ISSN 2224-5294

ҚАЗАҚСТАН РЕСПУБЛИКАСЫ
ҰЛТТЫҚ ҒЫЛЫМ АКАДЕМИЯСЫНЫҢ

Абай атындағы Қазақ ұлттық педагогикалық университетінің

Х А Б А Р Л А Р Ы

ИЗВЕСТИЯ

НАЦИОНАЛЬНОЙ АКАДЕМИИ НАУК
РЕСПУБЛИКИ КАЗАХСТАН
Казахский национальный
педагогический университет им. Абая

N E W S

OF THE NATIONAL ACADEMY OF CIENCES
OF THE REPUBLIC OF KAZAKHSTAN
Abay kazakh national
pedagogical university

SERIES
OF SOCIAL AND HUMAN SCIENCES

4 (326)

JULY-AUGUST 2019

PUBLISHED SINCE JANUARY 1962

PUBLISHED 6 TIMES A YEAR

ALMATY, NAS RK

«Қазақстан Республикасы Ұлттық ғылым академиясының Хабарлары. Қоғамдық және гуманитарлық ғылымдар сериясы». ISSN 2224-5294

Меншіктенуші: «Қазақстан Республикасының Ұлттық ғылым академиясы» РҚБ (Алматы қ.)
Қазақстан республикасының Мәдениет пен ақпарат министрлігінің Ақпарат және мұрағат комитетінде 30.04.2010 ж. берілген **№ 10894-Ж** мерзімдік басылым тіркеуіне қойылу туралы куәлік

Мерзімділігі: жылына 6 рет.
Тиражы: 500 дана.

Редакцияның мекенжайы: 050010, Алматы қ., Шевченко көш., 28, 219 бөл., 220, тел.: 272-13-19, 272-13-18,
http://soc-human.kz/index.php/en/arhiv

Типографияның мекенжайы: «Аруна» ЖК, Алматы қ., Муратбаева көш., 75.

Известия Национальной академии наук Республики Казахстан. Серия общественных и гумани-тарных наук. ISSN 2224-5294
Собственник: РОО «Национальная академия наук Республики Казахстан» (г. Алматы)
Свидетельство о постановке на учет периодического печатного издания в Комитете информации и архивов Министерства культуры и информации Республики Казахстан **№ 10894-Ж**, выданное 30.04.2010 г.

Периодичность 6 раз в год
Тираж: 500 экземпляров

Адрес редакции: 050010, г. Алматы, ул. Шевченко, 28, ком. 219, 220, тел. 272-13-19, 272-13-18,
http://soc-human.kz/index.php/en/arhiv

Адрес типографии: ИП «Аруна», г. Алматы, ул. Муратбаева, 75

News of the National Academy of Sciences of the Republic of Kazakhstan. Series of Social and Humanities.
ISSN 2224-5294
Owner: RPA "National Academy of Sciences of the Republic of Kazakhstan" (Almaty)
The certificate of registration of a periodic printed publication in the Committee of information and archives of the Ministry of culture and information of the Republic of Kazakhstan **N 10894-Ж**, issued 30.04.2010

Periodicity: 6 times a year
Circulation: 500 copies

Editorial address: 28, Shevchenko str., of. 219, 220, Almaty, 050010, tel. 272-13-19, 272-13-18,
http://soc-human.kz/index.php/en/arhiv

Address of printing house: ST "Aruna", 75, Muratbayev str, Almaty

N E W S
OF THE NATIONAL ACADEMY OF SCIENCES OF THE REPUBLIC OF KAZAKHSTAN
SERIES OF SOCIAL AND HUMAN SCIENCES
ISSN 2224-5294 **https://doi.org/10.32014/2019.2224-5294.145**
Volume 4, Number 326 (2019), 112 – 116

UDK 911.14

R.A. Karatabanov, K.M. Dzhanalieva

Eurasian National University named after L.N.Gumilyov
ruslan.karatabanov@gmail.com, jgm44@mail.ru

ASSESSMENT OF GEOECOLOGICAL FACTOR OF GEOPOLITICAL SECURITY OF THE REPUBLIC OF KAZAKHSTAN

Abstract. In recent years, both on the part of economic entities and on the part of state bodies, increasing attention is being paid to the environmental aspect of the economic process. State regulation of ecology provides for the implementation of the law "On Environmental Protection" and the right to a favorable environment enshrined in the Constitution of the Republic of Kazakhstan, the rights of future generations to use natural-resource potential in order to maintain sustainable development, as well as to solve current socio-economic problems in close connection with the implementation of adequate measures for the protection and improvement of the environment, conservation and restoration of natural resources. For this, first of all, it is necessary to develop measures to regulate relations at the level "enterprise - environment".

Keywords: geoecology, geopolitics, safety, risk, assessment, environment.

INTRODUCTION

The experience of recent decades testifies to an increase in the number of natural and anthropogenic catastrophes, carrying serious environmental and socio-economic consequences. A prerequisite for the occurrence of disasters is the environmental risks associated with the presence of dangerous natural and anthropogenic factors. Identification of the main environmental risks affecting the economy of Kazakhstan makes it possible to develop and implement more effective government policies in the field of greening the economy, production, and the development of environmentally friendly technologies, especially in leading industries. This is also relevant because the Republic, implementing the "Strategy 2030", the "Concept of transition to sustainable development for 2007-2024", aims at a long-term environmental strategy — harmonizing the interaction between society and the environment, as well as creating safe, favorable habitat. Implementing the strategic objectives of the Concept, Kazakhstan, increasing the efficiency of resource use, increasing life expectancy, ensuring an increase in the index of environmental sustainability, will create an opportunity for the level of quality of life among the most competitive and developed countries in the world.

MAIN PART

- All types of interactions between the enterprise and the environment can be represented as flows both in natural form (flows of raw materials, products, financial resources), and in the form of information (information about the quantities of raw materials supplied, products, monetary resources, etc.). To adjust the activity of natural flows, it is recommended to involve specialists in environmental management. With regard to information flows, it is known that they are controlled by accounting and auditing.
- State regulation in the field of ecology includes:
- • verification of the environmental policy of the enterprise and justification of the strategy of environmental goals and objectives;

• regulation and minimization of pollutant emissions, waste disposal and disposal;

• rationalization of the use of natural resources, raw materials, materials, reagents and finished products;

• risk assessment and prevention of accidents, emergencies and actions in terms of their occurrence;

• environmental awareness, education and education of the organization's personnel;

• assessment and reduction of the risk of environmental, economic and environmental legal liability for violation of environmental legislation, services related to the development of a system of industrial environmental monitoring and management;

• development of recommendations for the development of relations with state environmental control and management bodies, the public, etc .;

Realization by the nature user that risk is a measure of danger is the most important step towards solving problems of managing a situation when there are potential factors that can adversely affect humans and the environment. Modeling possible environmental situations and risks associated with them is the most important method of obtaining information. Any subject of subsoil use is an extremely complex entity with many properties. For example, an oil company has such properties as the ability to generate profits, produce products, create jobs and pay wages, implement social programs, make tax and other obligatory payments and, unfortunately, pollute the environment. Meanwhile, the authorized environmental authorities, modeling the activity of the subsoil user, focuses only on the last property listed, simplifying the object, considering it only as a source of adverse environmental effects and as a "money bag" from which the state budget can be replenished. Such a simplified view of the activities of companies developing the subsoil often leads environmentalists to conflicts with subsoil users, the resolution of which, unfortunately, today is based on erroneous law enforcement practice, which excludes such important legal relations as legality, justice, objectivity, the presumption of innocence of the natural resource user.

In terms of the cost measurement of the environmental results of the APM in investment design, there are some difficulties due to objective and subjective reasons, precluding the possibility of fully implementing such a measurement. In the general case, there are three possible situations where the cost measurement of the environmental results of the APM is carried out:

1) all results are evaluated in monetary terms, and the corresponding calculations carried out are sufficiently accurate and methodologically correct;

2) all results are evaluated qualitatively, the appraiser is not able to give any monetary value;

3) some of the results of PPM are estimated in monetary terms, the other - qualitatively.

These three situations as three alternative projects for the planning of the pre-determined conditions determine their environmental performance. If we use the unified social norm of discount, then the value integral effect (more precisely, its measured part) for the second and third projects may turn out to be negative. In this case, the principle of positiveness and maximum of the effect is violated when evaluating the effectiveness of the APM PI. But this may be justified by the priority socio-ecological significance of such projects from the standpoint of the state and society, and the loss of their integral effect can be considered as an objectively determined burden. Based on general considerations, the negative cost integral effect of these projects can be explained by the absence of the possibility of a complete and adequate monetary assessment of the environmental results of the APM. We investigate in somewhat more detail the theoretical and methodological issues of assessing the socio-ecological effectiveness of investing anti-personnel mines in the context of applying the social discount rate in conducting this assessment.

The upward trend in the valuation of the environmental factor. First, we turn to the traditional understanding of the theory and practice of the effectiveness of the investment process. In the theory of optimization of investment processes at the macro level, considered as multi-period optimization problems, the relation of rolling (current) assessment of a resource to its capital assessment is essential. This attitude was once called L.V. Kantarovich "normal efficiency" [2].

The environmental risk assessment, according to [3], determines the probability (likelihood) that adverse environmental effects can occur as a result of exposure to one or several sources (stress factors, stressors). A simplified version of the environmental risk assessment (screeninglevel ecologicalriskassessment) is considered a risk measure the ratio of the level of concentration (chemical, exposure) to toxicity (maximum permissible concentration, toxicity) in a deterministic interpretation [4].

As a quantitative estimate of the level of environmental risk, statistical characteristics (expectation, median, quantile, etc.) of probability distributions of the corresponding random variables are used.

In [5], risk is the responsibility for decisions made under conditions of uncertainty. In the same paper, in the section “Quantitative methods of risk assessment,” the measure of risk is considered the product of the probability of an accident occurring and the likely relative damage, which is interpreted as the mathematical expectation of damage. The probability of an accident "is determined on the basis of an analysis of the operation of the facility or the technical system and the processing of statistical data on accidents." The probable relative damage is determined “based on the simulation of an emergency”. At the same time, the assessment of the damage caused by the death of people is carried out with the involvement of the so-called cost of living, expressed in monetary units. We note that the problem of estimating the cost of living is considered in detail in [4], moreover from a moral point of view.

According to [6], “risk is a quantitative measure of danger, taking into account its consequences. The consequences of danger are always harmful, which can be economic, social, ecological. Therefore, the risk assessment should be related to the damage assessment: the greater the expected damage, the greater the risk. In addition, the risk will be greater, the greater the likelihood of the corresponding danger.

Close attention now needs to be focused on the state of the resources of the main water arteries of Kazakhstan - the rivers Syrdarya, Irtysh and Ili, the problem of the Aral and Caspian seas, the lakes Balkhash, Zaisan. [7] The most important environmental problems in this area are the pollution of surface waters and the low water level in the deltas of the transboundary rivers of the country and its neighboring Kyrgyzstan, Uzbekistan and China. For example, the main sources of pollution of the Chu River are wastewater discharges by industrial enterprises of the Kyrgyz Republic, the most significant of which is the wastewater discharge by the city of Bishkek. Intensive pollution of the river Taklas occurs at the expense of industrial enterprises of Zhambyl region. The discharge of drainage water from the Zhambylsky State District Power Plant and the Zhambyl alcohol-vodka plant to the Talas River has significantly increased due to an increase in production volumes. The decrease in the level of the Talas and Chu rivers, first of all, is connected with the withdrawal of water from the main channels by the local population for agricultural activities and, secondly, with the climatic conditions of the region. The shallowing of the Talas River led to a serious environmental problem - an increase in salt concentration in drinking water in settlements located along the river (Sarybulak, Shahan, Bostandyk Akkum, Sadu Shakirov, Amangeldy Zhanaturmys, Oyyk, Usharal) [four].

An acute environmental problem of the Republic of Kazakhstan and the Republic of Uzbekistan is a permanent increase in the water intake of the Syr Darya River from Uzbekistan. Reducing water intake from Uzbekistan will allow solving a number of socio-economic and environmental problems, such as an increase in the animal and plant world, a reduction in the number of morbidity associated with respiratory organs, an increase in water flow to the Aral Sea. . Another important factor affecting the degradation of the Syr Darya river deltas is the process of its pollution. The main pollutants of the Syr Darya River are sulphates, copper, nitrites, petroleum products.

Transboundary environmental issues include issues of water distribution, pollution of transboundary water bodies, atmospheric air and soil, movement of hazardous technologies, substances, waste, development of border mineral deposits, preservation of unique natural complexes. For example, according to preliminary calculations made by the methodical synthesizing center of the city of Moscow, the share of sulfur emissions from own sources on the territory of Kazakhstan is 380 thousand tons per year, and the share brought from outside is 446 thousand tons per year.

In turn, Kazakhstan supplies significant amounts of pollution to the atmosphere in neighboring countries. More than 22 billion tons of production and consumption wastes have been accumulated in the republic, of which more than 16 billion tons of technogenic mineral formations and about 6 billion tons of hazardous waste. As it is known, only 1-2 of the prevailing components are used in the development of mineral deposits, which is about 3-5 percent of the volume of extracted mineral raw materials, the remaining mass is accumulated as waste. About 700 million tons of industrial waste are generated annually, of which about 250 million tons are toxic. About 15% of the waste generated (multi-million dumps of overburden and tailings) is disposed of when 30% is disposed of in developed countries.

As world history has shown, the unresolved environmental problems and the low level of ensuring their own environmental safety were the cause of serious political, social and armed conflicts. At the

moment, potential hotbeds of tension exist between Kazakhstan, Uzbekistan and Kyrgyzstan, over the limited water resources. In addition, the Caspian region, where a technological environmental disaster caused by any of the five Caspian states could cause a serious interstate conflict, also causes concern.

- For the successful solution of the problems of environmental protection, correct, timely, timely prevention of pollution, effective use of means of mechanization, reduction of material and technical, labor costs during the work are necessary:
- control over the direction of wastewater to sewage treatment plants or to special septic tanks;
- storing and storing litter in land-based storage facilities without the use of buried tanks;
- elimination of temporary accumulations of litter;
- organization of recycling of technical waste;
- maintenance of vehicles and equipment for recycling;

Preventing contamination of soil, water, vegetation with oil products;

- monitoring the condition and operation of the treatment plant;
- sanitary and preventive measures in the production areas of the territory, as well as on adjacent neighboring lands;

• research and implementation of air purification methods for production areas by installing special filters in the supply and exhaust ventilation;

• accounting of compensated damages from violations of environmental management;

• determination of the effectiveness of spending funds for waste disposal from the standpoint of economic development;

• financing of projects and construction projects with due regard for economic, environmental compliance with modern requirements;

• survey of production reserves, when special attention is paid to the use of by-products, their deep processing;

• environmental planning in combination with other key indicators of economic development;

• use of the latest achievements of science and technology [2, p. 352].

CONCLUSION

Today it is necessary to create an effective and efficient legal framework in order to ensure compliance with environmental legislation. This is necessary because of the deteriorating environmental situation both in the country and around the world. Today, all measures should be aimed at ensuring environmental safety. This is largely facilitated by the state's environmental organizations, including a specialized environmental prosecutor's office. The activities of the specialized environmental prosecutor's office in the field of environmental security has sufficient potential. In this connection, it is of great interest in further scientific understanding.

УДК 911.14

Р.А. Каратабанов , К.М. Джаналеева

Евразийский национальный университет имени Л.Н.Гумилева

ОЦЕНКА ГЕОЭКОЛОГИЧЕСКОГО ФАКТОРА ГЕОПОЛИТИЧЕСКОЙ БЕЗОПАСНОСТИ РЕСПУБЛИКИ КАЗАХСТАН

Аннотация. В последние годы, как со стороны экономических субъектов, так и со стороны государственных органов все большее внимание уделяется экологическому аспекту хозяйственного процесса. Государственное регулирование экологии предусматривает реализацию закона «Об охране окружающей среды» и закрепленного в Конституции Республики Казахстан права на благоприятную окружающую среду, прав будущих поколений на пользование природно-ресурсным потенциалом в целях поддержания устойчивого развития, а также решение текущих социально-экономических задач в неразрывной связи с осуществлением адекватных мер по защите и улучшению окружающей среды, сбережению и восстановлению природных ресурсов. Для этого прежде, всего необходимо разработать меры по урегулированию отношений на уровне «предприятие – окружающая среда».

Ключевые слова: Геоэкология, геополитика, безопастность, риск, оценка, окружающая среда

Р.А. Қаратабанов, К.М. Джаналеева

Л.Н. Гумилев атындағы Еуразия ұлттық университеті

ҚАЗАҚСТАН РЕСПУБЛИКАСЫНЫҢ ГЕОЭОЛОГИЯЛЫҚ ҚАУІПСІЗДІГІНІҢ ГЕОЭКОЛОГИЯЛЫҚ ФАКТОРЫН БАҒАЛАУ

Аннотация. Соңғы жылдары шаруашылық субъектілері тарапынан да, мемлекеттік органдар тарапынан да экономикалық процестің экологиялық аспектілеріне назар аударылады. Экологияны мемлекеттік реттеу «Қоршаған ортаны қорғау туралы» Заңды және Қазақстан Республикасының Конституциясында бекітілген қолайлы қоршаған ортаға, болашақ ұрпақтардың тұрақты дамуды қолдау мақсатында табиғи-ресурстық әлеуетін пайдалану құқығына, сондай-ақ жақын әлеуметтік-экономикалық мәселелерді тығыз байланыста шешуге мүмкіндік береді қоршаған ортаны қорғау және жақсарту, табиғи ресурстарды сақтау және қалпына келтіру бойынша барабар шараларды жүзеге асырады. Бұл үшін, ең алдымен, «кәсіпорын-қоршаған орта» деңгейінде қатынастарды реттеу жөніндегі шараларды әзірлеу қажет.

Түйін сөздер: геоэкология, геосаясат, қауіпсіздік, тәуекел, бағалау, қоршаған орта.

Information about authors:

Karatabanov R.A. - Eurasian National University named after L.N.Gumilyov, ruslan.karatabanov@gmail.com;

Dzhanalieva K.M. - Eurasian National University named after L.N.Gumilyov, jgm44@mail.ru, https://orcid.org/0000-0002-9002-9397

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[4] Устойчивое развитие - такое развитие общества, при котором удовлетворение потребностей настоящего поколения осуществляется без ущерба для будущих поколений людей, это управляемое сбалансированное развитие общества, не разрушающее свое природной основы и обеспечивающее непрерывный прогресс человеческой цивилизации. Термин «устойчивое развитие» был введен в широкое употребление Международной комиссией по окружающей среде и развитию (Комиссия Брундланд, ООН, 1987 год).

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Редакторы *М.С. Ахметова, Т.А. Апендиев, Д.С. Аленов*
Верстка на компьютере *А.М. Кульгинбаевой*

Подписано в печать 10.08.2019
Формат 60x881/8. Бумага офсетная. Печать – ризограф.
10,8 п.л. Тираж 500. Заказ 4.

Национальная академия наук РК
050010, Алматы, ул. Шевченко, 28, т. 272-13-18, 272-13-19