

## **Environment Aspects in Road Sector**

Consideration of the Environmental Protection items is undoubtedly connected with working out the general plans. Therefore all the environmental aspects will be reviewed in a common context.

**Environmental Protection Policy Plan for Latvia**, confirmed by the Cabinet of Ministers in 1995, recognises the impact of transport on the environment as one of the most essential environment problems in the country.

The measures suggested for solving this problem are as follows:

- Development of environmentally friendly transport infrastructure;
- Regulating and optimising of modes of transport and flows of goods;
- Decrease of the emission of toxic substances and noise coming from all the means of transport;
- Decrease of the risk of transport accidents.

Environment policy plan considers the territorial planning of all levels regulated by the Law **“On Territorial Development Planning”** (accepted in 1998) to be an effective means of solving transport problems. By the way, this Law defines the principles that essentially impress the planning of transport. The principle of regional development envisages to decrease the unfavourable differences among more or less developed regions and to keep and develop the characteristic features and development potential of nature and culture environment of each region. The planning of transport is under the influence of competition principle providing that the territorial development plans originate equal preconditions for entrepreneurial activity.

In its turn, the condition of roads in Latvia are deteriorating due to insufficient financial means. The roads the technical level and traffic conditions of which don't meet the intensity of traffic are considered as ecological dangerous. Both the factors – the increasing road traffic and the worsening condition of roads enlarges the negative influence to nature and culture heritage.

Up to now the greatest attention according to environmental problems is paid to the Via Baltica route. On the basis of feasibility studies environmental items are viewed in the Latvian Road Network Maintenance and Operation Master Plan worked out by Phare. The National Environmental Health Centre at Saulkrasti and Ltd “Geo Consultants” at Baltezers managed searching studies of the nearest countryside of Via Baltica, measuring the pollution of air and soil, and determining the amount of noise and vibration as well.

Several years ago the problems relating to the impact of roads on the environment were discussed in the process of designing Jelgava bypass and after accomplishing the construction, with the help of foreign consultants.

The issues about the impact upon the environment were also treated in the European Bank for Reconstruction and Development study (1993) about Bauska bypass.

At present Strategic Environmental Assessment for Latgale Highway Rīga – Jēkabpils is being done. The mentioned road is the main component of Latvian West – East Corridor, and detailed Environmental Impact Assessment of the Koknese alignment connection alternatives is under completing as well.

In West – East direction the route Liepāja – Rīga – Jēkabpils – Rēzekne – Russian border (Terehova) in Latvia is included in TEN network as the connection of Liepāja harbour with Crete Corridors I and IX and is a part of TINA(Transport Infrastructure Needs Assessment) backbone network. In this direction Latvia needs to construct a road that would meet the European standards, as the present road network providing transit connections is physically aged and quite loaded by local traffic.

The reconstruction of the existing road would not be efficient, as practically it is not possible to construct bypasses around urban areas. Therefore already in 1977 the construction of the Latgale highway was started with an aim to separate international and domestic transit traffic from local traffic.

Due to the financial crisis in previous years the construction of the new road was interrupted.

The 2-lane road was constructed in the length of 42 km with 2 lanes (2 x 3.75 m). In specific sections the construction of the road was implemented in different stages:

- in section **Kranciems quarry-road P8 (18 km)** the road with asphalt concrete pavement is constructed.
- In section **road P8 – road P32 (17 km)** the road with crushed dolomite pavement is constructed.
- In section **road P32 - Viskaļi** earthworks in the length of 4 km are completed, the subgrade is constructed.
- In section **Viskaļi – Koknese** the construction of the Latgale highway is not started, but alignment staking works are performed.

In 1973 the staking of the section **Koknese – Pļaviņas bypass** alignment was performed.

In accordance with the order of Latvian Road Administration in the year 1999 the East - West Road Transport Corridor Feasibility Study was being done in section Rīga – Jēkabpils to accomplish the analysis of the usefulness of proceeding the started construction in connection with expected overloading of existing road A6. A programme has been made for a general Environmental Impact Assessment for all the Latgale Highway in the section Rīga – Jēkabpils and for a more detailed EAI study for the section from road P32 up to the connection to the road A6 at Koknese.

The legal base of such kind of study is the law “**On Environmental Impact Assessment**” approved by the Parliament 14.10.1998 in accordance with EU Directive 85/337/EEC on requirements for Environmental Impact Assessment. The purpose of this Law is to prevent or reduce potential negative impacts to the environment of developments proposed by persons or legal entities. The Law determines Environmental Impact Assessment (EIA) principles and general procedures. In the Annex of the EIA Law the projects are listed for which Environmental Impact Assessment is required. In the list there are the following projects connected with transport sector:

- Public railway lines;
- International airports;

- Roads with the length of 10 km or more;
- Inland waterways and ports designed for inland waterway traffic, which permit the passage of vessels of over 1,350 tons;
- Trading ports, piers for loading and unloading connected to land and outside ports (excluding ferry piers) which can take vessels of over 1,350 tons;
- pipelines for the transport of gas, oil or chemicals with a diameter of more than 500 mm and length of more than 40 km;
- high voltage electrical power lines with a voltage 110 kV or more and length of more than 15 km.

EIA is needed also for projects that may have transboundary impacts and require Impact assessment in accordance with international agreements ratified by the Republic of Latvia and for those projects, when Regional Environmental Boards have so requested on the basis of results of an initial assessment.

Cabinet of Ministers' Regulations No. 213 **“On Procedures for Environmental Impact Assessment”** passed on 15 June 1999 define the procedures for EIA.

What exactly is Environmental Impact Assessment? The procedure of Environmental Impact Assessment is not only research work on the proposed development possible adverse impact on environment and on the pollution control issues. It also determines opportunity for society to take part in the development of environmental issues, to obtain information, to express proposals and to influence making of decisions.

Environmental Impact Assessment of the road influences making further decisions, for example, shows ecologically less destructive alternative. It determines impact on environment in different project implementation stages, taking into consideration different alignment alternative and technology scenarios. EIA ensures complex approach to the problems, not allowing to act in accordance with economic reasons only.

EIA procedure has to be carried out at the earliest possible stage of the technical planning, design and decision making phase of the proposed development, taking into

consideration its very close commitment with the procedures, determined in the legislation on construction, territorial development planning and permission issue procedure.

Proponent for the carrying out the EIA can be a person or legal entity, anticipating and going to start an activity requiring Environmental Impact Assessment. The proponent is also responsible for Draft EIS and Final EIS preparation.

The preparation of the Environmental Impact Study is divided in two stages. At first the proponent works out the Draft EIS, after that the evaluation and, if necessary, in addition of it, the Final EIS is prepared.

To get the permission for starting the planned activities, the initiator has to hand in the Final EIS Report and the Evaluation Report of the State EIA Bureau to the corresponding state or municipal institution. The decision either to accept or not to the proposed development at the corresponding state or municipal institution can be made only after considering from every point of view Final EIS and State EIA Bureau Evaluation Report and considering the point of view of the concerned state administrative body, municipal and representatives of society.

Reverting to already mentioned Latgale Highway project, the opening of it for the transit traffic would give a considerable improvement of the existing road A6 in decreasing the number of traffic accidents and in the protection of environment and people's health included, as the populated areas Ciemupe, Ķegums, Lielvārde, Dzelmes and the Daugava river valley would be unburdened from transit traffic. Driving through populated areas with a limited speed, highest air pollution is noticed (as known, it can be observed at the traffic speed ~ 40 km/h).

The following **environmental impacts** are associated with this project.

Traffic related effects:

- Air and climate

- Noise
- Barrier effects and impacts on people
- Energy consumption
- Traffic safety

Other environmental effects:

- Water and soil; drainage of surface water, water resources and groundwater
- Landscape; nature appreciation and aesthetic aspects
- Ecology (flora and fauna)
- Historic and cultural heritage
- Land use
- Territorial planning
- Socio-economical aspects, induced development of region, etc.

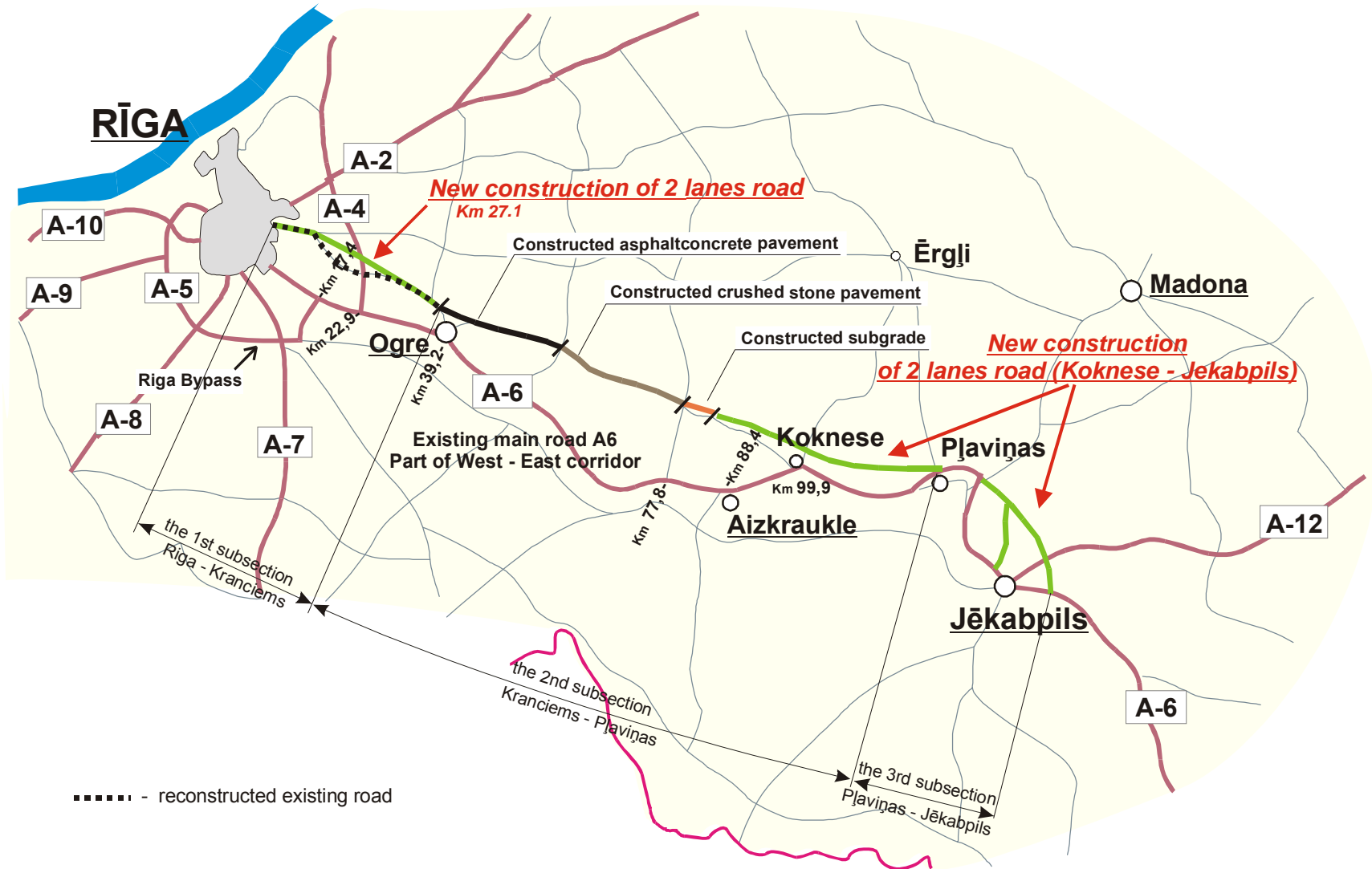
Construction phase impacts

During the construction phase, other short-term impacts can be relevant such as:

- Utilisation of resources and waste
- Noise and emissions from machinery and trucks

When completing the EIA study and organising the public hearing the local construction boards and municipalities will be able to evaluate all the aspects of possible impacts and to make the right decision.

# Latgale highway (section Riga - Jekabpils)



..... - reconstructed existing road