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ROAD TRANSPORT INFRASTRUCTURE

Trans-European North-South Motorway (TEM) Project – Progress Report

Transmitted by the Project Manager

1. The Trans-European North-South Motorway (TEM) Project is the oldest and one of the most developed regional infrastructure projects in Europe.
2. The Project, in which thirteen Central Eastern and Southern Eastern European countries (Austria, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Georgia, Hungary, Italy, Lithuania, Poland, Romania, Slovakia and Turkey) participate and with which two further countries - Sweden and Ukraine - have observer status, aims at construction and management of a modern system of motorways and expressways, connecting the Baltic, Adriatic, Aegean and Black Seas.
3. Its high-capacity, double and grade-separated carriageways, each with a minimum of two traffic lanes will ensure an adequate quality of services for modern traffic by providing for safety, speed and comfort in accordance with commonly adopted standards, thus contributing to the economic and social development of the whole European continent.

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4. The United Nations Economic Commission for Europe (UN/ECE) is the Project's Executing Agency, responsible for technical and administrative backstopping of the Project and the coordination of its activities.
5. The total planned length of the TEM network as of 1 January 2000 was 22,309 km, of which 6527 km were currently (2000) in operation and 1546 km under construction (cf. Annex 1 – Status of TEM Network).
6. Taking into account the corresponding comparative indicators (see last three columns of the attached annex), Turkey had the highest percentage of the TEM network length (26.4%), Croatia had the fastest construction pace (16.6% of its national TEM network under construction) and Italy had the highest degree of completion of its TEM network (99.7%). In total, 27.5% of the whole TEM network was in operation and 6.2% of its length was under construction.
7. The above data refer to the TEM network status at the beginning of this year. In June 2000 the following network extensions, aimed at better compatibility between TEM and the European Union's Phare Multi-country TINA networks, were approved:

Szeged – Yugoslav border (Roszke) in Hungary	15 km
Letenye – Slovenian border (Tornyiszentmiklos) in Hungary	19 km
Bucharest – Brasov – Turda in Romania	425 km
Trnava – Nitra – Ziar n.H. – Zvolen in Slovakia	142 km
Izmir – Cesme in Turkey	97 km
Izmir – Antalya in Turkey	445 km
Izmir – Balikesir – Bursa – Gebze in Turkey	430 km
Northwestern part of the Ankara motorway ring in Turkey	41 km
Total TEM network extensions	1,614 km

Consequently, the total length of the TEM network at present amounts to 23,923 km.

8. Pending total completion, nevertheless, TEM is already an operational reality because of the TEM Corridor, which consists of upgraded national roads linking already constructed motorway sections.
9. The main objectives set for the Project are:
- (a) To assist the participating countries in accelerating the construction of the TEM network through the identification of investment needs and priorities, investigation of financial resources needed for its construction and determination of appropriate payback systems for use on the TEM motorway.
 - (b) To assist in designing, building, maintaining, operating and administering the TEM motorway network on the territories of participating countries as part of an integrated European transport infrastructure, thus filling the gaps in the existing motorway network in the region.

- (c) To pay special attention, in view of the present economic constraints, to the upgrading of existing roads and to envisage the staged construction of motorways.
 - (d) To promote and improve cooperation in all matters concerning road transport between TEM countries with different levels of development.
 - (e) To continue to disseminate the knowledge, expertise and know-how developed so far in the TEM region to other regions of the world.
10. In the whole period of over 20 years during which the TEM Project has been under way, an efficient cooperation and understanding has been established between the respective motorway and/or highway authorities of the participating countries, together with the Project's institutional framework and organizational structure which have proved themselves practical.
11. The highest decision-making body of the TEM Project is the Steering Committee, which meets twice a year, determines the policy of the Project as well as the general measures to be taken concerning TEM activities, and takes decisions for common action.
12. The TEM Steering Committee held its last (thirty-third) session on 6 - 8 June 2000 in Geneva, Switzerland. The next (thirty-fourth) session of the Committee will be held on 28 – 30 November this year.
13. The Project has a Project Central Office (PCO) set up to coordinate all the activities carried out under the terms of the programme of work. It operates under the direction of the Steering Committee and under guidance from the Economic Commission for Europe. The PCO is located in Warsaw and the Polish Government covers office expenses.
14. The Project Central Office is headed by the Project Manager. The past TEM Project Managers were made available by the Governments of Greece, Turkey, Romania, former Czechoslovakia and Slovakia, respectively. The present Project Manager has been provided by the Government of the Czech Republic and commenced his assignment on 1 January 1998.
15. The TEM has a National Coordinator in each participating country appointed by the respective Government, responsible for the coordination of all Project activities within the country.
16. The funding of all Project activities in-kind as well as in cash is provided exclusively by the participating countries. The TEM Cooperation Trust Fund was established, based on the Trust Fund Agreement signed in Geneva in December 1991. According to this Agreement, each participating country contributes US\$ 7,500 annually to the Project in addition to its in-kind contribution. Under the terms of the Agreement, UN/ECE is responsible for the management of the funds contributed in cash. As a result of this, the Project has a well established and permanent arrangement for the continuous administration and coordination of its technical, managerial and economic activities.
17. The Trust Fund Agreement was initially foreseen to cover the period from 1992 to 1996 and its validity was later extended to the end of 2000. A revised Attachment to the Agreement

covering the period 2001 – 2004 was approved by the last session of the TEM Steering Committee in June this year and sent to the participating Governments for their endorsement.

18. The TEM budget and Programme of Work for this year, based on the provisions of the Trust Fund Agreement were approved by the thirty-second session of the TEM Steering Committee (1 – 3 December 1999, Trieste, Italy).

19. In addition to coordination and assistance activities of the Project regarding the acceleration of the TEM construction proper, the TEM Project performs a piloting function in private sector funding of motorway and road construction and maintenance, focusing on the legal framework for building motorways with foreign credits and concession systems, evaluation of payback systems, including conditions for the application of motorway tolls, investigation and/or development of issues for assessing BOT concessionaire arrangements and technical assistance in the areas of private sector financing of motorways.

20. In the recent period, the scope of technology and know-how transfer in the framework of the TEM has also widened, going from motorway design, construction and operation to the broader field of common motorway and road issues, such as pavement and bridge management, environmental impact assessment, standardization, harmonization of signing, introduction of intelligent transport systems, etc. The forms, tools and techniques used in technology transfer within TEM vary according to the aim and type of the respective activities. They include seminars, workshops and round tables usually organized by one member country jointly with the TEM Project Central Office in accordance with the annual programme of work, often in collaboration with one or more non-TEM institutions or consultants.

21. These transfer and technical assistance activities have also included valuable inputs from other OECD countries, especially from the European Union and the United States of America. Within the multitude of technology transfer programmes directed now to Central and Eastern European countries, TEM is unique in that it deals not only with the transfer from the more developed Western countries to the region, but also with the technology transfer, coordination and exchange of experience and know-how between the participating countries of the region themselves. The technical potential amassed, in terms of experts trained, constitutes a substantial resource for the TEM Project, which can be capitalized on in other regions.

22. The TEM Project collaborates with international organizations dealing with transport issues, especially with the relevant Directorates General of the Commission of the European Union, OECD Transport Division, CEI (Central European Initiative), US Federal Highway Administration (FHWA), US-based HEEP (Highway Engineering Exchange Program) and International Road Federation (IRF).

23. More specifically, the TEM Project has participated actively in the EU Phare Multi-Country Transport Programme, assisting *inter alia* in the elaboration of the multimodal transport forecast for the region, in the Phare studies on Road Transport Charges, on Transport and the Environment and on Road and Motorway Management as well as in the Road Safety project for the Phare Countries and in the Development of Branches on Corridor V project.

24. The TEM Project was also one of the three co-organizers of the OECD/ECMT/TEM Conference on Strategic Environmental Impact Assessment for Sustainable Multimodal Transport Networks held in Warsaw, Poland on 14 – 15 October 1999.
25. The cooperation with the OECD Road Transport Research Programme on the Advisory Panel for Outreach Activities (APOA) in which the TEM Project is participating, continued in the reporting period. Within this programme, the proposal to organize an international conference in Poland in 2001 under the auspices of the OECD, ECMT, the Polish Government and the TEM Project, submitted jointly by the Polish authorities and the TEM PCO, was accepted.
26. In November 1993, with FHWA's and HEEP's financial and technical support, the TEM/HEEP Area V (Central Eastern Europe) was inaugurated as the first in Europe. HEEP is a non-profit association in charge of promoting the free exchange of computer programmes, systems and concepts between its members in the fields of civil engineering, transportation and management with the aim of increasing the effectiveness of computer usage. The establishment of the HEEP Area V provided TEM participating countries and their software experts with free access to the latest developments in highway electronic engineering.
27. The TEM/HEEP Area V Annual Meeting was held in Bucharest on 3-5 May 2000. In the framework of the HEEP Educator and Student Participation Program, a student of the Technical University of Cluj-Napoca from the host country (Romania) was granted a scholarship to present a report on his research achievements at the 2000 HEEP Annual International Conference to be held in Charlotte, United States of America in October this year.
28. In June 1998, a Cooperation Agreement was signed between the ECE and the TINA (Transport Infrastructure Needs Assessment) secretariat in Vienna, Austria, under the terms of which the TEM Project Central Office made available its database on roads and motorways for setting transport infrastructure construction priorities in the region. In accordance with this Agreement, the TINA secretariat transferred to the TEM Co-operation Trust Fund in Geneva the sum of US\$ 38,108.55. These resources were used to purchase the specific hardware and software for the TEM Project Central Office in Warsaw and also to cover the costs of the TEMSTAT Data Collection and Training Meeting held in Budapest on 17 – 19 April this year. The remaining financial means could be utilized for relevant data collection and training activities in 2001.
29. Since the closing of the TINA secretariat in Vienna at the end of the last year, steps have been taken by the TEM Project Central Office to further use and develop its results. Following the approval of the European Commission, relevant data on the TINA road and motorway network including the mapping database were transferred to the PCO free of charge. In addition, a proposal on closer involvement of the UN/ECE TEM Project in the European Commission's Trans-European Road Network activities has been submitted to the UN/ECE Transport Division for examination and as a background document for discussion on collaboration with the EC Directorate General on Energy and Transport.
30. On 27-30 March 2000, a meeting of the Group of Experts on TEM Standards took place in Prague with representatives of 11 member countries as well as tunnel experts from Austria, the Czech Republic, Italy, Slovakia and Turkey participating. The results of this meeting regarding

the design of motorway and road tunnels were made available as document TRANS/AC.7/2000/3 to the Ad hoc Meeting of the Multidisciplinary Group of Experts on Safety in Tunnels, which took place in Geneva on 10-11 July this year, and in which the TEM Project Manager participated. It is envisaged that fully fledged TEM Motorway Design Standards will be available at the beginning of 2001.

31. At the invitation and initiative of the Government of Italy, the TEM Permanent Table on the Development and Coordination of Motorway Construction and Operation in the TEM South-Western region was established in Trieste. The first meeting of this Permanent Table was held on 24 – 26 May 2000 with representatives of 4 TEM countries, Slovenia as well as the UN/ECE and the TEM PCO.

32. In the reporting period, collaboration with the TER Project Central Office in Budapest, established in 1991, also continued. The collaboration focused mostly on the administration of both Projects and on contributions to EU Phare activities with a multimodal scope.

33. In order to further promote the TEM Project and in line with the strategy to expand its scope and activities, the TEM 2000 Promotion Brochure was published and made available to participating and observer Governments, the UN/ECE and to international organizations active in the field of transport.

Annex - STATUS OF TEM NETWORK (as of 1.01.2000)

COUNTRY	Total length	PROGRAMMED (in study, preliminary design and design phases)		UNDER CONSTRUCTION		IN OPERATION		COMPARATIVE INDICATORS		
	km	one carriageway	both carriageways	one carriageway	both carriageways	one carriageway	both carriageways	% of total TEM length	CONSTRUCTION PROGRESS (% of length under construction)	DEGREE OF COMPLETION (% of length in operation)
Column No.	1	2	3	4	5	6	7	8	9	10
AUSTRIA	485	35	36	-	-	35	414	2,2	-	89,0
BOSNIA and HERZEGOVINA	792	-	792	-	-	-	-	3,6	-	-
BULGARIA	925	19	617	-	20	19	269	4,1	2,2	30,2
CROATIA	1564	354	651	258	131	238	357	7,0	16,6	30,4
CZECH REPUBLIC	954	-	427	-	16	-	511	4,3	1,7	53,6
GEORGIA	1053	-	1045	-	-	-	8	4,7	-	0,8
HUNGARY	1624	65	1012	-	98	65	449	7,3	6,0	29,7
ITALY	1519	-	4	-	-	-	1515	6,8	-	99,7
LITHUANIA	736	36	-	55	-	314	341	3,3	3,7	67,7
POLAND	3295	45	2803	15	144	30	303	14,8	4,6	9,7
ROMANIA	2527	-	2286	-	134	-	107	11,3	5,3	4,2
SLOVAKIA	938	-	615	16	51	63	312	4,2	6,3	36,6
TURKEY	5897	-	4112	-	608	-	1177	26,4	10,3	20,0
TOTAL	22309	554	14400	344	1202	764	5763	100,0	6,2	27,5