

THE WORLD'S BIGGEST ENVIRONMENTAL PROBLEM AND ITS SOLUTION

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Аннотация: Ушбу мақолада Орол денгизидаги муаммолар ва атроф-муҳитни муҳофаза қилиш соҳасида олиб борилаётган сиёсий ислоҳотлар ва амалий ишларнинг натижаси, республиканинг ижтимоий-экологик ҳолатини кўтаришида устувор аҳамиятга эга бўлган баъзи бир масаларни давлат томонидан қўллаб-қувватлашни давом эттириши каби жиҳатларни ўз ичига олади.

Калит сўз ва иборалар: Атроф-муҳит, фреон, хлор, фтор, углерод, атмосфера, экологик хавфсизлик, санитар - эпидемиологик аҳволи.

Аннотация: В данной статье рассмотрены проблемы Аральского моря и результаты политических реформ и практической работы в области охраны окружающей среды, а также продолжение государственной поддержки некоторых вопросов, имеющих приоритетное значение в улучшении социально-экологического состояния. республики.

Ключевые слова и фразы: Окружающая среда, фреон, хлор, фтор, углерод, атмосфера, экологическая безопасность, санитарно-эпидемиологическая ситуация.

Abstract: In this article, the problems of the Aral Sea and the results of political reforms and practical work in the field of environmental protection, as well as the continuation of state support for some issues that are of priority in improving the socio-ecological condition of the republic, are included.

Key words and phrases: Environment, freon, chlorine, fluorine, carbon, atmosphere, ecological safety, sanitary - epidemiological situation.

Year by year population growth, the development of industry and transport, the development of science and technology, are expanding the sphere of human influence on the biosphere. This, in turn, causes one or another environmental problem. Ecological problem means any phenomenon related to natural phenomena (natural disasters, climate change, mass migration of animals, etc.) related to the impact of man on nature, i.e., processes that have economic significance in his economy and life. As a result of human work, various wastes are released into the environment. Part of the waste (solid, gaseous and liquid) affects the atmosphere, the other affects water, land, flora and fauna and accumulates over time. It is now fully confirmed that their gradual accumulation over the years causes various problems, sometimes very dangerous for human life. As a result of human economic activity, major environmental problems are arising in the world. They are as follows: "greenhouse effect", "hole" of call to prayer, desertification.

"Greenhouse effect". Since the 50s of the 20th century, due to the sharp increase in energy production, a large amount of waste has been released into the atmosphere. The amount of waste released into the atmosphere was 5 billion tons per year. This amount began to increase every year. This caused the average temperature on Earth to increase from 14.5 C in 1890 to 15.2 C in 1980, i.e. by 0.7 degrees. This indicator has the characteristic of increasing every year. This causes the "greenhouse effect". According to scientists, if the current rate of increase of gases causing the "greenhouse effect" is maintained, as a result of a temperature increase of 0.2-0.5 degrees every 10 years, tundra, forest-tundra, taiga, mixed and broad-leaved forests, forest-steppe and steppe nature zones are expected to shift to the north. In addition, the water flow of rivers in Europe and Africa will increase. Global warming is causing glaciers to melt and ocean waters to expand due to heat. During the 20th century, scientists estimate that the ocean level rose by 17.5 centimeters.

According to American scientists, by the year 2100, the world ocean level may rise by 1.4-2.2 meters. This causes most of the countries located on the coast of the ocean to be submerged. Azan "hole". Since the 50s of the 20th century, it has been observed that the amount of freon gases (chlorine, fluorine, carbon) in the air has increased. These gases began to erode the ozone layer located at an altitude of 25 kilometers. It is known that the azon layer captures the harmful ultraviolet rays coming from the Sun. As a result of the erosion of the azon layer, an azon "hole" was formed. It has been determined that the penetration of ultraviolet rays from this hole to the Earth's surface can drastically reduce the yield of grain crops and cause people to get skin cancer. In 1989, scientists, experts and statesmen of 81 countries adopted the "Helsinki Declaration on the Protection of the Azone Layer" and defined measures to reduce the production of freon gases by the year 2000. As a result, the area of the azon "hole" has been shrinking in recent years. Desertification. Currently, the process of desertification, i.e. the transformation of fertile lands and pastures into deserts, is taking place under the influence of natural and artificial factors. Natural factors mainly include drought.

For example, in 1968-1974, as a result of a catastrophic drought in the coastal region of the Sahara, more than 60% of the area of Lake Chad, Niger, and Senegal rivers dried up. As a result of human's improper use of land, large areas of fertile land are turning into desert. Currently, under the influence of human activity, a desert has been formed on an area of 9 million square kilometers. Every year, about 21 million hectares of land are completely degraded and turned into desert. Every year, 6 million hectares of irrigated land become desert. Currently, regular scientific and practical work is being carried out to prevent desertification. An organization coordinating the fight against desertification is operating in Nairobi, the capital of Kenya. Regional ecological problems arise due to the tension of the interaction between nature and society in highly developed areas of industry and agriculture. These ecological problems drastically change the natural environment and affect public health. Currently, regional environmental problems exist in the

Middle, Black, Azov, Baltic, Northern, Caribbean Seas, Persian Gulf, Caspian and Aral Seas, Baikal, Balkhash, Ladoga, Onega, Chad, Great Lakes and other regions.

The territorial environmental problem that arose in Central Asia and Uzbekistan is the problem of the Aral Sea. During the years 1911-1960, the Aral Sea received an average of 52 cubic kilometers of water annually, and its level regularly reached 53 m absolute height, its water area was 66 thousand square kilometers, and the average salinity level of water was 9.5-10 percent (9.5-10 g/l) and its average depth was 16 meters. Since 1961, as a result of the development of reserve lands in Central Asia and South Kazakhstan, the construction of a number of large water reservoirs, the construction and operation of canals, collector-water systems, the amount of water flowing into the Aral Sea from Amudarya and Syrdarya began to decrease. As a result, the level of the Aral Sea decreased and its area began to decrease. As a result, the level of the Aral Sea began to decrease, its area began to decrease, and the level of water salinity began to increase. Currently, the dry area of the Aral Sea is 3 million ha. Since the dry part of the sea consists of a bare plain, the horizontal movement of groundwater is difficult, so the main part of it evaporates and leads to an increase in the amount of salt in the soil. As a result of the reduction of the water flowing into the lower reaches of Amudarya and Syrdarya, the area of marshes and groves in these areas will decrease and the process of desertification will develop. Currently, the solution to the problem of the Aral Sea is focused on two things - keeping the sea level at a certain level and improving the ecological conditions of the Aral Sea. In order to maintain the level of the Aral sea at a certain height, that is, 33 meters absolute height, 20 cubic kilometers of water from Amudarya and Syrdarya should fall to the island every year.

The main way to improve the ecological conditions in the island region is to provide the population with clean drinking water, to regularly send water to the dry riverbeds and lakes, to strengthen the sand with plants to block the movement of the wind in the dry part of the sea, to improve the land reclamation, and to expand the area of pastures and hayfields. Ecological condition of the Aral Sea. The Aral Sea used to be one of the largest inland seas in the world and was used for fishing, hunting, transportation and recreational purposes. The water regime of the sea is made up of the burning Amudarya, Syrdarya, groundwater and atmospheric fuels, and water evaporation from the surface. In ancient historical times, the change of the sea level by 1.5-2.10 was related to the natural climate, the volume of water was 100-150 cubic km, the area of the water surface was 4000 square km. the amount of water poured into the delta of Amudarya and Syrdarya decreased. Thus, at present, the sea level has decreased by 16.8 m compared to 1961. 1994 36.6 m. In this case, the volume of the sea increases by 3 times, the surface by 2 times, the salinity level increases from 9-10 g/l to 34-37 g/l; By 2000, 180-200 g/l was expected. Today, the decrease in sea level is 80 - 110 cm per year. The Kirgok line has decreased by 60-80 km, and the open land is 23 thousand square km. In the lower reaches of Amudarya and Syrdarya, the quality of water deteriorates and becomes unfit for drinking. Ecosystems, plants and animals are in deep crisis. The

worst situation is the Southern Island. This region includes such landscape complexes as the northwestern Kyzyl kum, Zaungaoz, Kara kum, South Ustyurt and the Amudarya delta. The total area of the island coast is 473,000 km², while its southern part is 245,000 km².

This includes the territory of the Kyrgyz Republic, the Khorezm region of Uzbekistan, and the Toshavvoz regions of Turkmenistan. The phenomenon of rapid desertification occurring on the island and along the island is unprecedented in the world's experience. That is why quantitative and qualitative assessment faces many difficulties. Due to the opening of the seabed and the drying of river deltas, desert areas are expanding. The surface of 1 million ha that has been uncovered is covered with small salt particles and forms new sand layers. Thus, a powerful new source of wind-driven sand and salt aerosols has emerged in Central Asia. According to preliminary data, 100-150 mln. up to tons of dust - pollen can rise. Dust - salt dust raised from the bottom of the sea increases atmospheric pollution by 5%. The rise of dust - pollen into the atmosphere was observed from space 1 time in 1875. The length of Chang-Pozon is 400 km, the width is 40 km, and the radius is 300 km. As a result of precipitation of salts on the surface of the earth, the productivity of cotton decreased by 5-15% and that of rice by 3-6%.

The average amount of dust-salt particles falling on the island is 520 kg/ha, and it has become one of the main causes of soil deterioration. Dust-salt fractions in the irrigated areas of the Republic of Kazakhstan range from 250 kg/ha to 500 t in Chimboy district. Saline sand salts are occupying 15 thousand hectares of pastures along the island. Fields allocated for cotton are infested with disease-causing pests. the harvest of agricultural products is decreasing. Deterioration of land reclamation in the areas upstream of the river (Surkhondarya, Kashkadarya, Bukhara, Samarkand) leads to an increase in land in the II category. The middle course of Amudarya is located. A complex reclamation situation is emerging in the water management districts of Turkmenistan. In the rivers of Amudarya and Syrdarya, most of the areas are classified as 3rd and 4th category lands with non-coniferous melioration conditions, 35-70% of silted and heavily silted areas.

Due to soil salinization, the yield of agricultural products decreased by 30% in Uzbekistan, 40% in Turkestan, 33% in Kazakhstan, 1990 in Tajikistan and 20% in Kyrgyzstan. The settlement of highly saline groundwater is intensifying the process of desertification. As a result of lowering the banks of the Amudarya and Syrdarya, it reduces floods in the lower part of the rivers. This, in turn, leads to the reduction of the areas of tukai plants, and the previously humus-rich meadow-swamp soils turn into infertile meadows, barren deserts, sandy soils. Mammals and birds have declined. Arid fields are filled with rodents that spread dangerous diseases for the population. The sanitary-epidemiological situation of the island coast is extremely difficult, and the centralized water supply is 29-67%. Half of the population uses polluted open water bodies. Can the Aral Sea be saved? The basis of the island problem is to preserve it as a sea. It should be noted that the island is known to have changed its shape and dried up many times during its history compared to scientific data.

To restore the initial absolute height of the Aral Sea, more than a thousand cubic km of water is needed. The problem of the Aral Sea is also noteworthy. The Aral Sea began to dry up especially in the 80s. At present, it has become a common problem of Central Asia. The sea is currently not considered the "dead sea". There is almost no living organism in the sea. Salts accumulated on the dry shores of the sea are mixed with dust when the wind blows, posing a serious threat to human health. The residents there are facing water problems. In addition, almost half of the Aral Sea is drying up, and no one cares. With foreign funds allocated for the restoration of the Aral Sea, no one controls the spending of these funds on the sea. It follows that the funds "do not reach" there. In short, it can be described as a drought in the countries of Central Asia. The world community and the countries of Central Asia will realize this "when the knife is stuck in the bone". Unfortunately, after the Aral Sea dries up, solutions to this problem will be sought. The main reason for the drying up of the Aral Sea is that it is used for household needs, that is, because of the use of Amudarya and Syrdarya for irrigation of cotton and wheat, less water has begun to reach the Aral Sea. Due to this, there are currently several opinions about the preservation of the Aral Sea, which is slowly drying up. It is necessary to save the Aral Sea in any way and restore it to its former state.

The level of the Aral Sea cannot be maintained at a stable level, so it is inevitable that it will dry up completely. It is possible and feasible to maintain the level of the Aral Sea at a certain level. The first idea was developed in 1986-1987 by the members of the Union of Writers of Uzbekistan and other writers of the republic. In the second opinion, they say that the water should be used to develop and irrigate their new lands, the sea cannot be saved, it is inevitable that it will dry up. The third opinion was expected by scientists and specialists who were specifically engaged in the problem of the island. They expressed their opinion on this problem. They explained on the basis of their many years of scientific research and proved that it is possible to maintain the level of the sea at a certain absolute height, correctly estimating all its ecological and socio-economic importance. It is impossible to raise the Aral Sea to the initial absolute height (53) m. Several ideas are currently being floated to keep the island level at an absolute height. Some want to transfer the commercial sea water to the Island through the canal: Many want to fill the Island with the water of Siberian rivers. Some suggested melting the Amudarya and Syrdarya headwaters of 17,000 km². Reservoirs in Central Asia (92, 72 in Uzbekistan) have released water into rivers. In addition, some experts believe that at a depth of about 1-1.5 thousand meters under the Aral Sea, there is 4 times and more underground water compared to the volume of water of the island until 1961. show that it is possible. 70 km³/cubic km of water is needed to maintain the sea.

But the Republic of Uzbekistan needs to dig 18-20,000 wells around the sea, which will require 30 million tons of pipes. Thus, the only way to maintain the level of the island at a certain absolute height is to preserve the water reserves that are present in this danger itself. At least 20 km³/cubic meter of water should be

poured into the island every year. Well, where to find this 20 km of water. It is known that 90% of water is used for irrigation. Its profitability ratio is 0.63. If this indicator is increased to 0.80, a lot of water will accumulate. Therefore, the main focus should be on reducing water loss as much as possible.

The risk of drying up of the Aral Sea is a very serious problem, it can be said that it has become a national problem. The problem of the Aral Sea goes back a long way. The narrowing of the Aral Sea is one of the biggest environmental and humanitarian tragedies in human history. About 37 million people living in the sea basin were affected by it.

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