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**Annotation:** This article discusses about the problems caused by climate change not only in the countries of Central Asia, but also in the entire world community. Changes in the state of the natural environment due to human influence, strong anthropogenic impact on living and non-living components cause local, regional and global environmental problems. In particular, as a result of such effects, the "Island problem", which is considered the most dangerous point of the environmental crisis in the region, arose. Today, not only the countries of Central Asia, but the entire world community is trying to find answers to the problems and threats caused by climate change. Among these problems, the atmosphere. It is possible to include the increase of greenhouse gases, the increase in the temperature of the upper crust of the earth, the shortage of water resources, the frequent recurrence of natural disasters, the increase in the desertification process, etc. On September 19, 2023, the United Nations General Assembly in New York City general political debates of the 78th session of the UN General Assembly began in the residence. In his speech, the President of the Republic of Uzbekistan Shavkat Mirziyoyev noted that the current global environmental situation is acute, and there are three crises on the scale of the planet, i.e. climate change, loss of biodiversity and noting that environmental pollution is increasing, the President said that Central Asia is becoming one of the most vulnerable regions in the face of climate change.

**Key words:** anthropogenic, "island problem", climate, greenhouse gas, crisis, temperature, resources.

**Annotatsiya:** Ushbu maqolada nafaqat Markaziy Osiyo mamlakatlarida, balki butun jahon hamjamiyatida iqlim o'zgarishi tufayli yuzaga kelayotgan muammolar haqida so'z yuritiladi. Tabiiy muhit holatining inson ta'sirida o'zgarishi, jonli va jonsiz komponentlarga kuchli antropogen ta'sir mahalliy, mintaqaviy va umumjahon ekologik muammolarni keltirib chiqaradi. Jumladan, shu kabi ta'sirlar natijasida mintaqadagi ekologik inqirozning eng xavfli nuqtasi hisoblangan "Orol muammosi" vujudga keldi. Bugun nafaqat Markaziy Osiyo mamlakatlari, balki butun jahon hamjamiyati iqlim o'zgarishi tufayli yuzaga kelayotgan muammo va tahdidlarga javob topishga intilmoqda. Bu muammolar qatoriga atmosferada issiqxona gazlarining ko'payishi, yerning ustki qobig'i haroratining ortishi, suv resurslari taqchilligi, tabiiy ofatlarning tez-tez takrorlanishi, saholashish jarayonining o'sishi va boshqalarni kiritish mumkin. 2023-yil 19-sentabr kuni Nyu-York shahridagi Birlashgan Millatlar Tashkiloti bosh qarorgohida BMT Bosh Assambleyasi 78-sessiyasining umumsiyosiy munozaralari boshlandi. Unda O'zbekiston Respublikasi Prezidenti Shavkat Mirziyoyev o'z nutqida hozirgi vaqtda dunyoda keskin ekologik vaziyat kuzatilib, sayyoramiz miqyosida uchta inqiroz, ya'ni iqlim o'zgarishi, bioxilma-xillik yo'qolishi va atrof-muhit ifloslanishi kuchayib borayotganini qayd etib, Prezidentimiz Markaziy Osiyo iqlim o'zgarishlari oldida eng zaif mintaqalardan biriga aylanayotganini aytib o'tdi.

**Kalit so'zlar:** antropogen, "orol muammosi", iqlim, issiqxona gazi, inqiroz, harorat, resurs.

**Аннотация:** В этой статье говорится о проблемах, вызванных изменением климата не только в странах Центральной Азии, но и во всем мировом сообществе. Изменения состояния природной среды вследствие антропогенного воздействия, сильное антропогенное воздействие на живые и неживые компоненты вызывают локальные, региональные и глобальные экологические проблемы. В частности, в результате подобных воздействий возникла «островная проблема», которая считается самой опасной точкой экологического кризиса в регионе. Сегодня не только страны Центральной Азии, но и все мировое сообщество пытаются найти ответы на проблемы и угрозы, вызванные изменением климата. К числу этих проблем атмосферы можно отнести увеличение выбросов парниковых газов, повышение температуры верхней коры земли, нехватку водных ресурсов, частое повторение стихийных бедствий, усиление процесса опустынивания и др. 19 сентября 2023 года в резиденции Генеральной Ассамблеи ООН в Нью-Йорке начались общеполитические дебаты 78-й сессии Генеральной Ассамблеи ООН. Президент Республики Узбекистан Шавкат Мирзиёев отметил, что в настоящее время в мире наблюдается тяжелая экологическая ситуация, три кризиса в масштабах планеты – изменение климата, утрата биоразнообразия и отметив, что загрязнение окружающей среды увеличивается, Президент заявил, что Центральная Азия становится одним из наиболее уязвимых регионов перед лицом изменения климата.

**Ключевые слова:** антропоген, «островная проблема», климат, парниковый газ, кризис, температура, ресурс.

Climate change includes human-caused greenhouse gases and global warming, which cause large-scale changes in weather patterns. Although the early stages of climate change have also emerged, since the mid-20th century humans have exerted an unprecedented influence on the Earth's climate system and caused changes on a global scale. Scientists have conducted many archaeological studies and concluded that the climate of the planet has changed dramatically several times as a result of the dangerous effects of human activity. <sup>33</sup>Some of these activities cause pollution (dirty air, land and water) and some are destroying the environment. Here are some of the problems:

- the ozone layer:
  - a layer of gases which stop harmful radiation from the sun reaching the earth.
  - recent research shows that there is now a hole in parts of the ozone layer.
- global warming :
  - an increase in world temperature caused by an increase in carbon dioxide.
- acid rain:
  - rain that contains dangerous chemicals.

<sup>33</sup>These ideas were taken from English vocabulary in Use by Stuart Redman.

- this is caused by smoke from factories.

Many hypotheses have been put forward in this regard. According to one of the opinions, if the distance between the Earth and the Sun, as well as the speed of rotation of the planet and the angle of inclination of the axis remain the same, then the climate will remain stable.

#### External factors of climate change:

- changes in solar radiation lead to changes in solar radiation fluxes.
- the movement of tectonic plates affects the orography of the land, as well as the ocean level and its circulation.
- the gas composition of the atmosphere, in particular, the concentration of methane and carbon dioxide.
- changing the tilt of the Earth's axis of rotation.
- changes in the parameters of the planet's orbit relative to the Sun. Earth and space disasters.

#### Human activities and their impact on climate

The causes of climate change include human interference with nature throughout its existence. Deforestation, plowing, reclamation, etc. lead to changes in moisture and wind regimes. Microclimate changes when people make changes to the surrounding nature, drain swamps, create artificial water bodies, cut down forests or plant new ones, build cities, etc. The forest has a strong influence on the wind regime, which determines how the snow cover falls and how much the soil freezes.

Green areas in cities reduce the effect of solar radiation, increase air humidity, reduce the temperature difference between day and night, and reduce dust in the air. If people cut down forests on hills, it will lead to soil erosion in the future.

Also, the reduction in the number of trees reduces the global temperature. However, this means an increase in the concentration of carbon dioxide in the air, which is not only not absorbed by trees, but is additionally released during the decomposition of wood. All this compensates for the decrease in global temperature and leads to its increase. The causes of climate change lie not only in general warming, but also in human activities. Humans have increased the concentration of substances in the air such as carbon dioxide, nitrogen oxides, methane, troposphere ozone and chlorofluorocarbons. All this ultimately leads to an increase in the greenhouse effect, and the consequences can be irreversible.

Many hazardous gases are released into the air from industrial enterprises every day. Transport that pollutes the atmosphere with its waste is widely used. A lot of carbon dioxide is produced by burning oil and coal. Even agriculture causes great damage to the atmosphere. This sector accounts for approximately 14% of all greenhouse gas emissions. These are plowing fields, burning waste, burning savannahs, manure, fertilizers, livestock, etc. The greenhouse effect helps maintain the temperature balance on the planet, but human activity sometimes increases this effect. And this condition tends to lead to disaster.

**Ways to stop climate change step by step !**

Addressing climate change requires a multifaceted approach. Here are steps that can contribute to mitigating and adapting to climate change:

**Transition to Renewable Energy:** Shift to renewable energy sources like solar, wind, and hydropower to reduce reliance on fossil fuels, a major contributor to greenhouse gas emissions.

**Energy Efficiency:** Improve energy efficiency in industries, transportation, and buildings to reduce overall energy consumption.

**Afforestation and Reforestation:** Plant trees to absorb carbon dioxide from the atmosphere and promote sustainable forestry practices.

**Sustainable Agriculture:** Implement sustainable farming practices, reduce deforestation, and promote responsible land use to minimize emissions from agriculture.

**Carbon Capture and Storage:** Develop and deploy technologies to capture and store carbon emissions from industrial processes and power plants.

**Waste Management:** Reduce, reuse, and recycle to minimize waste generation, and adopt sustainable waste disposal methods.

**Advocacy and Education:** Raise awareness about climate change, advocate for policy changes, and educate communities on sustainable practices.

**International Cooperation:** Encourage global collaboration to address climate change, with nations working together to set and achieve emission reduction targets.

**Adaptation Strategies:** Develop and implement strategies to adapt to the impacts of climate change, including infrastructure improvements and resilient urban planning.

**Policy and Regulation:** Enact and enforce policies that incentivize sustainable practices, penalize environmental harm, and promote the transition to a low-carbon economy.

Individual and collective efforts across these areas can contribute to a more sustainable future and help mitigate the impacts of climate change.

### The Aral Sea

Since ancient times, this sea has been the center of human life. Over the last few decades the problem of the The Aral sea has been epicenter of many contentious arguments in all parts of Asia . Syrdarya and Amudarya filled the island with water. But in the last century, irrigation facilities were built and river water was used to irrigate agricultural fields. Reservoirs and canals were also created, and water resources were used for them. As a result of this global situation, significantly less water fell into the Aral Sea. Thus, the water level in the water area began to drop sharply, the sea area decreased, and many marine inhabitants died. Water loss and declining water levels are not the only concerns. It only encouraged the development of others. Thus, one sea area was divided into two water basins. The salinity of the water has tripled. People stopped fishing because of the fish were dying in some area. There is a shortage of drinking water in the region due to the drying up of the wells and lakes that fed the seawater. Also, part of the bottom of the reservoir is dry and covered with sand.

### Is there a chance to save the Aral Sea?

Efforts to save the Aral Sea involve complex water management strategies and international cooperation. Some initiatives include water diversion projects and the

planting of vegetation to stabilize the exposed seabed. However, the full restoration of the Aral Sea to its original state is challenging due to extensive environmental damage. Ongoing commitment to sustainable water use and collaborative solutions are crucial for any chance of recovery.

For this, a dam was built to separate the two reservoirs. Small Island is filled with water from the Syrdarya and the water level has already increased to 42 meters, the salinity level has decreased. This made it possible to start fish farming.

Accordingly, there is a possibility of restoration of marine flora and fauna. These actions give local residents hope that the entire Aral Sea will be brought back to life. In general, the restoration of the Aral Sea ecosystem is a very difficult task, requiring large efforts and financial investments, as well as state control from ordinary forces. The environmental problems of this water zone are known to the general public, and this topic is periodically covered in the media and discussed in scientific circles.

#### One of the main resources:

- <sup>34</sup> We are planet of seven billions people, and this number is growing by about 370,000 people every day. This is putting a huge strain on the planet's natural resources. For many governments and environmental organizations, the race is on to drastically reduce our consumption of resources before they run out.

- <sup>35</sup> Water is one of our most precious resources. It is the most widely used resource and also plays a vital role in industry and in agricultural field. Therefore , water is one of the main problems of some parts of the world. Governments around the world have laws to help protect and conserve these precious resources. But ,no matter how many rules there, It is ultimately individuals who must help the planet to sustain itself. Changing our lifestyle and limiting our use of natural resources is the only way to ensure a better future for our environment.

From what has been discussed above, it concluded that, the plight of the Aral Sea stands as a stark reminder of the interconnected challenges posed by global climate change. Urgent international cooperation, sustainable water management, and a commitment to environmental restoration are imperative to address not only the Aral Sea crisis but also the broader issues threatening our planet's ecosystems. People are more worried about the environment as a result of the harmful effects of human activity. The choices we make today will shape the climate legacy for generations to come.

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