Global Ecological Threat And General Test

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Abstract
The article analyzes global environmental threats - problems such as climate change, food security, water scarcity, loss of biological diversity. The impact of human activity on nature, its consequences and the need for international cooperation for sustainable development are also covered.
Key words: Global threats, climate change, food security, water scarcity, biological diversity, environmental crisis, sustainable development, anthropogenic factors, international cooperation, environmental protection.

As a result of population growth, scientific and technological progress, and the increase in human needs, a number of environmental problems have arisen on Earth. Therefore, it is difficult to talk about pure nature today. Instead of increasing, forests on Earth are shrinking, large natural areas have been cleared for agriculture, and nature and air are being polluted by various wastes and gases. In addition, floods, forest fires, dust storms, and other natural processes are occurring in nature. All of this ultimately disrupts the balance of nature.
Environmental threats are becoming increasingly widespread today, forcing all countries on Earth to think more deeply about it. Today, humanity is facing serious challenges due to global environmental problems. Climate change, biodiversity loss, water scarcity, land degradation, atmospheric pollution, and threats to food security - all of these directly affect human life on a global scale.
Worryingly, the UN's World Food Program has warned that the number of people facing hunger worldwide could double. Urgent action is needed to avert a catastrophe. According to a report prepared by the World Food Program, the number of people suffering from hunger may increase from 135 million to 250 million.
According to UN data: - The number of people on Earth is increasing according to "geometric progression", unfortunately, their needs are being met according to "arithmetic progression". Currently, 815 million people in the world are hungry, and by 2050, this number is expected to reach 2 billion people. Currently, 12.9 percent of them live in developing countries. This process is accompanied by a food crisis that is happening at the same time as the population is growing, as well as a shortage of fresh water around the world, which is causing famines and causing significant changes in food consumption patterns.
The reports point to climate change and natural phenomena as a number of reasons for the food crisis and hunger. In particular, in recent years, global warming, strong winds, droughts, floods and fires have become more frequent across our planet, and glaciers are melting. Such climate change is leading to a number of negative consequences. In addition, floods, forest fires, dust storms and other natural disasters are occurring more frequently and on a catastrophic scale. All of this is disrupting the natural balance of the environment.
Food insecurity is one of the most serious global problems facing humanity today. According to the Food and Agriculture Organization of the United Nations (FAO), millions of people around the world are undernourished. Several factors are interrelated in causing this situation.

First of all, climate change is one of the main factors. As a result of global warming, droughts, water shortages, floods and reduced productivity are observed. For example, reduced rainfall in Africa and Central Asia is reducing crop yields by 20-30 percent.

The second reason is land degradation and desertification. Fertile land is being lost due to improper irrigation, deforestation, and excessive use of chemical fertilizers. Millions of hectares of land become unfit for agriculture every year.

War and political instability also disrupt food production and supply chains. Since 2022, the Ukraine-Russia conflict has negatively affected the global wheat market, driving up prices sharply.

Economic inequality also exacerbates scarcity. While developed countries have food surpluses, poor countries remain dependent on imports. At the same time, rapid population growth is further increasing pressure on available resources.

As a result, these factors together are increasing the risk of food shortages, rising prices, and famine in the world, posing a serious threat to global environmental stability.

Nowadays, food shortage has become a serious environmental and social problem on a global scale. One of the main reasons for this situation is the decrease in soil fertility and the intensification of drought processes.

Soil is the main means of agricultural production. But in recent decades, the natural fertility of the soil is significantly decreasing as a result of human activities. For example, excessive use of chemical fertilizers, use of land in monoculture (same crop), also, the structure of the soil is being destroyed as a result of deforestation. This condition reduces water storage capacity, increases erosion and salinization processes.

According to the UN, 24 billion tons of topsoil is lost worldwide each year due to erosion. This takes millions of hectares of land out of agricultural use each year. For example, in Central Asia, including Uzbekistan, cotton and grain yields are declining by up to 30 percent in some regions due to water scarcity and salinity.

At the same time, drought is also having a serious impact on food security. As a result of climate change, rainfall is decreasing sharply in some places, and productivity in irrigated lands is also decreasing as water resources are being depleted.

As a result, decreased soil fertility and increased aridity are interdependently contributing to global food shortages. In order to overcome this process, it is necessary to strengthen the measures of sustainable agrotechnologies, soil protection and rational use of water.

The Central Asian region is a region with arid climate, low rainfall, and limited water resources. As a result, countries in the region, including Uzbekistan, face significant environmental and economic challenges in ensuring food security.

Almost 60 percent of the total land area of Uzbekistan is saline to varying degrees. The majority of this land is in the Fergana Valley, Karakalpakstan, and Surkhandarya regions. As a result, thousands of hectares of land are lost to agricultural use every year.

Mineralization of water, improper irrigation system and lack of land processing are destroying the structure of the soil. For example, grain and cotton yields are typically reduced by 20–40 percent in saline soils.

In Central Asia, the average temperature has increased by 1–1.5°C over the past 20 years, which is causing rapid evaporation of water and additional drought. The water flow in the Amu Darya and Syrdarya basins is also decreasing year by year. In some regions of Uzbekistan (Jizzakh, Kashkadarya, Bukhara), precipitation is 30–40% less than normal. This situation limits the possibilities of irrigation in agriculture and reduces productivity.

Climate change and soil degradation are slowing food production. According to the Food and Agriculture Organization of the United Nations (FAO), food demand in Central Asia is set to increase by at least 20% by 2030, but production is not keeping up with this growth. As a result, Uzbekistan remains dependent on imports for some products (meat, oil, and grain products).

In conclusion, it can be said that in Central Asia, more than 80% of water resources are used in agriculture. However, a large part of this is lost through old, inefficient irrigation systems. Therefore: Widespread introduction of innovative methods such as drip irrigation and layered irrigation, digitalization of water management systems, that is, it is necessary to expand the practice of managing water consumption and reusing recycled (drainage) water through intelligent monitoring and automated control. In addition, traditional crops (eg, cotton, wheat) are becoming ineffective in some areas under climate change. Therefore, drought-resistant varieties - sorghum, sunflower, Crops such as chickpeas, millet, watermelons, and alfalfa need to be increased. At the same time, ensuring food security in Uzbekistan and Central Asia depends on soil fertility and rational use of water resources. Sustainable agriculture, innovative agrotechnologies, and regional cooperation are the main solutions today.

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