

THE IMPACT OF CHEMICAL WASTE ON POLLUTION OF FRESH WATER AND ITS INHABITANTS

Dilfuza Rahimova Khasanbayevna

Lecturer at the Department of Zoology and General Biology of Ferghana
State University

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Abstract. *This article discusses the intensive use of natural resources, the use of environmentally hazardous biotechnologies for products in which it is impossible to use the production of substances that are not part of the natural cycle, the use of environmentally hazardous biotechnologies. Impact of chemicals on the environment and measures to reduce the impact of chemicals on the environment.*

Keywords: *an integral material being, specific aspects, anthropogenic hazards, energy sources, technogenic factors, intensive use of natural resources, territorial and local currents, a process that destroys a component, production standards.*

Human and his environment in the process of life constantly interact with each other. It should be borne in mind that the division of the environment into industrial, domestic and natural spheres is very conditional. One and the same factor, depending on specific conditions, can be domestic, natural or industrial. The result of human interaction with the environment can vary over a very wide range: from positive to catastrophic, accompanied by the death of people and the destruction of habitat components.

Today, we must face the question of measures to reduce the impact of chemicals on the environment. Nature is a source that satisfies the material and spiritual needs of people. Nature is an integral material being. Nature and society form two parts of a holistic being, closely related to each other. In addition to the general features of man and the environment, there are specific aspects.

Everything necessary for human life - food, clothing, building materials, etc. - is obtained from nature.

Uzbekistan also entered the new millennium among many developed countries with a number of socio-economic, demographic and environmental problems on a global scale.

All living and non-living things can be a source of danger, and all living and non-living things can also be endangered. Hazards do not have a selective property; when they occur, they negatively affect the entire material environment surrounding them.

Ecological tension, along with a qualitatively new character, is taking on catastrophic proportions. Under such conditions, the relationship between the organism and the external environment becomes more complicated and aggravated.

Unfortunately, the negative impact on humans and the environment is not limited to natural hazards. A person, solving the problems of his material support, continuously affects the environment with his activities and products of activity (technical means, industrial and household waste, etc.), generating anthropogenic hazards in the environment. The more active the transformative activity of a person, the higher the level and number of anthropogenic hazards affecting both the environment and the person himself. Despite the fact that negative factors

affecting a person are present in all spheres of his life, the main one, in terms of the presence of dangerous and harmful factors, is the sphere of production. [1]

Tens of thousands of chemicals used in various products and industrial processes are an integral part of modern life. Many of the products that have made our lives more comfortable, including household appliances, detergents, pharmaceuticals, and personal computers, contain chemicals to varying degrees. Chemicals are also an important component of industrial production and are used in various industries, agriculture, industry and manufacturing.

In addition to the economic, trade and employment benefits of chemicals, the rapid expansion of their use and accumulation in nature also affects human health and wildlife if their use is not effectively regulated. Potential adverse effects in humans include acute poisoning and even long-term effects such as cancer, neurological disorders, and birth defects. Harmful chemicals can pose a threat to the environment and cause waterlogging, depletion of the ozone layer, posing a threat to vulnerable ecosystems and biodiversity.

It is increasingly recognized that the sound management of chemicals throughout their life cycle and the proper sorting, treatment and disposal of hazardous wastes are critical to protecting vulnerable ecosystems, biodiversity, and livelihoods and public health. [1,3, 4]

Our goal was to study the impact of chemical waste on the pollution of fresh water and its inhabitants in the territory of industrial zones.

The ingress of various pollutants into the waters of rivers, lakes, groundwater. Occurs when contaminants are introduced directly or indirectly into the water in the absence of good measures to clean up and remove harmful substances.

In most cases, freshwater pollution remains invisible because the contaminants are dissolved in the water. But there are exceptions: foaming detergents, as well as oil products floating on the surface and untreated sewage. There are several natural pollutants. Aluminum compounds found in the ground enter the fresh water system as a result of chemical reactions. Floods wash out magnesium compounds from the soil of meadows, which cause great damage to fish stocks.

However, the amount of natural pollutants is negligible compared to the amount produced by man. Thousands of chemicals with unpredictable effects enter watersheds every year, many of which are new chemical compounds. Elevated concentrations of toxic heavy metals (such as cadmium, mercury, lead, chromium), pesticides, nitrates and phosphates, petroleum products, surfactants, drugs and hormones can be found in water, which can also enter drinking water. Acid rain also makes a certain contribution to the increase in the concentration of heavy metals in water. They are able to dissolve minerals in the soil, which leads to an increase in the content of heavy metal ions in the water.

The discharge of untreated wastewater into water sources leads to microbiological contamination of water. According to the World Health Organization (WHO), 80% of diseases in the world are caused by inappropriate quality and unsanitary conditions of water. [1,2,5,11]

Fish poisoning and contamination with various chemicals occupy a large proportion among the reasons for the rejection of live fish and fish products. Chemical substances, in addition to accumulation, give fish meat a specific smell and taste even at low sub toxic concentrations. With severe pollution of water bodies with organic substances as a result of their accumulation, inflow of wastewater from municipal or uncontrolled use of intensification measures in fish farming with the introduction of organic fertilizers, the oxidizability of water increases sharply. As a result, the concentration of oxygen in the water decreases and favorable conditions are created for the

occurrence of infectious diseases (aeromonosis and pseudomonosis, branchiomycosis, etc.) [1,6,11]

Today, when assessing water quality for fish, the criterion is the presence or absence of toxic substances in it. Meanwhile, the normal life of fish, their behavior and reproduction are determined by the environmental factors of the aquatic environment of abiotic and biotic nature. This is primarily the temperature of the water, the content of oxygen and carbon dioxide in it, the pH value, the ionic composition of the water. These ecological factors of the aquatic environment, important for fish, undergo drastic changes both under the influence of natural causes of daily and seasonal fluctuations, and under multifactorial anthropogenic impacts on water bodies, including under the influence of chemical, thermal, acidic and biogenic pollution. [1,7, 8]

The impact of harmful factors can be completely eliminated by a person by improving the sources of hazards and the use of protective equipment, the impact of natural hazards can be limited by prevention and protection measures.

The existence of hazards and their high significance in the modern world are due to the insufficient attention of a person to the problem of technogenic safety, the propensity to take risks and the neglect of danger. This is largely due to the limited knowledge of a person about the world of dangers and the negative consequences of their manifestation. In principle, the impact of harmful man-made factors can be completely eliminated by a person, but the development of the chemical industry, the widespread use of chemicals, industrial waste, and an increase in the production of chemical products lead to a high level of environmental poisoning. However, the development of society, the solution of the problem of human needs cannot be imagined without the science of chemistry, and it is also impossible to abandon the use of chemical compounds in economic activity. Therefore, we will need to focus all our attention on their rational use, taking into account the norms of their production. [9,10,11]

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