

## ЄВРОІНТЕГРАЦІЙНІ ТА ГЕОПОЛІТИЧНІ ВИКЛИКИ

УДК 339.9 : 504

### ENVIRONMENTAL SAFETY AS A PRIORITY FACTOR OF INTERNATIONAL RELATIONS UNDER THE CONDITIONS OF GLOBALIZATION: PARITY BASIS AND PRINCIPLES OF FORMATION

### ЕКОЛОГІЧНА БЕЗПЕКА ЯК ПРІОРИТЕТНИЙ ФАКТОР МІЖНАРОДНИХ ВІДНОСИН В УМОВАХ ГЛОБАЛІЗАЦІЇ: ПАРИТЕТНІ ЗАСАДИ ТА ПРИНЦИПИ ФОРМУВАННЯ

**Anna OBIKHOD,**

*Candidate of Economic Sciences,  
Public Institution «Institute of  
Environmental Economics and  
Sustainable Development of the National  
Academy of Sciences of Ukraine», Kyiv*

**Alla OMELCHENKO,**

*Candidate of Economic Sciences,  
Public Institution «Institute of  
Environmental Economics and  
Sustainable Development of the National  
Academy of Sciences of Ukraine», Kyiv*

**Volodymyr BOIKO,**

*Public Institution «Institute of  
Environmental Economics and  
Sustainable Development of the National  
Academy of Sciences of Ukraine», Kyiv*

**Ганна ОБИХОД,**

*кандидат економічних наук,  
Державна установа «Інститут  
економіки природокористування та  
сталого розвитку Національної  
академії наук України», Київ*

**Алла ОМЕЛЬЧЕНКО,**

*кандидат економічних наук,  
Державна установа «Інститут  
економіки природокористування та  
сталого розвитку Національної  
академії наук України», Київ*

**Володимир БОЙКО,**

*Державна установа «Інститут  
економіки природокористування та  
сталого розвитку Національної  
академії наук України», Київ*

*The article examines prerequisites for the formation of the global environmental safety as an integral part of international relations and politics against the background of the long-term ecological crisis. Features of the global environmental safety and levels of its operation on a territorial basis are singled out and grounded. Attention is focused on transboundary character of the manifestation of most environmental threats and hazards, making it impossible for countries to overcome the consequences on their own. Emphasized are global threats and hazards that will determine areas of cooperation in the global environmental safety in the near future. Parity basis and principles of formation of global ecologically safe space are outlined. Considering the world experience of the implementation of forms and methods of economical use of natural resources and observance of safety of existence, directions of strategic planning of national environmental safety are suggested.*

**Key words:** *global ecological safety, international environmental policy, risks and threats, transboundary hazards, parity basis and principles of global environmental safety, strategic planning.*

*Розкриваються передумови становлення глобальної екологічної безпеки як невід'ємної частини міжнародних відносин та політики на фоні довготривалої екологічної кризи. Виділяються та обґрунтовуються характерні ознаки глобальної екологічної безпеки та рівні її функціонування за територіальним принципом. Акцентується увага на транскордонності прояву більшості екологічних загроз та небезпек, що унеможливило подолання наслідків державами самотійно. Виділено глобальні загрози та небезпеки, що визначатимуть у найближчій перспективі напрями співпраці у світовій екологічній безпеці. Окреслюються паритетні засади та принципи формування глобального екологобезпечного простору. Виходячи із світового досвіду форм і методів ощадливого використання природних ресурсів та дотримання безпеки існування, запропоновано напрями стратегічного планування національної екологічної безпеки.*

**Ключові слова:** глобальна екологічна безпека, міжнародна екологічна політика, ризики та загрози, транскордонні небезпеки, паритетні засади, принципи, стратегічне планування.

**Problem statement.** XXI century has given rise to the problems that affect not only individual states or regions but also humanity in general. The relations of human and nature have become accentuated. Human civilization throughout history has extensively used nature, constantly increasing the environmental impact. The use of natural resources greatly affected the quality of people's life, but the economic growth oriented at quantitative indicators has ultimately led to enormous environmental pollution and sometimes to irreversible consequences, changing the characteristics of the Earth. The level of humanity needs in natural resources has significantly increased along with the population and industrial production; they are constantly interacting and developing (Fig. 1).

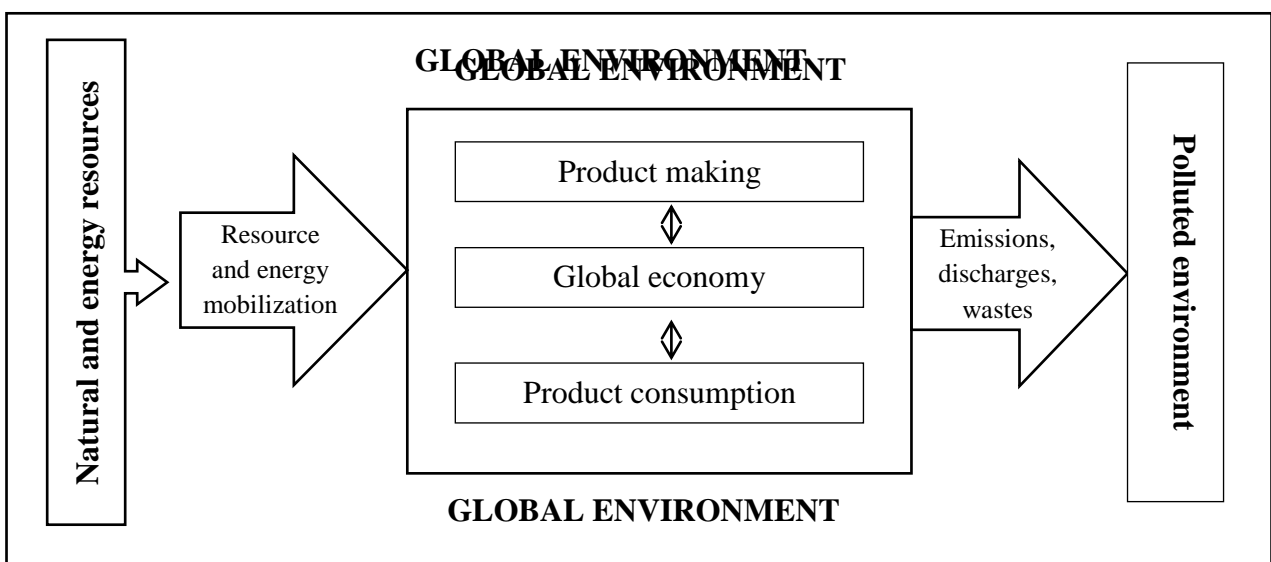


Fig. 1. Scheme of the interaction between global economy and environment

**Analysis of recent research and publications.** Fundamental research of theoretical, methodological and practical aspects of ensuring international environmental safety are represented in the papers of scientists of our country.

Bystriakov I.K., Danylyshyn B.M., Doroguntsov S.I., Kravtsiv V.S., Stepanenko A.V., Khvesyk M.A., Khlobystov Y.V. and others analyzed various aspects and issues of ecologization of international relations, evaluated processes occurring in this area on the basis of resources, and explored the role of environmental safety in the processes of sustainable development in their papers.

State safety is also globally and thoroughly considered in the studies of foreign authors. Theoretical and methodological foundations and features of observance of international environmental safety are widely represented in the works of T. Homer-Dixon, S. Breyer, H. Vreele, N. Maers [1; 3–4].

**Unsolved aspects of the general problem.** For a long time there existed a belief: the world economy development will be stable and continuous, and natural resources will be inexhaustible. Environmental issues were considered as technical problems that are also solved by technical means. Technological optimism generated illusions of limitless possibilities for economic growth. And a rapid technological advance of human on nature, which is spontaneous and disregards possible consequences, has become the cause of current environmental problems. So, at present the global environmental safety (GES) is characterized by the following features:

- lack and degradation of natural resources or environmentally dangerous situations exacerbate conflicts and tensions within countries and between them;
- cooperation on the environmental issues is a potentially stabilizing factor in international relations which increases tension associated with resource sharing;
- processes of strengthening dialogue and expanding mutual trust, openness in the ecosphere develop slower than new conflicts arise;
- environmental safety state threatens socio-ecological-economic stability (demographic trends, mass migration, welfare decline, instability and destruction of social institutions, etc.).

Considering the global character of environmental problems, it is obvious that they cannot be solved separately in one state or another. The international community, however, is learning to coordinate efforts in the environmental and ecological activities, involving governmental and non-governmental international environmental organizations. They function in the view of international environmental policy at the following levels:

**1) Global** – development and realization of international legal, political and foreign-economic actions taking into account environmental constraints in socio-economic development, reserves of natural resources and their distribution among regions and countries. This is a dynamic, complex, integrated system which is the main field of attention of all international environmental forums. Sometimes it can assume quite an aggressive nature, go beyond international agreements and standards.

**2) Regional** level covers the interests of the countries of one continent which are combined with natural and geographical environment (sea, river, mountain system). At this level, quotas on the extraction of available natural resources are set. However, the regional environmental policy today has not gone further than general declarations on the threats that had arisen. Countries mainly act apart at their state levels.

**The aim of the study** is to prove that the *global environmental safety (GES)* is, to date, a system of international relations that should be built exclusively on the basis

of parity and principles, the observance of which will ensure conservation, sustainable use, restoration and improvement of the quality of the environment. At the same time, the national activities of individual states exclude environmental damage to both individual countries and the whole international community. GES can be considered as a process of integration, regionalization, liberalization and democratization of international relations that forms a complex of environmental conditions of human existence and affects the functioning of institutions, enterprises and organizations by creating special regimes of countries' relationships in order to prevent environmental hazards. The recognition of environmental safety as an integral attribute of the world social development requires a radical change of imperatives and values of modern civilization, their vision from the environmental perspective. It is not only to give traditional thinking up, but also to form a new perception of the world and strategy of post-industrial development since traditional scientific progress in reality is dangerous from an environmental perspective.

**The main material.** Kachynski A.B. in his work [5] defines the features of environmental safety that prove its transboundary character:

1) environmental safety becomes apparent in local, regional and global scale as environmental disasters, crises and catastrophes. Ensuring environmental safety is the basic way of solving the environmental problems that guarantees the development in biosphere compatible, environmental form to the society;

2) environmental safety provides reasonable satisfaction of econeeds of any person and society in general in all life manifestations, guarantee of living in a green and favorable for life environment;

3) all aspects of national security are strongly linked together and solving the majority of ecological safety problems is possible only in combination with other aspects of national security;

4) environmental safety cannot be realized only in favour of the subject of the ecosystem (the society) to the detriment of the object (the environment). Environmental safety is such a type of society development which is implemented in the interests of both the subject and the object;

5) environmental safety cannot be formed through infringement of the environmental rights of other population groups;

6) effective environmental safety should be based on the fundamental ecological, social and biosphere patterns that are complex and closely related to the various spheres of public life. The concept of environmental safety should naturally include humanistic ideals and increasingly implement ecohumanistic principles.

It should be added that taking into consideration the transboundary nature of most environmental threats, environmental safety as a category «component of national security» should be considered in the view of international relations. World leaders and the development of the international economy are currently giving environmental issues top priority of multi-aspect world politics. Thus, in 1957, when the EU was founded, there was no environmental policy, environmental bureaucracy and laws on nature protection. To date, the EU has one of the most progressive environmental policies in the world. The network of its environmental legislation applies to all areas: the fight against air pollution, water pollution, waste management, nature protection and control of chemicals, biotechnology and other industrial risks. The body of EU environmental

consists of more than 500 directives, regulations and decisions. It may be stated that the environmental policy, thus, has become one of the main areas of European policy.

Globalization processes, increase in disparities in the economic development and resource provision between the developed and underdeveloped countries, population growth and migration increase exacerbate the threat to humanity in the long run because of the emergence of the impulses of destructive conflicts on a world scale, such as [6, 7]:

- ***destruction of ozone layer of the atmosphere***: the strengthening of the greenhouse effect as a result of increase in emissions of methane, aerosols, radioactive emissions, air temperature increase by 1,1–6,4°C, and so on;

- ***manifestations of global climate changes*** [8; 9]: the melting of Arctic glaciers, sea level rise by 1 m, changes in the frequency and intensity of rainfall, irrevocable changes in environmental and biological systems, territorial changes in agricultural productivity, the worsening of water problems and water consumption in densely populated regions of the planet that could lead to catastrophic threats to people's life and health, exacerbating violent conflicts in 46 countries with the population of 2.7 billion people;

- ***pollution of the World Ocean*** through the extensive activities of TNCs, dumping toxic and radioactive substances in it, saturation of water with carbon dioxide from the atmosphere, anthropogenic petroleum products, heavy metals and complex organic compounds (according to «Greenpeace» estimates, about 6.5 million tons of waste annually are discharged to the oceans, where 80 % is plastic, forming islands like «Great Pacific Garbage Patch») [10];

- ***world population growth*** (as of October 31, 2011 the world population reached 7 billion and it is predicted that it will reach 9 billion until 2042 [11] and *transformation of determinants of migration flows movement* (environmental migrants, environmental refugees);

- ***limited access to global resources and disproportion of their use by countries*** (in the last decade developed countries consumed 70 % of global energy and metals, 60 % of food products); according to this proportion, the cost of energy only in agriculture accounted for from 1/65 in different countries (the basin of river Congo) to 1/2,0–1/2,5 (the USA); the extrapolation of water consumption trend shows that till 2030 water supply deficit will be 40 %;

- ***proliferation of nuclear, chemical, biological, geophysical, space, psychotropic, environmental weapons and technologies of mass destruction***;

- ***increase in consumption and resource and power supply shortage*** (energy consumption is predicted to increase by 37–50 % till 2030); moreover, the world's oil resources for energy supply of civilization will be sufficient for only 30–60 years, natural gas – for 40–70 years, coal – for 300–700 years, plutonium for nuclear power stations (NPP) on fast neutrons – for 1 thousand years, clathrates (inclusions) of methane of the Black Sea – for 40–700 thousand years.

All this gives grounds to predict future intergovernmental «dialogues» and not only military, political, demographic conflicts, but also environmental ones that will take place on the civilization junctions [12, 13]. Scientists predict that till 2020 there can be 50 mln environmental refugees in the world and insurance losses only from

hurricanes in America will reach 100–150 bln dollars till 2080. This, in turn, will result in not only the crisis of food resources (only in Africa, the number of hungry people could increase by 75–200 million people), but also exacerbate the problem of migration. Its environmental expansion will become stronger to the new ecological living space that cannot be redistributed by means of transportation. It is a well-known fact that of 149 million km<sup>2</sup> of the land only 48 million km<sup>2</sup> is free from permanent or obvious human presence; the part of free territory untouched by man in the world is: 37 % in North America, 34 % in post-Soviet space, 28 % in Australia and Oceania, 27 % in Africa, 21 % in South America, 17 % in Asia, 3 % in Europe.

The environmental performance index (EPI), in our opinion, should be taken into account in the system of evaluation of global environmental relations. This global study has resulted in creating the ranking of world countries in terms of the environmental impact and rational use of natural resources. The aim of the study is not only to visually demonstrate the rating situation of the country, but also to develop recommendations to reduce pressure on the environment and, consequently, on human health, promotion of environmental sustainability and sustainable management of natural resources. EPI has replaced the Environmental Sustainability Index (ESI) since 2006 and its results are used to calculate the Human Development Index within a special series of reports on the Human Development of UNDP. The index measures the achievements of the country in terms of environmental conditions and natural resource management on the basis of 22 indicators in 10 categories that represent different aspects of the environmental state and viability of its ecological systems, conservation of biodiversity, resistance to climate change, public health, economic activity practice and the extent of its impact on the environment as well as the efficiency of public policy in the sphere of ecology. According to the general EPI, Ukraine was in the range of 93–101 places during 2002–2014 with the maximum score of 49.01 (out of a hundred possible) in 2012 [14].

The relevance of global environmental safety problem is proved by the fact that the world's most influential indicator of economic development DOW JONES INDUSTRIAL AVERAGE publishes a subindicator covering companies that in their regular profit-and-loss reports represent damage done to the environment or the effect of the measures taken to neutralize this damage. The USA, Britain, France and Germany agreed to replenish their systems of national accounts with indicators of the environment that can increase or decrease the size of their GDP against the value calculated in a traditional way. At the same time, China, one of the main sources of pollution in the world, refused from such modification of national accounts, as this will lower the value of its GDP. Today, the industrialized countries, for the first time ever, do not agree to cut production for pure ecological future. «... When the problem is so large-scale that it requires fundamental restructuring of our views and approaches, we react naturally, denying the existence of the problem», – the head of the environmental committee of the Ministry of Foreign Affairs of the Netherlands Kitty van der Heijden says [15]. Therefore, the formation of the international environmental safety should be done not at the expense of discrimination, making people in certain regions and countries miserable, but implemented in accordance with the generally recognized parity basis and principles of the international community (Table 1).

The principles of formation of the Global Environmental Safety (GES)\*

<b>Principle of GES</b>	<b>Principle content</b>
<i>Overpriopity, status</i>	The dominant position of environmental safety in the structure of the country's national security and the development of strategic directions of the development of the society with compulsory observance of human rights and freedoms; political support which takes into account national and regional interests of conservation and restoration of natural, historical, genetic heritage of humanity
<i>Internationalization</i>	Cooperation of all states that will be free from confrontation, rivalry and mutual suspicion
<i>Systemacy</i>	Total ecologization of public life all over the world – ideology, culture, consciousness, education, politics, economy, production, business, etc. (compliance with the noosphere theory)
<i>Community</i>	Unity of natural systems makes attempts of individualization in international environmental safety impossible as reducing the risk for individual recipients – social groups, regions and countries by increasing it for others, that is, shifting to other national economic systems, is not ultimately effective.
<i>Integration</i>	Combination and relationship between environmental safety and life values and priorities of human development, processes of their internal interaction in various kinds of political, economic and environmental activity
<i>Scientific and technological cooperation in the sphere of international environmental safety</i>	Combination of scientific and technological capacity of the members of the international community with the aim of exchanging technologies, innovative achievements in the sphere of using natural resources, monitoring the environment, resource conservation, production ecologization, waste management
<i>Equality of safety subjects</i>	Formation of ecological safety of a certain state solely in cooperation with other states (prohibition on using contaminating or environmentally harmful technologies on the territory of other state, illegal transportation and disposal of hazardous waste, active exploitation of valuable natural resources)
<i>Systematic complexity and uncertainty</i>	The level of qualitative and quantitative parameters of environmental safety can greatly vary depending on the territorial unit, which may influence the environmental awareness of society of a certain country, the adequacy of the perception of environmental threats, political and public reaction to the prejudice and prevention of environmental risks
<i>Conservation of biodiversity and environmental benefits over time</i>	Global environmental safety is a permanent universal weal as well as an integral component of life support of world countries; on the other hand, this feature brings about a necessity of strict observance of the principle of equality of rights of generations on environmental safety
<i>Space belonging</i>	Impossibility of transportation of most environmental benefits and inefficiency of the realization of consumers' rights to protection from man-made risk by episodic visits to environmentally safe areas of activity
<i>Cooperation on preventing risks in emergencies</i>	Countries conduct risk monitoring and make early warning of emergencies; provide objective information about the state of the environment; participate in the creation of effective mechanisms of effective international consulting and assistance in forming international environmental safety
<i>Peaceful settlement of controversies, neighbourliness, public control</i>	Continuous control of transboundary environmental impact (monitoring, warning and overcoming of consequences) and establishment of a global specialized body for this purpose or involvement of international non-governmental and public organizations, environmental movements, representatives of progressive, business, scientific and initiative groups, etc.

Source: made by authors using [16, 17, 18, 19, 20].

So, GES today should be studied from the viewpoint of globalization processes, based on the formation and further development of a single global ecological and economic space by ensuring the international environmental safety on the basis of new technologies, environmental innovations, participation in global agreements in the field of environmental protection, formation of international market of emission trading.

In the area of ensuring the environmental component of international security there are constant discussions and confrontations of views on ways and mechanisms of the problem solution. Take for instance the events around the Copenhagen conference on climate change where diametrically opposed beliefs of scientific schools, political organizations and even governments clashed over «warming» fighting and the role of anthropogenic factor in this process. Environmental scandals usually start around the developed countries and their essence is related to responsibility (including economic, or, primarily, economic one) of concrete individuals, manufacturers, carriers etc. for damages and use of resources. It can be said that nowadays humanity has concluded that planetary scale problems solving should begin with consensus among interested parties, harmonization of ideas and positions at first and then actions of government institutions. At the same time, the international community is still searching for points of contact and (economic, political, methodological) basis for the development of action plans, and the intensification of efforts to address specific problems continues to be generally declarative.

The analysis of the processes taking place in the world allows talking about *prerequisites and objectives of the establishment of GES system*, which in turn requires the creation and adoption of specific legal obligations, recommendations regarding the improvement of institutional support:

research of global energy and biogeochemical cycles (industrial and biospheric processes), in particular, perspectives and challenges of the development of traditional and alternative energy, dynamics and forecast of total emissions, discharges, disposal of pollutants and waste, etc;

- development and implementation of monitoring and supervision systems at the global level: development of new observing systems, also in space, exchange of satellites data, creating common databases, etc .;

- development of theoretical and methodological principles of research of environmental changes based on the synergistic combination of achievements in various fields of knowledge;

- substantiation, development and maintenance of complex international programs, financial and scientific support of regional interstate projects, etc. [17, 21].

The scarcity of natural resources leads to contradictions and conflicts that hinder the socio-economic growth. Today, environmental conflicts can be defined as confrontations at the international level caused by incompatible interests of the parties and their struggle for the right of possession, use of resources and environmental services, or control over them. According to the forecasts, the number and scale of environmental conflicts will increase, and as it is proved by the World Bank research [8], the world economy losses from natural disasters and catastrophes for the period 1980–2012 were 3.8 trillion dollars. The evaluation was conducted on the basis of Swiss reinsurance company «Munich Re», and the results were published after the



liquidation of the aftermath of the devastating typhoon «Hayan» in the Philippines (the economic loss only from this typhoon, according to the rating agency «Moody's», amounted to 14 billion dollars).

Also, the World Bank studies found a tendency of increase of the size of the average loss: in the 80s it was about 50 billion, and in the modern period it is around 200 billion dollars per year. In this case, losses only from storms, floods and droughts are about 2.5 trillion, i.e. two-thirds of the total loss. In the regional distribution, as the World Bank states, the most affected are developing countries, where the damage from natural disasters for the period of 2001–2006 amounted to 1 % of GDP. In contrast, developed countries during the same period for the same reason lost 0.1% of GDP, i.e. ten times less. However, it is likely due to higher rates of GDP in developed countries. In its study, the World Bank urges to develop measures to prevent the risks associated with the extreme worsening of weather conditions. The World Bank experts prove in their reports «World Bank and Climate Change» and «World Bank and Climate Finance» that the environmental cooperation in international economic relations is necessary and should be based on common interests of all countries and redistribution of financial flows allocated to measures to prevent environmental risk.

**Conclusions and recommendations for further research.** To overcome global environmental threats it is necessary to intensify efforts towards the formation of global environmental safety, using the most advanced forms of international cooperation based on the common criteria and generally accepted universal approaches.

Given the global nature of environmental problems, the establishment and implementation of the national strategy for environmental safety is impossible without international experience. However, attempts to overcome the global environmental crisis have formed the approaches of the international community, in which the implementation of any special programs is activated with the participation of national governments. So, Ukraine now has a unique opportunity to highlight its vision of global environmental safety and become an active participant in the formation of international strategies in this area. In particular, it is urgent to disclose at the international level its position on rehabilitation and adaptation of Chernobyl territories based on biological, medical, social and psychological data of relevant agencies and ministries to further coordinate the efforts of our state and the international community in solving issues of environmental perspectives of these lands.

An indication of the current global environmental strategies is the priority of the problem of global warming. Among the measures to reduce the negative impact of emissions into the atmosphere, system of emissions trading is considered to be cost-effective.

Commercialization of the idea of global warming fighting carries risks of, firstly, the probability of concentration of environmentally harmful industries on the territory of countries that save their emissions, and secondly, leading to one-aspect solution of environmental problems without considering other components of the threat to the environment – soil contamination with heavy metals, contamination of waters of oceans and seas with wastes and so on. Thus, Ukraine may initiate additional and voluntary limits of emissions in addition to the stipulated international agreements.

The national environmental strategy at this stage would create preconditions of solving a complex of tasks in the environment. Strategic planning of the state of environmental safety should be based on such principles:

- political priority of solving the problems of ecological safety;
- integration of environmental component into sectoral policies – economic, social,
- environmental responsibility of the industrial sector
- balance and complementarity of national and regional environmental priorities;
- substantiation of means of overcoming environmental threats by scientific experts.

Taking into account the world experience in the process of development of the national environmental strategy will contribute to the comprehensive implementation of the basic principles of the state policy in the field of environmental protection, to its concordance with the international policy, to the implementation of integration prospects of our country.

## REFERENCES

1. *Dmitrov R.S. Water, Conflict and Security: A Conceptual Minefield / R.S. Dmitrov // Society and Natural Resources. – 2002. – Vol. 15. – P. 677–691.*
2. *On the Threshold. Environmental Changes as Causes of Acute Conflict // International Security. – Fall 1991. – Issue 16, no. 2. – P. 76–116.*
3. *Homer-Dixon T. Environmental Scarcities and Violent Conflict: Evidence from Cases / T. Homer-Dixon // International Security. – Summer 1994. – Vol. 19, Issue 1. – P. 5–40.*
4. *Breyer S. Institutions for Regulating Risk / S. Breyer, H. Vreele // Environmental Law. The Economy and Sustainable Development: The United States, the European Union and the International Community / ed. by Richard L.R., Sands P., Stewart R.B. – Cambridge, 2000. – 357 p.*
5. *Kachynskiy A.B. Ekolohichna bezpeka Ukrainy: systemnyi analiz perspektiv pokrashchennia / A.B. Kachynskiy. – K.: NISD, 2001. – 312 s.*
6. *Lukianenko D. H. Hlobalna ekonomichna intehratsiia : [monohrafiia] / D.H. Lukianenko . – K. : Nats. pidruchnyk, 2008. – S. 96–96.*
7. *Shevtsov A.I. Maibutnie liudstva neobkhidno splanuvaty: hlobalni zahrozy i dovhostrokovna stratehiia rozvytku Ukrainy / Anatolii Shevtsov // Stratehichni priorityty. – 2007. – № 1(2). – S. 187–193.*
8. *Climate Extremes, Regional Impacts and the Case for Resilience [Electronic resources]. – Available at : <http://www.worldbank.org/en/topic/climatechange/publication/turn-down-the-heat-climate-extremes-regional-impacts-resilience>.*
9. *Oliinyk Ya.B. Bezpeka zhyttiediialnosti naseleunia pry ekstremalnykh temperaturakh za umov hlobalnykh zmin klimatu : navch. posib. [dlia stud. vyshch. navch. zakl.] / Ya.B. Oliinyk, A.V. Stepanenko, H.O. Obykhod. – K. : VPTs Kyivskiy universytet, 2011. – 303 s.*

10. *Great Pacific Garbage Patch* [Electronic resources]. – Available at : [http://education.nationalgeographic.com/education/encyclopedia/great-pacific-garbage-patch/?ar\\_a=1](http://education.nationalgeographic.com/education/encyclopedia/great-pacific-garbage-patch/?ar_a=1).
11. *International Demographic and Economic Analysis* [Electronic resources]. – Available at : <http://www.census.gov/population/international>.
12. Fukuiama F. *Konets ystoryy y poslednyi chelovek* / Frənsys Fukuiama; [per. s anhl. M. B. Levyna]. – M. : AST, 2010. – 584 s.
13. Huntington, Samuel P. *The Clash of Civilizations and the Remaking of World Order*, New York, Simon & Schuster, 1996. – P. 4–5.
14. *Pilot Trend Environmental Performance Index (Trend EPI) – 2012* [Electronic resources] / Ofitsiyni sait Yelskoho universytetu (SShA). – Available at : <http://epi.yale.edu/epi>.
15. *Ustoichyvoe razvytye: ekonomyka y ekolohyia : mat. ezhehod. konf., posviashch. voprosam ustoichyvoho razvytyia*, 6–8 fevr. 2014 h., h. Dely, Yndyia [Electronic resources]. – Available at : <http://www.svoboda.org/content/article/25256668.html>.
16. Bokhan A.V. *Mizhnarodna ekolohichna bezpeka: suchasni vymiry ta pryntsy py realizatsii* [Electronic resources] / A.V. Bokhan // *Efektivna ekonomika*. – 2009. – № 3. – Available at : <http://www.economy.nayka.com.ua/index.php?operation=1&iid=42>.
17. Haliametdynova A.Yu. *Zashchyta pryrodnoi sredy v vooruzhennikh konflyktakh: obzor mezhdunarodno-pravovykh norm y nekotore probleme ykh rasprostraneniya y pryimeneniya* / A.Yu. Haliametdynova // *Moskovskiy zhurnal mezhdunarodnogo prava*. – 1997. – № 3/27. – S. 213–225.
18. *Kto zaplatyt po schetam pryrodnykh katastrof? Yssledovanye optymalnykh sposobov fynansyrovaniya ryska stykhyinykh bedstvyi (otchet)* [Electronic resources] // *The World Bank, ISDR (Mezhdunarodnaia stratehiya umensheniya opasnosti bedstvyi), CAREC (Central Asia Regional Economic Cooperation)*. – 60 s. – Available at : [http://www.preventionweb.net/files/11742\\_FinRiskrus.pdf](http://www.preventionweb.net/files/11742_FinRiskrus.pdf).
19. Malysh N.A. *Ekolohichna polityka: konfliktnist, stratehiia, taktyka* [Electronic resources] / N.A. Malysh // *Derzhavne upravlinnia: teoriia i praktyka*. – 2009. – № 2(10). – S. 1–9. Available at : [http://www.nbu.gov.ua/e-journals/Dutp/2009\\_2/doc\\_pdf/Malysh.pdf](http://www.nbu.gov.ua/e-journals/Dutp/2009_2/doc_pdf/Malysh.pdf).
20. Potiekhin O. *Hlobalizatsiia bezpeky : navch. posib.* / O. Potiekhin, I. Todorov. – Donetsk : Noulidzh, Donets. vid-nia, 2011. – 246 s.
21. Tretiakova I.S. *Otsinka ekolohichnykh naslidkiv rozvytku svitovoi ekonomiky* / I.S. Tretiakova // *Problemy razvytyia vneshneekonomycheskykh svyazei y pryvlecheniia ynostrannykh ynvestytsyi : sb. nauch. tr.* – Donetsk : DonNU, 2008. – S. 82–88.

### СПИСОК ВИКОРИСТАНИХ ДЖЕРЕЛ

1. Dmitrov R.S. *Water, Conflict and Security: A Conceptual Minefield* / R.S. Dmitrov // *Society and Natural Resources*. – 2002. – Vol. 15. – P. 677–691.
2. *On the Threshold. Environmental Changes as Causes of Acute Conflict* // *International Security*. – Fall 1991. – Issue 16, no. 2. – P. 76–116.

3. Homer-Dixon T. *Environmental Scarcities and Violent Conflict: Evidence from Cases* / T. Homer-Dixon // *International Security*. – Summer 1994. – Vol. 19, Issue 1. – P. 5–40.

4. Breyer S. *Institutions for Regulating Risk* / S. Breyer, H. Vreele // *Environmental Law. The Economy and Sustainable Development: The United States, the European Union and the International Community* / ed. by Richard L.R., Sands P., Stewart R.B. – Cambridge, 2000. – 357 p.

5. Качинський А.Б. *Екологічна безпека України: системний аналіз перспектив покращення* / А.Б. Качинський. – К.: НІСД, 2001. – 312 с.

6. Лук'яненко Д. Г. *Глобальна економічна інтеграція: [монографія]* / Д.Г. Лук'яненко. – К.: Нац. підручник, 2008. – С. 96–96.

7. Шевцов А.І. *Майбутнє людства необхідно спланувати: глобальні загрози і довгострокова стратегія розвитку України* / Анатолій Шевцов // *Стратегічні пріоритети*. – 2007. – № 1(2). – С. 187–193.

8. *Climate Extremes, Regional Impacts and the Case for Resilience* [Електронний ресурс]. – Режим доступу: <http://www.worldbank.org/en/topic/climatechange/publication/turn-down-the-heat-climate-extremes-regional-impacts-resilience>.

9. Олійник Я.Б. *Безпека життєдіяльності населення при екстремальних температурах за умов глобальних змін клімату: навч. посіб. [для студ. вищ. навч. закл.]* / Я.Б. Олійник, А.В. Степаненко, Г.О. Обиход. – К.: ВПЦ Київський університет, 2011. – 303 с.

10. *Great Pacific Garbage Patch* [Електронний ресурс]. – Режим доступу: [http://education.nationalgeographic.com/education/encyclopedia/great-pacific-garbage-patch/?ar\\_a=1](http://education.nationalgeographic.com/education/encyclopedia/great-pacific-garbage-patch/?ar_a=1).

11. *International Demographic and Economic Analysis* [Електронний ресурс]. – Режим доступу: <http://www.census.gov/population/international>.

12. Фукуяма Ф. *Конец истории и последний человек* / Фрэнсис Фукуяма; [пер. с англ. М.Б. Левина] – М.: АСТ, 2010. – 584 с.

13. Huntington, Samuel P. *The Clash of Civilizations and the Remaking of World Order*, New York, Simon & Schuster, 1996. – P. 4–5.

14. *Pilot Trend Environmental Performance Index (Trend EPI) – 2012* [Електронний ресурс] / Офіційний сайт Єльського університету (США). – Режим доступу: <http://epi.yale.edu/epi>.

15. *Устойчивое развитие: экономика и экология: мат. ежегод. конф., посвящ. вопросам устойчивого развития, 6–8 февр. 2014 г., г. Дели, Индия* [Электронный ресурс]. – Режим доступа: <http://www.svoboda.org/content/article/25256668.html>.

16. Бохан А.В. *Міжнародна екологічна безпека: сучасні виміри та принципи реалізації* [Електронний ресурс] / А.В. Бохан // *Ефективна економіка*. – 2009. – № 3. – Режим доступу: <http://www.economy.nauka.com.ua/index.php?operation=1&iid=42>.

17. Галяметдинова А.Ю. *Защита природной среды в вооруженных конфликтах: обзор международно-правовых норм и некоторые проблемы их*

распространения и применения / А.Ю. Галяметдинова // Московский журнал международного права. – 1997. – № 3/27. – С. 213–225.

18. Кто заплатит по счетам природных катастроф? Исследование оптимальных способов финансирования риска стихийных бедствий (отчет) [Электронный ресурс] // The World Bank, ISDR (Международная стратегия уменьшения опасности бедствий), CAREC (Central Asia Regional Economic Cooperation). – 60 с. – Режим доступа : [http://www.preventionweb.net/files/11742\\_FinRiskrus.pdf](http://www.preventionweb.net/files/11742_FinRiskrus.pdf).

19. Малиш Н.А. Екологічна політика: конфліктність, стратегія, тактика [Електронний ресурс] / Н.А. Малиш // Державне управління: теорія і практика. – 2009. – № 2(10). – С. 1–9. Режим доступу : [http://www.nbuv.gov.ua/e-journals/Dutp/2009\\_2/doc\\_pdf/Malysh.pdf](http://www.nbuv.gov.ua/e-journals/Dutp/2009_2/doc_pdf/Malysh.pdf).

20. Потехін О. Глобалізація безпеки : навч. посіб. / О. Потехін, І. Тодоров. – Донецьк : Ноулідж, Донець. від-ня, 2011. – 246 с.

21. Третьякова І.С. Оцінка екологічних наслідків розвитку світової економіки / І.С. Третьякова // Проблемы развития внешнеэкономических связей и привлечения иностранных инвестиций : сб. науч. тр. – Донецьк : ДонНУ, 2008. – С. 82–88.