



<https://doi.org/10.15407/scine18.01.124>

KONONENKO, V. P.¹ (<https://orcid.org/0000-0002-6461-7072>),
TARAKHONYCH, T. I.² (<https://orcid.org/0000-0002-1586-5088>),
and TYMCHENKO, L. D.³ (<https://orcid.org/0000-0001-8897-0308>)

¹Department of International Economic Relations and Tourist Business,
Karazin Kharkiv National University,
4, Svobody Sq., Kharkiv, 61022, Ukraine,
+380 57 707 5500, univer@karazin.ua

²Koretsky Institute of State and Law National Academy of Sciences of Ukraine,
4, Tryokhsvyatytska St., Kyiv, 01601, Ukraine,
+380 44 278 5155, idpnanu@gmail.com

³Department of International Law, University of the State Fiscal Service of Ukraine,
31, Universytetska St., Irpin, Kyiv Oblast, 08200, Ukraine,
+380 4597 6 0475, 26.01@nusta.edu.ua

SUSTAINABLE DEVELOPMENT, INNOVATION, AND SECURITY ON THE PAGES OF THE ENCYCLOPEDIA OF INTERNATIONAL LAW

Introduction. *The priority areas for the development of science are fundamental research on the most important problems of society and nature, which ensures the global competitiveness of Ukraine and sustainable development of both society and the state.*

Problem Statement. *In difficult times of numerous threats to the territorial integrity, economic and environmental security of the state, global problems related to climate change, military conflicts, the spread of the COVID-19 virus, etc., the Ukrainian science responds to these challenges at a decent level. Among the achievements of Ukrainian science is the Encyclopedia of International Law that is the only publication of this level and volume in the post-Soviet space and the second one in the world after the Max Planck Encyclopedia of Public International Law.*

Purpose. *The purpose of this research is to analyze the coverage of such categories as sustainable development, ecology, innovation, and security on the pages of the Encyclopedia of International Law.*

Materials and Methods. *The legalistic approach to the analysis of texts of normative and legal acts and the statistical methods of structuring and comparative analysis of acts of legislation have been used. The general scientific methods of cognition such as systemic and structural approaches, analysis and synthesis, induction and deduction have applied as well.*

Results. *Extensive economic growth leads to environment degradation and depletion of resources, which requires either increasingly intensive (technological) production methods that are even more dangerous to the environment, or extensive approaches to cover new territories and to oust competitors. This situation currently poses a threat to national territorial, environmental, and economic security.*

Citation: Kononenko, V. P., Tarakhonych, T. I., and Tymchenko, L. D. (2022). Sustainable Development, Innovation, and Security on the Pages of the Encyclopedia of International Law. *Sci. innov.*, 18(1), 124–133. <https://doi.org/10.15407/scine18.01.124>

Conclusions. *Having studied the coverage of such concepts as sustainable development, ecology, innovation, and security on the pages of the Encyclopedia of International Law, we found an international tendency to perceive them as interrelated and interdependent rather than separate categories.*

Keywords: *sustainable development, ecology, innovations, national security, and economic security.*

In accordance with paragraph 1 of Clause 3 of the Law of Ukraine on the Priority Areas of Science and Technology, the priority areas of science and technology for the period up to 2020 are, in particular, fundamental research on the most important R&D, socio-economic, socio-political, human potential problems for ensuring the competitiveness of Ukraine in the world and sustainable development of both society and the state [1].

Academician B. Paton was deeply convinced that science would become a real priority in the state and in society, in particular, he noted, “This is how I see science in Ukraine in 20 years. Otherwise, in my opinion, Ukraine will not have the future it deserves” [2]. However even now, in difficult times of numerous threats to the territorial integrity, economic and environmental security of the state, global problems related to climate change, military conflicts, the spread of COVID-19, etc., Ukraine’s science has been still fittingly responding to these challenges. In his interview with the Bulletin of the NAS of Ukraine A. Zagorodny, Full Member and the President of the NAS of Ukraine said that upon request of by the National Security and Defense Council of Ukraine, at the very beginning of the pandemic in Ukraine, researchers from the Institute of Molecular Biology and Genetics had developed assay systems for diagnosis of coronavirus disease. The Academy researchers also contributed to creating an enzyme-linked immunosorbent assay system to detect this disease, which has been manufactured by one of the domestic enterprises [3].

O. Brovarets, a researcher at the Department of Molecular and Quantum Biophysics at the Institute of Molecular Biology and Genetics of the NAS of Ukraine, has calculated the regularity of chromosome pairs with mutations embedded in human DNA, which may cause dangerous and dead-

ly diseases, including cancer. This discovery gives hope for complete recovery of patients with cancer and many other diseases caused by mutations, in the future [4].

Researchers of the Koretsky Institute of State and Law of the NAS of Ukraine have completed a huge project, the Encyclopedia of International Law in three volumes, which has been published by *Academperiodika* publishing house (Kyiv, 2014–2019), with Yu.S. Shemshuchenko, Full Member of the NAS of Ukraine, and V.N. Denisov, Associate Member of the National Academy of Law Science of Ukraine as co-chairmen of the Editorial Board (hereinafter referred to as the Encyclopedia of International Law or the Encyclopedia).

According to T. Prikhna, the rapid development of technology causes swift changes in our lives, and the pace of these changes is constantly accelerating. The main driving force is efforts and new achievements of scientists who shall need to do even more than to keep up with the times. Despite many years of difficulties and obstacles, Ukrainian science that relies mainly on enthusiasm, in most industries continues to compete with leading foreign research laboratories [5].

In the legal sphere, if the legislator fails to keep abreast with recent developments, the judicial practice cannot advance further than the legislator, even with the help of dynamic interpretation, therefore the doctrine is of great importance. The first in Ukraine multi-volume systematized collection of knowledge about the state and law is the Legal Encyclopedia in 6 volumes (1998–2004, with Yu.S. Shemshuchenko, Full Member of the NAS of Ukraine as Chairman of the Editorial Board). It contains information on international organizations, specialized bodies and agencies of the United Nations, etc. [6]. Until recently, there have been no other reviews of internatio-

nal law of a similar format on the territory of independent Ukraine and even in the entire post-Soviet space [7, 160].

The Encyclopedia of International Law is undoubtedly an important foundation that accumulates the most advanced views in the field of international law and the best practices of foreign, domestic, Soviet and post-Soviet schools. Its methodology is based on the sociological approach of establishing the laws of social development. The Encyclopedia of International Law in three volumes is the first in Ukraine systematized collection of knowledge in the field of international law. It was published in accordance with the resolution of the Presidium of the National Academy of Sciences of Ukraine. It is worth noting that this is the second edition of this kind in the world. The Encyclopedia discloses the specific features of the legal nature of international law and the content of its basic concepts and categories. It contains articles on international agreements and other documents to which Ukraine is a party, as well as information on prominent Ukrainian and foreign international lawyers, international organizations and bodies of universal, regional and subregional specialized UN agencies. An important place in the Encyclopedia is occupied by international legal practice, including international judicial and arbitration institutions and their decisions. Much attention is paid to the coverage of international activities of Ukraine in the field of law [7, 162], its participation in the development and implementation of the sustainable development concept that is based on the complex balancing of its three elements: ecological, economic, and social spheres of human life, which form the preconditions for emergence of this concept. In environmental terms, the concept of sustainable development is caused by the evolution of awareness of nature as a protected object from the protection of individual unique natural objects to the protection of natural resources by developing a concept for their sustainable use and, finally, maintaining a favorable for human life environment as a whole, in the conditions of ecological threats. These con-

siderations are traced back to German high-ranked official in the field of mining Hans Karl von Karlowitz and his concept for the sustainable use of forestry, he formulated in the 18th century, having noted the relationship between the growth of the mining industry, deforestation, and socioeconomic development of society. The theory of von Karlowitz was formulated in 1775 in the process of reforming the forest law of the German Duchy of Saxe-Weimar-Eisenach. According to this theory, cutting trees should meet not only the needs of modern generations, but also the future ones. These provisions were adopted by other German lands, Switzerland, France, Great Britain, the United States, and the Russian Empire, during the organization of forestry in Finland. In the economic sphere, the precondition for formulating the concept of sustainable development was the rise of capitalism in the 19th century in the form of so-called “free trade” of metropolises, which had led to the depletion of natural resources of the colonies as they were forced to trade without the right to set tariffs independently. The only exception was China that, despite concluding the Treaty of Nanking with Great Britain after China’s defeat in the Opium War, in 1842, strengthened its economic position, although at a great cost of environment. The extensive industrialization caused the first negative cross-border consequences at the time when the ideas of sustainable development were being conceptualized. Its progress was facilitated by the spread of the concept of the limits of economic growth, the essence of which was to reorient the macroeconomic policy from the continuous growth of production and consumption of services to conscious processes given the biophysical capacity of the planet. The first justifications of this concept were given by the Club of Rome in its *The Limits of Growth* report (1972) that contained the results of twelve conditional models of human population growth and depletion of natural resources in 2100. Herman E. Daly in his *Beyond Growth: The Economics of Sustainable Development* (1996) has given a scientific interpretation of the limited economic growth. He

considers that sustainable development is a balanced, harmonious, conflict-free progress of all civilizations, regions, and individual countries according to consistent plans, when the problems of environment protection and eradication of exploitation, poverty, and discrimination with respect to both individual people and entire nations or groups of the population are addressed concurrently with steady intensive innovation-driven economic development [8, 769–770].

The socio-political precondition for formulating the concept of sustainable development was the growth of urbanization and the resulting aggravation of the problem of providing the urban population with food by the “disappearing” rural population. In addition, foreign military and political influence on the countries that are rich in natural resources, but weaker in socio-political aspects has led to forced or labor migration, impoverishment, and discrimination.

The globalization of industry and the resulting reduction in biodiversity, depletion of natural resources, and deepening stratification between advanced and developing economies have led to the understanding that environment damage has no boundaries, so in order to respond the challenges such as global warming, hunger or depletion of energy resources, it is necessary to consider the planet as a whole natural environment, the elements of which are closely interconnected and affect each other, with people having to make every effort to maintain environmental sustainability for the present and future generations. These and other preconditions led to the fact that in the 1960s–1970s century, researchers from different countries and the international community came to the conclusion that it was necessary to work out ways for achieving the social relations in which global socio-economic and R&D growth would continue against the background of improving environment conditions and conserving nature. The active phase of formulating the sustainable development concept in the policy and legislation of states through the implementation of internationally agreed recommendations is associated with three landmark

events: the UN Conference on the Human Environment in 1972, *Our Common Future* (Brundtland Report) of the World Commission on Environment and Development in 1987, and the United Nations Conference on Environment and Development in 1992 [8, 770].

The worldview of the modern understanding of the sustainable development concept is formulated in the above-mentioned *Our Common Future* report (1987) prepared by the World Commission on Environment and Development under the auspices of the United Nations. Maintaining feedback with people living in large and small settlements, who have different views on transforming the development model to the sustainable one, have allowed formulating the provisions that currently form the basis for the mechanisms of the sustainable development concept: 1) the challenges associated with growing and globalizing natural disasters cut across the divides of national sovereignty, of limited strategies for economic gain, and of separated disciplines of science and encourages the restructuring of the international system of economic cooperation; 2) poverty and inequality between peoples are the main cause and consequence of global environmental problems; 3) the way of life shall fit the ecological capabilities of the planet. The key importance of this Report is to affirm the ideological nature of the sustainable development concept. The action program for the sustainable development concept was further developed during the so-called Earth Summit – International Conference on Environment and Development (Rio de Janeiro, Brazil, 1992). As a result of this conference, the UN Commission on Sustainable Development was established and many international acts aiming at achieving the global sustainable development were adopted: the 21st Century Agenda that includes the action plan for sustainable development at the national and international levels, and the Environment and Development Declaration containing 27 principles that, on the one hand, confirm the provisions of the Declaration on the Human Environment of 1972 and, on the other hand, are

focused mainly on the economic aspect of sustainable development.

Since then, summits on these issues have been held every 10 years, for summarizing achievements and setting plans for the future. The future-oriented nature of the sustainable development concept and its complexity have prompted the development and adoption of new international acts aiming at comprehensively overcoming the global challenges. In the Millennium Declaration of 2000, the states expressed support for the principles of sustainable development, as well as highlighted the fundamental values on which international relations should be built in the 21st century: freedom from hunger and fear, violence, oppression and injustice, which is guaranteed by democratic rule; equality of rights and opportunities; solidarity, i.e. assistance to those who suffer or are in inferior position from those who are in more favorable conditions; tolerance that is embodied in the culture of peace and dialogue between civilizations; respect for nature that means replacing current models of production and consumption for the sake of the future well-being of descendants; the shared responsibility of all world people to manage global economic and social development; addressing threats to international peace and security on a multilateral basis, in which the United Nations has a special role to play. The program objectives of this Declaration are primarily to address the challenges that developing economies and the poorest countries face. In 2015, UN GA Resolution 70/1 Transforming our world: the 2030 Agenda for Sustainable Development was adopted. It sets out 17 sustainable development goals to be achieved by 2030: to end poverty and hunger; good health; quality education; gender equality; clean water and proper sanitation; renewable energy; decent working conditions and economic growth; innovation and infrastructure; reducing inequality; sustainable development of cities and communities; responsible consumption; urgent action on climate change; conservation of marine ecosystems; conservation of terrestrial ecosystems; peace and justice;

partnership for sustainable development. It should be noted that the expansion of the spheres of human life leads to the spread of the sustainable development concept to outer space. The international community has recognized the importance of the sustainable development concept and launched a broad coordination of international cooperation, especially in the field of environmental protection. This concept has acquired legal significance in such international legal acts as the 1992 Convention on Biological Diversity; 1992 United Nations Framework Convention on Climate Change; Aarhus Convention 1998; Framework Convention for the Protection and Sustainable Development of the Carpathians, 2003. The content of these legislative acts reflects such principles of international environmental law as general but differentiated responsibility of states, "polluter pays", warnings and others. In Ukraine, the sustainable development concept is most fully embodied in the provisions of the Law on Environmental Protection of 1991.

The United Nations Commission on Sustainable Development, the World Bank, the European Commission, the Committee on Environmental Modeling, the Organization for Economic Co-operation and Development, and the Scientific Committee on Problems of the Environment have been working to develop sustainable development indices that reflect desirable economic, social, and environmental performance. These indicators are used to assess the state of these areas in a particular country or region, to forecast their further development and to assist in making management decisions to achieve sustainable development goals. Based on them, regional and state indices of sustainable development are developed. They serve as a basis for policies in the areas of national security, economy, social security, environmental protection, etc.

In Ukraine, by the Decree of the President of Ukraine of 15.01.2015 the Sustainable Development Strategy *Ukraine 2020* was approved. It defines indicators of appropriate defense, socio-economic, organizational, political and legal con-

ditions of the formation and development of Ukraine, which are guidelines for government activities in these areas [8, 771–772]. The purpose of the Strategy is to implement European standards in Ukraine and to take leading position in the world. There are the following main vectors for moving forward: 1) development – to ensure sustainable development of the state, to implement structural reforms and, as a consequence, to raise living standards. Ukraine shall become a country with a strong economy and cutting-edge innovations; 2) security – to ensure security of the state, business, and citizens, investments and private property. Ukraine shall be able to defend its borders and to ensure peace in the European region; 3) responsibility – to guarantee access to high-quality education, health care system and other services in the public and private sectors for every citizen; 4) national pride – to ensure mutual respect and tolerance in society, pride in their own country, its history, culture, science, and sports [9].

The Declaration of the Rio de Janeiro on Environment and Development of 1992 (hereinafter referred to as the Rio Declaration) is considered separately in the Encyclopedia. In international law, it is one of the main sources of “soft law” that serves as a guide for the formation of norms of both international and national environmental law. The largest group of principles enshrined in it is related to cooperation between states, which corresponds to the world community awareness of the global nature of environmental problems and the impossibility of solving them by individual states at the time of the Rio Declaration [10, 699–700].

Accordingly, all states and all people shall coordinate their efforts towards eradicating poverty as an indispensable requirement for sustainable development (Principle 5); preserving, protecting, and restoring the health and integrity of the Earth’s ecosystem (Principle 7); strengthening endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and tech-

nological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies (Principle 9); promoting a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade (Principle 12); discouraging or preventing the relocation and transfer to other States of any activities and substances that cause severe environmental degradation or are found to be harmful to human health (Principle 14). States shall immediately notify other States of any natural disasters or other emergencies that are likely to produce sudden harmful effects on the environment of those States. Every effort shall be made by the international community to help States so afflicted. States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith (Principles 18 and 19). Environmental measures to address regional or global environmental problems shall, as far as possible, be taken on the basis of international consensus (Principle 12). States shall respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary. Peace, development, and environmental protection are interdependent and indivisible (Principles 24, 25) [10, 700–701].

The Encyclopedia covers the activities of international forum consisting of Brazil, Russia, India, China, and South Africa (hereinafter referred to as BRICS), which periodically convenes to exchange views on world politics, security, economy, finance, and development, as well as to coordinate their activities [10, 306]. In particular, the 5th BRICS Summit was held on March 26–27,

2013, in Durban, South Africa, and was focused on the BRICS and Africa Partnership for Development, Integration and Industrialization. This summit adopted the Etekin Declaration and the Etekin Plan of Actions (hereinafter referred to as the Etekin Declaration). The summit was the final one in the first cycle of the BRICS summits, and the member states reaffirmed their intention to promote international law, multilateralism, and the central role of the United Nations.

The Etekin Declaration expressed the position of the BRICS countries on the pressing issues of international politics: regional conflicts in Syria, Mali, Central African Republic, Democratic Republic of the Congo, the Iranian nuclear issue, and the settlement of the Palestinian-Israeli conflict. In addition, the BRICS countries supported the reform of the UN and the UN Security Council, emphasized the challenges of low-income countries in achieving the Millennium Development Goals set out in the UN Millennium Declaration 2000, called for consolidation of efforts, and supported the measures taken by international community to achieve sustainable development [10, 310].

Issues of international security, environment and sustainable development are on the agenda of many specialized international organizations. In particular, security, environmental protection, and sustainable development today are the three strategic goals of the International Civil Aviation Organization (ICAO) [8, 72]. The United Nations Conference on Trade and Development (UNCTAD) is a permanent body of the UN General Assembly, which is founded to establish trade relations between countries with different levels of economic development to accelerate economic growth of underdeveloped and developing economies, to promote their integration into the world economy and to achieve the sustainable development goals. The idea of establishing this body in the UN system for the integrated solution of trade and development was expressed by developing countries during the Cairo Conference on Economic Development in 1962 in the Cairo Declaration [11, 773].

The United Nations Development Program (UNDP) helps states to develop and exchange decisions in the three main areas: sustainable development; democratic governance and peacekeeping; and climatic stability. The first involves strengthening the capacity of developing countries to integrate environmental thinking into development plans and strategies, to manage and use natural resources in a sustainable manner; to ensure the use of natural resources for promoting economic recovery and livelihoods and to effectively implement policies for reducing poverty and providing social protection. The second is to implement measures to support the peaceful settlement of conflicts, to promote the rule of law and access to justice, security of citizens and respect for human rights, to strengthen state institutions, and to reduce corruption. The third aims at reducing greenhouse gas emissions and achieving zero carbon emissions, adapting to climate change, improving access to clean energy, reducing the risk of natural disasters through the implementation of the Paris Agreement 2015, the Sendai Framework for Disaster Risk Reduction, and the 2030 Sustainable Development Action Plan [8, 637].

United Nations Framework Convention on Climate Change (1992) in Article 3 enshrines the principles the parties shall be guided with in their actions to implement its provisions, most of which reflect the recognized principles of international environmental law (for example, the principles of the 1992 Rio Declaration on Environment and Development). According the principle of equity and common but differentiated responsibilities and respective capabilities of the parties (Article 3.1), the advanced economies should take the lead in combating climate change and the adverse effects thereof. Pursuant to Article 3 of the Convention, the specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change (such as small island countries, countries with low-lying coastal areas, etc. (Article 4.8) and the least developed states)

should be given full consideration. The Parties should take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures (Article 3.3). The Parties have a right to, and should, promote sustainable development (Article 3.4). This principle of sustainable development that reflects the socio-economic context of the fight against climate change. The Convention also establishes important principles for the application of the principle of free trade in combating climate change (Article 3.5): the Parties should cooperate to promote a supportive and open international economic system that would lead to sustainable economic growth and development in all Parties, particularly developing country Parties, thus enabling them better to address the problems of climate change. Measures taken to combat climate change, including unilateral ones, should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. These provisions of the Convention prevent the unjustified application of climate protectionism by advanced economies in international trade [8, 671].

The sustainable development shall be implemented not only at the international level, but also at the regional level. So, important legal acts have been adopted within the EU: Strategy on Innovation and Good Governance at local level 2007 (Valencia, Spain), the Leipzig Charter on Sustainable European Cities 2007, the Charter of European Sustainable Cities and Towns 1994 (the so-called Aalborg Charter) and the commitments made in Aalborg in 2004 [8, 223].

G. Schwarzenberger refers the following principles to the standards of international economic law: non-discrimination; national regime (equality between aliens and nationals); reciprocity and justice; the right to development or sustainable development; rationality, transparency, and good governance [8, 96]. In international law, the legal

nature of the sustainable development concept is reflected in the decision of the International Court of Justice in the *Gabcikovo-Nagymaros case* (1997). According to it, the concept of sustainable development is not a principle that has legislative significance [12]. However, in the separate opinion, Judge Weeramantri pointed out that both the right to development and the right to the environment protection were part of the general content of international law, and the principle of sustainable development played an important role in balancing the competing demands of development and environmental protection [13].

The concept of “collective security” as an organization of interstate relations, according to which its members consider their state of normal development and protection from threats as common and interdependent have been analyzed in detail, in the Encyclopedia. Modern collective security is traditionally defined as a system of joint action of states, which is used to prevent and to eliminate any threat to peace and to stop acts of aggression or other violations of peace. It may be considered as a concept, both in the military-political and in international law aspects, as a scientific or political conception, or as an ideology of international relations, which guides states in the creation of organizations of military-political orientation. The international law aspect of collective security is the fact that the relevant organization of interstate relations shall have an international law framework. There is no universal international law definition of collective security, but its content is linked to the basic principles of international law, including the non-use of force or threat of force and peaceful settlement of international disputes, as well as UN goals and coercion by means of international law. Collective security is the basis of the activities of the international community in the field of maintaining and restoring international peace at both the universal and regional levels. Development, internal structure, decision-making, and activities of international organizations that are established for maintaining collective security, reflects the balance

of power at a particular historical stage of international relations, and the international legal framework of their activities is not always timely adapted to changing conditions of international relations; hence, it follows that the role of collective security in international law is both exceptionally important and ambiguous [10, 229]. In connection with the Chernobyl disaster, Professor V.A. Vasylenko addressed legal issues of the relationship between environmental protection and human rights. In the late 1980's, he introduced into scientific circulation the concepts of "environmental security" and "environmental human rights" and proposed to consider environmental security as a component of national and international security, with environmental human rights being the third generation of human rights that determine the content and purpose of environmental security. A fundamental novelty is that environmental security and environmental human rights are considered and interpreted by him as a pair category [10, 347].

Thus, such concepts as sustainable development, ecology, innovation, and security are no longer perceived as separate categories. They are interconnected and interdependent. Environmental security is a component of national and in-

ternational security, and environmental human rights are considered the third generation of human rights that determine the content and purpose of environmental security. Extensive economic growth leads to environmental degradation and depletion of resources. In turn, this requires more intensive technological methods of extraction, which are even more dangerous to the environment, or extensive approaches that imply the coverage of new territories and exclusionary conduct. Sustainable development, the introduction of innovative technologies, with the involvement of most advanced economies may relieve tensions, maintain a safe environment for the present and future generations. All these phenomena and concepts are enshrined in international law. Despite all the complexity and contradictions of these phenomena and concepts, the authors of the Encyclopedia of International Law have tried to analyze them from the standpoint of law, in objective, meaningful, and comprehensive manner. They have fully coped with this task. It should be noted that the publication of the Encyclopedia of International Law is a truly outstanding event in the scientific life of Ukraine, the National Academy of Sciences of Ukraine, and world science.

REFERENCES

1. On priority areas of development of science and technology: Law of Ukraine of July 11, 2001. No. 2623-III. *Information of the Verkhovna Rada of Ukraine*, 48, 253.
2. Borys Paton. Science will become a priority, without it, Ukraine will not have the future it deserves. 05/10/2020 URL: <https://rozmova.wordpress.com/2020/05/10/borys-paton-10/f> (Last accessed: 22.02.2021).
3. The Academy does not stay away from new challenges. URL: <http://www.nas.gov.ua/UA/Messages/Pages/View.aspx?MessageID=7462> f (Last accessed: 22.02.2021).
4. Ukrainian breakthrough: Scientific discoveries and inventions. URL: <https://www.ukrinform.ua/rubric-technology/3081233-ukrainskij-proriv-naukovi-vidkritta-i-vinahodi.html> f (Last accessed: 22.02.2021).
5. Prikhna, T. About Ukrainian scientists and science. URL: <https://naqa.gov.ua/2020/06/5687/f> (Last accessed: 09.02.2021).
6. Legal Encyclopedia: In 6 volumes. (1998–2004). (Ed. Yu.S. Shemshuchenko and others). Kyiv: Ukr. encycl.
7. Kononenko, V. (2020). Encyclopedia of International Law in 3 volumes — a point of reference during the "crisis" of international law. *Ukrainian Journal of International Law*, 3, 160–164.
8. Encyclopedia of International Law: In 3 volumes. (2019). (Eds. Yu. S. Shemshuchenko, V. N. Denisov). V. 3. M-I. Kyiv: Academperiodyca.
9. On the Sustainable Development Strategy "Ukraine — 2020": Decree of the President of Ukraine of January 12, 2015 № 5/2015. URL: <https://zakon.rada.gov.ua/laws/show/5/2015#Text> (Last accessed: 22.02.2021).
10. Encyclopedia of International Law: In 3 volumes. (2014). (Eds. Yu. S. Shemshuchenko, V. N. Denisov). Vol. 1. A-D. Kyiv: Academperiodyca.

11. Encyclopedia of International Law: In 3 volumes. (2017). (Eds. Yu. S. Shemshuchenko, V. N. Denisov). Vol. 2. E-L. Kyiv: Academyperiodyca.
12. Gabčíkovo-Nagymaros Project (Hungary/Slovakia): Judgment of 25 September 1997. URL: <https://www.icj-cij.org/public/files/case-related/92/092-19970925-JUD-01-00-EN.pdf> (Last accessed: 22.02.2021).
13. Gabčíkovo-Nagymaros Project (Hungary/Slovakia): Separate Opinion of Vice-President Weeramantry. URL: <https://www.icj-cij.org/public/files/case-related/92/092-19970925-JUD-01-03-EN.pdf> (Last accessed: 22.02.2021).

Received 03.03.2021

Revised 03.07.2021

Accepted 20.09.2021

*В.П. Кононенко*¹ (<https://orcid.org/0000-0002-6461-7072>),

*Т.І. Тарахонич*² (<https://orcid.org/0000-0002-1586-5088>),

*Л.Д. Тимченко*³ (<https://orcid.org/0000-0001-8897-03080>)

¹ Харківський національний університет імені В. Н. Каразіна, майдан Свободи, 4, Харків, 61022, Україна, +380 57 707 5500, univer@karazin.ua

² Інститут держави і права ім. В.М. Корецького НАН України, вул. Трьохсвятительська, 4, Київ, 01601, Україна, +380 44 278 5155, idpnanu@gmail.com

³ Університет державної фіскальної служби України, Науково-навчальний інститут права, вул. Університетська, 31, Ірпінь, Київська область, 08200, Україна, +380 4597 6 0475, 26.01@nusta.edu.ua

СТАЛИЙ РОЗВИТОК, ІННОВАЦІЇ ТА БЕЗПЕКА НА СТОРІНКАХ ЕНЦИКЛОПЕДІЇ МІЖНАРОДНОГО ПРАВА

Вступ. Пріоритетними напрямками розвитку науки є фундаментальні наукові дослідження з найбільш важливих проблем соціуму й природи, що забезпечує конкурентоспроможність України у світі та сталий розвиток суспільства й держави.

Проблематика. Попри чисельні загрози територіальної цілісності, економічної, екологічної безпеки держави, глобальних проблем, пов'язаних зі зміною клімату, воєнними конфліктами, поширенням COVID-19 тощо, вітчизняна наука на достойному рівні відповідає на зазначені виклики. Серед здобутків української науки можна назвати Енциклопедію міжнародного права, яка є єдиним на пострадянському просторі виданням такого рівня й обсягу та другою в світі після енциклопедії Макса Планка (*Max Planck Encyclopedia of Public International Law*).

Мета. Проаналізувати висвітлення таких категорій як сталий розвиток, екологія, інновації та безпека на сторінках Енциклопедії міжнародного права.

Матеріали й методи. Застосовано формально-юридичний метод аналізу текстів нормативно-правових актів, а також статистичні методи структурування та порівняльного аналізу актів законодавства. Також використано загальнонаукові методи пізнання — системний і структурний підходи, аналіз і синтез, індукцію й дедукцію.

Результати. Екстенсивне економічне зростання призводить до погіршення екологічної ситуації та виснаження ресурсів, що, в свою чергу, вимагає все більш інтенсивних — (технологічних) методів видобутку, які є ще небезпечнішими для довкілля, або екстенсивних підходів — охоплення нових територій, витіснення конкурентів. Така ситуація наразі становить загрозу національній територіальній, екологічній та економічній безпеці.

Висновки. Дослідження таких понять як сталий розвиток, екологія, інновації та безпека на сторінках Енциклопедії міжнародного права виявило міжнародну тенденцію сприймати їх не як окремі категорії, а у взаємозв'язку та взаємозалежності.

Ключові слова: сталий розвиток, екологія, інновації, національна безпека, економічна безпека.