

TRANSPORT

• Policies and progress on transport access

Accession to the European Union and further enlargement of the EU had a significant effect on the Hungarian transport development. Investment resources from the EU Cohesion Fund and the Structural Funds, supplemented with national resources were used for this purpose.

The main transport policy documents are the Hungarian Transport Policy, HTP (2003-2015), and the Unified Transport Development Strategy, UTDS (2007-2020)

http://www.khem.gov.hu/data/cms1919520/EKFS_feh_r_k_nyv_EN_0902.pdf.

The general objectives of Hungarian transport policy determined in HTP (2003-2015) and approved by the Parliament are as follows:

- improvement of the quality of life, preservation of health, reduction of regional disparities, increasing the safety of transportation, protection of built-in and natural environment;
- improvement and extension of connection to the neighboring countries,
- promotion of the implementation of regional development objectives,
- creation the conditions for efficient operation and maintenance by regulated competition.

The UTDS elaborated in 2007 specified a more efficient cooperation of sub-sectors and a uniform set of objectives of services. Priority objectives in UTDS are as follows:

Development of passenger transport

- Optimization of task sharing of passenger transport by keeping the share of community transport above the EU-27 average;
- Improvement of the efficiency of task sharing in community transport by ensuring co-modality;
- Increased mobility by ensuring equal opportunities in mobility;
- Ensuring economic sustainability of passenger transport by rational organization.

Development of transport of goods

- Ensuring the share of environmentally friendly factors above the EU-27 average in the task sharing of transport of goods;
- Profitability of environmentally friendly transport modes, improvement of their infrastructure maintenance capacity;
- Increasing the share of combined transport of goods;
- Increasing the efficiency of intermodal logistic service centers.

Development of transport infrastructure

- Elaboration of a main network structure, improving economic competitiveness;
- Improvement of regional accessibility at various levels;
- Development of the infrastructure of urban and suburban community transport;
- Prevention of increased road wear originating from public road vehicles of increasing axis pressure.

Horizontal topics

- Reduction of the number of death under 500 per year, caused by accidents on public roads;
- Implementation of more environmentally friendly and energy efficient transport systems;
- Long term provision of sustainability by conscious infrastructural development;
- Acceleration of the pace of introduction of ITS (intelligent transportation systems) applications.

The development of logistic is a very important part of the transport policy. The target of the Hungarian Intermodal Logistic Development Conception is the development of an efficient transport logistic system in Hungary, which is capable of building an environmental friendly and efficient distribution functions toward Eastern and South Europe.

- **Fuel prices and tax reform**

- *Removing subsidies on fuel*

The price structure of fuels contains 5 main elements: production price (net price), excise tax, stockpiling fee, commercial (wholesale and retail) margins, and value-added tax. The legislation could support certain transport goals connected to sustainable development and the social cohesion with one single mean: the full or partial refund of the excise tax. According to the main principle of the Act the excise tax is non-refundable (every user has to pay the prescribed amount of the tax) but there are a few exceptions:

- Rail freight transport sector, air and water (passenger and freight) transport sectors and agricultural undertakings (about 6% of the total budgetary fuel-related excise revenue).
- The second exception were earlier the full refund of the excise tax after distribution of the bio-fuels. Promoting more stable domestic energy balance the Act admit to mix 5 % bio-diesel and 5 % bio-ethanol (EBTE) into the regular gasoline and petroleum with refund excise duty. This legal action was fully in accordance with the 2001/77/EC (definition), 2003/30/EC (national target rate of bio-fuels) and 2003/96/EC (exemption of the excise tax) Directives. In 2005 the reported national target rate of the bio-fuels was 0.5 % of the total fuel consumption, and for 2010 5.75 % was planned. Unfortunately the effects of these economic incentives did not prevail on the supply side of the bio-fuel industry – especially in the case of the bio-diesel manufacturers.

In the past years the transport related excise tax refund mechanism went through many – usually restricting – changes. Degrees of the excise refund of the agricultural undertaking were limited in 2008. The excise refund mechanism of the bio-fuels went through a tax differentiation reshaping process. Due to a change in 2009, the bio-fuel components do not receive excise tax relief any more. Today 4.8 V/V % bio-fuel blending into the traditional petrol and diesel is mandatory otherwise penalty imposes. The new sustainability criteria for the bio-fuels will partly be fulfilled by second generation bio-fuel production technologies.

○ *Encouraging energy efficiency*

Due to the lack of budgetary financial resources there had not been any state program specified to energy efficiency of road transport since 1990. The trend of factors determining energy consumption of the road transport at a ten-year interval is as follows:

- The performance of the passenger transport and the road freight transport has been permanently increasing, similarly to the growth of the GDP.
- From environmental point of view, the Hungarian transport sector still has a more favorable modal split than most of the other EU countries. In 2007, the passenger cars accounted for 60%, rail passenger transport accounted for 13% and the bus and coach passenger transport accounted for 24 % of the passenger transport, the figures of the EU average were 83-6.5-9%, respectively. The rail freight transport accounted for 15% of the goods in tons kilometers, which is quite high compared to the EU average.
- The domestic passenger car fleet shows some transformation (average life span in 2002 was 11,7 years, in 2008: 10,4 years). Between 2001 and 2006 the renewal rate of the passenger cars exceeded the 9% (EU-15: 8%). The key element of the modernization was to maintain the domestic purchase power for the sake of the discount credit-constructions of the commercial banks (partly based on foreign currency).
- Similar renewal process of the bus and coach fleet can not be observed as the transport companies has no resource to finance it.
- The quality of fuel in Hungary is fully in accordance with the EU standards, or even higher than the international standards, e.g. nearly all fuel types distributed are sulphur free.
- Last 10 years, the Hungarian ODEX (energy efficiency index) of the road transport decreased by 3% (it increased by 7% for trucks and light lorries, and fell by 8% for passenger cars).

The main tax-related energy efficiency incentive of the government was the introduction of the registration tax. The sum that has to be paid is between HUF 250,000 and 9,622,000 per motor vehicle, depending on its environmental grading and the type and the volume of the motor engine.

○ *Providing reliable alternatives for the poor*

During the last two decades the relatively high level of state subsidies on public transport systems declined. In existing tariff systems special preference is given to children, students, civil servants, pensioners, old people, however social conditions are not taken into account.

Though the price of the tickets has grown dramatically – exceeding the inflation rate – the income of the companies can not cover even the operational costs of the public transport services.

● **Regional and global transport system integration encouraging efficient modes**

The principle of co-modality should prevail the area of passenger transport, goods transport and logistics, while each mode of transport have to be improved.

Freight transport, by improving its energy efficiency, and by its decisive ratio impacting volume, considerably influences the total consumption of the Hungarian transport sector, so the improvement of its environmental performance has a special importance.

Development of the railway sector is a prominent societal and national economic interest emphasized due to sustainability advantages. Hungary's long-term objective is to have a railway by 2020, which offers a significantly higher level of service than today as well as a better operating reliability for passengers (primarily in suburban and long-distance intercity transport) and freight companies using the services.

Navigation does not play a very significant role in domestic transport, however, its contribution to the foreign trade performance of Hungary has been growing steadily. There are some factors limiting the utilization of our inland waterways, e.g. frequent draft restrictions, low ration of loaded passage time/annual operation time, density of ports operating permanently with facilities and infrastructure of adequate standards, high water level.

Modal split of passenger transport, by mode of transport

(%)

Year	Passenger cars		Bus		Rail	
	EU-15 ⁺	Hungary	EU-15 ⁺	Hungary	EU-15 ⁺	Hungary
1995	84,6	64,6	9,0	23,4	6,5	11,9
1996	84,4	63,2 ^{a)}	9,0	25,0 ^{a)}	6,6	11,8 ^{a)}
1997	84,5	64,1	8,9	24,0	6,6	11,9
1998	84,5	64,1	8,9	23,7	6,5	12,2
1999	84,6	63,0	8,8	24,1	6,6	12,9
2000	84,6	62,1	8,7	25,0	6,7	12,9
2001	84,7	61,9	8,6	24,8	6,7	13,3
2002	84,9	61,5	8,5	24,6	6,6	13,9
2003	85,0	61,6	8,5	24,9	6,5	13,5
2004	84,7	61,9	8,6	24,7	6,6	13,4
2005	84,4	63,0	8,7	23,7	6,9	13,3
2006	84,3	63,2	8,6	23,8	7,1	13,0

a) Break in series.

Source: Eurostat

Modal split of freight transport, by mode of transport

(%)

Year	Rail		Road		Domestic inland	
	EU-15 ⁺	Hungary	EU-15 ⁺	Hungary	EU-15 ⁺	Hungary
1996	15,3	32,7 ^{b)}	77,1	61,3 ^{b)}	7,6	6,0 ^{b)}
1997	15,8	33,3 ^{b)}	76,4	60,8 ^{b)}	7,8	5,9 ^{b)}
1998	15,2	28,7	77,1	65,8	7,7	5,5
1999	14,6	28,3	77,9	68,2	7,5	3,5
2000	14,9	28,8 ^{c)}	77,6	68,1 ^{c)}	7,6	3,1 ^{c)}
2001	14,3	28,1	78,3	67,3	7,4	4,6
2002	13,9	28,4	78,9	65,5	7,2	6,1
2003	14,1	28,9	79,2	65,6	6,8	5,5
2004	14,0	28,0	79,1	65,9	6,8	6,1
2005	14,0	25,0	79,3	69,2	6,7	5,8
2006	14,6	23,9	78,8	71,6	6,8	4,5

a) Value estimated by Eurostat

b) Value estimated by member state

c) Methodological break

Source: Eurostat

Volume of long distance passenger transport, by mode of transport

(million passenger kilometre)

Year	Road	Rail	Inland water	Air	Total
1995	9 556	8 441	49	2 383	20 429
1996	9 764	8 582	41	2 775	21 161
1997	10 168	8 669	38	3 049	21 924
1998	10 143	8 454	41	3 038	21 676
1999	11 265	9 514	40	3 513	24 332
2000	12 150	9 789	45	3 539	25 523
2001	12 021	10 005	43	3 447	25 516
2002	12 097	10 531	30	3 445	26 103
2003	12 322	10 286	34	3 776	26 418
2004	12 096	10 544	38	6 865	29 543
2005	11 530	9 880	25	6 865	28 300
2006	11 784	9 584	35	9 131	30 534

Source: Hungarian Central Statistical Office

Freight transport volumes, by mode of transport

(thousand tkm)

<i>Year</i>	<i>Road</i>	<i>Rail</i>	<i>Inland water</i>	<i>Total</i>
1995	9 955	8 422	1 338	19 714
1996	10 182	7 634	2 482	20 298
1997	10 430	8 149	1 644	20 223
1998	18 674	8 150	1 561	28 385
1999	18 599	7 734	958	27 291
2000	19 123	8 095	891	28 109
2001	18 503	7 731	1 259	27 493
2002	17 143	7 752	1 668	26 563
2003	18 199	8 109	1 517	27 825
2004	20 598	8 749	1 904	31 251
2005	25 138	9 090	2 110	36 338
2006	30 495	10 167	1 912	42 574

- **Urban transport planning and policies**

In Hungary, the national government and the local governments share the responsibility regarding the development and operation of the transport infrastructure in accordance with the legal obligations and depending on the ownership, however it is vital to provide all the conditions necessary for the good cooperation. In this regard the connecting points of the transport systems are the most important factors, including construction of junctions, harmonization of timetables of the interurban and urban public transport, utilization of rail in suburban transport, the construction of bypass roads etc.

The urban transport policy recommended in Hungary relies on EU-conform, consistent guidelines as follows:

- Satisfy sustainable transport demand;
- Support well-balanced regional development;
- Ensure fair market regulation;
- Support transport integration;
- Improve quality and service centers;
- Protect human life and the environment;
- Apply prices commensurable with actual performance and costs.

- **Vehicle efficiency and emissions policies**

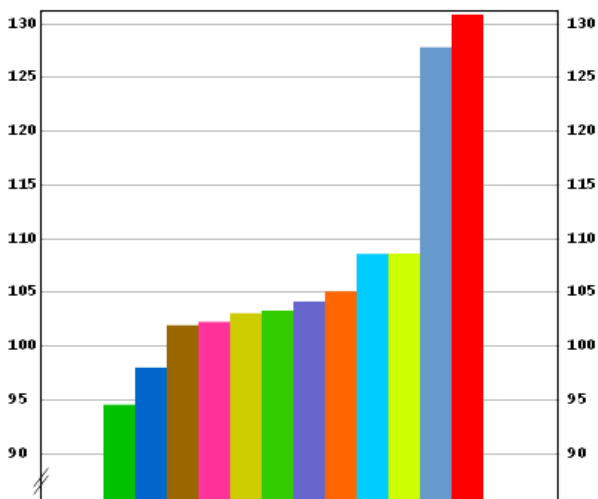
The EU common transport policy (2001, reviewed in 2006) can be considered as the guiding document for Hungary in terms of priorities and environmental aspects, and there are several environmental directives dealing with reduction and monitoring of transport-related emissions.

The Hungarian emission policy related to transport is harmonized with the EU legislation. In compliance with the Union' s type approval regulations (Euro 4 for passenger cars and Euro 5 for trucks and buses) the same exhaust emission norms are valid as in all other EU countries. For off road vehicles the regulation is the same. The legislation will follow the new EU directives when they come into force.

In order to control the emission related condition of the car fleet, a regular control was introduced which is compulsory for all road vehicles.

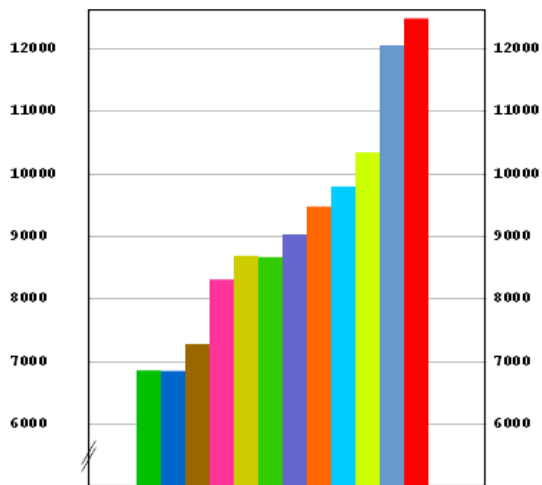
Emissions of particulate matter from transport

1 000 tonnes

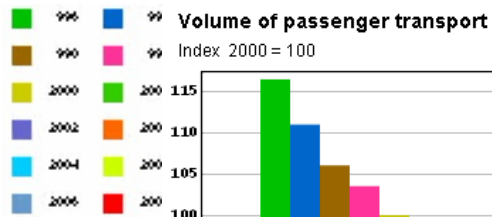


Greenhouse gas emissions from transport

1 000 tonnes of CO₂ equivalent



Legend:



Source of charts: Institute for Transport Sciences, 2009

- **Development of any transport technology research and development (public sector or private)**

In order to develop the highway asset management in Hungary, a complex system was compiled consisting of the following main elements: users' expectations and clients' needs; administrative issues; organizational matters; decision-supporting technical tools (Pavement Management Program, Bridge Management System etc.).

Some concrete results achieved on R+D field during the past years:

- identification of the possibilities of private funds involvement into road construction and rehabilitation;
- performance of the road users' satisfaction surveys;
- establishment of a quality management system for highway constructions;
- development of highway and bridge assets valuation system;
- adaptation of different management systems to Hungarian conditions (PONTIS, HDM-4).

As a consequence of the harmonization with European standards, the application of performance-based contracts is extending. A pilot project on the field of road maintenance and operation is being prepared and will be carried out in the near future.

- **Road, rail and marine systems construction standards and changes in the, in anticipation of climate change impacts (sea level rise, and increased frequency and severity of weather events)**

Preliminary studies were performed to support the adaptation to climate change on the field of road construction and maintenance as well. In these studies the following issues were analyzed:

- New pavement materials with temperature-independent behavior;
- Impacts of extreme high wind speed and other extraordinary loads on road users and structural elements of roads;
- Impacts of high precipitation on materials, structural elements and safety of roads, and performance of the drainage systems;
- Prevention of damages and dangerous conditions caused by extreme much snow and ice.

Modification of the current road standards and specifications that are necessary due to climate change is being investigated.

Miskolc a town in the north-eastern part of Hungary with more than 180,000 inhabitants has a large project titled “Development of city tramways in Miskolc”. The aim of the project is to realize a long-term sustainable, competitive, environment-friendly, fast and safe public transport system, thus making public transport more attractive.

The main elements of the project

- complete reconstruction of the existing tracks (9,6 km);
- construction of wide platforms, roofed stops, introduction of an advanced passenger information system;
- purchasing 19 new vehicles and renovation of the old ones;
- line extension (1,5 km).

In order to improve the conditions for passenger and freight transport in the Hungarian capital city **Budapest** and its suburbs, several important programs were prepared, e.g.:

- Budapest Mid-term Urban Development Program (Podmaniczky Program) – including the development of the public transport systems;
- Reform of the Car-parking System;
- Extension of the Budapest Underground System – M4 metro line project;
- Establishment of the Budapest Transport Association – the cooperation of the three transport companies operating on the metropolitan area (Budapest Public Transport Company, the MÁV Hungarian State Railways Private Company by Shares and the VOLÁNBUSZ Transport Company) can provide a cheaper transportation and more comfortable service for 3.3 million inhabitants in the Budapest agglomeration;
- Smog alarm regulation – in 2008 the Budapest Municipality adopted a decree containing regulations to protect human health and the environment in case of dangerous air quality situation, and measures that have to be taken when the air quality requires emission reduction, with special attention to car traffic limitations;
- Access fee conception – limitation of the traffic in the city center introducing an access fee for motor vehicles;
- Construction of bikeway system to promote the environmental friendly means of transport.