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**INLAND TRANSPORT COMMITTEE**

Working Party on Transport Trends and Economics  
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agenda item 5)

**REPLIES TO THE QUESTIONNAIRE ON TRANSPORT DEVELOPMENT**

**Addendum 7**

**Transmitted by the Government of Romania**

Note: The Inland Transport Committee at its fifty-ninth session, following a decision taken at its fortieth session (ECE/TRANS/42, para. 45), decided to circulate the questionnaire on the main criteria for the appreciation of important new developments in inland transport which had taken place in member countries and would be of general interest to Governments (ECE/TRANS/119, para. 52).

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## **I. GENERAL TRANSPORT POLICY**

### **1. New developments concerning the objectives of the Government of Romania in respect of domestic transport**

The main objective of the transport policy has been the continued reorganization of the national transport system and the ensuring of its operation, in order to link up districts and areas isolated from the transport networks, with efficient and civilized conditions of transport both in domestic and international traffic, and the assertion of Romania's position as a country of transit, by making the most of its geographical situation, its material bases and its transport services.

The activities undertaken are continuing so that when the time comes for Romania to accede to the European Union, the transport policy will be naturally incorporated into the joint transport policy of the European Union by:

- Stimulation, encouragement, consolidation and liberalization of the domestic transport market in a system which ensures competition, particularly for rail and air transport;
- Development of overland communication networks and the achievement of the technical requirements for the integration of Romania's infrastructure into the pan-European networks;
- Development and modernization of means of transport and transport facilities in order to improve the quality of services and the safety of traffic, passengers and goods;
- Assurance of the protection and conservation of the environment.

Following the decision by the Council of the European Union in Helsinki on 10-11 December 1999, which opened negotiations for Romania's accession to the European Union, the Government of Romania adopted the revised position paper for chapter 9 - "Policy in the sphere of transport", and officially opened the negotiations for this chapter on 7 June 2001 (Luxembourg) on the occasion of the intergovernmental conference for the accession of Romania.

The majority of the provisions applicable in Community experience have been incorporated into Romanian legislation and implemented.

New principles and new policies were established reorganizing the Ministry of Transport (now Ministry of Public Works, Transport and Housing) as an instrument of central government. The 40 units operating under the jurisdiction of the Ministry of Public Works, Transport and Housing were also reorganized. Similarly, the 35 units operating under the jurisdiction of the Ministry of Public Works, Transport and Housing were reorganized.

Applications were made for consolidation and liberalization of the domestic market and for the decentralization of activities simultaneously with the consolidation of the role and authority of specialized technical agencies in inspection and monitoring.

The technical and economic reorganization led to the establishment of 8 national companies, 5 national corporations and 26 commercial corporations (in the spheres of rail transport, shipping, air and road transport) and the conditions were created for the privatization of companies in the auxiliary sector.

As a result of the liberalization of the market, transport activities are carried out by transport operators organized in national companies and national and commercial corporations with joint or private State capital. At the present time, approximately 20,000 economic agents who are involved in transport or auxiliary activities hold permits and licences and perform transport operations. Approximately 93% of these agents are in the road sector, 2% in the inland waterways sector and 5% in maritime transport. In air transport 30 operators have obtained licences (8 air transport operators and 22 operators authorized for other air sector activities), while in rail transport 9 operators have obtained licences (1 for public transport of passengers and 8 for transport of freight).

The operators have free access to the transport infrastructure without discrimination. Conditions of use tend to be guaranteed by the national corporations which resulted from the reorganization of the rail, air and maritime transport companies and the two companies for the administration of the roads and the Danube.

Programmes and projects are being drawn up on the basis of which activities are initiated to ensure financing from external sources (with co-financing from the budget) for the modernization of the infrastructure and means of transport.

## **2. Developments concerning the reorganization of transport**

Activity in connection with reorganization and preparation for the privatization of transport units was conducted in the context of new provisions for harmonization with European Union legislation.

Reorganization is taking place in stages, following the creation of optimum conditions for the profitability, development and modernization of the new companies established and the assurance of activities and services in keeping with both current and long-term requirements for the initiation of the privatization process.

The constitution of a market for the maintenance and repair of the infrastructure and means of transport was stimulated and the activity of low-capacity industrial production was diversified by the reorganization of the 35 administrations under the jurisdiction of the Ministry of Transport (now Ministry of Public Works, Transport and Housing).

The process of administrative decentralization was also supported by the transfer to local government of certain airports, river ports and specific assets of transport activity.

The contracting out of some structures involving the organization of the Ministry of Transport (now Ministry of Public Works, Transport and Housing) led to the creation of three extrabudgetary units in the spheres of technical authority, monitoring and surveillance for road, rail and maritime transport.

**As regards the railways**, the Romanian National Railway Company was reorganized in accordance with the provisions of the Directives of the European Union, adapted to specific conditions in Romania, with the establishment of a national company (to manage the rail infrastructure), two national corporations (one for passenger and the other for freight transport) and two commercial companies (one to manage surplus assets and one for accounting and legal financial services).

The following was achieved through reorganization: the separation on a commercial basis of the services of transport of goods and passengers, by eliminating the cross subsidy, separating railway infrastructure management, an efficient and transparent use of funds from the State budget and funds from external financing for the modernization and development of the public rail infrastructure, the earmarking of current assets for public rail transport activity and the enhancement of the value of surplus unusable assets, a start on the process of modernizing/restoring locomotives and wagons with external funds and State budget funds and the assurance of different and homogeneous accounting and legal financial management for these five companies.

In July-August 2000 the activities of the infrastructure company, the passenger transport company and the goods transport company were contracted out and 16 branches were created and will be privatized.

For a better organization and monitoring of rail transport, the Romanian Railway Authority (AFER) was established by merging the Railway Inspectorate and the Romanian Railway Register.

**In the air sector**, 13 airports which came under the authority of the Ministry of Public Works, Transport and Housing were transferred to local councils in order to support the process of administrative decentralization and ensure better management of financial resources.

In 1997 the TAROM company was reorganized. The reorganization included the property owned (the planes) and the economic aspect, so as to make the routes profitable by abandoning those that were not and by opening new routes, while at the same time improving onboard services and offering travellers new facilities.

In the project "The reorganization of TAROM and preparation of the company for privatization", financed by the PHARE programme and carried out by Lufthansa Consulting, the latter presented the TAROM reorganization programme, the business plan for the period 2002-2005 and the refresher programme for TAROM personnel, which were taken up by the Government of Romania in December 2001. The privatization of TAROM will begin in 2005, depending on its economic and financial results.

**As regards the roads**, the reorganization was conducted by assigning to external services current and periodic road maintenance activity and industrial production and building construction and civil engineering activities and by establishing 15 commercial companies which had belonged to the autonomous National Road Administration, creating conditions for commercializing these activities.

**In the roads sector**, the Romanian Road Authority (ARR) was established by unifying the Romanian Road Inspectorate and the Central Road Office in order to organize and monitor how transport takes place.

**As regards navigable canals**, some activities (which were part of the Autonomous River Administration of the Lower Danube Galati) were also privatized and six commercial companies established which develop their activities within a competitive system.

**In the inland waterways sector**, two commercial transport companies and five commercial companies were privatized for port operations (approximately 80% of the total number of companies with State capital).

In addition, property belonging to the State public domain was transferred to the administration of the local public authorities (the local councils of the towns of Sulina, Turnu-Magurele, Zimnicea and Braila).

**In the maritime sector**, the National Administration of Maritime Ports Constanta contracted out some related activities (surveillance, construction) which were taken over by specialized units.

The Civil Navigation Inspectorate was established to monitor the course of activities in maritime transport.

Action to establish emergency response units for search and safety in the maritime sector was initiated to bring Romania into line with the provisions of conventions to which it is a party.

The reorganization has followed the gradual reduction of State intervention and the maintenance of some measures for the elimination of deregulation in transport, guidance to transport operators (by granting licences and permits) for the improvement of performance and financial support of operators by providing them with efficient means of transport (TAROM, Rail Passenger Company).

### **3. Measures or provisions taken by the authorities to increase the safety of users, crews and third parties and reduce damage to the environment from the different modes of inland transport**

The measures/provisions taken by the Government of Romania and by the Ministry of Transport (now the Ministry of Public Works, Transport and Housing) to increase the safety of users, crews and third parties and reduce damage to the environment from the different modes of transport have addressed both **the legislative and the technical components**.

**The legislative component** is found in the transfer and incorporation of Community experience in transport matters into domestic legislation.

Legislative measures have been taken with a view to regulation:

– ***Vehicles***

- Technical conditions for the construction of road vehicles to be admitted to access to public roads in Romania - RNTR 2 (EURO 2 limits apply for pollutant emissions for all vehicles; EURO 3 limits apply for imported vehicles as from 1 January 2001, for model approval and from 1 January 2002 for individual approval and for vehicles manufactured in Romania, beginning on 1 January 2004 for model approval and on 1 January 2005 for individual approval).
- Maximum accepted level for external noise.
- Protection of passengers in the event of a side impact or head-on collision, which will be applied as from 1 January 2003 for model approval and from 1 January 2005 for individual approval.
- Identification and registration plates for vehicles and trailers, in the case of two- and three-wheeled vehicles and agricultural and forestry tractors, to be introduced gradually between 2001 and 2005.
- Approval of road vehicles, complying with Community experience as regards harmonization of the legislation of member States for approval of the model of motor vehicles and trailers with subsequent amendments and supplements.

– ***Inland transport***

- Appointment and professional qualification of dangerous goods safety advisers for road, rail and inland waterway transport.
- Harmonization of inspections of goods at borders.

– ***Road transport***

- Appointment and professional certification of persons who effectively permanently direct road transport activities, implementing the provisions of Council Directives 96/26/EEC and 97/76/EEC on admission to the occupation of road haulage operator and road passenger transport operator and mutual recognition of diplomas and certificates.
- Table of duties for road transport personnel involved in traffic safety, introducing a compulsory medical and psychological examination on recruitment and at periodic intervals for personnel with specific duties.

- Certification that registered road vehicles are subject to technical regulations on road traffic safety, protection of the environment and use in accordance with the purpose intended, by means of the RNTR1 periodic inspection, which introduces the obligation of an annual periodic pollution inspection for vehicles of a maximum weight of less than 3.5 tonnes, to supplement the periodic technical inspection which takes place every two years.
- Construction of roads in keeping with the maximum authorized dimensions for road vehicles circulating within the territory of the European Community, contained in Council Directive 96/53/EC laying down for certain road vehicles circulating within the Community the maximum authorized dimensions in national and international traffic and the maximum authorized weights in international traffic and the level of services and comfort for persons using them, as regulated by Decision No. 1692/96/EC of the European Parliament and of the Council on Community guidelines for the development of the trans-European transport network.
- ***Rail transport***
  - In the transport of dangerous goods by rail, establishment of the composition, the terms of reference and the regulations for the organization and operation of the Inter-ministerial Committee for the transport of dangerous goods by rail.
  - The distribution of rail infrastructure capacities establishing for a single mode the principles and procedures for the distribution of rail infrastructure capacities.
  - Appointment of rail infrastructure manager representatives as station masters, but transport operators may appoint representatives in railway stations to direct specific activities; these are known as “agency chiefs”.
- ***Combined transport***
  - Rules have been drawn up for the combined transport of goods, incorporating the applicable provisions of Directive 92/106/EEC on the establishment of common rules for certain types of combined transport of goods between member States.
- ***Maritime transport***
  - Romania’s accession to the 1979 International Convention on Maritime Search and Rescue (SAR) which adopts the provisions of Council Recommendation 83/419/EEC. In 2000 a specialized centre was established and set up the National Maritime Search and Rescue System.
  - Introduction of international standards for the safety of vessels, prevention of pollution and living and working conditions on board sea-going vessels using Romanian ports or sailing in Romanian waters to include the provisions of Council Directive 95/21/EC concerning the enforcement, in respect of shipping using Community ports and sailing in the waters under the jurisdiction of the member

States, of international standards for ship safety, pollution prevention and shipboard living and working conditions, and implementation of an amendment to Council Directive 42/98 and the provisions of Commission Directive 96/40/EC establishing a common model for an identity card for inspectors carrying out port State control.

- Romania's accession to the Convention on Facilitation of International Maritime Traffic (FAL), adopted in London on 9 April 1965 by the International Conference on the Facilitation of Maritime Travel and Transport, amended and supplemented by the amendments of 1984, 1986, 1989, 1991, 1993 and 1994.
- Accession of Romania to the 1969 International Convention on Oil Pollution Preparedness, Response and Cooperation, concluded in London on 27 November 1990 (OPRC 1990).
- Accession of Romania to the 1992 Protocol of amendment to the 1969 International Convention on Civil Liability for Oil Pollution Damage, concluded in London on 27 November 1993 (CLC 92).
- Ratification by Romania of the following Conventions adopted by the International Labour Organization (ILO):
  - Convention No. 92/1949 concerning Crew Accommodation on Board Ship
  - Convention No. 133/1970 concerning Crew Accommodation on Board Ship
  - Convention No. 68/1946 concerning Food and Catering for Crews on Board Ship
  - Convention No. 22/1926 concerning Seamen's Articles of Agreement
  - Convention No. 180/1996 concerning Seafarers' Hours of Work and the Manning of Ships
  - Convention No. 166/1987 concerning the Repatriation of Seafarers.
- The criteria of competence and incorporation procedures of organizations for classification and issue of certificates of compliance with the international agreements and conventions to which Romania is a party include part of the provisions of Directive 94/57/EC on common rules and standards for ship inspection and survey organizations and for the relevant activities of maritime administrations, implementing an amendment to Commission Directive 97/58.
- Acceptance of the amendments to the 1974 International Convention for the Safety of Life at Sea, concluded in London on 1 November 1974, to incorporate the applicable provisions of Commission Regulation No. 2158/93/EEC concerning the application of amendments to the International Convention for the Safety of Life at Sea, 1974, and to the International Convention for the Prevention of Pollution from Ships for the purpose of Council Regulation No. 613/91/EEC of 4 March 1991.

- Acceptance of the amendments to the annex to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, adopted in London on 7 July 1978 (STCW 1978) and the Code on Standards of Training, Certification and Watchkeeping for Seafarers (STCW Code), adopted in the Final Act of the Conference of Parties to the STCW Convention in London on 7 July 1995, and the subsequent amendments adopted in a resolution of the Maritime Safety Committee of the International Maritime Organization and published on Official Page No. 430/2 of September 2000.
- Romania's accession to the 1989 International Convention on Salvage, adopted in London on 28 April 1989. This is in keeping with the recommendations set out in the Council Resolution of 8 June 1993 on a common policy on safe seas.
- Technical rules concerning the type approval of equipment and products for sea-going vessels, as set out in the international conventions to which Romania is a party, Code M.T.RNR-EM-2000.
- Inspection instructions concerning the harmonized system of inspection, Code M.T.RNR-I/SAIC-2000, applicable to Romanian commercial sea-going vessels.
- *Air transport*
- Air regulations concerning the protection of the environment RACR-PM have been incorporated into domestic legislation along with the majority of the provisions of Directives 80/51/EC, 83/206/EC, 89/629/EC, 92/14/EC, 98/20/EC and Regulation 925/99/EC, and the signature and ratification on 18 November 1999 of the Convention for the Unification of Certain Rules for International Carriage by Air, established in Montreal on 28 May 1999, whereby Romania undertook to incorporate the majority of provisions of Council Regulation 2027/97/EC on air carrier liability in the event of accidents.

#### The Air Code

- Romania's operational concept and strategy concerning the management of air traffic for the period 2000-2015, in accordance with the specific strategies and concepts developed by the European Organization for the Safety of Air Navigation (EUROCONTROL), to which Romania is a party.
- Implementation of European Regulation JAR-147: approved maintenance training/examinations, including requirements for the certification of organizations which train and/or examine maintenance personnel in civil aviation.
- Ratification of the Convention for the Unification of Certain Rules for International Carriage by Air, adopted in Montreal on 28 May 1999, concerning air carrier liability in the event of accidents.

The technical component for increasing transport safety and for improving the impact on the environment of the various transport modes can be found in technical progress concerning the modernization and development of infrastructures, equipment and means of transport, set out in detail in section 6.

**4. Measures or provisions by the authorities to encourage a rational use of existing transport capacity (aimed, for example, at a better distribution of traffic among the various transport modes or public or individual transport), including measures to promote the use of public transport and restrict that of private motor vehicles in urban areas**

The Ministry of Transport (now Ministry of Public Works, Transport and Housing) has coordinated transport activity only with the underground railway system in the city of Bucharest.

In this context, measures/action taken concerning the extension of the transport network (now 62.95 km long, four main lines and 45 stations) and equipment with modern means of transport (for example, underground trains with asynchronous engines using alternating current) have meant that the underground railway and surface transport ensure easy mobility for everyone, at an acceptable speed and with a reasonable level of comfort.

**5. Measures to encourage a rational use of energy in the transport sector**

Measures/actions undertaken to modernize/develop means of transport and their equipment (presented in section 6) also took account of the rationalization of energy consumption in rail, road, maritime, inland waterway and air transport by resolving problems relating to operating energy and maintenance both in the transport process itself and with reference to the energy used in fixed facilities.

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

**6. Main technical progress in existing infrastructures, transport equipment, traffic flows, etc., and in particular measures taken to ensure the flow of traffic in urban areas**

**The main technical progress** can be seen in the modernization and development of transport infrastructures and in the modernization of equipment and means of transport.

– *Civil aviation*

- Work was finalized in the first stage and work began on the second stage of development and modernization of the Bucharest-Otopeni International Airport, where terminals are being built for international arrivals and departures, with parking facilities of 700 places and the upgrading of runways and lighting.

- The following purchases were made: equipment for runway maintenance (Timisoara and Bucharest-Otopeni Airports), BALIZAJ lighting for modernization (Bucharest-Otopeni, Satu-mare, Tirgu-Mures, Cluj-Napoca Airports), de-icing equipment (Oradea, Arad, Baia-Mare, Cluj-Napoca, Tirgu-Mures Airports), etc.
- Work on the modernization and installation of equipment for traffic regulation and control (ROMATSA company) was finalized.
- Modernization: flight management centre; Thomson radar Bucharest-Otopeni, APP/TWR Timisoara, ATM system
- Installation of RP-4G radar Cluj-Napoca.
- Nine aircraft were purchased with external financing (two Boeing 737-707, 7 ATR42-500) and three Boeing 737s were rented by the TAROM company.
- A Beech King Air 350 was purchased by the Romanian Civil Aviation Authority.
- ***Civil navigation***
- As regards shipping, the following work was completed in the port of Constanta: south breakwater (3.4 km) and north breakwater (0.35 km), cargo platform (3,500 m<sup>2</sup>), water supply networks (3.25 km), household wastewater and rainwater networks (2.5 km) and land reclaimed from the sea (90 hectares); follow-up to the increased rate of work on the earthworks for the container terminal operating on pier IIS: access roads, water supply networks and ducts for electrical connections, overhead electricity line, transforming station and earthworks; approximately 50% of the work of extension of the parking area up to the base of pier IS which has a total area of 3,430 m<sup>2</sup> was completed while at the same time 257 thousand cubic metres of embankment were handled for the terminal container for pier IIS.
- As regards inland navigation, the work of the first stage for the protection of the banks was completed and the second stage begun.
- ***Roads and bridges***
- The following objectives became operational: bridges, level crossings, maintenance and snow-clearance bases, upgrading of roads to improve traffic at the Albita border.
- Stage I (957 km) was completed and work on stage II (694 km) began on the improvement of main roads in order ensure road connections with Western Europe, extend improvement of the Bucharest-Uriceni sectors on corridor IX (Moldova) and start the improvement of the southern Romanian network which will be completed in the second quarter of 2002.

- Work on stage III (343 km) began in order to ensure connections with northern Romania as far as the Sculeni border on the Buzau-Bacau-Iasi road and most of the length of corridor IX to Albita, and will be completed by the end of 2002.
- The improvement of the Bucharest-Pitesti motorway (96 km) was completed.
- Financing was secured and work began on the Bucharest-Fetesti motorway which is part of the Bucharest-Constanta motorway construction project.
- ***Rail transport***
- Work was carried out on infrastructure improvement (851 km of railway lines, 292 bridges, 69 tunnels), installations for automatic level crossings (BAT) and installations for semi-automatic level crossings (SAT).
- The work of modernizing centralized electrodynamics facilities in the main railway stations continued.
- Conditions for passing the Giurgiu North border were improved.
- 126 passenger coaches were provided for trains in international traffic, and
- 365 passenger coaches were modernized (air-conditioning, coaches seating six persons or saloon type coaches).
- Construction and approval of the prototype for 2 DL passenger coaches for the transport of vehicles and 20 and 40 TEU containers on trains.
- 60 RO-LA wagons were purchased.
- Modernization work was carried out on locomotives for passenger transport (38) and goods transport (97).
- ***Urban transport***
- Work on Gorjului station on main line I of the Bucharest Underground and on the North Station-1 May section of main line I was completed.
- Modernization of the dispatcher and remote control installation for the power and traffic system of Underground main line I.

## **7. Measures to increase the profitability and the productivity of transport operations**

In addition to the measures listed in section 6 the following actions were taken:

### ***Railways***

- The IRIS programme - Integrated Railway Information System - was introduced.
- The equipment and software were purchased for the connection to the X25 data transmission network for the train timetable offices along with
- The central equipment and the data transmission network for the ticket sales and seat reservations system of the North Station.
- Establishment of information technology systems based on statistical classifications operated on IBM RS 6000/580 platforms for the breakdown of passenger and goods traffic.
- Introduction of electronic displays in railway stations.

### ***Roads***

- 5,000 new vehicles were purchased and imported (Iveco, Mercedes, Volvo, Renault, Scania, DAF, Pegaso, etc.) for the international carriage of goods, 1,500 cars conforming to European standards EURO 0 and EURO 1 for pollution and noise emissions and 3,600 conforming to EURO 2 and EURO 3 standards. 1,500 vehicles were imported second hand and conform to EURO 0 and EURO 1 standards.

### ***Shipping***

- A traffic monitoring and coordination system was introduced on the Danube-Black Sea Canal.

## **10. Identification and localization of lasting obstacles to traffic (bottlenecks, saturation of some routes, difficulties of flow)**

In domestic road transport, most of the time obstacles are due to the fact that traffic capacities at the entrance to or exit from towns have been exceeded and to the lack of town bypasses on roads open to international transport operations. In order to prevent heavy vehicles from entering towns, the Ministry of Transport (now the Ministry of Public Works, Transport and Housing) has drawn up a programme of:

- Improvement of main roads and construction of motorways;
- Construction of town bypasses for: Timisoara, Craiova and for the five towns of corridor IV: Pitesti, Sibiu, Sebes, Arastie and Deva over a distance of 58 km;

- Construction of a 4-lane road (two lanes exist) for the main road DN 5 - Bucharest-Giurgiu;
- Modernization of borders: Giurgiu, Bechet, Cenad, Nadlac, Varsand, Bors, Calafat.

### **III. INFRASTRUCTURE**

#### **12. New developments concerning the planning or implementation of major infrastructure projects, and improvements to be made to existing infrastructures**

The planning and implementation of major infrastructure projects and the improvement of existing infrastructures have been and are based on studies carried out by external consultants and strategies in the sphere of transport and approved by the Government of Romania as follows:

- Upgrading of main roads;
- Development of the national motorways programme;
- Development of Romania's railway infrastructure for 2001-2010;
- Improvement of passenger transport by rail in Romania for 2001-2010;
- Improvement of goods transport by rail in Romania for 2001-2005;
- Global strategy for the development of new technologies, and the modernization and economic and financial reorganization of Métrorex (the underground railway company) for 2001-2004;
- Evaluation of costs for accession to the European Union;
- Transport Infrastructure Needs Assessment Project (TINA);
- Infrastructure costs of transport in countries which are candidates for accession (1999);
- Costs and benefits for the extension of the transport sector (1999);
- General Master Plan for transport in Romania (1999).

#### **13. Progress in the methodology concerning applicable criteria for establishing the order of priority and programming of infrastructure investments**

The identification, consolidation and determination of priorities for transport infrastructure investment projects are based on the strategies and studies of section 12.

The order of hierarchy and the stages over time of implementation of high priority projects were based on the requirements imposed for achieving the strategic objectives contained in the general policy of the Romanian Government, including its specific transport policy, and possibilities of covering the financial effort needed to implement them.

The regional development plan adopted by Act No. 71/1996 defined the directions of the development of the national infrastructure networks. Plans and stages of transport infrastructure construction will be established on the basis of feasibility studies and sector strategy priorities.

A bill which incorporates in full the provisions of Decision No. 1692/1996/EC of the European Parliament and of the Council of 23 July 1996 on Community guidelines for the development of the trans-European transport network will be drawn up. It defines the trans-European transport network for Romania and its development up to 2015.

#### **14. New developments concerning the financing of infrastructure projects; special procedures in case of need**

Financial resources to finance transport infrastructure projects comprise:

- State budget sources;
- Special funds: special funds for roads and for civil aviation;
- Extrabudgetary sources, own income, reimbursable external credit (State-managed), non-reimbursable credit for projects with the financing of the European Union (PHARE, ISPA).

The total value of the financial sources for the support of the investment and reconstruction programme for the period analysed was US\$ 830 million, distributed as follows:

- State budget 10.7%
- Special funds 6.6%
- External credit 69.1%
- Own sources 13.6%.

The main source of financing for the national transport infrastructure has been joint financing by International Financial Institutions (IFIs) (EIB, EBRD, IBRD, JBIC), the Government of Romania and the European Commission through the PHARE programme.

At the present time a wide-ranging process of regulation of the legislative framework for the public-private partnership contract is in progress in order to attract private investors for the financing of the transport infrastructure.

## B. TRANSPORT STATISTICS FOR 1997-2001

### (a) Total personnel used

*Transport and agent*

(Thousands of persons)

1997	1998	1999	2000
405	361	310	244

### (b) Total investment in infrastructure

(Thousands of US dollars)

	1997	1998	1999	2000
Rail	49 013	51 297	31 718	39 452
Road	516 216	547 457	470 590	579 384
Inland waterway	124 819	120 310	102 830	96 547
Pipeline	212 702	223 850	108 957	*
Airport	5 338	3 347	3 398	6 218

\* No data available.

### (c) Number of passengers carried by transport modes

(Thousands of passengers)

	1997	1998	1999	2000	2001
Rail	186 615	146 800	129 339	117 501	113 718
Road	379 444	224 261	192 633	205 978	200 093
Inland waterway	2 035	1 923	1 654	132	165
Air	1 034	1 008	1 048	1 282	1 278
Underground railway	148 027	110 913	108 644	104 815	109 605

(Thousands of passengers)

	1997	1998	1999	2000	2001
Total air	1 034	1 008	1 048	1 282	1 278
Domestic air	195	168	139	161	107
International air	839	840	909	1 121	1 171

**PASSENGER JOURNEYS BY MODES OF TRANSPORT****(Millions of passenger-km)**

	1997	1998	1999	2000	2001
Rail	15 795	13 422	12 304	11 362	10 966
Road	13 531	8 962	8 323	7 700	7 073
Inland waterway	16	13	11	15	19
Air	1 857	1 827	1 887	2 212	2 020

**(Millions of passenger-km)**

	1997	1998	1999	2000	2001
Total air	1 857	1 827	1 187	2 212	2 020
Domestic air	71	67	57	62	69
International air	1 786	1 760	1 830	2 150	1 951

**(d) Tonnage of goods by modes of transport****(Thousands of tonnes)**

	1997	1998	1999	2000	2001
Rail	93 882	76 512	62 941	71 461	72 578
Road	637 352	313 701*	278 986	262 943	268 496
Inland waterway	16 024	14 856	13 976	13 102	11 342
Sea	8 283	4 540	2 726	1 357	384
Air	10	10	8	8	7
Pipeline	12 829	12 480	9 275	8 808	11 335

\* As from 1998 the research area and method were different from previous years, thus the data are not comparable.

**Number of tonnes-km  
(Millions of tonnes-km)**

	1997	1998	1999	2000	2001
Rail	24 789	19 708	15 927	17 982	16 102
Road	21 750	15 785	13 456	14 288	18 544
Inland waterway	4 326	4 203	2 802	2 633	2 746
Sea	34 408	20 388	12 147	5 817	1 474
Air	21	22	20	19	12
Pipeline	2 296	2 258	1 636	1 392	1 770

**(e) Length of network****(1) Length of road network****(Km)**

	1997	1998	1999	2000
Public roads	73 161	73 260	73 435	78 479
- Main roads	14 683	14 683	14 685	14 824
- Secondary and local roads	58 478	58 577	58 750	63 655
- Motorways	113	113	113	113

**(2) Length of railway network****(Km)**

	1997	1998	1999	2000
Length of lines	11 380	11 010	10 981	11 015
- normal gauge*	10 898	10 895	10 924	10 958
- narrow gauge	425	58	0	0
- wide gauge	57	57	57	57
- electrified	3 943	3 929	3 942	3 950

\* The distance between the rails is 1,435 mm.

**(3) Length of waterway network****(Km)**

	1997	1998	1999	2000
Total	1 779	1 779	1 779	1 779
- Danube	1 075	1 075	1 075	1 075
- secondary branches of the Danube	524	524	524	524
- Danube-Black Sea canal	64	64	64	64
- Poarta Alba-Midia Navodari canal	28	28	28	28
- Bega canal	40	40	40	40
- Lake Bicaz	30	30	30	30
- Lake Vidraru	18	18	18	18

**(4) Length of oil and gas pipelines****(Km)**

	1997	1998	1999	2000
Length of pipelines	1 441	1 441	1 441	1 441

**(f) Means of transport**

**(1) Railway rolling stock**

	1997	1998	1999	2000
Number of locomotives	4 022	3 521	3 418	3 448
Number of goods wagons	140 929	137 086	130 569	107 708
- capacity in thousands of tonnes	6 319	6 221	5 947	4 942
Number of passenger coaches	6 653	6 437	6 428	6 429
- capacity in thousands of places	459	456	442	447

**(2) Road rolling stock**

**(Numbers)**

	1997	1998	1999	2000
Buses	31 259	31 969	32 776	32 283
Minibuses	12 804	13 577	14 529	15 859
Cars	2 605 465	2 822 254	2 980 014	3 128 782
Goods vehicles	383 516	410 132	442 160	448 601

**(3) Capacity of inland waterway transport**

	1997	1998	1999	2000
Number of vessels without means of propulsion for the transport of freight	1 836	1 800	1 778	1 713
- capacity in thousands of tdw	2 288	2 271	2 254	2 239
Number of tugs and pushers	944	936	936	929
- capacity in thousands of horsepower	490	488	488	486
Number of vessels for the carriage of passengers	142	139	128	111
- capacity in thousands of places	15	16	16	14

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