"THE IMPACT OF ATMOSPHERIC POLLUTION ON THE ENVIRONMENT AND HUMAN HEALTH"

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Annotation

In Andijan region, including Jalakuduk district, a situation has arisen similar to that in the rest of our country, where the pollutants in the atmospheric air of residential areas are significantly worsening the ecological condition of these areas. This is causing changes in the chemical composition of all components of the ecosystem.

Keywords: Jalakuduk district, atmospheric pollution, diseases, population, Yorqishloq village, drinking water.

Andijan Region, Jalakuduk District: Ecological Issues and Their Impact on Public Health Jalakuduk District, located in Andijan region, was established on September 29, 1926. The district borders the cities of Qo'rg'ontepa, Xo'jaobod, and Andijan, as well as the Osh region of the Kyrgyz Republic. Its area covers 0.37 thousand km². The district lies in the northeastern part of the region and features a low plain, hills, and terraces. The climate is sharply continental, with an average temperature of 27°C in July and -3°C in January. The growing season lasts between 160-180 days, with an average annual rainfall of 250 mm. The Shahrixonsoy, Savay canals, and the Qoradaryo River flow through the area, while Andijonsoy is 3.5 km in length. The soils in the district are light-colored and contain steppe grasslands, with ephemeral plants on the slopes, and saline areas in uncultivated land.

In Jalakuduk district, as in many parts of the country, air pollution from industrial and household emissions significantly deteriorates the ecological condition. These pollutants have caused significant changes in the chemical composition of local ecosystems, impacting both environmental quality and public health. There is a clear connection between air pollution and the increase in diseases among the population. This issue is acute in several cities, including Andijan, where atmospheric pollution correlates with higher rates of illness.

Regarding public health, acute infectious intestinal diseases are prevalent in the district. The intensity of these diseases is 32.5 per 100,000 people in the district, and the number is 25.4 in the Yorqishloq QFY area. The incidence of viral hepatitis in the district is 50.1 per 100,000 people, while in the Yorqishloq QFY area, it is 38.1, showing an increase from 2017 to 2018. Endocrine diseases are also of concern, with general incidence rates at 11.5 per 100,000 people, and the primary incidence rate is 4.9. In Yorqishloq QFY, the general disease rate per 1,000 people is 22.2, and the primary incidence rate is 9.6.

Despite efforts by the District Sanitary-Epidemiological and Environmental Monitoring (DSENM) specialists to monitor and address these issues, further data is needed. Currently, 82% of the district population has access to clean drinking water, although some areas, such as Oxunboboev Sh., South Olamushuk ShFY, Teshik-Tosh QFY, Oyim QFY, Yorqishloq QFY, Beshtol QFY, and Abdullabiy QFY, still suffer from inadequate access to safe drinking water, with coverage at only 65-70%.

Over the past seven months, several areas, including Oxunboboev Sh., South Olamushuk ShFY, Qoratol QFY, Guliston QFY, and Jalaquduq QFY, have witnessed a 2-3 times increase in the incidence of viral hepatitis compared to the previous year.

Recommendations for Improvement:

1. *Sanitation of Waste Collection Points:* Waste management should follow hygiene and sanitation standards, ensuring the timely disposal of both solid and liquid waste.
2. *Leaf Waste Disposal:* Timely removal of leaves and other organic waste from urban and rural areas is necessary to maintain cleanliness.
3. *Environmental Education*: Promote ecological knowledge and culture among the youth, starting with preschools and continuing through all educational levels. This can help instill environmental values early on.
4. *Use of Alternative Energy Sources:* Implementing renewable energy options, such as solar panels, is an effective way to reduce environmental damage. For example, installing solar water heaters in homes is a sustainable and cost-effective solution.
5. *Public Transport and Sustainable Mobility*: Encourage the use of public transport, cycling, and walking instead of private vehicles to reduce vehicle emissions.
6. *Tree Planting:* Large plants, especially trees, are a great solution for reducing noise and air pollution in urban areas.
7. *Water Conservation:* It is vital to reduce water wastage. Simple actions like turning off taps while brushing teeth or washing hands can significantly conserve water, thus reducing the amount of water that needs to be treated.
8. *Community Engagement:* Every citizen must contribute to green spaces and take responsibility for their local environment.
9. *Respect for the Environment:* All citizens are obligated to show care and responsibility toward the natural environment.

These measures are essential for improving environmental quality and public health in Jalakuduk district and across the region.

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