Advanced Logistic Systems, Vol. 7, No. 1 (2013), pp. 65–70.

DEVELOPMENT OF ROAD INFRASTRUCTURE WITHIN THE EU FINANCING

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Abstract: A condition of roads positively affects the spatial coherence of the country, social mobility and economic development, so transport infrastructure requires constant upgrading and improvement. The article concerns investments analysis in the transport sector within the financing of the European Union. The investments made in this area were related to the expansion and modernization of the existing transport infrastructure. Presented observations were focused on the assessment of the level and structure of EU subsidies to road transport. On the basis of analysis, it can be observed that a share of resources for infrastructure development, come from a number of EU programs.
Keywords: transport system, EU, subsidies.

1. Introduction

Polish membership in the European Union involves the permanent adaptation of Poland to numerous requirements and conditions for the functioning within the common market. The result of such operations is the rapid development of the country, which is clearly visible by the expansion of the network of roads and highways [1].

Transportation from the point of view of both the national and international economy is an important issue of the multi-plane character. Therefore, taking investments in this area, it is necessary to take into account the economic, organizational and technical aspects.
The greatest impact on the formation of the GDP, within the whole sector, has road transport.

It generates the largest national income because of several important reasons:

- "the high speed of shipping,
- easy adaptation of vehicles to various forms of cargo,
- easy adjustment of potential transport to changing over time and space transportation tasks,
- the possibility of direct transport "door to door", what helps to avoid reloading, which is virtually impossible in the case of other modes of transport [4]."

These factors mean that most businesses already use this type of transport, which can be seen from the annual percentage rate of traffic growth based on the growth rate of GDP [9].

This index is estimated for each category of vehicles as the product of the coefficient for flexibility and growth rate of GDP (GDP forecasted for 2013 years), taking into account the area of the country, and year.

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For trucks without trailers / semi-trailers or with trailers / semi-trailers, which are the main tool for road freight transport, flexibility indicators are successively 0.35 and 1.07 (set for years 2008–2015). These indicators are presented for major Polish regions in Tables 1 and 2.

Table 1

Traffic growth rate for trucks without trailers and semi-trailers

Region	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
The Central region	0,029	0,017	0,025	0,035	0,019	0,023
The South region	0,028	0,016	0,024	0,024	0,019	0,021
The East region	0,026	0,017	0,023	0,021	0,016	0,028
The North-West region	0,023	0,016	0,024	0,021	0,017	0,020
The South-East region	0,029	0,017	0,025	0,025	0,015	0,021
The North region	0,028	0,016	0,023	0,022	0,017	0,020

Study based on the data from the General Directorate for National Roads and Motorways

Table 2

The growth rate of traffic for trucks with trailers and semi-trailers

Region	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**
The Central region	0,068	0,031	0,056	0,085	0,036	0,050
The South region	0,065	0,028	0,053	0,052	0,037	0,043
The East region	0,058	0,030	0,049	0,044	0,029	0,064
The North-West region	0,050	0,029	0,052	0,043	0,030	0,041
The South-East region	0,068	0,031	0,057	0,055	0,024	0,042
The North region	0,066	0,029	0,051	0,046	0,032	0,041

Study based on the data from the General Directorate for National Roads and Motorways

On the basis of the data from the table the rate of average growth of movement for the years 2008–2013 for trucks was calculated. The results in graphical form are shown in Figure 1. This will allow to evaluate the level indicator in the examined years.

Within the examined years average rate has slightly decreased, which may stand for a reduction in internal traffic of trucks on the road. This may be due to law regulations that require additional charges for road and environmental protection, increased fuel prices and numerous renovations and modernizations of existing roads which were recently conducted.

However the decline in road traffic is lower than the traffic forecasts conducted by GDDKiA for the years 2000 and 2020, show even double growth of the average daily traffic. This means that the companies are still eager to use and will benefit from this form of transport, which should be taken into account when deciding on the modernization and development of the national road network.

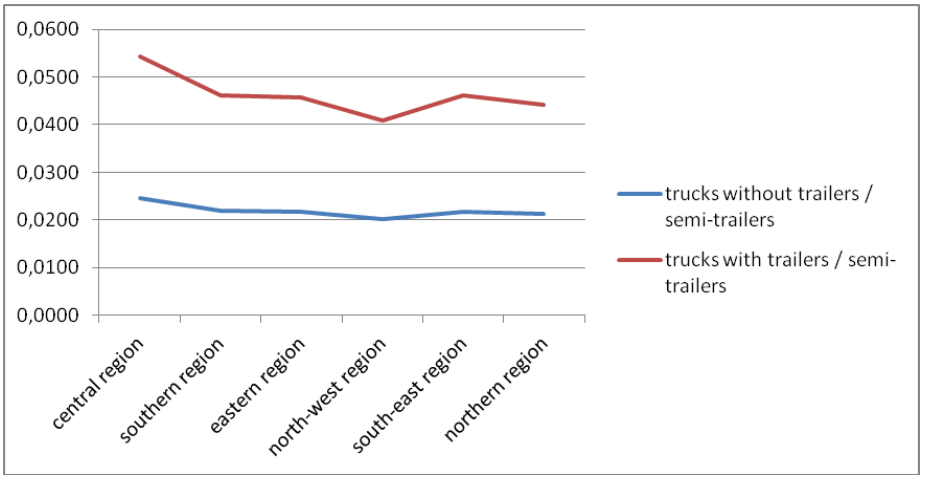


Figure 1. The average rate growth of internal traffic for years 2008–2013 for different regions.
Study based on the data from the General Directorate for National Roads and Motorways.

2. The purpose and sources of funding for infrastructure modernization

The purpose of investment projects carried out in the transport sector is to improve the conditions of goods and passengers transport, what is more specified by:

- increasing the efficiency of the network, in particular by reducing the number of accidents, reducing costs and increasing the speed of basic movement,
- increasing the availability of the outermost regions,
- reducing the road congestion by removing bottlenecks on selected sections of roads or by creating new connections,
- expansion and linking of existing road sections [2].

A tool for achieving the goals is the Operational Programme Infrastructure and Environment, operating by means of the European Regional Development Fund and the Cohesion Fund. This program covers all modes of transport.

Within the framework of the Operational Programme Infrastructure and Environment, General Directorate for National Roads and Highways is requesting 42 core projects and 29 reserve projects.

As a result of applications submitted, Poland has been allotted in the period from 2007–2013, a total amount of 19.6 billion euros from the European Union, which accounts for 70% of the total budget allocated for the development of the transport network. The rest comes from the national budget. The amount allocated to the basic project financing amounts to 42 million PLN [5]. Table III. shows the number of projects submitted under the modernization and expansion of road infrastructure in the OPIE (in Polish POIiŚ) 2007–2013.

In total, as of 28.02.2013 GDDKiA 43 agreements for financing the construction of roads and junctions were signed, with the total cost of eligible 49 961 116 252 PLN, with

funding from the European Union is 42 466 779 725 PLN which represents about 85% of eligible costs. Total cost of investments amounted to 68 583 839 527 PLN [7].

In addition GDDKiA uses technical assistance within XV priority axis as one of the main beneficiaries of OPIE. Expenditure under the priority axes are executed on the basis of sectoral Annual Action Plan (RDP). The total amount of support for GDDKiA in the Multi-Year Action Plan GDDKiA for 2007–2013 is 633 342 568.71 PLN to be used by the end of 2015.

Table 3

Number of main and reserve projects submitted to the Programme 2007–2013.

Name of operation	**Priority VI: Road and air network TEN-T (Trans-European Network for Transport):**	**Priority VIII: Transport safety and national transport networks:**
Operation 6.1 The development of the Road network TEN-T	21 basic projects 12 reserve projects	–
Operation 6.2 Better access to the largest urban centres in the eastern regions of Poland:	3 basic projects 4 reserve projects	–
Operation 8.1 Road safety	–	1 basic project
Operation 8.2 Country Roads outside TEN-T network	–	17 basic projects 13 reserve projects

Personal study based on data from [8, day. 12.03.2013].

During the 2009–2011 grant from the Technical Assistance of OPIE in GDDKIA covered the following types of expenditures:

- Substantial expenditures – expenditures for services to develop analyzes or reports, translation and consulting services and the costs of civil law contracts,
- Expenditure on employment – wage subsidies for workers involved in the implementation of road projects funded by the program,
- Purchase of IT equipment, namely computers, software and licenses for staff carrying out investments in infrastructure subsidized by the program,
- The cost of modernization or rental of office space and purchase of equipment for offices,
- Funding earmarked for upgrading skills (education, training, courses),
- Other administrative expenses such as buying office supplies and expenses connected with business trips.

Road projects are also funded from the Operational Programme "Development of Eastern Poland." Recently, as a part of this program 11 applications for funding were submitted and also 10 agreements for funding. The costs of all eligible applications which were submitted, including the day 15.03.13, covered – 1 849 925 724 PLN, while the total value of the funding according to the Application was equal – 696 086 922 PLN.

GDDKiA activities were also supported by the preparation of projects co-financed from EU funds in the budget perspective for 2007–2013.

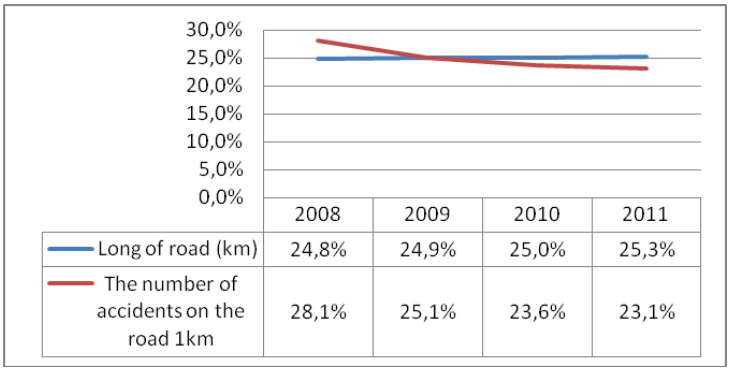
The project includes three tasks concerning the development of tender documents, preparing institutions for the implementation of projects and the preparation and evaluation of the documentation created during the various stages of the project.

The total value of the project resulting from a decision of the European Commission is 15 million euro, and the value of co-financing of TEN-T – 12.75 million euro[8].

3. The benefits of the implementation of investment projects financed from EU subsidies

As a part of the Operational Programme Infrastructure and Environment, the expansion of the road network by the end of 2013 is expected, more specifically it is calculated that 430 km of motorways and 579 km of expressways in the TEN-T network will be created.

The project is expected to take the benefits of the targets for savings from reduced journey times and the number of accidents. Figure 2 presents the estimated value of time savings in the transport of goods in selected EU countries as a result of the investments in the researched sector.



	2008	2009	2010	2011
Long of road (km)	24,8%	24,9%	25,0%	25,3%
The number of accidents on the road 1km	28,1%	25,1%	23,6%	23,1%

Figure 2. The ratio of accidents to the length of national roads in 2008–2012.
Study based on the data from the General Directorate for National Roads and Motorways

On the basis of the graphic form it can be observed clearly that with a slight increase in the number of kilometers of national roads, the number of accidents per 1 km of the road is decreasing. This means that the purpose of investment in infrastructure for increasing safety on the roads is carried out effectively.

The benefits are also visible in the case of travel time. For example, the longest stretch of the A1 Stryków-Kowal motorway-financed by the EU, has allowed drivers to shorten the travel time on that route from 1.5 hours. to about 40 minutes [3].

Transportation projects can also have a positive effect on the economic situation of each region. As a result of network expansion, the possibility of the development of entrepreneurship and outlying suburban areas that have a chance to gain a competitive advantage when the local industry is less efficient than in the central areas, increases.

4. Summary

National transport infrastructure requires constant upgrading and improvements. Good condition of roads, in turn, positively affects the spatial coherence of the country, social mobility and economic development.

In making investments in the expansion of the transport network, the emphasis is put on the level of available money that to a large extent come from EU funds.

On the basis of secondary analysis, it can be observed that those money come from a number of EU programs and the effectiveness of their funding can be seen mainly in reducing the number of accidents and also in increasing the number of kilometers of roads, which also reduces travel time.

Despite the fact that by the end of 2012, the European Commission suspended the 3.5 billion PLN for road projects in the framework of Infrastructure and the Environment and Development of Eastern Poland, there is a chance that they will be released after presentation of the required documents. There are still other EU funds contracted for the planned projects that GDDKiA can use.

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