Theoretical and Legal Issues of Environmental Security Support in the Innovative Process In Ukraine

The article analyses the problems associated with the creation of the regulatory framework for implementation, compliance with environmental security in the context of innovation. Particular attention is paid to the formation of modern European approaches to national environmental policy that will promote competitiveness and sustainable development of our country. This is primarily due to the upgrading and installing efficient and effective legal mechanism regulating relations in the field of environmental security, optimization of public administration in the environmental field. It has been attempted to formulate theoretical conclusions and scientifically justify proposals to improve the current environmental legislation.

Key words: environmental security, innovative process, state environmental policy, natural law doctrine, environmental law doctrine, environmental legislation.

Problem setting. According to the Law of Ukraine dated 08.09.2011, No 3715-VI «Innovation activity priorities in Ukraine» strategic areas of innovation include: energy efficiency, resource saving technologies, development of alternative energy sources, new technologies, high-tech development, application technology of environmentally friendly production and environmental protection, etc. [3, 2012. – № 19–20. – Art. 166]. The above is closely related and overlap with environmental security. The main directions of innovation in the environmental field meet conceptual provisions of the priorities of the national environmental security approaches to current environmental legal doctrine, which is the basis for the development of modern environmental policy and legislation.

Nowadays, attention to the interaction and correlation of economic, environmental and energy security should have been done not only by Ukraine but other European countries. That is why the problem of legislative regulation in reducing the energy intensity of gross domestic product and optimization of the structure of energetic state balance, adapting national legislation in the field of energy efficiency, energy conservation and alternative energy to the European Union is important. It must be guided by the fact that environmental security and environmental protection are seen as fundamental imperative provisions of current national environmental policy. At the same time interests of economic, energy security and environmental protection should be combined, in order to prioritize the safety of life and public health over economic benefits. The most valuable paradigm for Independent Ukraine is ensuring environmental security, the rule of law, the integration of environmental management system, fundamental freedoms and human rights, including environmental.

Analysis of recent research and publications. The problems of ecological security of the population from the negative impact of natural and man-made factors are not fully reflected in the regional programs devoted to aspects of safety and public areas. Scientific-theoretical concepts of the environmental security were researched in the works written by V. I. Andreytsev, A. P. Hetman, N. R. Malyshева, G. I. Baluk, A. G. Bobkova, V. V. Kostytskyi, M. V. Krasnova, G. V. Anisimova, Y. B. Antoniuk, N. V. Barbashova, J. L. Vlasenko, A. S. Yevstihnyeye, N. L. Ilyina, T. G. Kovalchuk, С. M. Romanko, V. I. Sireik, T. O. Tretiak, M. O. Frolov, N. R. Kobetska, Y. S. Shemshuchenko and others.

Though the problem of legal support of requirements of environmental security in the context of innovation development of Ukraine is not being paid enough attention to, even though it should be a major component in the course of innovation, not just viewed as a goal of public innovation policy.

**Target of research.** By this article the attempts to analyze complex scientific works of the mentioned issues and identification of new approaches to environmental security in the innovative process were done. Its purpose is to outline the theoretical and legal framework regulating environmental security in business and to work out scientifically based recommendations to improve the current environmental legislation.

**Article’s main body.** It is well known that the environmental law should be considered as: (1) an independent branch of law (or complex interdisciplinary institute); (2) a variety of ecological relationships that are closely related to the various spheres of legal regulation of activities which are dangerous to the environment, health and life; (3) the guiding principle of environmental law; (4) the object of legal regulation of environmental law – part of national and transnational security; (5) interdisciplinary science course of environmental law and theory of security designed to protect the vital interests of human being, society and the state; (6) the purpose of the state innovation policy and innovation element and other.

Legal category «environmental security» was studied by many sciences, including legal. As it was stressed by V. I. Andreytsev, it is a diverse and multifunctional integrated category that reflects real biological, physical, technological, economic, social and legal phenomenon. It must be viewed through the prism of state: a) the environment (physical and biological approach); b) of technology, which exclude or reduce the level of environmental risk (technological approach); c) economic environmental security (economic approach); d) development of relations between environmental security, which involves the creation of social infrastructure of environmental safety in the broadest sense (social approach); e) environmental protection interests of individuals, society and the state, and environmental rights, particularly the right to environmental security, guaranteed by law (state-legal approach) [1, p. 35–36].

In addition, scientific-methodological, educational and practical problems of legal regulation of ecological security in Ukraine were further developed in education manual, edited by V. I. Andreytsev, M. V. Krasnova and R. S. Kirin. [7]. This publication thoroughly analyzed the issue of permit system as a means of ensuring environmental security, legal regulation of ecological security of space activities and information support of environmental security, environmental audit and assurance, standardization, standardization and certification in the law of environmental security, legal provision of food, biological and genetic safety as components of ecological security of others. The guide also set out the general principles of legal environmental security of the European Union and others. This is a significant contribution to the development of ecological and legal science.

It should be emphasized that approaches to the definition of «environmental security» should be considered on doctrinal and regulatory levels. Doctrinal approaches can only be denoted but not analyzed thoroughly due to the volume restrictions of the article. Despite the fact that legal definition of «environmental security» was fixed by the article 50 of the Law of Ukraine dated 26 June 1991, No 1264-XII «On Environmental Protection» [3, 1991. – №41. – Art. 546], it is still debatable in the science of environmental law. Taking into consideration semantic meaning, there are some options, such as: (a) part of environmental protection; (b) activities carried out in combination with the protection of the environment and natural resources; (c) activities similar to the protection of environment and natural resources; (d) the purpose or the principle of protection of the environment and natural resources; (e) the protection of vital interests; (f) the highest social value; (g) environmental conditions when preventing environmental degradation and risks to health are provided, guaranteed through the adoption of a wide range of interrelated environmental, political, economic, technical, organizational, public-legal and other measures, etc. This environment is considered to be safe if its condition meets the legislation criteria, standards, limits and regulations relating to its purity, capacity resources, environmental sustainability, health requirements, species diversity, ability to satisfy the interests of humans. In addition, environmental security as a legal phenomenon which is seen in the subjective and objective sense, based on the principles of modern natural law doctrine.

There is a separate section in the Law of Ukraine «On Environmental Protection» that establishes a list of measures to ensure environmental security in the implementation of various economic activities that may adversely affect the environment, human life and health. Imperative requirements of this section are required in carrying out innovation, namely the use and commercialization of research and development, and lead to the release of new competitive products and services. Today, scientists need special attention to environmental ser-
vices. Moreover, some scientists insist on entering the environmental services into the separate circle of self-regulation facilities, for instance works and services, information, behavior and actions of businesses and individuals [8, p. 237–238; 9, p. 213]. Thus, according to the opinion of M. V. Krasnova, objects of the environmental law can be: a) environmental measures (works and services) that can be both public and private (commercial and public) agencies and organizations within the public orders, and the level of contractual regulation of environmental relationships; b) measures implementing the state environmental policy (control, monitoring, environmental information, etc.) [5, p. 11]. The recognition of these objects as independent objects of ecological and legal regulation is objectionable, and cause discussions and debates. Obviously there are cross-sectoral and interdisciplinary legal institutions governing similar relationships and have the same object of regulation, but the legal relationships have environmental characteristics due to environmental factors [2]. Although the EU has expressed some remarks on land ownership in Ukraine (according to which foreign citizens and non-residents have no right to purchase agricultural land), their list is based on the difference between horizontal and sectoral comments and includes EU comments and some comments of other members of EU. Regarding horizontal clauses (i.e., those that apply to all sectors or sub-sectors), the EU as a whole relates to economic activities that are considered to be public services or may be subjects of a state monopoly. Other members of EU have their own remarks, for example, on the acquisition of real estate. Moreover, the EU and individual members retain many remarks about agriculture, hunting, fishing, extraction of fossil fuels, professional, financial and transportation services, etc. [6, p. 82–83].

It should be stressed that current regulatory framework for science, technology and innovation has about 200 documents. In particular, national innovative legislation includes provisions of the Constitution of Ukraine, the Commercial Code, Laws of Ukraine «On innovation activity», «On priority directions of innovation activity in Ukraine», «On investment activity», «On scientific and technical activity», «On special regime of innovation activity of technological parks» and other legal acts regulating public relations in this field. They determine legal, economic and organizational principles of state regulation of innovative activity in Ukraine, established forms of state stimulation of innovation processes and are aimed at supporting Ukraine’s economic development through innovation. And this is understandable, because the main purpose of the state innovation policy is to create social, economic, organizational and legal conditions for effective reproduction, development and use of scientific and technological potential of the country, ensuring the introduction of modern environmentally friendly, safe, energy-saving technologies, production and implementation of new types of competitive products (Art. 3 of the Law of Ukraine of 04.07.2002 No 40-IV «On innovative activity» [3, 2002. – № 36. – Art. 266]).

Such an array of regulations (apparently, it would be better to minimize the legal framework) allows us to find the answer and respond promptly to requests. This is particularly important according to the fact that now the main real and potential threats to Ukraine’s national security and stability in the society in the environmental field are: significant anthropogenic and man-caused congestion territory of Ukraine; increased risks of man-made and natural disasters; inefficient, unsustainable use of natural mineral resources both non-renewable and renewable; negative social and environmental consequences of the Chernobyl disaster; improper maintenance of nuclear facilities in Ukraine; deterioration of the ecological state of water basins, worsening the problem of transboundary pollution reduction and water quality; outdated facilities and lack of effectiveness of the disposal of toxic and environmentally hazardous waste; uncontrolled import of environmentally dangerous technologies to Ukraine, for instance substances, materials and transgenic plant pathogens harmful to humans, animals, plants and organisms; ecologically unjustified use of genetically modified plants, organisms, materials and derivative products; ineffectiveness of measures to overcome the negative consequences of the military and other environmentally hazardous activities; strengthening harmful genetic effects in populations of living organisms, including genetically modified organisms, biotechnology and so on. It can be inferred that the range of problems is quite diverse, which makes branched normative and legal regulation of these relations (the number of existing regulatory acts does not concede innovative legislation, but probably has a greater number of them) from the constitutional principles and laws of Ukraine «On environmental protection», «On national security»; «On the basic principles (strategy) of the State Environmental Policy of Ukraine till 2020»; «Fundamentals of the legislation of Ukraine health», «On ensuring sanitary and epidemiological welfare of population», «On the main directions of state policy of Ukraine in the field of environment, natural resources and environmental security», «On ecological expertise»; «On Waste»; «On Radioactive Waste Management», «On an increased risk», «On the area of emergency»; «On legal regime of emergency situation», «On Human Protection Against Ionizing Radiation», «Consumer Protection», «On Pesticides and Agrochemicals», «On the basic principles and requirements for safety and quality of food», «On Technical Regulation and conformity assessment» and ending with the Code of civil defense of Ukraine and others.
Furthermore, the Association Agreement between Ukraine and the EU sets strategic goals for the system of political and economic reforms in Ukraine, a large-scale adaptation of Ukrainian legislation to EU rules and regulations. Our government will ensure a gradual convergence in foreign and defense policy and expand cooperation in the framework of the Common Security and Defense Policy of the EU to strengthen the capacity of the security and defense and the maintenance of international security and stability. The development of the Agreement by the Decree of the President of Ukraine dated 26 May 2015, No 287/2015 approved the «National Strategy for Waste Management» and «National Security Strategy of Ukraine», according to which priorities of environmental security, preservation of natural ecosystems, maintaining their integrity and life support functions; providing sustainable environmental management; reducing environmental pollution, control sources of pollution of air, surface and ground water, reducing pollution, restoration of soil fertility; cleaning areas from industrial and household waste; forming system waste processing and recycling of production and consumption and so on.

Also, it should be mentioned that the draft laws «On Environmental Impact Assessment» and «On strategic environmental assessment» were both adopted in the second reading on the 4th of October 2016 by Parliament of Ukraine, but not signed by the President, as it was proposed to take into account a number of comments to them. «National strategy for waste Management» was presented for public discussion on the official website of the Ministry of Environmental Protection of Ukraine. Adoption and entry into force will promote public safety and environmental areas and lift system of environmental governance to a new European level.

However, a large and extensive regulatory framework, a variety of public relations arising in the area of environmental safety, requires constant monitoring by the researchers, which creates certain difficulties. Including the above mentioned, global, national, territorial, local, individual (personal) ecological safety and environmental safety of certain natural objects and complexes make up the ecological safety of Ukraine. Among the types of environmental safety radiation, technical, chemical, toxic, nutrients, nuclear, food and environmental security of transport can be isolated. It is well known that among the sources of the European Union a significant place is given to those acts that regulate environmental protection (health sector), its individual components, climate and environmental security of the population and territory, environmental management, fight against pollution and limiting the negative anthropogenic activities. Taking into consideration the above mentioned, it is advisable to talk about a comprehensive system of environmental security of the population against threats (natural, technological, military and so on,) by minimizing their risks and prevention.

Summing it up, according to current conditions and in addition to reforming the system of environmental management in the context of decentralization the approach to the calculation of emissions done by industry should be radically changed. Appropriate amendments to environmental legislation such as the Law of Ukraine «On Air Protection», the Water Code of Ukraine and others should be made.

Having reviewed the drawbacks let us focus on the positive aspects. Firstly, state provides mandatory installation of filters and counters with free access to this information and strict rules for all Ukrainians. The next and probably a more important issue is that due to the process of decentralization of environmental tax funds are divided according to the principle: 20% goes to the central budget, and 80% remain in the local self-government institutions. This should help to improve the environmental situation in the regions.

Also noteworthy is the fact that changes were made in the Water Code of Ukraine, entered into force on 02.01.2017 regarding the implementation of integrated approaches to water resources management at the basin principle (Law of Ukraine of 10.04.2016 No 1641-VIII «On amendments to certain legislative acts of Ukraine regarding the implementation of integrated approaches to water management by basin principle» [3, 2016. – No 46. – Art. 780]), which was required and provides a framework Directive on water resources (2000/60/EC, subject to several amendments and additions) laying down the principles for the protection of inland surface water, groundwater and reserved water. The goal of the EU Directive on water resources was to achieve good status of all water resources. This includes basins for which other members of EU should prepare detailed plans and program management. The parties should ensure that pricing for water encourages consumers to use them effectively, as it was done in Ukraine. Conducted Hydrographic and water zoning of Ukraine created 9 districts of river basins (the Dnipro, Dniester, Danube, Southern Bug, Don, Vistula, rivers in Crimea, the Black Sea, Azov (art. 13–1 ML Ukraine), created basin councils (art. 13–3), plans river basin management (art. 13–2) and others. The requirements of that Directive are gradually implemented.

Another direction of EU environmental policy, which should also be emphasized, is followed from the objectives of waste prevention, facilitating their recycling and recovery of waste in order to reduce their impact on the environment, which, of course, is related to innovation. The transformation of waste into resources (recycling) and the decline in their production is the priority. EU set itself an ambitious goal – to form a «recycling society». The current Ukrainian legislation in
this area has a well-developed legal framework, but, unfortunately, it only partially meets the EU requirements. From the point of view of the author, there is an urgent problem viewing regulation order referring waste categorized as hazardous, establish appropriate criteria provided for in Directive 2008/98 / EC of the European Parliament and of the Council of 19 November 2008 on waste and repeal certain Directives [4].

Thus, the priority areas and priorities in the field of environmental security of the population is leading to international standards. Such criteria as climate change; drinking water quality; levels of the harmful effects of industrial, household and other noise in the major areas of protection against vibration and other physical factors on the human body; waste management, needed to be analyzed. Unfortunately, not all outlined was the subject of analysis but there would be another opportunity for further consideration of the outlined issues.

More than ever, we consider it expedient to bring the tasks in accordance with the requirements of environmental security in business processes, the provision of environmental services, sanitary and epidemiological welfare of the population, protection of the environment. It is advisable to implement national and regional pilot programs in the field of environmental security and to make them effective. Indeed, there is the need for a phased approach of environmental legislation in the relevant EU directives, the implementation of which is an integral part of the fulfillment of the Association Agreement, which leads to the need to amend the laws of Ukraine «On main principles (policies) of State Environmental Policy of Ukraine for the period till 2020» in terms of environmental safety, «On Environmental protection» for innovation.

Conclusions and prospects for development. Clearly, the adoption of innovative models of development of the national system of environmental security (or national and regional pilot programs in environmental security) will help to form a modern European approaches to national environmental policy that will promote competitiveness and sustainable development of our country. This is primarily due to the improvement and establishment of efficient and effective legal mechanism regulating relations in the field of environmental protection.

Given the problems of innovation activity in the context of environmental security, we consider it expedient to pay attention to (a) the formation and implementation of state, branch, regional and local innovation programs; (b) the establishment of the regulatory framework and economic mechanisms to support and stimulate innovation in the environmental field; (c) improving the environmental management system (in this case we need to focus on the monitoring and controlling functions) etc.

SOURCES

ТЕОРЕТИКО-ПРАВОВИ ПРОБЛЕМИ ЗАБЕЗПЕЧЕННЯ ЕКОЛОГІЧНОЇ БЕЗПЕКИ
В ПРОЦЕСІ ІННОВАЦІЙНОЇ ДІЯЛЬНОСТІ В УКРАЇНІ

Проаналізовано проблеми, пов'язані зі створенням нормативної бази задля виконання, дотримання вимог екологічної безпеки в контексті інноваційної діяльності. Особливу увагу приділено питанням формування сучасних європейських підходів до державної екологічної політики, що сприятиме підвищенню конкурентоспроможності й сталому розвитку нашої країни. Це насамперед пов'язано з оновленням і встановленням ефективного та дієвого правового механізму регулювання відносин у галузі забезпечення екологічної безпеки, оптимізацією системи державного управління в екологічній сфері. Здійснено спробу сформулювати теоретичні висновки й науково обґрунтувати пропозиції щодо вдосконалення чинного екологічного законодавства.

Ключові слова: екологічна безпека, інноваційна діяльність, державна екологічна політика, природно-правова доктрина, еколо-правова доктрина, екологічне законодавство.
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ТЕОРЕТИКО-ПРАВОВЫЕ ПРОБЛЕМЫ ОБЕСПЕЧЕНИЯ
ЭКОЛОГИЧЕСКОЙ БЕЗОПАСНОСТИ В ПРОЦЕССЕ
ИННОВАЦИОННОЙ ДЕЯТЕЛЬНОСТИ В УКРАИНЕ

Проанализированы проблемы, связанные с созданием нормативной базы для выполнения, соблюдения требований экологической безопасности в контексте инновационной деятельности. Особое внимание уделено вопросам формирования современных европейских подходов к государственной экологической политике, что будет способствовать повышению конкурентоспособности и устойчивому развитию нашей страны. Это прежде всего связано с обновлением и установлением эффективного и действенного правового механизма регулирования отношений в области обеспечения экологической безопасности, оптимизацией системы государственного управления в экологической сфере. Предпринята попытка сформулировать теоретические выводы и научно обосновать предложения по совершенствованию действующего законодательства.

Ключевые слова: экологическая безопасность, инновационная деятельность, государственная экологическая политика, естественно-правовая доктрина, эколого-правовая доктрина, экологическое законодательство.