million)	2005-2010
		-	Moscow inner ring road			Construction of bypasses around Noginsk and Elektrostal (total length 15 km) to category II standards. First phase: two lanes; completed phase: four lanes, category I		49.8 million (of which I - 49.8 million)	2005-2010
		E-95	St. Petersburg-Pskov-Nevel-Belarusian border			Construction, reconstruction and upgrading of sections of the highway including bypasses around Gatchina and Luga, total length 234.6 km, categories I-II		343.2 million (of which I - 343.2 million)	2004-2010
		E-28	Kaliningrad-Chernyakhovsk-Nesterov-Lithuanian border			Construction of a bypass around Chernyshevskoe, total length 7 km		7.5 million	2005-2008

Country	Mode of transport	Route	Section	Traffic loading	Capacity	Extent of action			Operational by year
						Subject	Kind	Finance (US\$)	
1	2	3	4	5	6	7	8	9	10
		Pan-European transport corridor I							
		E-77	Gvardeisk-Neman-Lithunanian border			Construction of a bypass around Sovetsk and a bridge across the river Neman (total length 11.9 km, including the 281.2-metre bridge)		30.3 million	2002-2009
		E-77	Kaliningrad-Mamonovo II-Polish border			Completion of a 39.9 km section of highway to category II standards		20.7 million	2003-2005
		Pan-European transport corridor II							
		E-30	Belarusian border-Moscow			Reconstruction of the head section near Moscow from the 16-km mark to the 68-km mark with a 6-8 lane configuration		554.8 million	2002-2010
						Construction of a new spur to the Moscow orbital motorway (total length 19.5 km)			
		E-30	Moscow-Nizhny Novgorod			Construction and reconstruction of a 41-km stretch of the head section, Moscow orbital motorway-Noginsk sector, with a 6-8 lane configuration		1,136.2 million	2008-2013

Country	Mode of transport	Route	Section	Traffic loading	Capacity	Extent of action			Operational by year
						Subject	Kind	Finance (US\$)	
1	2	3	4	5	6	7	8	9	10
		E-30	Moscow-Nizhny Novgorod			Construction of the second phase of the Nizhny Novgorod bypass (total length 37.5 km)		50.4 million	2004-2010
		Black Sea transport area							
		E-115	Voronezh-Rostov na Donu-Novorossiisk/ Sochi			Construction and reconstruction of a four-lane 280-km highway to category I specifications		622.0 million	2002-2010
		E-115	Rostov na Donu-Krasnodar-Novorossiisk			Construction of a 15-km bypass around Novorossiisk to category II specifications		297.7 million	2004-2008
		E-592	Sochi bypass			Construction of a bypass around Sochi (total length 28.2 km, including 11,039 metres of engineering works such as bridges, tunnels and flyovers)		404.3 million	1999-2025
		Barents Sea/Euro-Arctic transport area							
		-	Bridge spanning the Kola Gulf			Construction of a structure spanning the Kola Gulf near Muurmansk, total length 2,500 metres including a 1,611.6-metre bridge		98.1 million	1998-2006

Country	Mode of transport	Route	Section	Traffic loading	Capacity	Extent of action			Operational by year
						Subject	Kind	Finance (US\$)	
1	2	3	4	5	6	7	8	9	10
		E-105	St. Petersburg-Petrozavodsk-Murmansk			Reconstruction and upgrading of the category I-II-III highway (318 km)		352.2 million (of which I - 352.2 million)	2005-2010
		-	St. Petersburg-Medvezhyegorsk-Kargopol-Sykt'yvkar-Kudymkar-Perm			Construction and reconstruction of a 174-km section of highway to category III standards		127.6 million (of which I - 127.6 million)	2002-2010
	INLAND WATERWAYS		River Don			Reconstruction of hydraulic works at Kochetovskaya. Second string of locks with access canals at the site of the existing structure		27.0 million (of which I - 27.0 million)	2004-2007
			River Volga			Construction of hydraulic works incorporating a bridge at Gorodets		338.9 million (of which I - 338.9 million)	2005-2012
			River Svir			Reconstruction of hydraulic works at Nizhnesvir. Doubling of capacity on the river Svir section		53.3 million (of which I - 53.3 million)	2007-2010