

UDC 327.2

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E-mail: gulnara.baikushikova@gmail.com**Environmental security in focus of Central Asian countries interests**СЫЛОК гео-
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Abstract: Current environmental situation in Central Asia, causes of environmental degradation, environmental impact on regional security were considered in the article. The author focuses on water and land resources, environmental consequences of their irrational using and other problems. It was noted that Central Asian countries have already made progress indifferently by collaborating in the field of management and sustainable use of common natural resources. They succeeded in avoiding obvious interstate conflicts and nowadays countries are participating in regular negotiations on sharing water resources and implementing various cooperation initiatives. However, an acute shortage of domestic resources to address environmental issues shows that it is necessary to support environmental cooperation by foreign aid. Joint actions of Central Asian countries can be implemented more efficiently with involvement of international organizations and donors that can be guarantors of agreements.

Keywords: Environment, threats, security, Central Asia, cooperation.

The ecological component has been becoming an integral part of world politics in the XXI century. In the late 1960's global economic system had reached a critical point and due to its seriousness, pollution problems bring into question the whole human civilization development. Environmental problems lead up to change the whole human development paradigm. Modern market system was formed before environmental threats became catastrophic. Therefore world system was not ready to solve environmental problems and it makes mankind to seek for new ways to survive. It is impossible to solve problems related to environmental conditions by relying only on development of engineering and application of technology solutions. It requires social transformations, political will and involvement of many political institutions. Due to consciousness of this fact, environmental problems have become noticeably more political.

Analysis of evolution of international security concepts in the second half of the 20th century and in the beginning of the 21st century showed that there has been a significant transformation, revealing new features and comprising additional dimensions. Transition from interpretation of security

that brings into the forefront territorial integrity of states within the realist paradigm of Cold War time to modern understanding of international security where core idea connected to the prosperous sustainable human development.

The notion of threat has been changed. If they had purely military character before that means threat comes from one or group of states to a certain state, but now threats become global. They represent a danger not only to state, but also to individuals. Terrorism, environmental degradation, exhaustion of resources, drug smuggling and others are kinds of such threats.

Ecological problems within the traditional conception of security were considered indirectly as probable cause of increasing tension that could provoke military conflict. After collapse of the bipolar world of the Yalta-Potsdam system traditional realist conception of security was replaced by the new concept of comprehensive security where ecological dimension is the most important one along with civilizational dimension. There is a tendency for the demilitarization of security politics where military force is becoming less useful and economic, political, social, environmental and human security are

placing in the forefront. Environmental dimension has become one of the most important in the modern conception of security.

Main Threats to the Environmental Security in Central Asia

At the end of the first decade of the XXI century Central Asia faces enormous changes of economic and political nature. The region experiences the time of sharp deterioration of internal contradictions and structural economic and political transformations. Contemporary geo-strategic position of Central Asia is fundamentally different from the geopolitical situation in the twentieth century. At the end of the twentieth century, new sovereign states appeared and a new model of international relations was established. New states of Central Asia became full actors of geopolitics pursuing their national interests in the sphere of foreign policy. Specifically important feature of transformations in Central Asia is simultaneity and interrelation of the same complex processes: national consolidation, formation of economic and political systems of states. A distinctive feature of these changes was that over the years of independence the countries of the region passed a similar way of development. At the same time, under the influence of political culture, the traditional ties and hierarchy of loyalty, local elites had developed their own strategies and tactics for transformations. However, in the beginning of the twenty-first century together with the statehood strengthening issues new actors of Central Asia have experienced previous hidden contradictions, namely, problems of ethnic and political value in their interstate relationships. Such cross-border phenomenon like international terrorism, religious extremism, separatism, inter- and interethnic conflicts, clandestine drug trafficking, illegal movement of weapons, environmental degradation, migration flows equally threaten the security and stability for all states of the region.

At present, Central Asia experiences the serious impact of geopolitical factors that could impede the implementation of the national interests of states in the region. Current problems related to water issues and problems of transnational rivers, power supply, environmental and other factors threaten regional stability.

Environmental degradation at local and regional levels as well as lack of resources (exacerbated by population growth, unequal distribution of wealth and global climate change) are important contributors to the appearance, enhancement or maintenance

of national security threats that could result in political instability and serious confrontations in local societies. So, for example depletion of limited water resources of Central Asian region as a result of their inefficient use will undoubtedly lead to increasing political tensions in the region that will definitely accelerate the processes of geopolitical and socio-economic destabilization in Central Asia.

Central Asia is different from many other regions in the world for its extremely fragile ecosystems which in combination with a dry climate impose significant environmental constraints for its economic activities. The ecological crisis in the Aral Sea has been recognized by the worldwide community as the greatest natural disaster of the 20th century that causes a devastating impact to more than 50 million people of the region. Extensive use of irrigated agriculture in the Aral Sea Basin (located between Kazakhstan and Uzbekistan) has exceeded the potential of the ecosystem resulting in the death of the Sea, an unprecedented tragedy on its scale. It has become a compelling example of what can happen when we go beyond the boundaries of permissible activities of the nature and the capacity of its ecosystem.

The intensive use of water led to the drop of the sea level by 19 meter by the end of 1980. Sea almost disappeared that led to the catastrophe: a sharp deterioration in water quality, widespread desertification, salinization and water logging of the soil, reduce of biodiversity and increase of the negative impact on the climate. As a result, it turned to severe deterioration of water quality and human health, reduction of soil fertility and crop yields, increased poverty, unemployment and, eventually, to vast emigration processes. The potential for similar catastrophes is observed in the basins of the Lake Balkhash and the Caspian Sea. The industrial developments at the Caspian Sea made the issues of environmental security more feasible and relevant. Due to the increased anthropogenic impact on the environment in the Caspian Sea, especially after the activation of massive oil and gas production in the early 2000's., the threat of extinction of unique biological resources of the reservoir significantly increased.

In conditions of absence of natural outlet to the oceans, which, in turn, give the evidence that the Caspian Sea is closed, substantially increases the likelihood of irreversible changes in the marine ecosystem – because of the negative effects of pollutants entering the water due to industrial and agricultural

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human activity. Previously, most of the contaminants formed wastewater, which in the Caspian Sea annually receives 40-45 cubic km: 23-25 – from the Volga basin, 17-20 – from other rivers. Only Azerbaijan drops in a sea more than 0,5 billion cubic meters of highly contaminated waste water and more than 300 million cubic meters – standard purified [1]. However at the moment, in connection with more economic use of the Caspian Sea there is the danger linked with oil and gas production directly on the sea shelf.

International and local experts unanimously agreed that the existing management, legislation and administrative mechanisms are not in a position to ensure the protection and preservation of ecosystems in Central Asia where water systems are of priority value. Water is still treated as a natural resource for use in agriculture and energy. Drinking water will disappear, and its quality deteriorates. Construction of individual dams that violate the flow of rivers as well as industrial pollution led to a strong reduction of fish resources. Since 1990, the fish catch amounts in the natural habitat of Central Asia decreased by 60% as a whole [2].

Security studies of the environment indicate the presence of multiple causes for conflicts, but the water certainly is the most important factor for ensuring the security in the region. Central Asia is one of the areas experiencing chronic water shortages. Lack of water caused acute conflicts in previous times and is currently a source for regional tensions.

In Central Asia, «water issues» is a serious factor in the interstate relations and regional security. Unequal distribution of water resources in the region causes the constant conflict of interests between key suppliers of water (Tajikistan and Kyrgyzstan) and its main customers (Uzbekistan, Kazakhstan and Turkmenistan). Disputes over water have always been a source for serious political argues among the countries that sometimes were close to use of force measures.

Relationship of human development and human security along with environmental degradation in Central Asia is most evident at some critical areas with the most serious environmental problems. Some of them are inherited as a result of military and industrial activities during the Soviet era, such as dumping in the Fergana Valley of waste uranium and other toxic metals mined in Kyrgyzstan, Tajikistan and Uzbekistan. Many of the radioactive waste dumps are located in flood plains and are prone to

landslides, floods, erosion and other natural factors of destruction. Cases of erosion of protective dams and radioactive materials in cross-border waterways have already been observed [3].

Currently, over 60% of the territory of Central Asia suffers from desertification, some of which occur due to the presence of the military polygons, such as the world-famous nuclear test polygon in Semipalatinsk and the cosmodrome in Baikonur. Degraded lands in Kazakhstan has reached 66% throughout the country, which is equal to 1,8 million square km. In Turkmenistan and Uzbekistan, these figures are alarming [4]. It is striking that a large number (80%) of lands in these countries have become unfit for use in agriculture and are characterized as degraded.

Welfare of the region depends heavily on its waters and mountainous areas, which make the formation of rivers in zones of mountain ecosystems of the Pamir, Altai and Tien Shan chains extremely important. These high mountain systems collect moisture in the upper atmosphere and serve as giant collectors and pumps of fresh water for the entire Central Asian region. Deterioration occurring as a result of decreasing forest areas, erosion, pollution and pastures is of great concern. In addition, in the long prospective, by 2025 the total area of glaciers in Central Asia will be reduced by 30-40%, thereby reducing the available water reserves in Central Asia by 25-30% [5].

In addition to the above-mentioned important challenges related to environmental degradation in Central Asia, the serious risks also arise due to the current ineffective environmental policies and the weakness of the structures at the national levels and throughout the region. Many environmental problems, particularly in regard to the large rivers that connect neighbouring countries have regional implications. Water pollution by industrial wastes, reduction of species of flora and fauna, and soil erosion are all of these problems that require solutions at the regional level. Major regional seas – the Aral and the Caspian – to some extent are already dead or sick and their depletion has not only regional but also global significance.

The ability of countries to address growing problems independently

As is known, it is impossible to ensure environmental well-being in only one country and in any area generally. Long-term solutions of environmental troubles of Central Asian countries will only be

achieved through extensive interaction and close cooperation. Definitive reduction of hazards is possible only through extensive collaboration inside as well as outside of the region because certain countries do not have indispensable resources. Some of objects because of its high-dangerousness were declared as zones of ecological disasters and it requires special international attention in connection with potential consequences for human security and regional stability.

It should be noted that Central Asian countries have already made progress indifferently by collaborating in the field of management and sustainable use of common natural resources. They succeeded in avoiding obvious interstate conflicts and nowadays countries are participating in regular negotiations on sharing water resources and implementing various cooperation initiatives. Central Asian countries welcomed attracting international donors and organizations to this field. Kazakhstan, Kyrgyzstan and Tajikistan have mainly the same approach to regional issues of water, energy and natural resources and probably they will seek joint solutions to them. Also, **attention will be focused** primarily on bilateral agreements of the most important border issues that have had a positive impact on relations between Central Asian countries and their neighbors on a number of important issues in the field of water and energy resources.

As for the regional cooperation in the natural resources management in Central Asia, it needs strong institutions, political motivation and interest of authorities and civil society as well. External assistance can ensure political interest, technology and know-how and financial resources for development of regional institutional potential. Investing in regional public goods could be basis for providing assistance of international development agencies and could promote regional cooperation.

Unfortunately, at present there are no widely recognized regional institutions engaging in trans-boundary environmental issues. On the other hand, Regional Environmental Centre for Central Asia (CAREC) activities should be noted as a affirmative indication. CAREC was established in 2001 with financial support of European Commission and Government of the Republic of Kazakhstan. The Centre is functioning under a charter which was signed by five Central Asian governments, the European Commission and UNDP. Countries of the region with the assistance of CAREC have initiated reforms of stan-

dards in the field of water quality and control systems on the basis of ecosystem approach.

CAREC activities directed towards development of intersectoral regional programs, such as programs on environment, water and security, also on regional strategy of mountain areas development that includes water, energy, biodiversity and ecotourism, poverty, health and migration issues.

Nowadays, we would like to draw attention to several major efforts of strategic approach to solving ecological problems and institutional development in Central Asia.

Such current regional institutions as the International fund for saving the Aral Sea (IFAS) and Interstate Commission for Sustainable Development of Central Asia (ICSD CA) with Scientific-Information Centre of Intergovernmental Commission on Sustainable Development (SIC ICSD) within the IFAS were established.

After gaining independence necessity of mechanism of water resources management was realized.

During the transition period, when countries started to elaborate their own priorities with due regard to overall regional restrictions (environmental situation around the Aral Sea is one of them), it was necessary to preserve stability in water resources management.

For this purpose, in October 1991 heads of water management bodies of five independent Central Asian countries adopted statement which laid the basis for signing Agreement between the Republic of Kazakhstan, the Kyrgyz Republic, the Republic of Uzbekistan, the Republic of Tajikistan and Turkmenistan on cooperation in joint management of use and protection of water resources of interstate sources in February 1992. In accordance with this Agreement, a special body for regulate for water distribution in the Aral Sea as the Interstate Coordination Water Commission of Central Asia (ICWC) was established.

ICWC elaborated action program on improving the situation in the Aral Sea Basin. At the initiative of the President of Republic Kazakhstan N.A. Nazarbayev in Kyzylorda heads of Central Asian States established the International fund for saving the Aral Sea (IFAS) in March 26, 1993 and Nursultan Nazarbayev was elected as a first president of this fund.

During the 18 years of the International Fund for Saving the Aral Sea it have been taken two programs to assist the region in the Aral Sea. They include measures to improve water infrastructure

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of Syrdarya river basin, improving the quality of drinking water for the population of the Aral Sea. With the active support and participation of the World Bank, Asian Development Bank, European Union a number of specific projects implemented. Donor's funds are actively involved in this process.

It is important to note the participation of Central Asian states in Ministerial Conference on Environment and Development of Asian-Pacific region. These high-level meetings are held every five years to review the environment and progress development in the region.

This is a unique chance to comprehensively examine the accumulated environmental problems in many countries. Last Sixth Ministerial Conference for Environment and Development of Asia-Pacific region with participation of 40 countries – members of ESCAP (Economic and Social Commission for Asia and the Pacific) held in Astana in 2010.

The Conference adopted the Astana Declaration of Ministers for the Environment, the Regional Implementation Plan for Sustainable Development in Asia and the Pacific on 2011- 2015, and supported the "Green Bridge" initiative of the Republic of Kazakhstan, which aims to promote a partnership between Europe, Asia and the Pacific Ocean. It will develop a scheme of transition from current models of development to the concept of "green" growth.

However, a significant role in strengthening and developing cooperation can provide the Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in matters relating to environmental protection.

All Central Asian countries except Uzbekistan acceded to the Aarhus Convention, and pledged to guarantee the access of civil society to environmental information, decision-making and justice.

Central Asian countries recognize that civil society can provide the necessary social demand and an order to increase public and private investment in environmental sustainability.

The main objective of the Aarhus Convention is to get governments, authorities and even private sector "to face" to the society when it comes to access to information on issues of environmental protection. It is necessary to take into account that the constructive cooperation in the field of ecology must be based on good will and promote creation a regional framework, strengthening and coordination of national structures. However, an acute shortage

of domestic resources to solve environmental problems means that the desire for Environmental Cooperation is often necessary to support foreign aid. Joint actions of the Central Asian countries can be performed more efficiently with the participation of the international organizations and donors, who could act as guarantors of the agreements. Management system can receive strong support from the external level.

One of the areas where external assistance can be useful is more systematic participation Central Asian countries in international environmental regimes and conventions in which they are not active. Environmental conventions are important because they provide a common reference to national environmental institutions, usually based on best international experience, facilitate access to technical assistance and encourage interaction between representatives of environmental organizations and experts in various international forums.

However, international donors should not forget that with respect to the results in the environmental field it is not possible to expect immediate progress. Usually it requires long-term environmental improvement efforts, and fundamental changes. Practice has shown that short-term, uncoordinated and fragmented efforts of international donor countries in Central Asia can't contribute to the matter of solving long-term and cross-cutting issues of environment and development.

Calls for synergy and integration of action into practice usually reduce the desire to formalize the process of implementing projects with the completion of their reports with the unfulfilled resolutions.

Lack of coordination between donors entails the development of many countries and poorly executed strategies, duplication of programs, fragmentation of efforts and resources of countries and donors.

In this regard, the short-term and piecemeal projects are needed to move into long-term, targeted and cross-cutting programs with the creation of more effective coordination mechanisms with the mediation of international organizations, with the obligatory integration of solutions into national legislation and such mechanisms as planning, budgeting and other processes.

As the benefits of these agreements are becoming a reality, the leaders of Central Asian countries will all better understand the desirability of closer cooperation. It is hoped that this would apply to

an increasing number of regions and countries. Although bilateral or even trilateral agreements less profitable than the regional agreements in any case it is better than nothing.

It is to note the factors that could help the leaders of the Central Asian countries to build confidence and take advantage of their comparative advantages and common interests.

It is necessary to mention four main elements which can contribute to the cooperation:

- Demonstration and recognition of the collective benefits from the joint solutions to regional problems;
- Using the previous successful experience of cooperation;
- Recognition of common interest in the absence of regional conflicts and security (and managers may not want to lag behind other countries in cooperation);
- Participation of neighbors and the international donor community in the development, financing and negotiation of international agreements.

In general the situation orients the Central Asian states on the policy, which is characterized by pragmatism, flexibility, maneuver, avoiding the inter-

national duties and the desire to attract aid of more powerful states.

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Экологическая безопасность в сфере интересов Центральноазиатских стран

В статье рассматривается существующая экологическая ситуация в регионе Центральной Азии, причины ухудшения состояния окружающей среды, влияние экологии на региональную безопасность. Основное внимание уделяется водным и земельным ресурсам, экологическим последствиям их нерационального использования.

Однако острый дефицит внутренних ресурсов для решения экологических проблем показывает, что стремление к экологическому сотрудничеству часто нужно подкреплять внешней помощью. Совместные действия стран Центральной Азии могут выполняться более эффективно с участием в них международных организаций и доноров, которые могли бы выступать гарантами соглашений.

Ключевые слова: окружающая среда, угрозы, безопасность, Центральная Азия, сотрудничество.

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Экологиялық қауіпсіздік – Орталық Азия елдерінің мүдделері шеңберінде

Мақалада Орталық Азия аймағындағы экологиялық жағдай, қоршаған ортаның нашарлауының себептері, экологияның аймақтық қауіпсіздікке тигізетін әсері қарастырылады. Су және жер ресурстарына, оларды тиімсіз пайдаланудың экологиялық салдарына аса көңіл аударылған.

Орталық Азия елдері жалпы табиғи ресурстарды тиімді пайдалану және басқару саласында ынтымақтасу жолында алға жылжыды. Олар айқын қаттығыстардың ала алды, су ресурстарын бірлесіп пайдалану бойынша келіссөздерге қатысады, сонымен қатар ынтымақтастық саласында түрлі бастамаларды жүзеге асырады.

Алайда экологиялық мәселелерді шешуде ішкі ресурстардың тапшылығы экологиялық ынтымақтастыққа талпынысты сыртқы көмек арқылы ынталандырып отыру қажеттігін білдіреді. Орталық Азия елдерінің бірлескен іс-әрекеттері келісімге кепіл бола алатын халықаралық ұйымдар мен донорлардың қатысуы арқылы тиімді болатындығы мақалада жазылған.

Түйін сөздер: қоршаған орта, қауіптер, қауіпсіздік, Орталық Азия, ынтымақтастық.