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The Role of Environmental Safety in Integration Processes of the Greater Eurasia

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Abstract. The article focuses on the prominent role of environmental security in international integration taking place in the Greater Eurasia area. The authors discuss and clarify the concepts of Greater Eurasia and ecological safety. The paper explains the thesis that environmental aspects of security should be given much greater attention, since environmental problems can lead to severe conflicts of national interests, or they can become the most important means of achieving interstate environmental agreements and creating ecological programs and projects, uniting people and ensuring common strategic interests. The authors classify global and regional environmental threats. Plenty of examples illustrate local environmental risks and their relation to regional security issues. Accordingly, two interconnected sets of measures are distinguished between two types of environmental threats (risks). The first set involves the active participation of countries in various international environmental programs. The second set of measures aims at developing mechanisms for systematic expert analysis of significant projects directly or indirectly affecting the environment of neighboring countries.

Keywords: Eurasia · Environmental safety · Environmental risks · Environmental footprint · Ecological footprint

1. Introduction

Integration processes in the so-called “Greater Eurasia” are now the subject of close analysis in Russia and abroad [11, 7, 3]. Great Eurasia is not the whole Euro-Asian continent, but its non-European area, which includes the territories of Northern Eurasia (Russia), Central and Eastern Asia (Japan, North and South Korea, China, and the countries of the former Soviet Union, which used to be called the countries of Central Asia), South-West Asia (Turkey, Iran, and the countries of the Arab East), South Asia (India), and South-East Asia (Indochina and Indonesia) [12]. The general positiveness of international integration, in which Russia and China traditionally play a unique role, nevertheless poses serious security challenges to the countries of Greater Eurasia and its larger regions.

An increasing number of authors have noted the importance and multicomponent nature of the security concept. K. K. Kolin stresses that the problem of security “is becoming pointed and top-priority, overshadowing all other problems of the development of modern civilization” [6]. He highlights several significant factors: (1) the increasing tension between East and West countries; (2) migration challenges; (3) social stratification; (4) negative trends in the humanitarian sphere (associated with the degradation of fundamental spiritual values); (5) increasing consumerism in public consciousness; (6) the loss of many achievements of world culture. (6) Finally, Kolin also notes that “...the growing complexity of environmental and biosphere threats of a global nature are caused by the increasing scale of human



activities.” In his opinion, “Their result is the destruction of the planet’s vital ecosystems, changes in global climate, and destructive environmental processes in the world’s oceans” [6].

The last factor, in our opinion, is one of the most important. Nevertheless, our review of the papers on integration processes in Eurasia and its increasing role in the world affairs shows that the scholars most often focus on geopolitical and economic issues [14]. This makes us consider environmental problems and ways of their solution as the most critical factor in ensuring security of integration processes in Greater Eurasia.

2. Materials and Methods

The analysis is based on the secondary literature on environmental problems of the entire Greater Eurasia and its particular regions playing a crucial role in integration processes. Above all, the latter includes the Altai region, where the borders of the largest countries of Greater Eurasia (Russia, China, Kazakhstan, and Mongolia) meet and where environmental security is the critical issue [1]. The systemic approach is the methodological basis of our research. This approach is understood as (a) the systematic analysis of risks/threats of natural and anthropogenic nature that can directly or indirectly damage the natural environment and physical or social health of the population, as well as (b) the identification of the place and role of environmental security in the system of security provision for the Eurasian space as a whole. In addition, water resources management is considered an essential element of ecological protection.

3. Results

When analyzing security problems in the Greater Eurasia, much more attention should be paid to its environmental aspects. On the one hand, environmental issues (preservation and sufficiency of agricultural land, or volume and quality of water resources, etc.) can lead to severe national conflicts of interest. On the other hand, solutions for these problems can become the most important means of achieving interstate environmental agreements and developing appropriate programs and projects to achieve common strategic interests between the countries.

In our opinion, two types of environmental threats in the Eurasian space can be identified with respect to the extent of their real damage to integration processes. The first one is related to global destructive environmental trends. The second threat is caused by the initiation and implementation of specific projects with no sufficient justification with respect to environmental protection in Eurasia.

Accordingly, two interrelated sets of measures can be distinguished between environmental threats (risks). The first set involves the active participation of countries in various international environmental programs. The second one aims to develop mechanisms for conducting a systematic expert analysis of major projects that directly or indirectly affect the environmental situation in neighboring countries. In our opinion, public authorities need to ensure active participation of the scientific community, taking into consideration local experts’ opinions to ensure greater environmental security of the Eurasian space.

4. Discussion

The topic of the global environmental crisis of the planet steps forward today. Several important international documents, in particular, “The Sustainable Development Agenda until 2030: Resolution adopted by the UN General Assembly on September 25, 2015,” is devoted to it. As the document states, “We intend to confront resolutely the threat posed by climate change and environmental degradation. The global nature of climate change calls for the widest possible international cooperation ... Socio-economic development depends on the sustainable use of natural resources of our planet” [13].

Our analysis shows that international agreements and programs do not give sufficient attention to environmental security of the Eurasian spaces. This fact is in apparent contradiction with the observed global trend and numerous studies on specific problems of environmental threats and risks. Thus, extensive research is devoted to forest degradation, problems in agriculture aggravated by soil degradation [2], etc. As can be seen, special attention is paid to the use of water resources in Eurasia.

Here we can mention the collection of scholarly papers entitled “Eurasian Lakes: Problems and Solutions,” the foreword to which states the following: “In Eurasia, several significant projects on the redistribution of water resources of lake and river systems are already implemented and planned, which may affect the interests of many countries on the continent. It should be noted that the best solutions are in direct relation ... to the harmonization of approaches to the protection and management of resources” [8]. Another paper notes that “the area of lakes in the territory of Inner Mongolia has rapidly decreased in recent years due to the strengthening anthropogenic influence” [10]. Consequently, numerous papers reflect on water problems as the most important ones for the territory under consideration.

In our opinion, the current scholarly literature is somewhat scattered. It needs a systematic, comprehensive analysis as applied to the theme of Eurasian environmental security. Secondly, in such major Eurasian organizations as the Shanghai Cooperation Organization (SCO), economic goals and the fight against terrorism, separatism, and extremism are now also at the forefront. The inclusion of environmental topics to the agenda is also required, in our opinion.

Environmental developments and recommendations should form the basis for sound national policies and international relations. This will create optimal opportunities for integration in the region of Greater Eurasia on common principles. It is necessary to realize that one region’s ecological dysfunction sooner or later will turn into the dysfunction of another. The joint solution of common environmental problems turns out to be for the benefit of all countries and peoples of the Greater Eurasia.

In our opinion, environmental problems in the Eurasian space can be grouped into two risk factors.

The first one is related to destructive global trends caused by irrational human activities in general. We will not dwell on it in detail since the theme is sufficiently developed.

The second factor relates to the initiation and implementation of specific projects that are not sufficiently justified for environmental protection and can lead to significant negative consequences. Here are some illustrative examples.

The first one is again related to water problems, namely, the intaking of a significant part of the Black Irtysh flow by the Chinese side in Xinjiang Province. As a result, the largest cities of Eastern Kazakhstan – Ust-Kamenogorsk and Semipalatinsk – and Omsk in Russia are experiencing outstanding water issues. A. B. Likhacheva notes, “As part of the state program for the development of northwestern territories, China built two diversion canals on its territory ... which led to a sharp drop in the level of water flowing into Russia ... The situation with the Irtysh is aggravated, because the river from China enters Russia is blocking any options for bilateral or trilateral negotiations on the Irtysh with Russia; it is limited only to the interagency commission with Kazakhstan” [9]. The ill-considered position of the Chinese side jeopardizes not only the ecological safety of Kazakhstan but also the environmental safety of China itself: the lack of scientifically grounded quotas for water intake from the Black Irtysh leads to its irrational use by the Chinese side, such as swamping of territories, loss of part of the flow in the Xinjiang sands, shallowing and pollution of the river itself.

In this regard, it may be recalled that in the well-known article A. T. Wolf claimed that history did not know of any case where wars broke out over gaining control of water resources. Conflicts were mainly of domestic origin [16]. However, as of today, twenty years later, such an optimistic view no longer seems justified. Let us give more examples in this regard.

The use of water resources of the Tigris and Euphrates is one source of the modern conflict between Turkey and Syria. The upper reaches of both rivers are in Turkey, which regulates the water intake in its interests. Similar contradictions, which may provoke a direct military conflict, we see today, on the one hand, between Kyrgyzstan and Tajikistan regarding the upper river reaches, providing the country’s primary water resources throughout Central Asia. At present, the discussion of rational and equitable water use in this region is held at the international level, and numerous attempts to achieve its solution have not led to significant results.

There is also a threat of direct military conflict between Kyrgyzstan and Uzbekistan. Its worsening may destabilize integration processes not only in Central Asia but in the entire Greater Eurasia.

Recommendations of the scientific community on optimal use of water resources are still not sufficiently taken into account by the political elites of these countries [5].

Another project illustrating the importance of environmental challenges for human security in Eurasia is the construction of the gas pipeline, motorway, and railroad from Russia to China through the 54-kilometer section of the Russian-Chinese border passing through the Ukok Plateau, a UNESCO World Heritage Site "The Golden Mountains of Altai." The concept of this project from the Chinese side is described in the collective article "Regional Economic Cooperation between Xinjiang (China) and Western Siberia (Russia): Theory and Practice" [15]. Many experts believe that this project poses serious environmental threats to the entire system of the Mountain Altai, as it passes through high altitude areas with permafrost, the opening of which could accelerate the melting of glaciers, disrupt water streams, and the overall environmental degradation of the protected landscapes of global importance. The relevant arguments can be found in the article written by us [4].

In addition, because of the COVID pandemic, the presence of direct transport routes from China to Russia would create an additional threat of the virus spreading to the Russian border regions. Due to the strong and consolidated position of the scientific community and larger public communities, this project was rejected. The option of gas transit through Mongolia is being developed. This is a visible example of a successful solution to a problem, but such rational solutions should be the rule and not the exception, in our opinion.

5. Conclusion

These arguments and examples prove that environmental security should be considered among the most crucial element of a holistic security system in the Greater Eurasia. The implementation of jointly adopted environmental projects not only contributes to the improvement of the quality of life of the population in Eurasian countries, but it can also become an essential basis for further integration in the region and a priority for the unification of Eurasia, as national interests of one country in this area coincide to the maximum extent possible with national interests of others.

References

- [1] Asadullina N R 2019 Prospects for environmental policy in the context of sustainable development of environmental economics. In V I Gerasimov Ed. *Greater Eurasia: Development, security, cooperation (yearbook)* (pp 205-207) (Moscow, Russia: Institute of Scientific Information for Social Sciences of the Russian Academy of Sciences)
- [2] Chibilev A A Ed. 2015 *Steppes of Northern Eurasia* (Orenburg, Russia: Ural branch of the Russian Academy of Sciences)
- [3] Dutkiewicz P, Sakva R, and Lukyanov F 2018 *Eurasia on the edge: Managing complexity* (Lanham, Maryland: Lexington Books)
- [4] Ivanov A V, and Fotieva I V 2015 Direct transport and energy corridors to China in Altai: Alternatives and prospects *Altai State Agrarian University Herald* **9**(131) pp 135-138
- [5] Imomov A 2013 Territorial and land-water conflicts in Central Asia: A view from Tajikistan *Central Asia and the Caucasus* **16**(2) pp 124-139
- [6] Kolin K K 2019 Greater Eurasia: From an economic union to a civilization project to ensure global security. In V I Gerasimov Ed. *Proceedings from XVIII International Scientific Conference in the framework of the Public Scientific Forum "Russia: Key Problems and Solutions"* (pp 167-171) (Moscow, Russia: Institute of Scientific Information for Social Sciences of the Russian Academy of Sciences)
- [7] Kotlyakov V M, and Shuper V A Eds. 2019 Russia in the emerging Greater Eurasia *Geography Issues*, (Vol. 48) (Moscow, Russia: "Codex" Publishing House)
- [8] Filatov N N Ed. 2017 *Proceedings from 1st International Conference Lakes of Eurasia: Problems and solutions* (Petrozavodsk, Russia: Karelian Science Center of the Russian Academy of Sciences)
- [9] Likhacheva A B 2019 Turbid waters of Greater Eurasia: a possible place for Russia in the market of water-intensive products. In V M Kotlyakov Ed., *Russia in the emerging Greater Eurasia* (pp 9-15) (Moscow, Russia: "Codex" Publishing House)

- [10] Yong L, Huopo Ch, Guoqing Zh, Jianqi S, Hua L, and Huijun W 2020 Changes in lake area in the inner Mongolian plateau under climate change: The role of the Atlantic multidecadal oscillation and Arctic Sea ice *Journal of Climate* **33**(4) pp 1335-1349
- [11] Mihalev M S, Yakunin V I, and Vilisov M V 2018 *Belts and paths of Eurasia: In search of man* (Moscow, Russia: Science)
- [12] Suslov D V, and Pyatachkova A S 2019 Greater Eurasia: Conceptualization of the concept and place in Russian foreign policy. In V M Kotlyakov Ed. *Russia in the emerging Greater Eurasia* (pp 9-15) (Moscow, Russia: "Codex" Publishing House)
- [13] United Nations 2015 *Resolution of the General Assembly "Transforming our world: The 2030 Agenda for Sustainable Development"* (September 25, 2015, No. 70/1) (New York, NY)
- [14] Volynchuk A B 2018 Russia in Eurasia: the balance of geo-economic and geopolitical integration tools. *Russia and Asia-Pacific* **1**(99) pp 51-64
- [15] Vu M, Chzhan Sh, Van L, and Hao I 2015 Regional economic cooperation between Xinjiang (China) & Western Siberia (Russia): Theory and practice *Altai State Agrarian University Herald* **10**(132) pp 138-144
- [16] Wolf A T 1998 Conflict and cooperation along international waterways *Water Policy* **2** pp 251-265