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**ECONOMIC COMMISSION FOR EUROPE**

INLAND TRANSPORT COMMITTEE

Working Party on Transport Trends and Economics

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Item 2 (b) of the provisional agenda

MONITORING OF DEVELOPMENTS RELEVANT FOR THE PAN-EUROPEAN  
TRANSPORT CORRIDORS AND AREAS

Infrastructure bottlenecks and missing links

Addendum

Transmitted by the Governments of Croatia and Romania

CROATIA

1. Current capacity problems on inland transport infrastructures (road, rail, inland water)

Inland waterways: Basic bottleneck: Sava (E 80-12) from Yugoslav/Croatian State border to Sisak- upgrading from class III to class Vb is required. Missing link: Danube-Sava Canal (E 80-10) from Vukovar to Samac.

Inland waterways: seasonal.

Inland waterways: Unpredictable restrictions to the use occur due to the water level.

2. Infrastructure measures to alleviate bottlenecks

Inland waterways: dredging and regulatory works on the Sava waterway.  
Danube-Sava canal, priority I.

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Country	Mode of transport	Route	Section	Traffic loading	Capacity	Extent of action		Operational by year
						Subject	Kind	
1	2	3	4	5	6	7	8	9
CROATIA	MOTORWAY	E70	Border crossing Bregana	11,189 (ASDT)	40,000	widening	reconstruction	2005
			Border crossing Bajakovo	6,196 (ASDT)	8,000	widening		2006
		E65/E71	Border crossing Goričan	4,872 (ASDT)	8,000	new construction		/
		A7	Border crossing Rupa	12,058 (ASDT)	10,000	widening		/
		E70	Zagreb - bypass	46,818 (ASDT)	50,000	construction of the third track		/
		E65/E71	Toll station Lučko	40,323 (ASDT)	40,000	widening		2006/07
		E70	Toll station Ivanja Reka	27,773 (ASDT)	40,000	widening	reconstruction	2005/06
		E71	Tunnel Mala Kapela	9,664 (ASDT)	12,000	one tunnel tube	construction of the second tube	2009/10
		E65/E71	Tunnel Sveti Rok	11,363 (ASDT)	12,000	one tunnel tube in traffic	construction of the second tube	
		E65	Bosiljevo 2 - Rijeka	18,000 (ASDT)		upgrading on the full profile 56 km	construction of the second line	2008
	STATE ROAD	SR 1	Macelj - Zagreb	10,442 (AADT)		parallel road	construction of the new road	2007
			Tušilović - Jošani	13,888 (AADT)				/
			Brnaze-Klis-Solin	14,414 (AADT)		addition - second line	designing	2005

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<b>CROATIA</b>	<b>STATE ROAD</b>	SR 2	Osijek - south bypass	17,364 (AADT)		second line	location permit	2005
		SR 3	Rijeka - bypass	21,854 (AADT)		second line	designing	2005
		SR 7	section Darda -Osijek	10,075 (AADT)		new road	designing	2005
		SR 8	section Mučići - Rijeka	12,340 (AADT)		parallel road	construction of the new road	2005
			Šibenik bypass	15,272 (AADT)		parallel road	construction of the new road	2005
			Plano-Kaštel Sućurac	19,816 (AADT)		second track	designing	2006
			Stobreč-Tučepi	11,583 (AADT)		parallel road	designing	2005
		SR 30	Zagreb - Velika Gorica - Buševac	40,980 (AADT)		bypass of the Velika Gorica	designing-construction of the new road	2005
		SR 66	section Ičići - Rijeka	14,763 (AADT)		bypass of Opatia riviera	designing	2005
		SR 102	section Njivice - Krk	8,725 (AADT)		research of the alignment		2006
		SR 309	Sv.Nedjelja - Samobor	15,133 (AADT)		second line	preparing for designing	/
		SR 510	Connecting Road – Motorway Zagreb-Goričan with SR 2 from interchange Varaždin	14,562 (AADT)		second line	preparing for designing	/

ROMANIA

1. Current capacity problems on inland waterway transport infrastructures

Concerning the AGN inland transport waterways, on the Romanian Danube river sector between 863 km (Iron Gates II) – 175 km (Braila) there occur navigation bottlenecks due to the variable flow regimen and during the low water periods due to the low depths of 1-1.5 m, much lower than the recommended minimal depths, of 2.5 m. Such phenomena occur in periods of 60 to 150 days/year.

There are not important bottlenecks on major transport axes in the AGC and AGTC lines in Romania, excepting those at the crossing borders.

Regarding the inland transport waterways seasonal summary of LAD's (Least Available Depth) for the Lower Danube has been defined by the Danube Commission at 2.5 m.

In the field of road transport the main problems identified in our country are connected to: congestion on inner city routes; during week-ends, on main national roads like DN1 (E60), between Comarnic and Predeal; temporary, during summer, DN39 Constanta-Mangalia; DN7 Valea Oltului and DN66 Valea Jiului, daily.

In order to avoid the traffic congestion in inner cities, it started the construction of some alternative routes to go around the city (around the capital-Bucharest and other congested cities).

The causes of bottlenecks are: the border crossing traffic, the expanding of the cities, the commercial activities around them, and the increased number of cars on the same infrastructure.

The consequences of those congestion phenomena are the decrease of throughput capacity of infrastructure, and time wasted for ships and cargo, as well as for railway and road transport, and higher costs for fuel.

2. Regulatory measures to alleviate bottlenecks

Romania conducted some studies to underline the differences between the social and economic slow-down in the Eastern part of the country and the linear development in the rest of the country.

In the road sector, a solution offered by Romania was the construction of a 1,065 km long Budapest-Odessa Corridor (Budapesta-Nyiregyhaza-Csengersima/Petea-Baia Mare-Borsa-Suceava-Iasi-Sculeni-Chisinau-Perfomaise/Kucurham-Odesa). Both Hungarian and Romanian Parties had expressed their support for the motorway project. This solution will bring an economical evolution, providing a certain connection between the following countries: Austria-Hungary-Romania-Moldavia-Ukraine.

The motorway Vaja-Baia Mare (approximately 145 km, 65 km in Hungary and 80 km in Romania) establishes a connection between the Northern part of Romania (and in long term the Eastern part, too), and the M3 motorway from Hungary, situated on the Pan-European corridor no.V. This motorway will represent the third high-speed connection between Romania and

Hungary, the first two connections being already planned on the routes Szeged- Nagylak/Nadlac-Arad and the axe Debrecen-Biharkesztes/Bors- Cluj-Napoca.

In the inland transport waterways the following measures will be undertaken:

Feasibility study to improve the conditions for navigation on Calarasi (175 km) – Braila (375 m) sector was done in 2004 – 2005. The works will start in 2006;

Feasibility study to improve the conditions for navigation on Iron Gates II (873 km) – Calarasi (375 km) sector will start in 2006 and the works will start in 2008.

Regarding the railway transport, it is necessary to improve the border crossing procedures and to begin the negotiations of the new border crossing agreements on railway transport.

### 3. Infrastructure measures to alleviate bottlenecks

For Calarasi–Braila sector of the Danube, the following works are needed: bottom sill, guiding wall and banks protection.

With respect to railway transport, it is necessary to plan the construction of a double line on Corridor IV between Curtici and a border with Hungary during the upgrading of line Curtici–Simeria, with a deadline of 2012.

In order to alleviate the bottlenecks in the road infrastructure, a project was developed to:

expand from 2 road lanes to 4 road lanes the national roads, which are going out of big cities, in order to absorb the excess of high traffic volume;

expand the National Road no. 1, from 2 road lanes to 4 road lanes (for a better and faster connection between Henry Coanda International Airport and Bucharest, the capital);

build by-passes in big cities and in sensitive points of the national road network.

At Tecuci, a by-pass was achieved using Phare funds.

Right now, 5 by-passes are under construction and there is also an ongoing project for another 35 by-passes, in different phases of contracting, financing and implementation.

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