

International Environmental Security

Cristina Ceban¹

Abstract: International environmental security is today an extremely urgent issue, the solution to which depends on environmental conservation. The absence of such an environment makes it meaningless to solve all other problems. The author analyzes the problem of negative social externalities that are directly reflected in issues related to environmental security. Traditionally, the problem of externalities in the field of the environment has been combated with the help of economic instruments, forcing the producers of these externalities to pay them in the form of additional taxes. However, practice shows that economic solutions to environmental security are ineffective. The author proposes alternative, non-economic approaches to consolidating and developing the system of institutions for ongoing international negotiations on environmental security and promoting environmental awareness.

Keywords: ecological security; realism; externalities; international negotiations; new ecological philosophy

1. Introduction

In order solve to the most acute environmental problems, a change in the political philosophy of the ruling elites in most states is vital. A rejection of realistic economic policies and a reliance on traditional problem-solving methods to find compromises and co-operate in solving global problems is also needed.

The need to study international experience in the field of environmental security is due to the fact that (EEDGAR):

- There is no adequate and comparable system of indicators to allow international and regional comparisons, as environmental security has not yet received a comprehensive statistical and economic assessment;

¹ Associate Professor, PhD, Faculty of Law, University of European Studies of Moldova, Chisinau, Republic of Moldova, Adress: Ghenadie Iablocikin 2/1 street, Chisinau, Republic of Moldova, Corresponding autor: cristinaceban810@gmail.com.

- The analytical tools currently used, the macro and meso-economic indicators do not allow to obtain comparable results, because they aim to solve narrow problems, and their experience cannot be extended to other territories;
- The problem of developing a generalizing indicator for characterizing environmental security remains unresolved;
- The problems of typologizing territories according to the level of environmental security are insufficiently covered in scientific publications of researchers, which is an informative basis for making effective management decisions in this field, forecasting and modeling measures to improve environmental security of territories.

The development and complication of the technological process of production, the evolution of technical means and methods of human activity represent a threat to environmental security. From the middle of the twentieth century, the world community began to realize the danger of this threat, branches of law began to appear in local legal systems, which became the prototype of modern environmental law (Дмитриева, 2018).

Solving environmental security problems in a single state can only be successful locally, because the negative impact on the environment cannot be limited by the clear framework of state borders. Any human impact on nature is far-reaching, beyond the boundaries of a particular nation or state.

To this end, local systems of rules and regulations in the field of environmental law, and in particular in the field of environmental security, have been developed in the system of international law, regulating similar legal relations.

The general models and trends in the analysis and study of international environmental security issues are reflected both in the normative acts of interstate structures and entities and are duplicated at the level of the local legal system. Moreover, environmental security is recognized by the world community as part of a unique system of international security. Almost every state has its own national security program, in which environmental security occupies a separate place.

The main feature that determines the importance of environmental security is the transboundary nature of environmental threats, which in the modern world are gradually becoming a factor in the influence of individual states on world politics. Most countries believe that the threat to environmental security is the same as military and other threats to national security.

Since the 1980s, the United Nations (UN) has begun to develop and implement international programs to reduce threats to environmental security. The main tasks of developing the system of international law in this field have been determined, the principles for solving environmental security problems have been formed. The key factor in this stage of development in the field of environmental security has become the realization by the world community that the damage caused to the environment can become a global threat to the existence of humanity as a whole.

2. The Main International Acts in the Field of Environmental Security

In the following we will present the main international acts in the field of environmental security

The signing of the Protocol on the Reduction of Sulfur Emissions and the Convention on Transboundary Air Pollution can be identified as the first significant international act in the fight against the threat to environmental security. Both documents were adopted in 1985 and developed in the legal systems of most countries. The standards they have set are reflected in the national legal systems of the states.

The Convention on the Control of the Transport of Dangerous Goods (1985), for the first time in the history of international law, defined the level of responsibility of Member States for violating the rules laid down in this field.

Following the accident at the Chernobyl nuclear power plant, which clearly demonstrated humanity's vulnerability to the effects of radiation, the Convention on Assistance in the Event of a Nuclear or Radiation Accident was adopted.

In the early 1990s, global issues related to fresh water shortages and greenhouse gas emissions became particularly important. These are reflected in the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, Agenda 21 adopted by the UN Conference on Environment and Development in Rio de Janeiro in 1992 and other documents.

These problems are aggravated every year, the local actions of individual states can not correct the current situation. To this end, organizations studying the theoretical and practical problems of climate change operate internationally. The UN Intergovernmental Panel has prepared a conclusion on the issue of climate change, stating that the concentration of greenhouse gases in the atmosphere has reached record highs in the last 800 thousand years and the average global temperature in the

last century increased by almost 0.5 degrees. The results of the research become the basis of the norms of public international law.

The problem of deforestation is typical of every continent, so international public organizations have also centralized efforts to combat this threat.

The irreversibility and cost-effectiveness of the impact of environmental factors on the human environment, as well as the negative economic consequences, make the task of combating the global threat to environmental security a priority area for international organizations at various levels.

Identifying the countries that have the greatest negative impact on the global environmental situation has led to the emergence of a market for limits on emissions of harmful substances into the atmosphere. This indicator changes annually depending on the ecological and economic situation both in a given region and on the planet as a whole. States participating in this program are obliged to comply with the established limits and to compensate for the damage caused to the environment caused above the established limits.

Over the last decade, special attention has been paid to the threat of environmental damage from armed conflict. The modern theater of military operations often causes an ecological catastrophe of a local or global nature. At present, the concepts of national security of States already provide as an integral element of the provisions on the inadmissibility of deliberate harm to the environment and the requirement to minimize the impact of types of dangerous weapons on the environmental situation of the place of military conflict.

The system of rules of international organizations in the field of environmental security is an integral part of public and private international law. International cooperation in this field consists both in defining the general principles of combating a global threat to environmental security and in assisting each other in resolving specific environmental problems. The signing of international conventions in this field by the participating countries is done simultaneously with the amendments of the domestic legislation. The priority of international law in the modern world makes it possible to exercise control over the actions of individual states in the fight against the threat to environmental security, as well as the application of measures to influence those who violate the established rules.

In the modern world, the total number of international pacts and conventions in the field of environmental security is increasing every year, more and more countries with developed economies join the international programs in the field of

environmental protection. The implementation of international legal norms at the level of each state will reduce the general threat to environmental security and will respond promptly to the emergence of new environmental threats.

Theoretical problems and approaches to the study of various aspects of international environmental security arose and began to be studied almost simultaneously with the emergence of global environmental problems in the second half of the twentieth century. In parallel in scientific and political circles in different countries, the problem was equally intensively studied. But the first observations of scientists can be attributed to an earlier period. In the United States, for example, since 1933, the well-known geologist Ch. Schuchert has written about the geological consequences of human activity.

Later, in the '50s and especially in the '70s. Following the emergence of the Forrester and Meadows model, as well as the work of the Rome Club, concern about the uncontrolled growth of production and industrial waste has grown, becoming a recognized threat to international security in general and environmental security in particular. Since the end of the twentieth century, international environmental security issues have become part of the permanent agenda of the international community and international relations both in the broad context of security and in its narrow aspects.

In the 1970s, the first theoretical concepts for preventing threats to environmental security began to be formed, which were conditionally divided into external and internal, depending primarily on the consequences (international, man-made, global, etc. - for external threats) and the nature of the threats themselves - the sources of these threats.

So, the sources of threats to the security of the technogenic environment began to be recognized not by the forces of nature, but by the activity (or inaction) of man and the state. This, in turn, led to the emergence of a whole public relations group, whose purpose was to prevent and combat threats to environmental security in various fields - economic, military, social and international.

Jiang Mingjun considers environmental security through three categories: eco-security of nature, caused by astronomical and geological factors, including volcanic eruptions, earthquakes, hurricanes, tsunamis, extreme weather events; ecosystem security, which includes forest system security, marine system security, wetland security and microbiological ecosystem security; national environmental security, including food security, water resources protection, environmental security, species

security, life security, city security, nuclear and radiation security, natural heritage security, resource security and sustainable development (Mingjun).

Elizabeth L. Chalecki considers the following components of environmental security: national natural resources, food security, climate change (global warming) and other environmental damage (Chalecki, 2013).

Until the second decade of the 21st century, in the world public opinion, the paradigm of international environmental security developed in the main contours, based on research and political realities from the second half of the 20th century - the beginning of the 21st century. International environmental security according to this paradigm is generally considered today to be:

- The result of the contradictions of political, social and economic development at national and international level, which led to the emergence of many positive externalities, but especially negative ones. First of all, we are talking about negative temporal externalities that have global consequences such as climate change, deterioration of air and water quality, etc.
- The most pressing issue that requires the combined efforts of the entire world community and does not allow for a delay or a slow solution. At the 70th session of the UN General Assembly, for example, all the major initiatives of the leaders of the leading states and the foreign ministers were addressed directly on this subject.
- As an international security issue that requires special political attention and significant material and financial resources.
- As a fundamentally intractable political and economic problem, which requires particularly serious international efforts at the highest political and diplomatic level, the pace and effectiveness of which, as practice shows, remains evident from the worsening security threats. international environmental policy). This political and diplomatic specificity of environmental issues creates objective difficulties even in those cases where there are no fundamental political differences in understanding the solution to the problems.

In the same years, in general, global public opinion and scientific circles developed a fairly stable consensus that the common causes of environmental degradation and irrational use of natural resources and the emergence of a threat to international security.

In the field of the environment, we often see the “insufficient” efficiency of mechanisms or even the “failures” of the market. The same “failures” are inherently

the potential for future environmental threats and even cataclysms. The specific sources of such “failures”, as already mentioned, are externalities (externalities), public goods, transaction costs, lack of knowledge and uncertainty of information, myopia of the political and economic elite. It is generally accepted to believe, for example, that “in conceptual terms, market failures in the field of environmental protection are associated, in the first place, with the almost impossible consideration of such externalities as the social costs of society due to environmental degradation”.

As far as social externalities are concerned, they cannot be adequately taken into account and therefore the prices of natural goods are undervalued. Transaction costs can also be quite high in relation to the expected benefits (costs associated with obtaining information, conducting multilateral negotiations, implementing negotiations, etc.).

Local externalities occur in a limited area when the activity of an enterprise leads to external costs among the local population, other enterprises, etc. In the scientific literature, this problem is known as the “tragedy of the common good.” After Garrett Hardin's article [4] was published in *Science* in 1968, the term “common good tragedy” became widely used to refer to the process of environmental degradation that can be expected in situations where many individuals have a limited resource.

To illustrate the logical structure of his model, Hardin asked the reader to imagine a pasture “open to all.” He then analyzed the specifics of this situation from the perspective of the rational owner of the herd. Each owner of the herd benefits directly from the animals he owns and bears the deferred cost of the communal pasture, which is gradually deteriorating, being trampled by his own animals and those of the other owners (Hardin, 1968).

The tragedy of the commons was known before Hardin. Long before him, Aristotle wrote: “The slightest concern applies to what constitutes the possession of a very large number of people. People care more about what belongs to them personally and they care less about what is common” (Hardin, 1968).

In 1833, William Forster Lloyd developed a theory of communities, which predicted that people would be prone to wasteful use of property in their common possession (Lloyd, 1980).

More than a decade before Hardin's article, H. Scott Gordon (Gordon, 1954) convincingly demonstrated similar logic in another Trud classic: “A Study of the Economic Theory of Common Property: Fishing.” Gordon describes the same

dynamic as Hardin: “It seems that the old saying that shared property means that no one’s property contains any truth” (Hardin, 1968).

Overcoming the “tragedy of the commons” is associated with the internalization of externalities. “Methods of internationalization of externalities can be all kinds of payments, taxes and other levers of both administrative and economic nature” (Lloyd, 1980).

Negative externalities can be internalized by introducing a corrective tax (the so-called Pigou tax) or by privatizing public goods.

In order to solve environmental problems and form a global environmental policy, it is necessary both to increase attention to environmental problems at the state level and to create strong stable supranational structures.

Currently, there are theoretically three supranational models that can be taken as a basis (Воронцова & Воронцов, 2017).

The first model is global, using the entire (or largest) world community, in which leading international institutions, primarily the UN, are involved.

With regard to such a global issue as climate, it is clear that the answers are positive

The results are possible only if most of the leading states are involved in joint actions, and the principle of international cooperation enshrined in international law becomes a practical principle of political cooperation. “The importance of the principle of cooperation for the economic and social progress of all peoples in maintaining international peace and security (including the environment) can hardly be overestimated. In fact, modern international law has established the international legal obligation for cooperation between states, regardless of their political, economic and social systems, in the name of the general welfare of peoples, in the interest of all mankind” (Hardin, 1968).

The second model is regional organizations and trade unions capable of strengthening the authority and resources of a number of countries, for example the European Union.

The third model is the creation of new mechanisms for bilateral and regional cooperation, the development of common “bottom-up” approaches. “First, within the established regional structures - EU, NAFTA, APEC, ASEAN and others, and then - through a dialogue between us. From these “bricks” can be deduced a more stable character of the world economy” (Дмитриева, 2018).

It must be said that a unified environmental strategy is possible only in a unified development strategy, namely, sustainable development, when the interests of all states are taken into account to one degree or another by the main political actors, and not in the context of the traditionally existing system, whose “rules of the game” are created, determined, and are controlled by the world's major powers.

A separate area is that such initiatives should claim to form a new value system.

In order to avoid an ecological catastrophe and preserve nature for future generations, a person will have to transform, based on new realities, not only a predominantly destructive type of activity, but also the entire system of cultural values.

The culture of sustainable development is directly linked to the concept of “ecological civilization” (Воронцова & Воронцов, 2017). The purpose of the transition of modern society to sustainable development is the harmonization of socio-economic relations, technological and environmental development, ie the achievement of the main indicator of ecological civilization. “We can assume that the concept of ‘ecological civilization’ characterizes the qualitative specificity of the future society, its state, while ‘sustainable development’ is the dynamics of this society, the peculiarities of its links with the natural environment” (Воронцова & Воронцов, 2017).

3. Conclusion

Solving the most acute environmental problems is impossible without a change in the political philosophy of the ruling elites in most states, a rejection of realistic policies and a traditional reliance on strong problem-solving methods to find compromises and co-operate in the interest of solving global ones, universal, incl. environmental issues. A constant assertion is needed - politically and in international law.

It is important to note that the role of negotiations as a tool for regulating international relations is growing, which became visible in the second half of the twentieth century and is absolutely necessary since the end of the last century. First of all, the dependence on the growth of global issues and the intensification of international negotiations are clear. It can be said that as the significance of global issues, including environmental ones, increases, the importance of international cooperation mechanisms increases, as does the number and intensity of international

negotiations, the development of the existing and inevitable emergence of new international cooperation structures and mechanisms.

Objectively, this process is reinforced by another trend - a change in the balance of power in the world, the emergence of new centers of power that previously did not actively participate in such international negotiations. First of all, we are talking about the new political and economic giants - China and India.

Thus, the most realistic approach to solving the problems of low specification of property rights in global communities and high transaction costs are international negotiations and strengthening the values of “ecological civilization”.

References

Chalecki, Elizabeth L. (2013). *Environmental security: a guide to the issues*. [https://books.google.ru/books?id=GPK-Oc_7mzsC&printsec=frontcover & dq = Environmental + Security & hl = ru & sa = X & redir_esc = y # v = onepage & q = Environmental% 20Security & f = false](https://books.google.ru/books?id=GPK-Oc_7mzsC&printsec=frontcover&dq=Environmental+Security&hl=ru&sa=X&redir_esc=y#v=onepage&q=Environmental%20Security&f=false).

EEDGA. *Emissions Database for Global Atmospheric Research*. <http://edgar.jrc.ec.europa.eu/overview.php?v=431>.

Gordon (1954). *The Economic Theory of a Common-Property Research: The Fishery*.

Hardin, G. (1968). The Tragedy of the Commons. *Science*, 13 December, Vol. 162 no. 3859, pp. 1243-1248.

Lloyd, William, Foster (Sep., 1980). *Population and Development Review*, Vol. 6, No. 3, pp. 473-496.

Mingjun, Jiang. *Ecological Safety Research*. [http// www. iesco-iesco.org/Writable/Resource/books/b-pdf/research-zh.pdf](http://www.iesco-iesco.org/Writable/Resource/books/b-pdf/research-zh.pdf).

Vorontsova, E.V. & Vorontsov, A. L. (2017). *Формирование Политико-Правового Механизма Обеспечения Экологической Безопасности На Международн/ Formation Of A Political And Legal Mechanism For Ensuring Environmental Security In The International. Известия Юго-Западного государственного университета/ Bulletin of the South-West State University 21 (5), pp. 196-203. <https://doi.org/10.21869/2223-1560-2017-21-5-196-203>*.

Dmitrieva, I.A. (2018). *Экологическая безопасность как часть международных отношений: учебное пособие/ Environmental safety as part of international relations: a textbook.. И. А. Дмитриева, О. В. Шипелик; Жный федеральный университет. Ростов-на-Дону; Таганрог: Издательство Южного федерального университета/ I. A. Dmitrieva, O. V. Shipelik; Zhniy Federal University. Rostov-on-Don; Taganrog: Southern Federal University Publishing House, p. 73. <https://znanium.com/catalog/product/1021668>*.