
**REPORTS OF THE NATIONAL ACADEMY OF SCIENCES
OF THE REPUBLIC OF KAZAKHSTAN**

ISSN 2224-5227

<https://doi.org/10.32014/2019.2518-1483.121>

Volume 4, Number 326 (2019), 89 – 93

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 NATURAL-RESOURCE FACTOR
OF GEOPOLITICAL SECURITY
OF THE REPUBLIC OF KAZAKHSTAN**

Abstract. Modern geo-ecological problems of Kazakhstan have different origins and varying degrees of severity, determining to a large extent the level of sustainability of PCS and the viability of the population. To determine the sustainability threshold of spatial-territorial formations, zonal, azonal and intrazonal groups of environmental problems were systematized, which are clearly manifested in the form of areas in the country. The presence of natural resources is an important factor that determines, among other things, the ability of the state to defend its independence and interests, and strengthens its strength in the negotiation processes. Also, the availability of a resource base determines the attractiveness of one country for another, and therefore it is important to assess the natural resource factor within the framework of Kazakhstan's geopolitical security.

Keywords: natural resource potential, geopolitics, territories, land valuation, natural resource factor assessment, security.

INTRODUCTION

Favorable is the remoteness from the great powers and the shortest possible length of land borders. In this regard, the “safest” in the world is Japan, England, Australia. Kazakhstan at first glance, the benefits - the disadvantages of its territory are mutually balanced, but the following factors are added: the interest of China (eastern neighbor) due to demographic reasons for territorial expansion; instability on the Central Asian borders, where the confrontation of Islamic and secular lifestyles is still far from the final clarification. Only from the west (from the side of the Caspian Sea) nothing seems to threaten Kazakhstan, but there Tengiz and oil, and the formula “where oil is there is blood” is one of the most proven postulates in world politics.

The presence of natural resources is an important factor that determines, among other things, the ability of the state to defend its independence and interests, and strengthens its strength in the negotiation processes. Also, the availability of a resource base determines the attractiveness of one country for another, and therefore it is important to assess the natural resource factor within the framework of Kazakhstan's geopolitical security. The regions are the first to feel all the negative consequences of the irrational approach to the use of the natural resource potential. In connection with this provision, ensuring rational use of the natural-resource potential becomes one of the most important tasks, and its successful solution has a positive effect on the development of the economy and the strengthening of social stability in the resource-producing regions. The study of the category of natural resource potential is dictated by the need to bring the methodology of assessment, accounting and management of natural resources in line with the environmental situation, the needs of society and the economic realities in the country and in the world as a whole.

MAIN PART

However, it should be noted that, so far, the assessment of natural resources has been carried out and carried out separately from the territorial whole. This is due to the fact that, until recently, the principles of traditional economics are based on the assessment of a natural resource - a cost-based approach to the use

of any natural resource in a particular production. At the same time, the external effect (impact on the ecosystem of the territory and everything connected with it) [6] has not been taken into account and is not taken into account until now. In our opinion, this is due to the fact that, until a certain time, mankind did not have a complete understanding of the environment and its possibilities.

With the development of knowledge and the accumulation of experience interacting with nature, the study and assessment of technogenic consequences has led to the need for a revision of the methods for evaluating all types of natural resources. New approaches suggest reaching the level of complexity, considering any resource as part of a whole, taking into account its mutual influence and interdependence, taking into account the present and long-term consequences caused by the withdrawal of a natural resource from the ecosystem. In this connection, new definitions are introduced into the scientific circulation, such as: Natural-resource potential of the territory; Natural capital. Their main task is to give an idea of the totality of natural resources, of their patterns of development, existence and the possibility of using them without disturbing the balance in the ecosystem of the region.

Problems of sustainable development of natural-economic systems in the context of the balanced environmental management of the Republic of Kazakhstan are especially relevant today. The aggravation of the ecological situation not only in our country, but in the world as a whole, has been considered a problem since the first half of the twentieth century. The world community today has proved powerless in dealing with the problems of combating global, regional, and even local sources of environmental and economic stress. The global financial crisis has vividly demonstrated the instability of the modern financial and economic system and has set the task of finding an alternative model for achieving economic growth, taking into account environmental safety factors, with particular urgency.

The general situation of the development of natural-economic systems against the background of environmental degradation cannot be considered normal. All this necessitates the development of a scientifically based concept of replacing the existing structure of the economy with an environmentally sound one, i.e. "Green economy", where, on the basis of a single methodological base and in mutual communication, the problems of urban development, resettlement of the population and the reproduction potential of administrative-territorial units and the whole territory of the country should be solved.

At the same time, taking into account the economic consequences of a geopolitical nature will allow Kazakhstan to avoid possible negative aspects of regional development.

Currently, there are no uniform criteria for assessing the level of regional development and the degree of disturbance in PCS. Analysis and evaluation of the development of ecological and demographic processes showed that depressive foci with a low level of quality of life of the population were forming. Solving the problems of areas of depressive stress requires the development on a fundamentally new basis of assessment criteria reflecting the level of quality of life of the urban and rural population.

The quality of life of the population is determined by a system of environmental and socio-economic indicators, the latter provide an opportunity to identify the level of depression and compare it with sustainable development indicators developed by international organizations: the UN, UNDP, UNESCO, etc.

Under the conditions of independence, studies of the institute received a new impetus, since geographical science, as well as throughout the world, proved to be in demand in Kazakhstan. These are the problem of climate change and food security, the lack of fresh water, the degradation of glaciers, the intensification of natural hazards (floods, mudflows, landslides, avalanches and a complex of meteorological risks.), Etc.

The indicated research directions of the institute belong to the category of strategic and are combined into four main blocks:

Assessment and forecast of resources and the regime of surface waters of the Republic of Kazakhstan, taking into account climate change and economic activities, the development of geographical bases to ensure the water security of the Republic of Kazakhstan as the basis of sustainable development.

Identify patterns of formation and distribution of hazardous natural disasters, natural disasters and environmentally hazardous environmental changes with an assessment of their socio-economic consequences.

Assessment of the natural resource potential of the republic, development of information and analytical base of national and regional programs for environmental management, environmental protection, and reconstruction of environmentally destabilized natural-economic systems.

It is advisable to include an assessment of natural resources in the national wealth of the country. So far, this has not been done, which indicates an underestimation of the environmental factor. Meanwhile, this assessment is an important component of national wealth, reflecting the country's natural potential. This potential, along with social wealth (accumulated production and non-production assets), largely determines the development of the national economy for the future.

The institute traditionally has close cooperation with world centers of geographical science, participated in the development of more than 20 international projects together with scientists from Germany, France, Switzerland, Sweden, Finland, Italy, Japan, China and is deservedly perceived in the world scientific community as a significant center of modern geographical science. It is not by chance that, in accordance with the signed Agreement between the Government of the Republic of Kazakhstan and UNESCO, the Central Asian Regional Glaciological Center under the auspices of UNESCO, as well as the "International Water Assessment Center" (IWAC), is created on the basis of the Institute as a regional structure of the OSCE.

The technology for assessing the natural resource potential based on computer-aided landscape modeling and land potential assessment consists of two main blocks;

1) Geoinformation mapping block.

It is the basic basis for the implementation of the whole complex of works. Its goal is to form a geoinformation model of the territory based on a set of maps and field data. In conjunction with the Simulation block, the Geoinformation Block allows you to form a Geographic Information Model of a municipal territory (GMMT).

The content of the model is predetermined, on the one hand, by the tasks of the work, and on the other - by the specificity of the socio-economic, environmental and other conditions of a particular territory. The cartographic part includes a number of basic vector layers, data on resource potential, as well as maps obtained in GIS by analyzing the information of the main layers (thematic samples, overlay, building buffer zones, etc.). Layers also contain attribute information. The base layers are: a topographical basis, as well as a complex of thematic maps of various kinds: land use maps, modern landscapes, soil, geobotanical, geomorphological. Desirable the inclusion of a digital elevation model (DTM) of sufficient detail. It is also necessary to use current and archived remote sensing data.

2) Simulation unit.

The main one is the sub block Modeling and evaluation of crisis processes. To develop a model of the occurrence of crisis processes in the delta, the methodological basis of the theory of ecotones and destabilized natural environment was used by V.S. Zaletaeva, the system model of the occurrence of crisis processes D.A. Slavinsky, the ecological and economic balance of the territory Kochurov.

Natural objects are forest areas; mineral deposits; enclosed water bodies; fishing areas of rivers, spawning grounds; fishing areas of the shelf; non-forest natural ecosystems (areas of steppe, river floodplains); swamps, etc.

The main objects of natural resource assessment are all components of the environment, and the natural object itself, its reserves and ecosystem services can be assessed. For example, a natural object: forest, forest areas; stock of natural resources: wood; ecosystem services: carbon sequestration, flow regulation, erosion prevention, air purification, biodiversity conservation, recreation. Or a natural object: fishing areas of rivers, shelves, spawning grounds; stock of natural resources: fish and seafood; ecosystem services: recreation, biodiversity conservation, etc.

The assessment of natural resources, both economic and non-economic, should precede their use. The result and goal of the economic assessment of natural resources is the economic accounting and control of national natural wealth by solving problems of determining the amount of natural resources and assessing their quality, as well as creating economic incentives that encourage enterprises and organizations to rational use and protection of these resources in order to increase the efficiency of public production and full satisfaction of national economic needs.

Non-economic assessment of natural resources includes the definition of ecological, hygienic, socio-psychological, and cultural and other values of a natural resource or object, for example, a unique landscape, historical monuments, in economic indicators are usually not expressed, but can be conventionally calculated as the amount that society can ready to donate for the preservation of such a natural resource assessment object.

Currently, two directions are being developed in the assessment of natural resources: this is a resource and cadastral assessment. Resource assessment is a set of measures to identify and record natural biological resources in order to determine the prospects for the development of traditional economic sectors, valuation of land and determine the state of resource-containing land, depending on the impact of anthropogenic factors on them. The objective of the resource assessment is to determine the extent of damage to the land by the influence of anthropogenic factors, and to identify the likelihood and timing of the restoration of the lost natural qualities of the resource-containing land. The assessment of natural resources in relation to oil fields includes the study of remaining reserves, chemical composition and quality of raw materials, depth and other parameters. Studies on the assessment of natural resources may also include an assessment of fisheries resources and forest valuation. The assessment of the natural resource potential is complex and includes consideration of economic, social, technical, ecological and geographical factors that determine the spatial differences and significance of natural resources for human life and activity.

Cadastral valuation is a type of land valuation work to determine the specific indicators of the cadastral value of land for tax purposes. The object of cadastral valuation are all exploited, prepared for exploitation and economically developed natural resources. The results of such an assessment are included in the relevant inventories of natural resources and serve as the basis for specific calculations for the development and location of nature exploiting industries and territorial complexes.

The development of Kazakhstan's tourism requires the creation of a new paradigm that provides for meeting the recreational needs of the population with the condition of preserving the quality and sustainability of the natural subsystem to changing anthropogenic pressure.

CONCLUSION

The problem of the economic assessment of the natural resource potential and the efficiency of their use is seen in the desire to reduce the analysis not only to a quantitative assessment of the parameters of the PDP, many of which are difficult to formalize, but to do this on the basis of one methodology, one indicator. Meanwhile, it seems that the PDP as a system concept should be modeled through a system of indicators.

The complexity of evaluating the effectiveness of using PDPs consists in determining the methodological foundations that predetermine the methodology. First of all, it concerns the interpretation of the concept of "effectiveness".

УДК 911.14

Р.А. Қаратабанов, К.М. Джаналеева

Л.Н.Гумилев атындағы Еуразия ұлттық университеті

ҚАЗАҚСТАН РЕСПУБЛИКАСЫНЫҢ ГЕОЛОГИЯЛЫҚ ҚАУІПСІЗДІГІНІҢ ТАБИҒИ-РЕСУРСТАР ФАКТОРЫН БАҒАЛАУ

Аннотация. Қазақстанның қазіргі геоэкологиялық проблемалары әртүрлі дәрежедегі және әртүрлі дәрежелі дәрежеде, ПКС тұрақтылығының деңгейін және халықтың өміршендігін айқындайды. Кеңістіктік-аумақтық құрылыстардың тұрақтылық шегін анықтау үшін аймақтық, азональды және ішкі аймақтық экологиялық мәселелердің топтары жүйелендірілді, олар елдегі облыстар түрінде көрініс тапты. Табиғи ресурстардың болуы, басқалармен қатар, мемлекеттің өз тәуелсіздігі мен мүдделерін қорғау қабілеттілігін айқындайтын маңызды фактор болып табылады және келіссөз процестерінде оның күшін нығайтады. Сондай-ақ, ресурстық базаның болуы бір ел үшін басқа елдердің тартымдылығын анықтайды, сондықтан Қазақстанның геосаяси қауіпсіздігі шеңберінде табиғи ресурстық факторды бағалау маңызды.

Түйін сөздер: табиғи ресурстық әлеует, геосаясат, аумақтар, жерді бағалау, табиғи ресурстарды бағалау, қауіпсіздік.

УДК 911.14

Р.А. Каратабанов, К.М. Джаналеева

Евразийский национальный университет имени Л.Н.Гумилева

**ОЦЕНКА ПРИРОДНО-РЕСУРСНОГО ФАКТОРА
ГЕОПОЛИТИЧЕСКОЙ БЕЗОПАСНОСТИ РЕСПУБЛИКИ КАЗАХСТАН**

Аннотация. Современные геоэкологические проблемы Казахстана имеют различное происхождение и различную степень остроты, определяя в значительной мере уровень устойчивости ПХС и жизнеспособности населения. Для определения порога устойчивости пространственно-территориальных образований были систематизированы зональные, азональные и интразональные группы природоохранных проблем, которые отчетливо проявляются в виде ареалов на территории страны. Наличие природных ресурсов – важный фактор, определяющий, в числе прочего, возможность государства отстаивать свою независимость и интересы, усиливает его силу на переговорных процессах. Также, наличие ресурсной базы определяет привлекательность одной страны для другой, а значит важна оценка природно-ресурсного фактора в рамках геополитического bezpieczeństwa Казахстана

Ключевые слова: природно-ресурсный потенциал, геополитика, территории, оценка земель, оценка природно-ресурсного фактора, безопасность.

Information about author:

Karatabanov R.A. - Eurasian National University named after L.N.Gumilyov, ruslan.karatabanov@gmail.com, <https://doi.org/0000-0001-5275-7206>;

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

REFERENCES

- [1] The national security of the Republic of Kazakhstan is the state of protection of the national interests of the Republic of Kazakhstan from real and potential threats, ensuring the dynamic development of a person and a citizen, society and the state (paragraph 3 of Article 1 of the Law of the Republic of Kazakhstan “On the National Security of the Republic of Kazakhstan” of January 6, 2012 No. 527-IV).
- [2] Art. 31 and 38 of the Constitution of the Republic of Kazakhstan adopted at a republican referendum on August 30, 1995.
- [3] Sustainable development is the development of society in which the satisfaction of the needs of this generation is carried out without prejudice to future generations of people, it is a managed balanced development of society that does not destroy its natural foundation and ensures the continuous progress of human civilization. The term “sustainable development” was introduced into wide use by the International Commission on Environment and Development (Brundland Commission, UN, 1987).
- [4] Declaration on Environment and Development. Rio de Janeiro, June 14, 1992.
- [5] Risk - a combination of the probability of occurrence of events (<http://ru.wikipedia.org>, March 30, 2013).
- [6] Ostapenko E.I., Butyrskaya T.M., Amerzhanova D.A., Nurgabylov M.N. TEACHING ECONOMIC DISCIPLINES IN A NETWORK OF MODERN TRENDS AND APPROACHES TO EDUCATION. News of the National Academy of Sciences of Kazakhstan. SERIES OF SOCIAL AND HUMAN SCIENCES Volume 1, Number 323 (2019), p. 97-101, ISSN 2224-5294 <https://doi.org/10.32014/2019.2224-5294.14>
- [7] Kassymova G.K., Tokar O.V., Tashcheva A.I., Slepukhina G.V., Gridneva S.V., Bazhenova N. G., Shpakovskaya E.Yu., Arpentieva M. R. Impact of stress on creative human resources and psychological counseling in crises. International journal of education and information technologies. Volume 13, 2019. Pp.: 26-32.
- [8] Stepanova G. A., Tashcheva A. I., Stepanova O. P., Menshikov P. V., Kassymova G. K., Arpentieva M. R., Tokar O. V. The problem of management and implementation of innovative models of network interaction in inclusive education of persons with disabilities. International journal of education and information technologies. ISSN 2074-1316. Volume 12, 2018. P. 156-162.
- [9] Kassymova G. K., Stepanova G. A., Stepanova O. P., Menshikov P. V., Arpentieva M. R., Merezchnikov A. P., Kunakovskaya L. A. Self-development management in educational globalisation. International journal of education and information technologies. ISSN 2074-1316. Volume 12, 2018. P. 171-176.
- [10] Stepanova O. P., Gridneva S. V., Menshikov P. V., Kassymova G. K., Tokar O. V., Merezchnikov A. P., Arpentieva M. R. Value-motivational sphere and prospects of the deviant behavior. International journal of education and information technologies. ISSN 2074-1316. Volume 12, 2018. P. 142-148.
- [11] Kassymova K. G., Tyumaseva Z. I., Valeeva G. V., Lavrinenko S. V., Arpentieva M. R., Kenzhaliyev B. K., Kosherbayeva A. N., Kosov A. V., Duvalina O. N., Dossayeva S. K. Integrative model of student and teacher stress coping: the correction of relations in educational, professional and personal interaction. Bulletin of National Academy of Sciences of the Republic of Kazakhstan. ISSN 1991-3494. Volume 3, Number 379 (2019), p. 169-179. <https://doi.org/10.32014/2019.2518-1467.83>