

UDC 656:332.145(447)

**ENSURING ECOLOGICAL AND TECHNOGENIC SAFETY OF
UKRAINIAN TRANSPORT COMPLEX**

**ОБЕСПЕЧЕНИЕ ЭКОЛОГИЧЕСКОЙ И ТЕХНОГЕННОЙ
БЕЗОПАСНОСТИ ТРАНСПОРТНОГО КОМПЛЕКСА УКРАИНЫ**

Valentina Kukharchuk

Кухарчук В.Г.

У статті розглядаються питання забезпечення екологічної та техногенної безпеки транспортного комплексу України. Визначені напрямки дій, спрямованих на покращення екологічної та техногенної безпеки транспортного комплексу.

Introduction. The purpose of the next decade is to create a single European transport area, to introduce the concept of sustainable transport in the entire European territory, to create conditions for the needs of the present without compromising the ability of the environment to sustain life in the future. Creating a system of technical and security for transport is essential for mankind. Quality, reliability and availability for transport are the necessary condition to achieve transport system. The main characteristics of the quality of transport services must be easy access, speed, reliability, comfort and integral integration.

Formulation of the problem. It is possible to speak about the lack of attention to the problem of environmental and technological safety of the transport complex of Ukraine.

Aim is to determine the conditions of formation of Ecological and technological safety of the transport complex of Ukraine.

Results. The results of technological and environmental security is ensured through the development and implementation of a number economic, political, legal, institutional and other measures aimed at protecting and localization ecological manifestations and man-made disasters.

National legislation is placing more emphasis on technological and ecologically safe.

During the years of independence, Ukraine formed his own new environmental legislation. It is represented by the laws and regulations, the number of which far exceeds the 700 documents.

The main law of the land is the Constitution of Ukraine. It sets out the right to security of life and health of the environment (Article 50), the ownership of the people on natural objects (Article 13) and the State's obligation to ensure environmental safety and protection of the environment (Article 16).

Special attention is paid to the Ecological Security in the Law of Ukraine "On Environmental Protection" section 11 of Article 50-59. Article 50 of the Constitution states said that everyone has the right to a healthy life and a healthy environment and

to compensation for violation of this right. Everyone is guaranteed the right to free access to information on the environment, the quality of food and household items, as well as the right to disseminate. Such information no one can be classified. Article 51, 59 regulated the environmental requirements for the various types of economic activity. Article 54 defines the requirements for the protection of the environment from the effects of acoustic, electromagnetic, ionizing and other harmful effects of natural substances and radiation. Article 55 defines requirements for the definition of standards of industrial pollution, household and other waste. Article 56 identified environmental requirements for vehicle safety. Article 57 defined Ecological requirements for new equipment, imported equipment, new technologies and systems. The main directions of the state policy in the field of environmental protection are described in the Law of Ukraine "The concept of national security of Ukraine." Regulations of the environmental safety issues are present not only in the areas of environmental legislation and in legal instruments relating to the protection of human health and the environment from the emergency situations of anthropogenic and natural origin. A common set of issues governing the protection and rational use of natural resources and entities, environmental security, reflected in the Environmental Protection Act of Ukraine, adopted in 1991. Ensuring environmental safety is crucial for the realization of constitutional environmental rights and sustainable social development. Ecological relationships in the use and protection of specific natural ingredients, high-value areas and entities secured by separate legislation, represented by the Subsoil, Forest, Water, Land Codes of Ukraine, and the "Fauna", "Flora", "The Air Protection", "Sanctuary funds of Ukraine", "The Red Data Book of Ukraine" and other Ukrainian Acts. The Ecological Assessment Act secured the obligation of the environmental impact assessment (EIA) for the construction, operation and reconstruction of environmentally hazardous entities. The Act provides an independent, impartial, transparent, comprehensive and evidence-based research taking into consideration environmental, economic and social interests of the local population, if necessary, the re-assessment of government or public project is taking place.

The other normative legal acts of Ukraine are the President Decree, the Cabinet of Ministers Orders and Instructions of the ministries and departments, local government solutions. For example, the new protected areas of national importance (reserves, national parks, wildlife sanctuaries etc.) are creating by the President Decree.

Equally important is the development, implementation and observance of the state ecological quality standards of environment, products, technology, manufacturing, construction and other activities. They are presented in the form of state standards - SS, sanitary norms and rules - SNR, state construction regulations - SCR. Nowadays, the great work is done to bring the Ukrainian legislation to the international standards (Figure 1). ISO 9000 and ISO 14000 state standards were adopted. They are series of international standards of quality production and environmental management systems in enterprises and companies, correspondingly, which include:

principles of establishment and usage of environmental management systems;
instruments of environmental monitoring and assessment, standards which are oriented on products.[1]

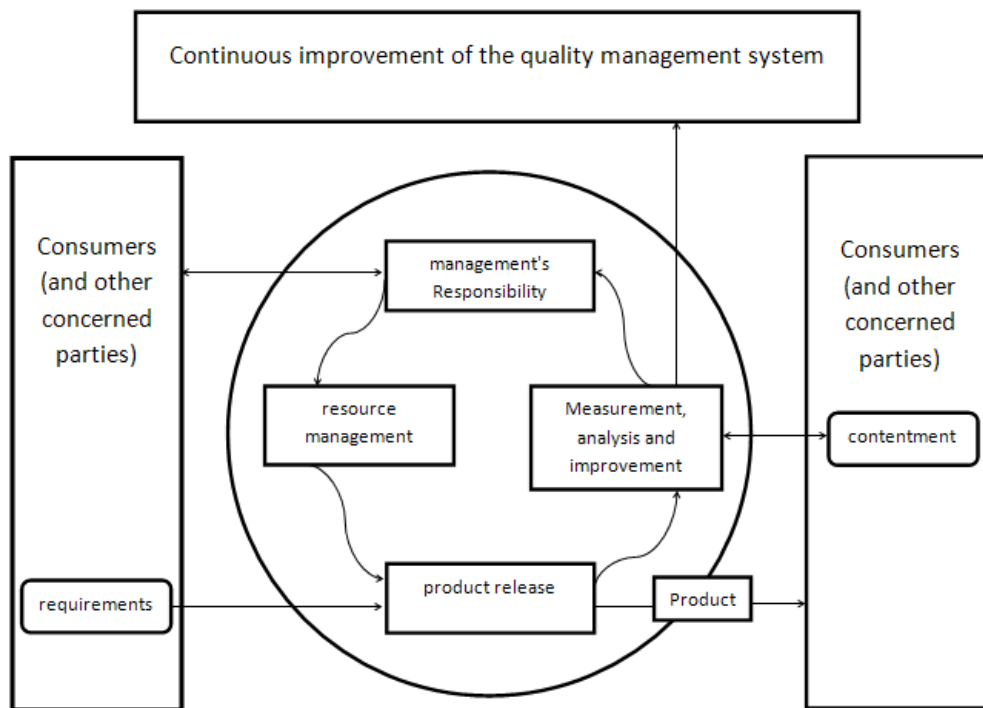


Figure 1. Requirement for the application of international norms and standards of quality in the field of environmental protection.

September 1, 2001 entered into force a new Criminal Code, a special part of which contains a section entitled "Crimes against the environment" and the article, which earlier wasn't in the old Criminal Code of Ukraine (1960). It is a violation of the rules of environmental safety (Article 236), covering up or twisted information on environmental conditions or diseases of the population (Article 238), pollution or damage to the land (Article 239), the design or operation of facilities without the protection of the environment (Article 253), the wasteful use of land (Article 254), and others for crimes a criminal offense to a fine, deprivation of the right to occupy certain positions or engage in certain activities, limit or a maximum prison term of up to 12 years (Art. 252. Deliberate destruction or damage areas protected by the state, and objects of natural reserve fund).

Administrative violations in the field of environmental protection, natural resources, punishment of imposition on citizens and officials are governed by more than forty articles of the Code of Administrative Offences. In addition, offenders are charged with compensation for damages caused by nature.

The Convention on Access to Information, Public Participation in Decision-making and Access to Justice in relation to the environment (Aarhus, 1998), ratified by Ukraine in 1999, defined the legal mechanisms to defend their legal rights and become almost Does not the greatest achievement of the "Environment for Europe".

Solution. All of the above laws are concerned the functioning of the transport complex of Ukraine.

Environmental activities in Ukraine is regulated by three blocks: the national environmental legislation, international legal agreements and conventions signed and ratified by Ukraine, voluntary commitments assumed by the States in the area of environmental protection. (Figure 2) should be divided into two areas the organization Ecological and technological safety: organizing regular safety devices (meaning the sea and river ports, bus stations, railway stations, airports, etc.) and organization of safety of rolling stock (sea and river fleet, aircraft, helicopters, trains, locomotives, buses., cars etc.). Sea transport is one of the most dangerous sources of pollution and increased threat of oil spills, which can cause irreparable damage to nature. Environmental Hazards of maritime transport consists of two components - the operational and emergency. It is difficult to say which one is the most dangerous for the environment. Contamination arising from the operation of ships, ports and shipyards, are formed and discharged continuously, albeit in relatively small quantities. In case of emergency spills occur volley discharges large amounts of pollutants, but they are limited to the area of the accident and the surrounding territories. When the alarm reset mass mortality of marine life, and when operational pollution is chronic poisoning of all marine and coastal waters. All vessels built after the entry into force of the international MARPOL 73/78 to meet its requirements in terms of environmental protection, ships built before that date, shall be subjected to modernize in order to bring them into conformity with the provisions of MARPOL 73/78 and national rules on the protection of the environment. The main operational ship pollutants can be classified and oily waste water, waste and air emissions. Transport ships engaged on international voyages, are equipped with containers for the collection of waste water and containers for waste collection and / or facilities for water from oil, sewage treatment and incinerators for burning garbage. Number of ship-generated waste depends on tonnage and type of vessel, its age, quality of service and the number of crew members. The amount of waste oil fuels separation depends on the type of fuel used and can be roughly estimated to be 1.5-2.0% of daily fuel consumption when operating on heavy fuel oil and about 0.5% at work on for medium viscous fuel. In this case, the remains in the fuel tanks may reach 7% of the number is in it heavy fuel. Amount of bilge water generated in the transport vessel, depending on the power of the engine, its technical condition, the age of the ship and personnel, and estimated 10.1 cu. m / day, and ships for coastal navigation - 0.1-3 cu. m / day. On tankers to transport crude oil, without segregated ballast tanks can be formed up to 25% of dirty ballast tonnage per trip. Amount of waste water is estimated to be 100 liters / person per day, household garbage - 1.5-3.5 kg / person per day, operational debris (deposits from engines, old paint, rags, etc.) - 10-15 kg / day. Debris arising from handling, estimated for general cargo ships - 1 ton to 200 tons of cargo, container for 1 ton for 25,000 tons of cargo and bulk cargo - 1 m to 10,000 tons of cargo. If the on-board incinerators are, part of oil residues and waste, including food waste, incinerated on board the vessel, and non-flammable waste and sludge that has accumulated after the treatment of waste water, shall be reception facilities in ports.[2] Sources of air pollution from ships are emissions from power plants sulfur and nitrogen oxides, carbon, ozone-depleting substances. These emissions will be normalized after the entry into force of a new Annex VI to MARPOL 73/78, adopted by the IMO in 1997, emissions of sulfur from conventional ship is estimated to be 1-1.5 m. / Day, and nitrogen oxide - 2.5 t / night. The Manual

contains the water quality standards required by MARPOL 73/78 and the rules for the protection of coastal sea waters from pollution. It includes organizational and technical measures to be carried on board in order to fulfill specified requirements for discharges.

Each section of the Manual contains a list of documents to confirm transactions with ship-generated waste (magazines, plans and receipts of operators) and compliance with environmental regulations vessel. The procedure of registration of these documents was shown. Prevention of pollution of the sea can't be achieved despite the measures taken only through the introduction to the courts of various environmental technologies and techniques. Environmentally friendly, fully safe ship will be too expensive, both in construction and in operation, so part of ship-generated waste will always end their lives on the shore, and the ship will require services of port reception facilities, which are often an integral part of urban waste treatment plant.

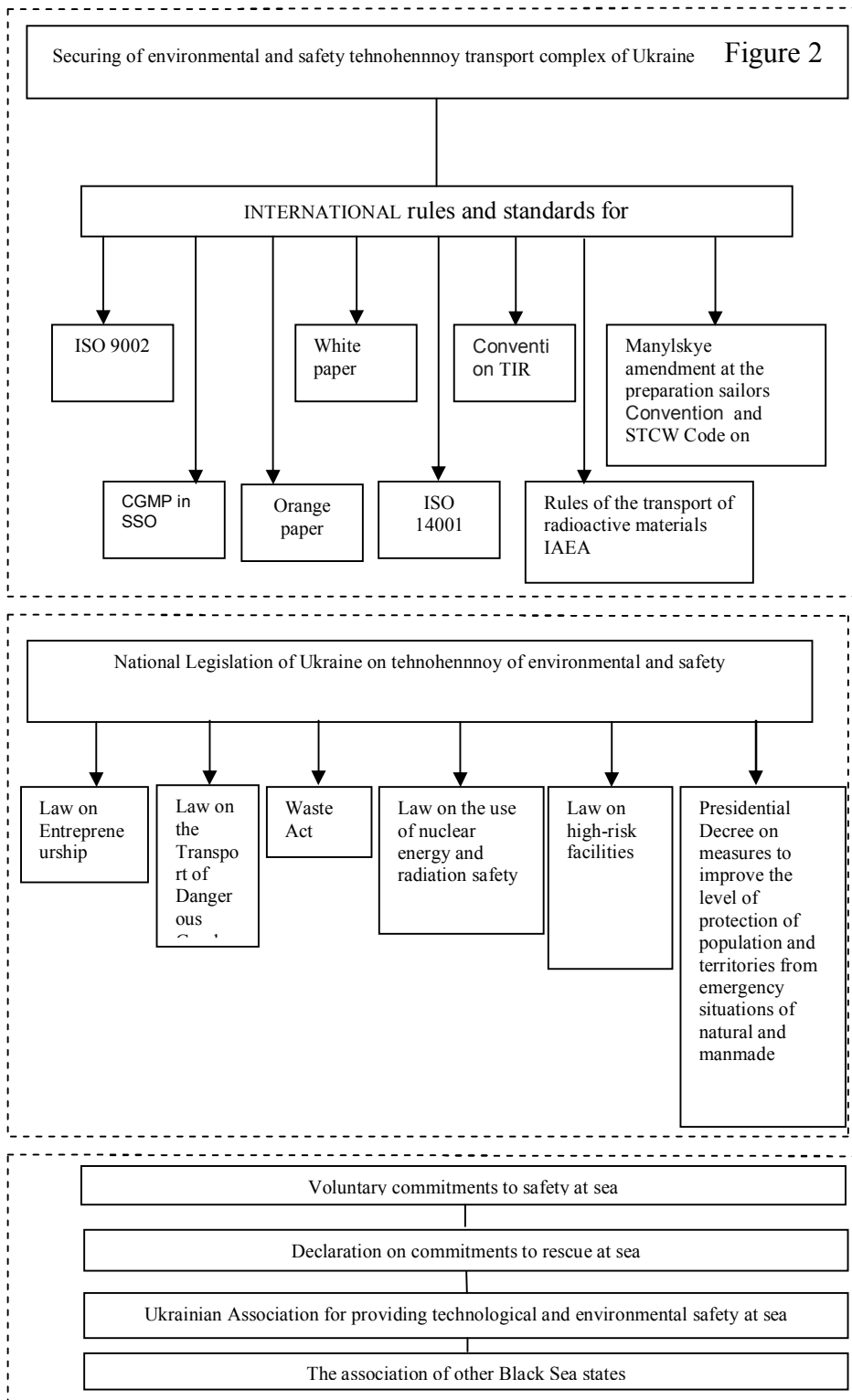
The concept of environmental protection in different ports to be based on the specific conditions of their work and take into account the location of the port and the range of processed goods, as well as their volumes, climatic conditions of the area, but in any case it should be based on the following conditions: all hazardous waste must either be destroyed or disposed of, or recycled. The analysis of the current state of port reception constructions for ship-generated waste used them technology and engineering showed that most of them do not meet the requirements of MARPOL 73/78 on the adequacy, that is, the provision of all services without undue delay to ships. Most ports can accept a limited number of oil waste, sewage and garbage.

The most optimal way to ensure the prevention of environmental pollution on the performance of pollution is to develop a "management plan waste collection and treatment in the port," which recommended HELCOM and is likely to be required in the years to MARPOL 73/78. The plan allows you to not only find out the situation of waste management in the port, but also to ensure the development of measures to bring the port in accordance with international conventions. According to the methodology Helcom (SSPA Report N 7596-1, 1996), the overall probability of an accident is 0.4 per 1,000 flights.

Probability flood risk is taken as 0.05 per 1,000 flights in the open sea, and 0.25 in dangerous places. Given the probable frequency of accidents with groundings and collisions average size of the oil spill can be estimated as 1/48 of the quantity of oil per flight. As noted earlier, environmental safety of maritime transport involves not only the prevention of marine pollution from ships in the course of their normal operations, but also the willingness to respond to emergency situations involving the threat of oil spills and their liquidation.

In ports to Safety provides: security monitoring, motion in port waters, bags provide parking and processing vessels, in good condition waterworks; monitor compliance depths approval value, security monitoring, storage and cargo handling, ship-to organize the adoption of contaminated sewage and water contaminated with oil, debris and other pollutants in the environment.

The White Book [3] defines the strategy to be followed up, all participants of the transport process. The reconstruction of the transport system is not possible without the agreed actions of the representatives of the national, regional and local authorities, who will organize transportation, and those who use them.



The White Book defines the strategy to be followed up for all participants of the transport process. The problem is the need to destroy the transport system dependence on oil without loses of it's efficiency and creation problems for the movement. According to the key initiative of "resource-efficient Europe", this was defined in the European strategy to 2020, and new «Energy Efficiency Plan 2011». Cargo traffic over short and medium distances (less than about 300 km) will largely continue to be carried out by truck. Thus, besides the promotion of alternative transport solutions (Transport), it is important to improve the efficiency of trucks through the development and introduction of new engines and cleaner fuels, the use of intelligent transport systems and further measures to enhance market mechanisms. During transportation over long distances opportunities to reduce carbon emissions by vehicles are limited and for shippers more economically attractive to become freight multimodality. An effective combination of different modes of transport is required. Necessary to optimize the capacity of airports and, where appropriate, to increase them to meet the growing demand for travel to / from third countries and regions of the EU, is not provided otherwise, may result in an increase of more than 50% of the volume of air traffic in the EU by 2050 In other cases, a significant share of traffic over medium distances must assume (high speed) railway. To fulfill the objectives for 2050 aviation industry should become a leader in the use of low-carbon fuels. Maritime transport as clearly declares the need for a level playing field in the world. The EU must make efforts - together with the IMO (IMO) and other international organizations - to use and control the implementation of high standards of safety and security, environmental protection and working conditions in general global level environmental performance of maritime transport can and should be improved both through technology and the best fuels and better organization of transport: total carbon dioxide emissions in the EU, which are carried by sea, should be reduced by 40% (if practicable - 50%) by 2050. compared to the levels 2005. The use of electric, hydrogen and hybrid technologies not only reduce emissions but also noise, to provide more freight traffic in urban areas at night. And this, in turn, will facilitate the problem of congestion on the roads in the morning and evening peak hours.

Ten challenges for competitive and resource efficient transport system: benchmarks achieve the goal of reducing carbon emissions by 60%, development and use of cleaner fuels and propulsion systems:

1. Reduce by half the use of cars "on traditional fuels" in public transport by 2030, gradually abandon them in cities by 2050., Achieve essentially free of carbon dioxide city logistics in major urban centers until 2030.

2. The use of low-carbon, environmentally friendly fuels in aviation to reach 40% by 2050., Should also reduce carbon dioxide emissions from bunker fuels in maritime transport in the EU by 40% (if practicable - 50%). This will also significantly reduced other emissions.

Optimizing the operation of multimodal logistics, including through the greater use of more energy-efficient modes of transport.

3. Thirty per cent of road freight transport for distances over 300 km should be transferred to other modes of transport, such as rail or sea transport, in 2030., And more than 50% - to 2050., And contribute to this efficient and "green" freight corridors. This task will also require the development of appropriate infrastructure.

4. Complete the formation of the European high-speed rail system in 2050. Triple the length of the existing high-speed rail network by 2030 and maintain a dense railway network in all Member States. At 2050 most passengers on medium range should be by rail.

5. Fully functioning multi-modal "core network" TEN-T across Europe in 2030. High quality and strong network in 2050 and a corresponding set of information services.

6. Connect in 2050. All core network airports to the rail network, preferably high-speed, secure a satisfactory combination of all major airports with rail freight lines and, where possible, inland waterway system. Improving the efficiency of transport and infrastructure use by information systems and market-based incentives

7. Using a modernized air traffic management infrastructure (SESAR) in Europe until 2020. And the completion of a common European airspace. The use of equivalent traffic management systems for land and water transport (ERTMS), (ITS), (SST and LRIT), RIS. The use of a common European satellite navigation system (Galileo).

8. Create up to 2020. framework for the European system of information management and payment of multimodal transport. According to the master plan for the European air traffic control.

According to the European plan to use ERTMS (see Commission Decision C (2009) 561)

In accordance with the plan of implementation of the "Easy Way 2" (see Commission Decision C (2010) 9675)

Directive 2002/59/EC establishing a framework for monitoring the traffic and community information

(Bulletin OJL 208, 08.05.2002, p.10-27), as amended by Directive 2009/17/ES (Bulletin OJL 131,28.5.2009, p.101-113).

See Directive 2005/44/EC (Bulletin OJL 225, 09.30.2009, p.152-159) Development Plan for the Single European Transport Area - Towards a competitive and resource efficient transport system.

9. By 2050. to make progress towards a zero rate of fatal accidents in road transport. In the context of this goal in 2020. The EU intends to reduce by half the accidents on the roads. Ensure a leading position in the field of EU safety and security in all transportation modes.

10. Move forward to the full use of the principle of "paying someone who uses" and "pay the polluter" and the private sector to eliminate distortions, including harmful subsidies, income formation and ensure financing for future investments in transportation.

Since January 1, 2012 shall come into force on the Manila amendments[7] to the training of seafarers Convention and Code on Training and Certification and Watchkeeping for Seafarers (STCW). According to the IMO, Manila amendments include:

1. tougher measures to combat fraud in the certification of seafarers
2. revise requirements for work and rest
3. new requirements for the prevention of alcohol and drug abuse
4. updated medical standards the health of seafarers
5. new certification requirements for sailors

6. new requirements for training in advanced technologies (in particular, the use of electronic charts and information systems - ECDIS)
7. new requirements for training in the protection of the marine environment, develop leadership skills and team work
8. new requirements for the training and certification of electricians and mechanics
9. updated requirements for the competence of seafarers employed on all types of tankers, including LNG-tankers
10. new requirements for security training, including courses of response in case of attacks by pirates
11. the introduction of new teaching methods, including distance learning and online training
12. new guidance for seafarers operating in polar waters
13. new guidance for seafarers, operating systems, dynamic positioning

Prior to January 1, 2017 a transitional period is set. During the transition period the sailors who started work or training before July 1, 2013, may be issued and renewed and certificates in accordance with the rules in force before 1 January 2012. As previously issued will be valid documents if the sailors began work or study before 1 July 2013.

Conclusions. "Moving Beyond Oil" is not possible if only rely on one technology solution. It requires a new concept of mobility, which is based on a group of new technologies as well as in a more sustainable organization robots. The Commission will develop a strategy of innovation and production for the transport sector, in close cooperation with a strategic energy technology plan (SET-Plan), determining the optimal management tools and funding to ensure rapid implementation of research findings.

References

1. http://en.wikipedia.org/wiki/ISO_9000
2. Г.Н. Семанов “МОРСКОЙ ТРАНСПОРТ И ЭКОЛОГИЧЕСКАЯ БЕЗОПАСНОСТЬ” [<http://mi32.narod.ru/01-99/safety.html>]
3. Біла Книга Європейської Комісії – ПЛАН РОЗВИТКУ ЄДИНОГО ЄВРОПЕЙСЬКОГО ТРАНСПОРТНОГО ПРОСТОРУ - НА ШЛЯХУ ДО КОНКУРЕНТОСПРОМОЖНОЇ ТА РЕСУРСОЕФЕКТИВНОЇ ТРАНСПОРТНОЇ СИСТЕМИ. Видавничий центр Європейського Союзу в Люксембурзі
2011 – 28стр. – 21x29,7см ISBN 978-92-79-18270-9 doi 10.2832/3095543
4. http://en.wikipedia.org/wiki/TIR_Treaty
5. http://en.wikipedia.org/wiki/Trusted_Computer_System_Evaluation_Criteria
6. <http://www.iaea.org/>
7. http://search.ligazakon.ua/l_doc2.nsf/link1/ed_2011_08_25/an/160/RE19971.htm
8. http://www.pasp.ru/manilskie_popravki

Аннотація

Процессы глобализации экономических отношений определяют цели и задачи для развития транспортной системы Украины и интеграции ее в Европейскую транспортную систему. Экологическая деятельность в Украине регламентируется тремя блоками: национальным природоохранным законодательством; международными правовыми соглашениями и конвенциями, подписанными и ратифицированными Украиной; а также добровольными обязательствами взятыми на себя государствами в области охраны окружающей среды. Следует разделять два направления в организации экологической и техногенной безопасности: организации безопасности постоянных устройств (имеются в виду морские и речные порты, автостанции, железнодорожные станции, аэропорты и т.д.) и организация безопасности подвижного состава (морской и речной флот, самолеты, вертолеты, железнодорожные составы, локомотивы, автобусы, автомобили и т.д.).

В Белой книге предложена стратегия, к которой должны присоединиться все участники транспортного процесса включая Украину.

Проблема заключается в необходимости уничтожения зависимости транспортной системы от нефти. «Выход за пределы нефти», не утрачивая эффективности транспортной системы и не создавая проблем для передвижения. В соответствии с ключевой инициативой «ресурсоэффективная Европа», которая была определена в Стратегии Европы до 2050 г., и нового «Плана энергоэффективности 2011 года» все грузовые перевозки на короткие и средние расстояния (примерно менее 300км) в значительной степени и дальше будут выполняться автомобильным транспортом. Поэтому, кроме поощрения альтернативных транспортных решений, важно повышать эффективность грузовых автомобилей за счет разработки и внедрения новых двигателей и экологически более чистого топлива, использования интеллектуальных транспортных систем и разработке дальнейших мер по применению рыночных механизмов управления транспортным процессом. При перевозках на длинные расстояния необходимо соблюдать сокращение выбросов углерода на автотранспорте, для грузоотправителей, более экономически привлекательным должна стать грузовая мультимодальность.

Необходимо применять эффективное сочетание различных видов транспорта. Реконструкция транспортной системы невозможна без согласованных действий представителей общегосударственных, региональных и местных органов власти, тех, кто организует перевозку, и тех, кто ею пользуется. Необходимо оптимизировать мощности аэропортов, увеличить их, для того чтобы удовлетворять растущий спрос на полеты. Значительную долю перевозок на средние расстояния должна принять на себя (высокоскоростная) железная дорога. Для выполнения поставленной до 2050 года цели авиационная отрасль ЕС должна стать лидером в использовании низкоуглеродистого топлива. Для морского транспорта так же четко задекларирована необходимость на равных условиях конкуренция в мировом масштабе ЕС вместе с ИМО и другими международными организациями должны прилагать все усилия для выполнения и контроля высоких стандартов техногенной и

экологической безопасности, защиты окружающей среды и условий труда на обще мировом уровне Экологические показатели морских перевозок могут и должны быть улучшены как за счет совершенствования технологий, так и применения лучших видов топлива и лучшей организации перевозок. Все выбросы углеродного газа в ЕС, которые приходится на морской транспорт, должны быть сокращены на 40% к 2050 году по сравнению с уровнями 2005 года.

Необходимо уменьшить не только выбросы в атмосферу, но и использование электрических, водородных и гибридных технологий, уменьшить уровень Шума, что позволит осуществлять больше грузовых перевозок в городских зонах в ночное время. А это, в свою очередь, облегчит проблему заторов на автодорогах в утренние и вечерние пиковые часы.

Десять задач для конкурентоспособной и ресурсоэффективной транспортной системы: 1. Контрольные показатели для достижения поставленной цели: сокращения выбросов углерода на 60%. Сократить наполовину использование автомобилей «на традиционных видах топлива» в городском транспорте до 2030 года, постепенно отказаться от них в городах к 2050 году. Достичь принципиально свободной от углекислого газа городской логистики в основных городских центрах до 2030 года.

2. Использование низкоуглеродистых, экологически чистых видов топлива в авиации должно составить 40% к 2050 году. Необходимо сократить также выбросы углекислого газа от бункеровочного топлива на морском транспорте в ЕС на 40% (если практически возможно - на 50%). Таким образом будут также существенно сокращены и другие вредные выбросы.

Оптимизация функционирования мультимодальных логистических схем, в том числе за счет более широкого использования более энергоэффективных видов транспорта.

3. Тридцать процентов автомобильных грузовых перевозок на расстояния свыше 300 км должны быть переведены на другие виды транспорта, например, железную дорогу или морской транспорт до 2030 года, и более 50% - до 2050 года. Причем этому должны способствовать эффективные и «зеленые» грузовые коридоры. Решение этой задачи потребует также развития соответствующей инфраструктуры.

4. Завершить формирование европейской высокоскоростной железнодорожной системы к 2050 году. Увеличить длину существующей высокоскоростной железнодорожной сети до 2030 года и поддерживать плотную железнодорожную сеть во всех странах. К 2050 году большинство пассажирских перевозок на средние расстояния должны осуществляться железной дорогой.

5. Полностью функционирующая мультимодальная «базовая сеть» TEN-T в масштабе всей Европы к 2030 году и высококачественная и мощная сеть к 2050 году, а также организовать соответствующий этой сети набор информационных услуг.

6. Соединить в 2050. все аэропорты базовой сети с железнодорожной сетью, желательна высокоскоростной, обеспечить удовлетворительное сочетание всех основных аэропортов с железнодорожными грузовыми линиями и, где это возможно, системой внутренних водных путей. Повышение

эффективности транспорта и использования инфраструктуры за счет информационных систем и рыночных стимулов

7. Использование модернизированной инфраструктуры управления воздушным движением (SESAR) в Европе до 2020 года и завершение формирования общего европейского воздушного пространства. Использование равнозначных систем управления движением на наземном и водном транспорте (ERTMS), (ITS), (SST и LRIT), RIS. Использование европейской общей навигационной спутниковой системы (Galileo).

8. Создать до 2020г. структуру для европейской системы информации, управления и оплаты мультимодальных перевозок. В соответствии с Европейским генеральным планом управления воздушным движением .

9. К 2050 году добиться достижения нулевого показателя аварий со смертельным исходом на автомобильном транспорте. В контексте этой цели в 2020 году ЕС намерен сократить наполовину аварии на автодорогах. Обеспечить ведущие позиции ЕС в сфере техногенной и экологической безопасности перевозок на всех видах транспорта.

10. Продвигаться вперед в экологическом и техногенном воздействии на окружающую среду до полного использования принципов «платит тот, кто пользуется» и «платит тот, кто загрязняет» и привлечения частного сектора для ликвидации диспропорций, в том числе вредных дотаций, формирования поступлений и обеспечение финансирования для будущих капиталовложений в транспорт.

«Выход за пределы нефти» требует новой концепции мобильности, которая базируется на группе новых технологий, а также на более экологически устойчивой организации работы.

Несмотря на разработанность экологического законодательства в Украине, по некоторым аспектам функционирования транспортного комплекса отсутствуют нормативные акты, которые регулируют выполнение норм и правил, закрепленных в законах. Слабо определены правовые взаимоотношения между государственными, природоохранными структурами и организациями различных форм собственности; слабо налажена система компенсации нанесенного природе ущерба в отношении нарушителей законодательства; практически отсутствуют специалисты в области экологического права.

Необходимо выполнять все директивы и нормативы, прописанные как в международном так и в национальном законодательстве в области экологической и техногенной безопасности транспортной системы.