

Practical works on protection of atmospheric air at Urganch state university

It is known that the atmosphere is the air cover of the earth and consists of 5 layers (troposphere, stratosphere, mesosphere, thermosphere and exosphere). The composition of the atmosphere consists mainly of nitrogen (78.09%), oxygen (20.95%), carbon dioxide (0.03%) and other inert gases (hydrogen, ozone, methane, ammonia, nitrogen oxides, etc.).

In the atmosphere, nitrogen acts as a mixture of oxygen and regulates the rate of oxidation and biological processes. Oxygen is a colorless gas that does not burn itself, but helps to burn. Lack of oxygen damages the normal functioning of all organs of living organisms. The amount of oxygen in the atmosphere is 1.5×10^{15} tons, of which 1×10^{10} tons are used for fuel every year on the globe.

Atmospheric carbon dioxide (SO₂) is a colorless, odorless gas that is 0.03% and is not directly used by humans. It is a necessary gas for plants and is an important raw material for photosynthesis. In addition to gaseous substances, the atmosphere contains small particles - aerosols (smoke, dust, dust, etc.) that differ in size, chemical composition, and physical properties. Dust is a condensation nucleus for water vapor, causing precipitation, absorbs the correct radiation of the sun and protects the organism on earth from excessive radiation.

Atmospheric resources include air, light, water vapor, wind, solar radiation, mineral and organic dust.

Atmospheric pollution means all kinds of changes in the composition and properties of air that negatively affect the health of people and animals, the normal state of the ecosystem and plants. Air pollution can be natural or man-made (anthropogenic).

The cause of natural pollution is natural processes - erosion and radiation of rocks, eruption of volcanoes, forest and forest fires, cosmic dust.

Anthropogenic pollution refers to the release of pollutants into the atmosphere as a result of human activity.

Effects of atmospheric pollution on the human body, animals and plants:

1. Air pollution has a negative effect on the human body and causes their health to deteriorate.
2. Atmospheric pollution also negatively affects the normal growth of plants and agricultural crops.
3. Air pollution also affects animals.
4. Atmospheric pollution also accelerates the rusting of roofs, deterioration and corrosion of buildings and other structures.

Atmospheric air protection measures:

Reducing emissions from vehicles, reducing the amount of emissions from vehicles by making electric cars widely available, expanding green areas.

Measures to reduce gas emissions into the atmosphere:

1. Reducing fuel and energy consumption, improving the technology of their use;

2. Introduction of energy-saving equipment in production and improvement of existing ones; introduction of devices that take into account natural gas, heat, water energy consumption;

3. Use of biogas and renewable energy sources; it is necessary to increase the knowledge of the population about climate change, energy saving and the use of efficient technologies.

First of all, in order to carry out work in this regard, the training of specialists in the field of ecology and environmental protection education has been started at Urganch state university.

In addition, university students and various enterprises-organizations and institutions of the Khorezm region (spiritual hours) conduct propaganda and campaigning activities focused on ecology and environmental issues (including environmental culture, air protection), and the prohibition of smoking on the university premises. , within the framework of ecologically important dates, cleaning campaigns and pest control are carried out in the university territory, about 3000 thousand different ornamental trees and flower seedlings are planted every year in order to increase the green spaces in the university territory, and systematic works are being carried out in terms of timely removal of waste in the university territory. At the same time, in terms of energy saving, there is a constant control of the use of electrical equipment in the classrooms (timely turning off of electrical equipment) and the installation of solar-powered lights in the corridors of the green areas of the university. In addition, smart gas meters were installed in order to reduce the consumption of natural gas and the release of carbon dioxide (SO₂) gas into the atmosphere during heating of buildings on the university territory. Currently, these actions are bearing fruit.

The Department of "Ecology and HFX" regularly organizes events on the occasion of September 17 "World Cleanliness Day" as part of the environmental action. The active participation of B. Kalandarov, the deputy chairman of the Central Council of the Ecological Party of Uzbekistan, Khorezm region, professors-teachers of the department, tutors of the faculty, and young students in these events pleases everyone.





