



**Economic and Social
Council**

Distr.
GENERAL

TRANS/WP.5/2005/12
23 June 2005

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

INLAND TRANSPORT COMMITTEE

Working Party on Transport Trends and Economics

(Eighteenth session, 15-16 September 2005,
agenda item 10)

RELATIONSHIP BETWEEN TRANSPORT AND ECONOMIC DEVELOPMENT

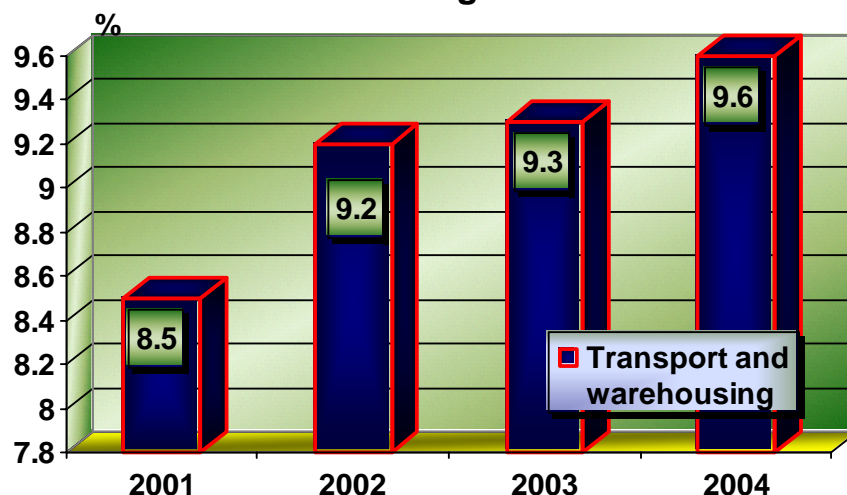
Transmitted by the Governments of Lithuania and Turkey

LITHUANIA

Role of transport in economic development of Lithuania

Transport is one of the most rapidly developing sectors in Lithuania. In recent years the Gross value added (GDP) generated by the transport and warehousing sector continued to grow and in 2004 accounted for 9.6% of the total GDP of the country. This indicates a significant impact on the transport sector on the whole economy of Lithuania. The contribution of transport and warehousing activities to the total GDP is indicated in the diagram below:

Contribution to GDP of Lithuanian transport and warehousing activities



Road transport activities (passenger transport by buses, trolleybuses, taxis, road freight transport) are major contributors to GDP, among all transport and warehousing activities (approx. 50%). Railway transport and ancillary transport activities (trans-shipment in seaports, etc.) also constitute a large proportion.

The transport sector in Lithuania is one of the most significant components of the economy. The main reason for such a strong transport impact on economy is the very advantageous geographical position of Lithuania: it is in the geographical centre of Europe, therefore the country is crossed by 4 TEN-T corridors: I A, I, IX B and IX D. Transport corridors IX B and IX D ensure transport flows in the East-West direction to the Baltic Sea ports: either to Kaliningrad (IX D) or to the Lithuanian port of Klaipeda. These transport corridors generate larger volumes of rail haulage than road. The same situation is with transport corridors I and I A co (the North-South direction).

Lithuania had good roads during the interwar time and later during the Soviet occupation period. After re-establishing independence in 1990, Lithuania used this situation and many road haulage companies were established, thus continuing to keep a strong position in the West European freight market. On the other hand, Lithuanian railways suffered losses, especially in the passenger market. Passenger transportation is a loss-making service in Lithuania, and freight haulage is beneficial. That is quite different from Western Europe, where passenger rail services have very competitive positions compared with road transport.

The Lithuanian Trans-European network comprises 1,617 km of roads, 1,100 km of railways, 278 km of inland waterways, 3 international airports (Vilnius, Kaunas and Palanga) and the Klaipeda State Seaport.

A major proportion of passengers and goods in Lithuania are carried through the Trans-European network: in 2004 the total amount of goods carried was 102.4 million tons, and the volume keeps growing.

Lithuanian freight railway transport competes with road transport and accounts for 44 % of all goods traffic (road goods traffic amounts to 50 % on average). That is quite a different situation from Western Europe where freight railway market has a much weaker position.

Container traffic in the Klaipeda State Seaport has increased during recent years and tends to grow further. In the last year it grew by 47 % compared with 2003 and accounts for 174 thousand TEUs (twenty-foot equivalent units).

Passenger traffic at international airports has grown after joining the European Union (EU) on 1 May 2004. Compared with 2003, passenger traffic at international Lithuanian airports grew by almost 40 % and reached 1 million passengers.

In order to satisfy the demand for transportation, further modernization and development of Lithuanian transport infrastructure is necessary.

The revised Guidelines on the Trans-European Transport Network presents a legal instrument and the countries concerned are committed to the implementation of the identified priority projects. Two of those projects - Rail Baltica and Baltic Sea Motorways - are regarded as the main priorities of Lithuania.

A creation of a modern multinational Trans-European transport network along the North-South direction on the basis of the I Crete transport corridor is considered a very important priority of transport development. The backbone of the latter should become the "Rail Baltica" project – a European gauge railway line, serving for common Euro-Asian transport needs after the completion of a network of logistic centres on the intersections of the main axis.

Lithuania and other Baltic States (Estonia and Latvia) have a very high risk of so-called long-term infrastructure isolation, which would have a negative impact on the competitiveness of the whole Baltic Region within the EU. Looking at the map of Europe, the only land route from the Baltic States to the West is through Poland which, at the moment, is without an effective international rail infrastructure. It should be borne in mind that a railway line is an investment for a hundred years in the future. Therefore, the steps already taken by the European Commission in order to facilitate the progress of project implementation – initiation of the nomination of the European Coordinator (and the Common feasibility Study initiated by the Commission for the Rail Baltica project) are very much welcomed.

Modernization of the East-West direction, and its integration through "Baltic sea motorways" into the Trans-European network has become one of the main priorities of Lithuanian transport development. The extension of the Motorways of the Sea, including connections of the EU with the neighbouring countries in the East-West direction is also very important for the Baltic States. The development of this concept strongly depends on the initiative of the Member States and must take sufficient account of the need to ensure effective land connections from the ports to their hinterlands. In this context, the Baltic States take active participation in the "Wider-Europe" initiative by submitting common proposals, together with

neighbouring countries (Belarus, Russian Federation and Ukraine). Lithuania and the Baltic States are the right place where connection of the two different transport systems (the EU and Eastern neighbouring countries) could be achieved, ensuring the relevant technical and administrative interoperability.

Though the business environment is already good in Lithuania, the creation of *Logistic centres' network*, new European-gauge railway line *Rail Baltica*, the development of the first road transport corridor *Via Baltica*, the development of *short sea shipping* through the Baltic Sea motorways will significantly improve the business situation in Lithuania. In recent years Lithuania has had the highest Gross Value Added (GDP) generated in transport, storage and communication sector figures in the European Union. The demand for transport is growing rapidly and, therefore, focusing on transport services' variety, capacity, multimodality and the highest quality is essential.

Maritime transport grows, road transport increases substantially, air transport passenger volumes rise (especially after joining the EU on 1 May 2004), and the highest share of GDP between EU-25 is surpassing all expectations. Notwithstanding this, there are many things to be done: poor connections with Western Europe via Poland, uncertain progress of the Rail Baltica project impeding its fast implementation, traffic safety problems in terms of road accidents, etc. These are great concerns requiring joint efforts of both internal institutions and neighbouring countries.

According to the circumstances that have changed after Lithuanian accession into the EU, a new long-term (until 2025) Lithuanian Transport System Development Strategy has been drafted and should be adopted by the Government's resolution in the nearest future.

The main goals of the Lithuanian transport system development Strategy are the following:

1. Modernization of TEN – T network elements;
2. Development of regional transport infrastructure;
3. Development of multimodal and intermodal transport infrastructure by creating logistic centres;
4. Development of facilities at international airports and the Klaipeda State Seaport;
5. Improvement of traffic safety and transport security (a new Road Safety Program for 2005-2010 has been drafted).

TURKEY

The role of railway transport in economic development

The favourable effects of the transport sector on sustainable economic development could be summarized as follows:

- It is the production input that facilitates mobility of goods and people between production/consumption centres;
- Changes in the transport system creates changes in levels of supply and production systems;

- Transfer of production factors to more efficient production centres.

In addition to the direct effect of the transport sector on economic development, the return rate of any investment in this field is 50% higher compared to other sectors (World Bank, 1996).

Combined transport is the coordinated use of various fast, economic and safe transportation modes for door-to-door transportation. Turning the transportation towards a greater share of combined transport is an important step towards attaining a goal of cheaper, faster, safer and environmentally cleaner transport.

In Turkey, great importance is attached to increasing the share of combined transport in order to reduce the rate of traffic accidents, improve railway and maritime transport, and use modern transport techniques. The Turkish State Railways carries out its activities in this direction.

In regard to combined transport, the Turkish State Railways (TCDD) engages in the following activities and organizes:

1. Container transportation;
2. Swap Body;
3. Ro-La (system of transportation of highway vehicles on wagons) - there is a high demand for this type of transportation;
4. Bi-modal transportation (The system in which transportation is made with special trailers appropriate for both railway and maritime conditions) - there is also high demand for this type of transportation;
5. Train-ferry (transportation of wagons by maritime transport).

Energy Consumption

About 20% of the total energy in Turkey is consumed in the transport sector. About 93 % of the energy in the transport sector is consumed in road transport.

Table: Energy Consumption in Transport Sector (%)

Years	Railways	Road	Maritime	Air	Total
1994	3	89	2	6	100
1995	3	86	2	9	100
1996	3	87	1	9	100
1997	3	86	1	10	100
1998	3	86	1	10	100
1999	3	87	2	8	100
2000	2	88	2	8	100
2001	2	87	2	9	100
2002	2	93	2	3	100

Source: Calculated from the data of the Ministry of Energy and Natural Resources.

Railways consume less energy both in goods and passenger transportation than the other modes of transportation, except maritime transport. The energy consumption in railways per unit of work is lesser than $\frac{1}{4}$ to $\frac{1}{7}$ in comparison with road transport.

Safety

Safety in transport is described as the creation of conditions where accidents can be avoided.

Studies have shown that accidents on highways cause a great deal of material damage and physical injury in all countries. By utilizing railways, which are safer than highways, such losses could be restricted and negative effects of accidents on the environment could be reduced.

An average of 5,000 people loose their lives annually in accidents in Turkey.

Environment

While the share of railways in air pollution (with diesel traction) is 5%, the share of highways is 85%. There is no air pollution with electricity traction.

The role of railways in land and water pollution is also small. However, the oil wastes of highway vehicles and the matters around gas stations pollute the surrounding lands and water resources.

Noise

Studies have shown that the noise rate in highways differs in a range of 72-92 decibels. This rate can be high up to 103 decibels for heavy vehicles. On the one hand, the noise rate for airways is between 103-106 decibels. On the other hand, the noise rate of a train travelling at 150 km per hour is between 65-75 decibels. Given that the upper threshold of noise for a person working 8 hours is 90 decibels at the most, the importance of the railways is seen more clearly.

Use of Land

Valuable lands and natural resources should be protected while planning a transport route, in order not to cause economic losses. In countries with developed transport networks, the space allocated for transport is around 5% and this is a relatively small rate compared to settlement areas, industrial areas and forests.

For making the same amount of transportation, highways require 2.7 times wider space than railways. According to the specifications accepted in Germany, an electrical double-line railway with a platform width of 13.7 metres is equal in capacity to a six-lane highway with a width of 37.5 metres.

Infrastructure Costs

The cost of constructing a highway equal to a double-line, electrical and signalled railway is about three times higher. While the cost of building a 1 km long double-line, electrical and signalled railway is \$US 1.5 million on smooth land and \$US 4 million on rough land, the cost of building an equivalent 1 km long highway is \$US 6 million on smooth land and \$US 12 million on rough land. (With regard to infrastructure costs according to the specification accepted in Germany, an electrical double-line railway with a platform width of 13.7 metres is equal in capacity to a six-lane highway with a width of 37.5 metres.)
