

Technical Sciences

Stepanov A. V.

PhD in Technical Sciences,

Associate Professor,

Kharkiv National Automobile and Highway University

INFLUENCE OF GEO-PATHOGENIC ZONES ON TRAFFIC SAFETY

Transport is one of the basic sectors of economy. Its effective functioning is a prerequisite for guaranteeing defense capacity and protection of economic interests of the state, for raising the standard of living of the population.

In this regard as recently as 2010 the Cabinet of Ministers of Ukraine approved Transport Strategy of Ukraine for the period before 2020. The Strategy aims to determine conceptual bases of forming and implementing state policy for providing stable, safe and effective functioning of transport sector, to create environment for social and economic development of the country and for improvement of competitiveness of national economy and of standard of living of the population.

The Strategy is based on the following principles: providing the availability of transport services for all the strata of the population, in particular for people with disabilities and for low-income citizens; coordination of plans for development of transport infrastructure with the general scheme of the territory planning of Ukraine and with land-use plans; carrying out a rigid anti-monopoly policy; liberalization of pricing in transport service market; operation of transport enterprises on the basis of self-sufficiency; concentration of the financial resources on satisfying the main objectives of the transport sector development; compensation of costs for transportation of the privileged categories of citizens from the state and local budgets; guarantying environmental safety, keeping with environmental standards and regulations when carrying out activities in the transport field; encouragement of development of energy-saving and environmentally friendly modes of transport.

In general, nowadays, transport sector meets the needs of national economy and population in transportation, although the transport safety level and, in particular the motor-transport safety level, coefficient of quality and efficiency of passenger and cargo traffic, energy efficiency and technogenic impact on the environment do not meet modern standards.

It should be mentioned that motor-transport is a branch of transport sector that is to satisfy the needs of the population and social production in passenger and cargo transportation by motor-vehicles. Motor transport sector includes road transport enterprises carrying out transportation of passengers and cargoes, motor vehicle and tire repair services, vehicles, freight forwarding companies, and also bus stations and auto-stations, schools, repair and construction organizations, social and welfare institutions, and other enterprises, establishments and organizations of any form of ownership that support motor-transport functioning. The bases of motor-transport organization and maintenance are determined in the Law of Ukraine «On motor-transport».

Systematic character of the concept of transport safety determines the necessity of the complex, systemic solutions available in this field. Transport safety aims to protect passengers, cargo owners, recipients and transporters, vehicle owners and users, transport complex and its employees, budget and economy of the country and environment against threats in transport complex.

Under the Strategy implementation, the transport safety includes: delineation of national interests in transport field, detection of the factors that threaten those interests, formation of a system to counteract negative factors and threats in this field, definition of a set of measures that can improve the level of transport safety, and to conform it to international standards. In the most general form, the term "transport safety" can be defined as a system of warning, counteraction and preclusion of crimes, including terrorism in transport sector; system of prevention of natural and man-made disasters in transport; system of prevention or minimization of monetary and mental damage from crimes and

accidents in transport; system aimed at improving the environmental safety of transportations, environmental sustainability of transport system; system of realization of the objectives of national security in the entire transport sector.

Transport complex includes the entire transport infrastructure, and also all the other objects that provide operation of transport complex such as buildings, devices and equipment.

Transport infrastructure belongs to the most critical objects in range and level of possible threats according to the following criteria: increasing number of dangerous cargo transportations (nuclear weapon, petroleum, hazardous chemical substances, radioactive materials, nuclear waste) to a disposal area; highly battered and wrecking objects of transport complex; growth of traffic intensity along with the development of national economy, the development of new territories, the arrangement of functioning of international transport corridors; growth of road traffic accidents number, that is one of the most serious social and economic problems; fact of enhancement of the methods and manners of illegal activities of criminal groups, especially of terrorist organizations towards transport sector, reinforcement of the dangerous tendency of co-operation and coordination of their activities at federal and international levels.

It is necessary to mention the factors affecting the level of transport safety. These factors are: technical failures (of constructive character); accidents at infrastructure objects; insufficient level of qualification and personnel faults; explosions, fires, floods, submersions, earthquakes, typhoons, tsunamis and other similar phenomena; breakdowns in systems of communication and in traffic management systems; inadequate organization of traffic safety; insufficient level of overall protection during cargo and passengers transportation; terrorism, banditry, ruffianism, stealing, etc.

Transport safekeeping includes: timely prediction and detection of external and internal threats to transport safety; implementation of urgent and

long-term measures to prevent and neutralize internal and external threats to transport safety; execution of measures aimed at prevention or minimization of monetary and moral damage caused by crimes and accidents in transport; inventory of international requirements for transport safekeeping, and in respect to these requirements, development and implementation of a set of arrangements aimed at improvement of the transport safety level, at conforming it to international standards of safety in transport.

Meanwhile, the acting state system of measures to ensure transport safety, the applied protective methods, techniques and means for citizens and environment in case of emergencies in transport are not adequate enough against the existing and the potential threats.

In order to improve traffic safety, the Strategy implementation will allow to modernize the transport system and to improve the efficiency of its functioning; to satisfy the needs of the national economy and the population in transportation and to improve the quality and the availability of transport services; to ensure timely delivery of cargoes; to refine the system of the transport sector management; to increase the capacity of the transport network; to reduce the amount of harmful emissions into the atmosphere; to speed up integration of the national transport system into the European and global transport systems, to make the most of the transit potential of the country.

References:

1. Закон України «Про автомобільний транспорт» від 5 квітня 2001 р. // Офіційний вісник України. – 2001. – №17. – С.50.

2. Указ Президента України «Про Положення про Державну інспекцію України з безпеки на наземному транспорті, із змінами, внесеними згідно з Указом Президента N 506/2013 від 11.09.2013.

3. Розпорядження Кабінету Міністрів України від 20 жовтня 2010 року № 2174 р. «Про схвалення Транспортної стратегії України на період до 2020 року».