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**REPLIES TO THE QUESTIONNAIRE ON TRANSPORT DEVELOPMENT**

**Addendum 6**

**Transmitted by the Government of the Russian Federation**

## I. GENERAL TRANSPORT POLICY ASPECTS

1. At the beginning of the twenty-first century a modern transport system forming an integral part of the Russian Federation's industrial and social infrastructure has been established and is operating robustly on the whole. The system satisfies the transport requirements of the economy and the population and is an important component of the country's territorial integrity and security. The structural and institutional transformations characterizing the initial phase of market reforms are now almost complete in the transport sector, and the fine-tuning of legal, economic and administrative mechanisms to regulate transport under the new social and economic conditions has begun. In the transport sector, as in the rest of the economy, the crisis phase of the transitional period is now over. The growth in traffic volume on trunk routes, freight handling by the ports, numbers of commercial vehicles and numerous other indicators testifies to a steady increase in demand for transport services.

The development of the transport system in the period 2000-2001 aimed to ensure the necessary degree of mobility of the population and transport access to the regions, the transport independence of the Russian Federation and the advancement of its economic interests on the world market, lower unit transport costs and faster carriage, a more efficient transport sector that was more attractive to investors, coordinated development of transport infrastructure, and targeted support for socially important modes of transport not entirely sustained by market capacity.

At the beginning of 2002, approximately 509,000 economic entities were operating in the transport sector. As the demand for transport services has grown in both volume and type, the system has proved resilient, fully meeting paying demand for transport services from the general public and the economy.

2. In the "Guidelines for the long-term socio-economic policy of the Government of the Russian Federation", development of the transport infrastructure rates as a Government priority. In 2001 the Russian Government examined topics such as the elaboration and implementation of a special federal programme "Modernization of the Russian transport system (2002-2010)", the development of international transport corridors, including Eurasian transport and economic links, the elaboration of a State shipping policy and the development of civil aviation. It also reached a number of decisions to integrate the management of the transport system. The groundwork is thus being laid for an integrated transport system in which carriage of goods and passengers will be optimally distributed between the various modes of transport, each of which will be able to maximize its advantages through interaction with the others.

3. In the period just ended, the public authorities in the transport sector have devoted considerable attention to enhancing safety and reducing the adverse environmental impact of various modes of inland transport. The number of accidents in inhabited areas and on the roads is a very serious social and economic problem in Russia. Every year there are approximately 160,000 traffic accidents across the country which cause more than 200,000 deaths or injuries. Experts put the cost of traffic accidents to the Russian economy at approximately 4-5% of gross national product (GNP).

Efforts to enhance road traffic safety in the Russian Federation are focused on the special federal programme entitled "Improvement of road traffic safety in Russia". The Ministry of Transport of the Russian Federation, in its capacity as the placer of orders for the State, is making arrangements for its implementation.

In 2001, as part of this programme, educational and guidance material on road safety was published and road safety films were shown on television. Continuing efforts were made to develop the system for detecting road accidents and assisting accident victims on federal roads through the use of medium waveband radio communications. In 2000-2001 this system was introduced on the following routes: St. Petersburg-Vologda, St. Petersburg-Pskov, and Moscow-Volgograd-Astrakhan. The system saves hundreds of lives by cutting the time needed for first aid teams, rescuers and officers of the State Road Traffic Safety Inspectorate to arrive at the scene of an incident. Another area of technical improvement is the enhancement of active and passive safety features and improvements in vehicle construction.

In 2000 efforts were made to introduce standards drawn up by the Ministry of Transport and approved by the Committee of the Russian Federation on Standardization, Mensuration and Certification regulating the mandatory use of reflective materials so as to indicate the dimensions and ensure the visibility of buses and trucks during the hours of darkness, which will make traffic safer on unlit roads by reducing the number of passing collisions and collisions with stationary vehicles.

Experts believe that gradual development of the system for ensuring road traffic safety through special programmes, assuming that funding remains stable, will yield a substantial reduction in the number of accidents in towns and on the roads by 2003 and cut the number of road accident fatalities by 15-20% compared to 1996, and by 25% by 2010.

Nationwide, transport accounts for 45% of total emissions of atmospheric pollutants from all sources, about 10% of emissions of "greenhouse" gases, 2% of industrial wastes, about 3% of discharges of harmful substances and wastewater, and no more than 5% of consumption of ozone-destroying substances. It accounts for 85-95% of the noise pollution affecting the population in different areas.

As part of the programme to manage environmental protection in the Russian transport system, a normative and methodological framework is being developed for environmental activity, and a plan of action for the period 1999-2001 has been drawn up and approved regarding implementation by the Russian Federation of the decisions of the ECE Regional Conference on Transport and the Environment (Vienna, 1997). The plan of action lays down environmental protection guidelines for transport in Russia. In line with a Government order, the plan specifies that the Ministry of Transport shall be involved in the preparation of draft governmental statutes or regulations to review existing environmental standards and establish new ones.

4. Flexible transport technology that adapts to changing traffic volumes and conditions is being applied to improve the use of available transport capacity; transport-forwarding operations and coordination of transport modes are being expanded; the maintenance of transport equipment is being improved; and the skills of maintenance personnel are being enhanced.

Improved use of available transport capacity is promoted by the Government's annual forecasts of demand for passenger and freight transport, higher financial discipline, and regulation and improvement of transport tariffs and other such operating measures, including those provided for under the Comprehensive programme for the development of the infrastructure of the commodity markets of the Russian Federation in the period 1998-2005 adopted in June 1998.

5. Measures to promote the rational use of fuel in transport essentially involve State support for upgrading transport equipment, especially aircraft, buses and trucks, accelerated write-off of obsolescent equipment and replacement with more up-to-date models.

Special attention is also given to improving the state of the road network and eliminating bottlenecks.

## **II. ECONOMIC, TECHNOLOGICAL AND OPERATIONAL ASPECTS**

6. The principal technological developments in Russia's existing transport infrastructure have to do with measures under the special federal programme entitled "Modernization of the Russian transport system". These are: reconstruction of the railways, reconstruction and repair of existing roads and new roadbuilding, development of existing transshipment facilities at maritime ports and construction of new facilities, reconstruction of airports and upgrading of air traffic control systems, and refurbishment of locks and related structures on inland waterways. All these measures have improved the condition and enhanced the technical standard of infrastructure installations. The "Modernization of the Russian transport system" programme allows for a more systematic and comprehensive approach to the development and improvement of Russia's transport infrastructure. This comes through primarily in the coherent realization of the blueprint and general guidelines for the development of international transport corridors in the Russian Federation. In 2001 progress was made on the key "Transsib" and "North-South" international corridors. The conditions are being set in place for the development of the "Southern Gates" corridor in North Ossetia and a corridor linking the north-eastern provinces of China, Russian ports in the Primorye Area and countries in the Asia-Pacific region. Meanwhile, the task of planning Russia's national system of transport corridors to correlate with new priorities as regards the siting of production capacities and non-transport infrastructure, i.e. power generation and communications, has become a matter of high priority.

Under the subprogramme entitled "Reform of public transport" and the special federal programme "Modernization of the Russian transport system", measures to boost the capacity of individual sections of the urban road network and intersections that impede traffic flow have been continued in towns.

7. In order to improve the profitability and productivity of transport operations, measures have been taken to renew vehicle fleets, replace current equipment with new, more up-to-date models, and improve maintenance practices. Measures to improve existing infrastructure have made a valuable contribution to addressing these issues too. Institutional, structural and social changes in the transport sector have also encouraged this process.

8. As regards passenger and client service, the range of services and transport forwarding options on offer is being expanded. Efforts to build and develop terminals are being stepped up. State-of-the-art computerized information and communications systems are being developed for the transport system as a whole and for each transport mode individually. An integrated regional system of ticket bookings and sales has been piloted for all modes of out-of-town passenger transport. It is planned to phase in an identical system in other regions of the Russian Federation and countries of the Commonwealth of Independent States (CIS). The main problems facing these transport modes have to do with the shortage of essential rolling stock and the unprofitable nature of their operations.

9. Impediments to traffic arising from inadequate route capacity are mostly characteristic of roads, especially the approach roads to big towns, level crossings and the urban street network. Steps are being taken to eliminate bottlenecks by building new roads, upgrading existing ones and, where feasible in towns, by modifying traffic schemes as well.

11. Research activities in the field of transport are to a considerable extent designed to address tasks connected with institutional and structural changes in the transport sector. In 2001 the drafting of the special federal programme entitled “Modernization of the Russian transport system” was completed. Other key issues in the transport system that are currently being researched are:

- Specification of the best forms of ownership for various transport modes and structures and the transport infrastructure, and the extent of the role played by transport in the national economy;
- Elaboration of legal, economic, organizational and other forms of interaction between transport and the State;
- Creation of the infrastructure of an integrated Russian transport system. Considerable emphasis is being placed on safety issues in traffic, flight and shipping, and on reducing the adverse impact of transport on the environment.

### **III. INFRASTRUCTURE ISSUES**

12. The planned development and implementation of core projects to develop and improve transport infrastructure is currently proceeding in line with the special federal programme “Modernization of the Russian transport system”. The programme, devised for the period 2002-2010, consists of 11 functional subprogrammes:

- International transport corridors;
- Rail transport;
- Road transport;
- Civil aviation;

- Integrated air traffic control system;
- Maritime transport;
- Inland water transport;
- Inland waterways;
- Reform of public transport;
- Road traffic safety;
- Computerization.

13. In recent years, the establishment of priorities and the justification of project decisions to develop transport infrastructure have reflected the methodology applied by market-economy countries; this methodology employs indicators of public, budget and commercial efficiency as decision-making criteria. It is planned to implement the “Modernization of the Russian transport system” programme in two phases. In the first phase - to 2005 - the development of the transport system will be geared towards better use of available capacity and the elimination of bottlenecks; the second phase should ensure expedited development of the transport system with the aim of significantly enhancing the efficiency and quality of transport service.

14. In line with the transition to market relations, a policy is being pursued of reducing State involvement in the development of transport infrastructure and realizing investment projects that make use of the internal resources of transport enterprises and resources that they can attract. Public investment is selective, being targeted at nationwide priorities, support for the most important sectors of transport operations, and ensuring the safe operation of the transport network. The proportion of State funding in overall investment in the transport sector is steadily declining.

Activities under the “Modernization of the Russian transport system” programme are financed mainly from transport enterprises’ own resources, government and commercial bank loans, securities issues and inward foreign investment and from the budgets of the constituent entities of the Russian Federation, municipalities and the federal budget.

The total outlay necessary for the implementation of the programme is 4.5 trillion roubles at 2001 prices. The largest expenditure items are the subprogrammes “Highways” and “Rail transport”. Transport enterprises’ internal funds account for 86.7% of the funds from extrabudgetary sources.

Quantitative indicators are cited below.

**(a) Average annual number of employees of enterprises/organizations, by mode of transport (thousands of employees)**

	1995	1996	1997	1998	1999	2000
All modes of transport	4 104.6	3 950.3	3 862.4	3 486.0	3 494.7	3 534.5
Including:						
Rail	1 487.8	1 449.1	1 369.1	1 206.5	1 186.2	1 229.0
Road	1 669.5	1 501.0	1 490.6	1 210.2	1 236.0	1 208.6
Trams	77.7	84.3	90.3	93.5	91.6	91.2
Trolleybuses	83.6	91.6	95.7	97.1	95.7	94.6
Underground	44.5	46.3	47.4	48.5	48.6	47.5
Pipeline	116.6	123.5	130.9	138.5	145.2	149.6
Maritime	117.1	99.7	79.8	77.0	76.9	71.0
Inland waterways	119.2	108.1	97.0	98.3	94.6	94.0
Air	225.0	229.1	217.1	213.9	203.6	195.1

**(b) Investment in capital assets from all sources of funding, by mode of transport (in actual prices, millions of roubles; before 1998, billions of roubles)**

	1995	1996	1997	1998	1999	2000
All modes of transport	35 368	50 703	62 317	57 460	124 336	250 861
Including:						
Rail	7 022	9 721	11 389	10 873	30 696	69 087
Road	1 611	2 387	3 244	3 227	3 366	5 692
Highway infrastructure	11 387	16 082	20 563	25 483	43 657	72 643
Trams	214	240	255	189	355	571
Trolley buses	195	210	167	170	783	1 044
Underground	3 093	4 135	3 591	2 555	2 098	4 394
Pipeline	8 507	13 551	18 462	10 543	31 313	80 626
Maritime	885	910	1 031	995	5 755	6 234
Inland waterways	441	434	576	672	746	1 222
Air	1 589	2 476	2 304	2 002	3 413	6 078

**(c) Passenger transport**

In 2001, the total volume of passenger traffic and passenger turnover decreased slightly compared to the previous year. This is attributable to the increase in the number of private passenger cars. Suburban buses and private cars have captured some of the passenger market from suburban trains. The growth in air traffic, and for the first time in recent years an increase in passenger flows on domestic routes, has become a characteristic trend.

**Passenger transport in the Russian Federation**

	Millions of passengers carried		2001 as % of 2000	Volume of passenger traffic, millions of passenger-kilometres		2001 as % of 2000
	2000	2001		2000	2001	
Rail	1 418.8	1 305.9	92.0	167 054.0	158 400.0	94.8
Tram <sup>1</sup>	6 939.6	7 089.3	102.2	23 594.5	24 103.6	102.2
Underground <sup>1</sup>	4 186.3	4 197.9	100.3	46 886.1	47 016.6	100.3
Trolleybus <sup>1</sup>	8 486.4	8 469.6	99.8	27 156.5	27 102.6	99.8
Motor car <sup>2</sup>	23 129.4	22 632.8	97.9	217 625.2	217 099.4	99.8
Maritime <sup>3</sup>	1.1	0.7	58.7	61.9	56.4	91.1
Inland waterways <sup>4</sup>	27.7	27.8	100.3	952.8	955.8	100.3
Air <sup>5</sup>	23.3	26.7	114.3	53 972.4	60 702.7	112.5
Total	44 212.6	43 750.7	99.0	537 303.4	535 437.1	99.7

<sup>1</sup> Estimate.

<sup>2</sup> All road transport organizations and individual entrepreneurs.

<sup>3</sup> All modes of traffic, all organizations in the "Maritime transport" subsector and other economic sectors.

<sup>4</sup> All modes of traffic, all organizations in the "Inland water transport" subsector and other economic sectors.

<sup>5</sup> Commercial aviation.



**(d) Freight transport**

General indicators for freight transport have increased in line with the growth of gross domestic product (GDP) and industrial output.

Highest growth (in absolute terms) occurred in the road haulage sector; relative rates of growth were highest in river transport, where foreign trade traffic increased substantially. In the maritime sector freight traffic volumes are continuing to decline; this is attributable, on the one hand, to the reduction in Russian-registered tonnage, and on the other, to the more extensive use of vessels on a time-charter basis, according to which freight operations do not figure in the ship owner's statistical records.

**Freight transport in the Russian Federation**

	Freight carried (millions of tonnes)		2001 as % of 2000	Volume of freight traffic, millions of tonne-kilometres		2001 as % of 2000
	2000	2001		2000	2001	
Rail, non-industrial <sup>1</sup>	1 046.8	1 057.1	101.0	1 373 178.0	1 440 900.0	104.9
Rail, industrial <sup>1</sup>	3 184.3	3 229.3	101.4	24 863.0	26 080.3	104.9
Road <sup>2</sup>	5 702.4	5 962.3	104.6	138 635.1	137 847.1	99.4
Maritime <sup>3</sup>	35.4	32.2	91.1	122 155.1	111 277.8	91.1
Inland waterway <sup>4</sup>	116.8	123.5	105.7	70 987.9	81 708.0	115.1
Air <sup>5</sup>	0.9	0.9	100.5	2 707.3	2 659.9	98.2
Pipeline	828.9	853.4	102.9	1 916 492.2	1 961 479.4	102.3
Total	10 915.5	11 258.7	103.1	3 649 018.6	3 761 952.5	103.1

<sup>1</sup> Estimate.

<sup>2</sup> All road transport organizations and individual entrepreneurs.

<sup>3</sup> All modes of traffic, all organizations in the "Maritime transport" subsector and other economic sectors.

<sup>4</sup> All modes of traffic, all organizations the "Inland water transport" subsector and other economic sectors.

<sup>5</sup> Commercial aviation.

**(e) Length of rail network (at year end), thousand kilometres**

	1995	1996	1997	1998	1999	2000	2001
Railways (public)	87.7	97.1	86.7	86.2	86.0	86.1	86.1
Railways (private) <sup>2</sup>	64.2	61.1	61.1	61.5	61.5	53.3	53.0
Roads, total	933.4	924.5	927.0	915.5	906.0	900.4	922.0
Including:							
Public highways	531.4	558.5	569.0	573.5	579.0	584.4	579.0
Of which:							
Federal	44.2	45.4	45.9	46.2	46.4	46.3	46.4
Territorial	487.2	513.1	523.1	527.3	532.6	538.1	532.6
Departmental	402.0	366.0	358.0	342.0	327.0	316.0	343.0
Tramways	3.0	3.0	3.0	3.0	3.0	3.0	3.2
Trolleybus network	4.6	4.6	4.7	4.7	4.7	4.8	5.0
Underground lines, km	389.0	392.0	398.0	398.0	402.0	405.0	406.0
Navigable inland waterways <sup>1</sup>	84.0	75.0	84.0	89.0	85.0	85.0	101.7
Including:							
Waterways of guaranteed depth	34.0	41.0	40.0	39.0	42.0	42.0	42.4
Waterways with navigation signs and markers	78.0	71.0	71.0	75.0	71.0	73.0	72.2
Of which:							
Equipped with illuminated and reflective signs	33.0	24.0	23.0	24.0	22.0	27.0	21.2

<sup>1</sup> Length of maintained inland waterways.

<sup>2</sup> Industrial rail transport enterprises report biennially.

(f) Available transport equipment (at year end, unit indicated)

	1995	1996	1997	1998	1999	2000	2001
Operating fleet of non-industrial rolling stock, thousand <sup>a</sup>							
Wagons (average per day)	368	318	315	385	427	464	
Coaches (at year end)	29.6	25.7	23.2	20.6	20.0	20.7	
Average mass (weight) of train, tonnes							
Gross (total weight of cargo plus rolling stock)	3 119	3 170	3 210	3 295	3 345	3 380	
Net (weight of cargo only)	1 761	1 787	1 817	1 890	1 954	1 975	
Industrial rail traffic <sup>1</sup>							
Locomotives	15 963	15 047	15 047	13 149	13 149	12 973	13 060
Wagons	215 667	200 453	200 453	182 845	182 845	178 672	180 750
Urban electricity-powered transport							
Trams	13 263	13 013	12 731	12 392	12 262	12 345	11 733
Trolleybuses	13 161	12 752	12 500	12 257	12 185	12 894	12 035
Underground vehicles	5 745	5 785	5 801	5 781	5 764	5 757	5 772
Road transport (thousand)							
Trucks, total	3 078	3 041	3 103	3 108	3 196	3 232	3 270
Including:							
Enterprise-owned, all economic sectors	2 280	2 043	2 005	1 914	1 786	1 684	1 590
Of which:							
Owned by subsectoral enterprises	361	280	213	177	152	130	130
Buses, total	513	491	491	507	505	520	530
Including:							
Enterprise-owned, all economic sectors	417	374	363	336	339	345	350
Of which:							
Owned by subsectoral enterprises	128	124	123	117	112	109	103
Including urban	57	57	58	58	58	54	54
Passenger hire vehicles	14	12	9	7	6	7	7
Private passenger cars (at year end), thousand	13 688.5	15 047.2	16 591.2	17 761.3	18 543.4	19 097.4	

	1995	1996	1997	1998	1999	2000	2001
Maritime vessels <sup>2</sup>							
Total number of vessels	5 509	5 205	4 915	4 547	3 985	3 908	3 895
Including:							
Passenger vessels	574	464	362	293	247	233	227
Deadweight, thousand tonnes	7 590	6 360	4 843	3 862	3 277	3 132	3 065
Vessels of other economic sectors engaged in commercial activity	381	350	429	602	583	578	569
Deadweight, thousand tonnes	892	904	838	940	1 113	1 026	1 010
River vessels <sup>3</sup>							
Total number of vessels	40 700	38 500	36 000	34 000	32 800	31 900	31 000
Including:							
Passenger vessels, thousand tonnes	13 303	12 903	11 189	11 536	10 277	9 995	9 600
Carrying capacity, thousand tonnes	13 740	14 060	12 579	12 099	11 042	10 575	10 100
Vessels of other economic sectors engaged in commercial activity	3 170	3 053	2 743	2 533	2 742	3 044	3 350
Carrying capacity, thousand tonnes	396.4	336.4	329.0	339.4	375.5	462.4	508.6
Civil aircraft <sup>4</sup>							
Total number of aircraft, thousand	8.0	8.2	7.7	7.4	7.3	6.5	6.0
Including:							
Airlines, scheduled carriers	6.8	6.3	5.6	5.0	4.3	4.0	3.8

<sup>a</sup> Since 1998 the methodology for recording the operating fleet of rolling stock has been modified (the reserve pool of wagons has been abolished).

<sup>1</sup> Industrial rail transport enterprises report biennially.

<sup>2</sup> Statistic provided by the Central Directorate of the Russian Maritime Register.

<sup>3</sup> Statistics provided by the Register of inland navigation vessels in the Russian Federation.

<sup>4</sup> Statistics provided by the State Register of Civil Aircraft.

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