

# Environmental Factors of Samarkand Region and Their Impact on Nature

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**Annotation:** This article provides detailed information about the environmental factors of Samarkand region and their impact on the region's nature. The article focuses on important issues such as climate change, water resource scarcity, land degradation, and the impact of human activities on the environment. Recommendations for environmental conservation and addressing environmental problems are also presented.

**Keywords:** Environmental factors, climate change, water resources, land degradation, environment, Samarkand region, environmental problems.

## Introduction

Samarkand region is one of the most interesting regions of Uzbekistan, famous for its historical and natural resources. But in recent years, the ecological situation of the region has changed dramatically, which has a great impact on the nature of this area. In this article, the environmental problems arising in the region, their causes and consequences will be discussed in detail. The influence of ecological factors on nature is important not only in the region, but also on the national and global scale.

## The main ecological factors of Samarkand region

### *1. Climate change and its effects*

In recent years, climate changes have been significantly manifested in Samarkand region. An increase in air temperature, a decrease in the amount of precipitation and a drought have a negative impact on the agriculture and nature of this region. As a result of climate change, the region's water

resources are becoming scarce, which leads to the degradation of natural ecosystems.

## *2. Water resources problems*

The main water sources of Samarkand region are Zarafshan river and underground water. But as a result of improper management of water resources, pollution of rivers and improper use of water in agriculture, water resources are becoming scarce. This situation poses a serious threat to agricultural production and the stability of ecosystems.

## *3. Land degradation and desertification*

Land degradation is one of the environmental problems of Samarkand region. Soil salinity is observed as a result of improper use of irrigation systems and excessive watering. This process reduces the fertility of the land and has a negative impact on agricultural production. Soil erosion and desertification processes are widespread in the region, and in order to prevent them, it is necessary to take measures to restore ecosystems.

## *4. Impact of human activity*

The problem of air, water and soil pollution as a result of industrial enterprises, transport and agricultural activities is observed in Samarkand region. Ecosystems are being destroyed as a result of improper disposal of industrial waste, widespread use of chemicals and pesticides in agriculture. This process has a negative impact on the loss of natural resources and the health of the population.

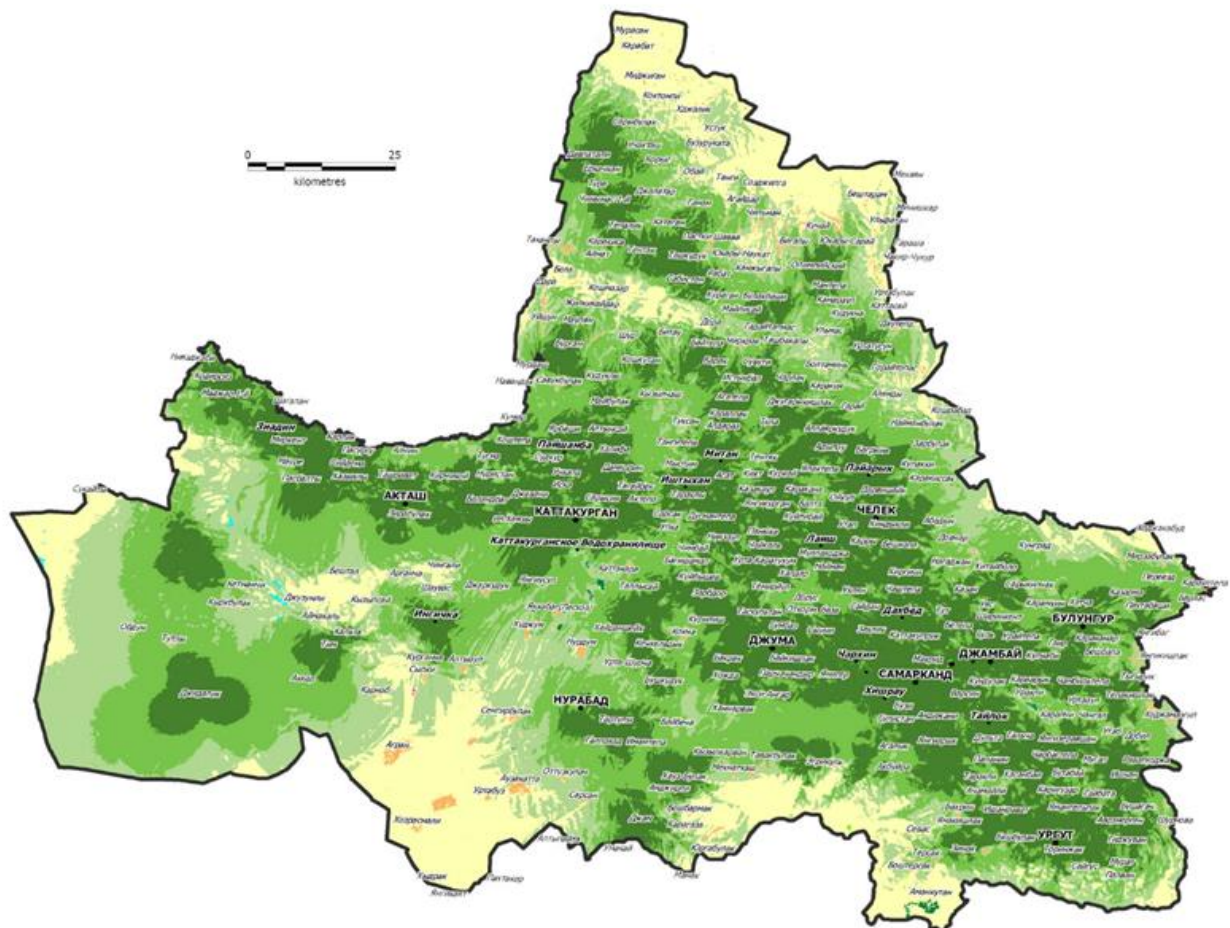
## **Consequences of environmental problems**

Environmental factors in the Samarkand region lead to the destruction of the natural environment, the reduction of biodiversity and the weakening of ecosystems. Depletion of water resources and land degradation are causing a decrease in agricultural production and a deterioration in the standard of living of the population. Natural ecosystems, including forests, grasslands, and irrigated lands, are at risk of natural resource depletion.

## **Recommendations and solutions**

Several important measures should be taken to solve the environmental problems of Samarkand region:

1. In order to save and effectively manage water resources, it is necessary to introduce modern irrigation technologies. This allows efficient use of water in agriculture.
2. In order to prevent soil degradation, it is necessary to take measures to expand reclamation works and manage erosion processes.
3. In order to reduce air, water and soil pollution, it is necessary to improve the industrial waste disposal system and strengthen environmental laws.
4. It is important to increase environmental culture among the population by involving the general public in environmental protection and developing environmental education.



## Conclusion

Environmental problems of Samarkand region are causing great damage to the nature of the region. Climate change, shortage of water resources, land degradation and the impact of human activities on the natural environment should be considered as one of the urgent issues by the society and the government. Protecting nature and ensuring environmental safety should remain the main task of every citizen and organization.

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