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ENVIRONMENTAL SECURITY OF THE REPUBLIC OF KAZAKHSTAN: STATE AND DEVELOPMENT TRENDS

Аннотация

One of the key strategic components of national security of the Republic of Kazakhstan, as well as the most important aspect of the state's priorities is the environmental security. Environmental pollution has become a serious obstacle to social and economic development of Kazakhstan. Environment quality change is directly linked to the development of «dirty» technologies and extensive agriculture.

Keywords: *environmental security, water resources, the problem of the Aral sea, the Caspian region.*

Аңдатпа

Экологиялық қауіпсіздік – Қазақстан Республикасы ұлттық қауіпсіздігінің негізгі стратегиялық компоненттерінің бірі, сонымен қатар, мемлекеттік басымдықтардың маңызды аспектісі ретінде қарастырылады. Қоршаған ортаның ластануы Қазақстанның әлеуметтік-экономикалық дамуына едәуір кедергі келтіруде. Қоршаған ортаның сапалық тұрғыдан өзгерісі «лас» технологиялардың және ауыл шаруашылығының экстенсивті дамуымен тікелей байланысты.

Тірек сөздер: *экологиялық қауіпсіздік, су ресурстары, Арал мәселесі, Каспий аймағы.*

Аннотация

Одним из основных стратегических компонентов национальной безопасности Республики Казахстан, а также важнейшим аспектом государственных приоритетов является экологическая безопасность. Загрязнение окружающей среды стало серьезной преградой на пути социально-экономического развития Казахстана. Изменение качества окружающей среды напрямую связано с развитием «грязных» технологий и экстенсивного сельского хозяйства.

Ключевые слова: *экологическая безопасность, водные ресурсы, проблема Арала, Каспийский регион.*

One of the key strategic components of national securityof the Republic of Kazakhstan, as well as the most important aspect of the state's priorities is the environmental safety. According to many domestic and foreign researchers, environmental pollution has become a serious obstacle to social and economic development of Kazakhstan. Environment quality change is directly linked to the development of "dirty" technologies and extensive agriculture. Today there are about 2.5 thousand enterprises in the republic that refer to the 1-2 top classes of danger among 5 existing classes. [1]

Our country has inherited about 40 companies of defense industry of the Soviet Union. In the Soviet Union the Republic was actively involved in production of nuclear weapons. In addition to the Semipalatinsk test site there are other less known, today inactive ones: "Azgir", "Meridian", "Batholiths", "Lyra", "Galit", "Say-Utes". At the site, "Lira" at depths of 700-900 m six cavities with the volume of 45-66 thousand cubic meters was created to store the condensate of the Karachaganak field. At the site "Galit" for similar purposes 17 bombings in arrays of rock saltwere carried out. Three nuclear tests were fulfilled at the site "Say-Utes". Six more explosions to study the geological structure of the Earth's crust were conducted according to the program "Meridian", "Region", "Batolit". In addition, the operating businesses of exploration, mining and uranium ore processing are almost at the entire territory of the republic in the Western, Central and Southern Kazakhstan. [2]

According to the expedition data of geologists, who performed research within the scientific and technical program "Ecology", there was about 8 million tons of waste saturated with radionuclides in Kazakhstan of the high risk degree and 225 million tons - the average level of human life threat to. Total weight of human and the environment hazard substances is 233 million tons. [3]

For decades in Kazakhstan nuclear tests were conducted on many test sites, located in almost all the regions of the Republic. Semipalatinsk was the largest oneamong the existing test sites. It is located in the present East Kazakhstan region and also includes a number of areas of Karaganda and Pavlodar regions.

The first nuclear explosion at the Semipalatinsk nuclear test site was made on August 29, 1949, and the last was on October 19, 1989. For 40 years of the site existence 470 explosions were produced, of which 90 were in air, 26- on land surface and 354 - underground. Ground and air tests were conducted at the site until 1963.Radioactive clouds from 55 air and ground explosions passed the test site's borders. It is these 124 explosions resulted in the radioactive contamination of the eastern part of the territory of Kazakhstan.

Underground nuclear tests destructively affected the state of watering facilities, violated the current groundwater, and reducedthe yield of water intake wells. The content of iodine, cesium, and strontium in forage and livestock products in the areas near the test site is 100 times higher than in remote areas of the test site.

Essentially for 40 years of nuclear weapons testing Kazakhstan has become a place of nuclear catastrophe. Its scope, the effects are still unknown.

The final number of victims of the nuclear tests and catastrophes in all the regions of the world, including Kazakhstan,is still not calculated; the damage caused to the environmentis not defined. Periodically, in the third generation affected by nuclear explosions a "bomb" explodes in the genes of fully innocent victims, who even cannot understand why this happened to them.

For the first time at a meeting in February 1989publicly began to speak on the issue of the Semipalatinsk test site. It was the beginning of the work movement "Nevada-Semipalatinsk", headed by the well-known social activist, the poet OlzhasSuleimenov. The movement has received strong support from the population of Kazakhstan.

Soon after the motion establishment an appeal was made to peoples and to the Presidents of the two superpowers the USA and the USSR for a moratorium on nuclear testing. Under the public pressure the USSR Council of Ministers made a decision to suspend the nuclear tests.

On August 29, 1991 President of the Kazakh SSR N. Nazarbayev issued a decree to close the Semipalatinsk nuclear test site and transformit into a Union-republican Research Center. After the collapse of the USSR the Decree of the President of the Republic of Kazakhstan dated May 15, 1992 on the basis of the complex of the former Semipalatinsk test site and research institutions and facilities located on the territory of the Republic of Kazakhstan established the National Nuclear Center of Kazakhstan. Its main objectives were to work on Radiation Safety and Ecology, to study problems of recycling and disposal of radioactive waste, to make developments in the field of nuclear technology and nuclear energy. By the Resolution of the Government the territory of the former Semipalatinsk test site is related to reserve lands, on which economic activities are now prohibited, the in-depth comprehensive studies of the radiation situation and transfer for practical use in the prescribed manner are required[4].

However, apart from possible anthropogenic catastrophes, Kazakhstan is threatened by serious natural disasters due to its geographical position, climatic features and specifics of the continental platform structure. First of all we are talking about long-term drought, snow and dust storms (mainly specific to the central and north-eastern part of the Kazakhstan), as well as floods and earthquakes (the Seven Rivers, the southern regions). It is necessary to take into account the emergence of threatening factors of global scale, which can cause serious natural cataclysms in Kazakhstan. This is the problem of global warming, which is predicted to cause such serious natural disasters like snow melting, water level increase in the ocean, acceleration of lands desertification, prolonged droughts. In this case, the southern populousfoothill regions of Kazakhstan will be under threats of powerful mudflows and the center of the country, traditionally located in arid zone faces a long-term drought. Such probabilistic developments of situations is clearly demonstrates the close relationship between national security of Kazakhstan and vulnerability category of international safety.

The peculiarity of Kazakhstan is that along with the threat of global catastrophes the republic is threatened by ecosystem degradation. According to the world's environmental rating, Kazakhstan is assigned to ecological disaster area where environmental degradation has reached its critical limit, beyond which there is a direct danger to the physical and genetic health of people, the species composition of flora and fauna, depletion of non-renewable natural resources. [5]

Natural and land resources are the basis of economic activity and the place of human settlement. Kazakhstan ranks the first place in the world by the area of arable land per capita. Availability of land resources significantly varies by the world regions and constantly decreases. Rational use of natural resources is the main task of the present time.

Stereotype,formed in the agricultural sector in previous years is the increase in agricultural production due to the involvement of new lands in conjunction with a large-scale company on the development of virgin and fallow lands with a high pasture productivity, has led to the development of salinizationprocesses, as well as waterlogging, degradation of large areas, significant changes of water balance of large, medium rivers and lakes, as well as the disappearance of small ones.

It was found out thatabout 250 thousand hectares of landare annually taken away from the agricultural turnover, and the area of arable land that requires protection from wind erosion, is more than 12 million hectares. Loss of humus for the last 20-30 years amounted to an average of 30%, significantly deteriorated reclamation indicators of irrigated land, and only less than 5% of the soils have high humus content - more than 6%. All these negative effects are far-reaching implications for the conservation of biological diversity.

Today in some regions of the country there is an adverse ecological situation that requires immediate decision-making on environmental protection plan.

Now careful attention is needed on the resources status of main waterways of Kazakhstan –rivers of Syr Darya, the Irtysh and Ili, problems of the Araland the Caspian Seas, the Lake of Balkhash, Zaisan [6]. The most important environmental problems in this area is water surface contamination and low water level in the deltas of the transboundary rivers of the country and neighboring Kyrgyzstan, Uzbekistan and China.

For example, the main sources of the Shu River contamination are discharges of industrial enterprises of the Kyrgyz Republic, the most important of which is wastewater discharge by city water-channel Company of Bishkek city. Intensive pollution of the Talas River is due industrial enterprises of Zhambyl region. Waste water drainage from Zhambyl State District Power Station and Zhambyl alcohol-vodka plant to the Talas River has considerably increased due to increased production volumes. Reduction of rivers level Shu and Talas is primarily due to the withdrawal of water from the main channels by the local people for agricultural activity and, secondly, with climatic conditions of the region. The shallowing process of the Talas River led to a serious environmental issue –that is salt concentration increase in the drinking water in settlements along the river (Sarybulak, Shahan, Bostandyk, Akkum, SaduShakirov, AmangeldyZhanaturmys, Oiyk, Usharal) [6].

An acute environmental problem of the Republic of Kazakhstan and the Republic of Uzbekistan is a permanent water intake from the Syr Darya River in Uzbekistan territory. Reduction of water intake from Uzbekistan will allow solving a number of social and economic and ecological problems, such as an increase in animal and vegetable kingdom, reduction of diseases number of population related to the respiratory system, water flow increase in the Aral Sea.

23 transboundary rivers flow from China along the territory of Kazakhstan. Currently, the main point of concern of bilateral Kazakh-Chinese relations in terms of sharing water resources use is the problem of water intake increased from the trans-boundary Riversof Ili and Irtysh in the territory of China. Increased use of water resources of the rivers of Ili and Irtysh in the territory of China is able to cause a number of negative effects for Kazakhstan both socio-economic and environmental, among which the following can be distinguished:

- Violation of the natural water balance and the nature balancein the area of the lakes Balkhash and Zaisan;
- Degradation of the environment and climate;
- Damage to fishery;
- Reduced crop yields of agricultural cultures, degradation of pastures.

The problem of the Caspian Sea, as mentioned above, is multifaceted and contains many threats to various sectors of Kazakhstan's national security, including ecological safety.

Currently, in the Kazakh part of the Caspian Sea a number of complex interrelated environmental problems occurred. In recent years there has been a steady downward trend of land and pasture of

Caspian, suitable for agricultural activities. This occurs under the degradation influence, desertification, and oversaturation of different chemicals and re-salinization of more than 50% of all irrigated Caspian littoral lands. [6]

As a result of anthropogenic activities degradation threat is increased and even complete destruction of the Caspianbiosystem. So, since 1990, from the territories of the Caspian littoral states 4.5 tons of harmful biogenes, 28 tons of floating bodies, 27 tons of sulfates, 3.15 tonsof chlorideswere releasedto the Caspian Sea. The Kazakhstan's share in the pollution of water resources of the Caspian Sea is 21% of the total volume of contamination.

An introduced fairly wide range of environmental threats to ecology safety makes condition on hard inclusion into a single mechanism of national, regional and in the future of the global system of events aimed at timely detection, prevention and suppression of threats to the environment.

However, despite the progress reached at this stage of in ecological policy improving, this achievements confront the current trends in industrial and agricultural production. Amount of natural resources used is constantly increased, more contaminants are produced. This demonstrates the inconsistency of the modern model of development of the society - the need for economic and industrial development often comes into conflict with the environmentrequirements, the conditions of political, economic and social security of the country do not always comply with the conditions of environmental safety.

As demonstrated by the world's history, unsettlement of environmental problems and low level of own ecological security is a serious cause of political, social and armed conflicts. Currently potential flashpoints of tension exist between Kazakhstan, Uzbekistan and Kyrgyzstan, regarding the limited water resources. In addition, the Caspian region is a concern, where man-made ecological disaster through the fault of any of the five Caspian states can cause a serious interstate conflict.

From August, 29 to September, 1 2003,Tajikistan, as the author of the resolution, with the support of leading international organizations and specialized agencies held Dushanbe International Forum on Fresh Water. As a result, the "Dushanbe Water Appeal" was adopted in which participants were encouraged to "make a commitment to achieve the Millennium Development Goals, as well as to implement the tasks and activities in accordance with the Johannesburg Plan" and appealed to the UN with a proposal to declare the decade 2005-2015- The International decade under the motto "Water for Life".

In the last decade the Government of the country has made a number of important steps to reform the management and protection of water resources. The following documents were adopted: Water complex of the Republic of Kazakhstan (instead of the previous version of 1993). Sectoral Program "Drinking Water" for the period 2002-2010, the Concept for the water sector development and water policy of Kazakhstan until 2010, the State Program for Rural Development for the years of 2004-2010, the Environmental Code of the Republic of Kazakhstan (2007), the concept of modernization and development of housing and communal services of the Republic of Kazakhstan until 2015, the Concept of Kazakhstani legislation reforming in the field of environmental protection and others. In 2000, Kazakhstan joined the Helsinki Convention on Protection and Use of Transboundary Watercourses and International Lakes, which allows forminguniform legal approaches to problems solving on rational use and protection of Transboundary Rivers.

Major reforms in the water sector of the country were launched since the mid-1990s. All urban and rural water supply systems were transferred to local authorities. However, without the state financial support, many of them fell into decay and practically exhausted their resources. Since 2002 to solve the problem of water supply, the Government has launched a program "Drinking Water for 2002 - 2010 years". Currently, the next step is carried out - The program "Akbulak" until 2020, with funding from the state and local and other sources, about 1.27 trillion KZT, including 1.164 trillion KZT - at the expense of the republican budget.

The key issue is the status of public water management. The authorized state body - the Committee for Water Resources (CWR) over the years more than 6 times been subjected to various reorganizations and its status fell from the level of the Ministry to the subordinated Committee. Today, the CWR as a subordinate unit of the Ministry of Agriculture creates an obvious conflict of interest between the largest

water user, that takes more than 70% of all the water, and the interests of other sectors, as well as the protection and rational use of water.

A serious challenge for Kazakhstan is the tragedy of the Aral Sea as a result ofthe limit load exceeding on ecosystems. However, according to experts, this environmental disaster does not become a lesson. Policies on water resources and water ecosystems remain the same: the nature needs are practically not taken into account in the water planning, and the environmental goals not only have normative status, but even do not always identified. [7]

According to experts, the water use system on planning and rationing is a critical inherited from the Soviet era, based on the maximum allowable concentrations and discharges (MAC and MAD), which often consists of impossible demands. By the decision of the government of the former USSR (№ 1045, 1958), almost all water bodies have been attributed to fisheries management, which are subject to the most stringent standards. But no technical and economic feasibility were taken into account. According to these requirements, many enterprises have to discharge waste water, with the quality better than that of the source water. So today is more profitable to pay fines than to build water circulating or treatment facilities.

The above five security sectorsfor Kazakhstanshowed what sources of conventional and non-conventional threats may exist in the region and how it affects internal and external factors of the country.

It is impossible to solve environmental problems of the Republic of Kazakhstan without taking into account the global environmental safety trends. Data analysis and summary of foreign developments on the environmental security issues allow you to quickly make better management decisions. Including theresearch programs formation to create the means for environmental safetyensuring and sustainable development of the Republic of Kazakhstan as one of the most important areas of practical work in recent years.

If we turn to the experience of the global superpower the United States, one of the most important components of the national security concept is the task for ecological safety ensuring of the territory and population, as well as conservation of natural resources [8].

At the present stage, this problem is considered by the US administration as one of the priority directions of its activity, which has a national significance. Also, there is a more serious attitude to the problems of ecological safety in the countries of the European Union, Japan, Canada, and Australia. The agenda of the XXI century includes “environmental” conflicts between states for the best land, clean water, natural resources, etc.

However, in spite of the available federal programs on environmental sanitation, only 12% of highly contaminated areas in the US have been cleared within the period of 1980 and 1992 years. 62 million peoplelived in areas where drinking water was not in compliance with the American standards of cleanliness and its suitability for consumption. 150 million people lived in regions of strong atmospheric pollution. Many US national parks were threatened by the harmful effects of adverse manmade factors. In this regard, the Clinton’s administration made a serious turn towards measures to ensure environmental safety under all federal agencies. The budgetary allocations for priority federal mandatory programs have been increased, which are provided not only to clean soil, water and atmosphere, but also the infrastructure improvement in order to prevent pollution and safeguard and improve the environment, especially natural systems that make up the US national treasure [9].

During the period from 1993 to 2001 the budgetary allocations for mandatory federal comprehensive programs on the environmental safety, conservation of natural resources and infrastructure improvement have increased by 36%. At the same time, under such agencies as the Ministry of Internal Affairs, they increased by 42%; as the National Agency for Oceanographic and Atmospheric research –by 142%; The US Department of Defense –by 12%; the Environmental Protection Agency –by 13%; the Department of Energy –by 4%. [10]

In addition, during the period in connection with the US military-strategic concepts revision, due to the collapse of the Soviet Union and the disappearance of a direct military threat to the United States, active measures were carried out to reduce US forces and the closure of military bases. The latter measures were undertaken in the framework of a special program of BRAC (Base Realignment and

Close), the implementation of which for obvious reasons has caused the actualization of the issue on measures to eliminate the caused damage to the environment as a result of military activity. In this regard, Ministry of Defense, along with other federal agencies, startedto implement the environmental security project more intensively. [11]

In turn, the specific expression of the great importance for the special ecological programsadoption was a federal law on the defense budget for 1991 FY. (Fiscal Year 1991 Defense Authorization Act). In accordance with this law, special integrated strategic program for research and development in the field of environmental safety (SERDP - Strategic Environmental Research and Development Program) was established and implemented in three federal departments: Department of Defense, Department of Energy and the Environmental Protection Agency. In this program we formulated the concept of the need to develop basic ideas and techniques on environmental safety and dissemination at the federal level; the information network and information securityorganization; the methods development to detect, monitor and prevent on environmental hazards, as well as the elimination of its adverse effects. Taking the concept on environmental security in the form of specified SERDP strategic program, the US administration based upon the fact that none of federal agency is able to independently, without interaction with other federal departments and agencies, ensure the implementation of environmental safety problems for the territory and population of the USA. In particular, the White house identified 7 leading ministries and departments that are requiredto contribute to the United States ecological safety maintenance in its responsibility area within the single federal R & D programs and practices. These are: the Ministry of Transport (the budget for major environmental program in 2001 Financial Year - 8.73 billion USD), The Department of the Interior (3.1 billion USD), Department of Agriculture (3.33billion USD), the Environmental Protection Agency (7.83 billion USD), the Department of energy (7.5 billion USD), Ministry of Defense (4.3 billion USD), National Agency for Oceanic and Atmospheric Administration (1.34billion USD).

In addition to these major departments from time to time the Ministry of Commerce, the State Department, NASA, the Ministry of Construction and Urban Development, the National Science Foundation and others are involved to the implementation of major federal programs. There are also inter-state environmental programs, in which the United States participates, based on their own interests and benefits. To implement these programs the Agency for International Development, the Export-Import Bank, the Trade and Development Agency, the Office of foreign aid programs are involved. At the same time, it should be noted that within the concept on environmental security the environmental aspects are considered in close connection with the conservation and development of natural resources of the United States. In this regard, priority federal environmental programs are twofold content (High-Priority Environmental and Natural Resource Programs).

Further development of the conceptual foundations to ensure the United States environmental safety is reflected in the presidential papers on the United States national security strategy in the 21st century dated May 1997, October 1998 and December 1999 - January 2000. In these documents the problem of environmental pollution is designated among the transnational threats that are long-term in terms of influence on the security and economic prosperity of the United States. It was emphasized that the lack of natural resources often encourages the emergence and proliferation of conflicts. Climate change, depletion of the ozone layer and movement of hazardous chemicals pose a direct threat to the health of American citizens. The accepted US-led decisions on environmental improvement and conservation of natural resources of the country are aimed at long-term safe operation of the entire multi-faceted political, economic and military structures of the USA as a monolithic system. In this regard, to ensure environmental safety of the United States, as an important component of national security, is an integral part of the strategic planning of current and futuretrends in the field of politics, economy and defense administration.

As a part of the modern American administration's policy on environmental safety and conservation of natural resources, the United States identified the following two main areas of environmental management: the maintenance and conservation of land resources and their management, as well as control for the environment and its restoration.

In the area of maintenance and conservation of land resources and management thereof these long-term measures are stipulated:

1. Improving of the legal inheritance issues on land, water, forest and other resources, the land acquisition processes control, national parks development, water resourcesprotection, as well as cleaning work in the river basins and along the coast. To provide a wide range of environmental protection measures on the basis of the law to increase the budgetary allocation dated October 2000 (Budget Enforcement Act) an increase in the period of 2002-2006 is provided for annual 2 billion USD the funds contribution to a special fund dedicated to supportthe financial capacity of state governments and local governments for the environmental programsimplementation.

2. The planning system modernization of the local development and park management according to modern standards.

3. Reform performance of financial support system by the federal government of states and local areas in their activities to ensure environmental safety. Particular attention is paid to provide regulation of environmental activities of federal agencies on public lands, and the states territories.

4. The protection of individual natural areas and prevention of the road construction on them, the consequences of which could be harmful to the maintenance of ecological balance.

5. Preservation of agricultural land surplus in order to create a reserve for their possible use for its intended purpose if the conditions of the economic or political situation will require increasing the economic potential of the United States. The implementation purpose of this administration's policy direction is to maintain agricultural land in a suitable condition, to control and prevent from soil erosion, to conserve the flora and fauna, as well as to help farmers through specific ecological measures performance, should the results used will bring economic benefits to farmers. The main federal agency, entrusted with the implementation of measures to ensure environmental safety in the US agricultural states is the Ministry of Agriculture. It is a leading developer (in conjunction with the Environmental Protection Agency) of a special comprehensive program for protection and conservation of land (Conservation Reserve Enhancement Program - CREP), calculated, at least for the next 10-12 years. [12]

6. Monitoring of territories subject to waterlogging, preventing the proliferation of wetlands and activities to restore the previous wetlands.

7. Control of wetlands and the provision of technical and financial support to state and local governments in the activitiescarrying out to preserve water balance, to avoid unnecessary drainage of the land and unauthorized use for agricultural purposes. At the same time strict regulation of these lands sales-and-purchase should be provided for industrial purposes in order to prevent their loss, as the object of an agricultural purpose.

8. Saving of the national parks referred to the category of the national wealthobjects.

9. Improvement of the prevention practice and the fight against forest fires, causing serious economic and ecological damage.

10. Control and regulation of the mineral recovery practice by open pit on federally owned land.

11. Monitoring of estuaries and coastal zonesstatus, as well as river and marine reserves.

12. Recovery of biological resources of the ocean.

13. Standing Scientific support measures to ensure environmental security by providing the federal and states' governments with timely and reliably substantiated information concerning the condition of ecosystems, minerals, water, forests and other resources, as well as the availability of real threats to these resources with recommendations for such environmental threats countering.

Continuous monitoring of soil pollution condition, water and the atmosphere and the clean-up measures is regulated with a particular focus on identifying and reduction of toxic substances level in them. At the same time these activities should be carried out in accordance with standard operating administration plans, the main of which are:

- air pollution reduction of (the plan "clean air"adopted by a special law).
- water quality improving (the plan "pure water", known as the Clinton's plan CWAP (Clean Water Action Plan).
- Protection and technological renovation of drinking water supply facilities.
- Reforming of the security system and the quality of food preparation.

- Industrial enterprises control that admit emissions of harmful substances into the environment in the production process (environment).

-Management of hazardous waste utility.

-Efforts increase to clean up contaminated sites and areas.

-Climate change control.

- Development of infrastructure for the activities within the frames of the environmental safety programs.

- Financial support for rural regions [12]. It should be noted that the implementation of these conceptual directions to ensure the US Environmental Safety the US administration attaches special importance to the activities of the Ministry of Defense (MoD), which has a sufficiently large technical and technological capabilities in the field of practical implementation both of general federal environmental programs, and its own programs in accordance with the characteristics of its concept on environmental security.

The environmental component has become one of the most important components of the military-economic (production) and financial activities of the MoD, which is reputed to be the third land owner and userin the US, that possesses a land area of 10 million hectares, the cost of which is estimated more than 500 billion USD. In this regard, Ministry of Defense is responsible to Congress for the observance of the legislation on the reduction, recovery and restoration of the environment. The Defense Ministry is prescribed by law to report annually to Congress on the implementation of not only federal ecological safety program, but on the economic aspects of new weapons and military equipment and ammunition systemsdevelopment and use. In addition, the Minister must report to Congress on the measures taken by the military department to preserve the health of military and civilian MoD staff, and also not to damage the environment and the local population in the area of the facilities location to store weapons and military equipment, ammunition and other military equipment, to inspectand test the weapons, equipment and a variety of weapons [13].

REFERENCES

1 Tusupbaeva G.A. Geopolitical factors of national security - the component parameters of the state policy of the Republic of Kazakhstan Kazakhstan // – Spectr, 2005. №2. - P.51.

2 Zhdanova N.A. Nuclear terrorism and the security of Kazakhstan // ANALYTIC, 2004. №6.

3 Портал «История Казахстана». – Режим доступа: http://www.e-history.kz/ru/contents/view/1736.

4 K.A.Alisheva "Ecology", 2006.

5 Ecological problems of Kazakhstan (www.kisi.kz/img/docs/1268.pdf) the last visitdate is 11.12.2007.

6 Nysanbek U.M. Conceptual problems of ecological safety of the Republic of Kazakhstan // ANALYTIC, 2003 №5. – P.17.

7 Agenda-21 "Implementation of the commitments on sustainable development in Kazakhstan".

8 Pilot Study on Environmental Management Systems in the Military Sector. Final Report. NATO-CCMS. March 2000.

9 Institute for Defense Analyses. Environmental Restoration-Expedient Methods and Technologies: A User Guide With Case Studies. Volume II: Canada and Europe. September 2000.

10 «О программах МО США по ликвидации ущерба, нанесенного окружающей среде загрязнением военных объектов вредными и токсичными веществами». Справка, 9/01.

11 Institute for Defense Analyses. Environmental Restoration-Expedient.

12 Advanced Planning Briefing to Industry, September 19, 2000, Dr. Jay Davis.

13 «О концепции экологической безопасности министерства обороны США». Справка, 215/01.

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