

THE THREAT OF WATER POLLUTION: NEW CHALLENGES

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Environmental pollution is a threat to human life and health that cannot be controlled. One of the problems that is particularly important for the study is water pollution, including chemical pollution. For example, the discharge of waste into wastewater by factories, oil spills during the transportation of petroleum products, and the removal and formation of garbage islands in the oceans bring humanity closer

to an environmental catastrophe: the disappearance of endangered species, the impossibility of life for the flora and fauna of the oceans and seas, and the reduction of drinking water.

In Ukraine, due to the destruction of infrastructure, dumping of hazardous substances, ammunition explosions, constant shelling, and sea bombardment, the problem of water pollution is becoming particularly urgent. Thus, it is important to understand the new threats posed by water contamination and join the global community in the struggle against them. Taking everything into consideration, this article is aimed at studying modern challenges connected with water pollution around the world.

One of the recent studies of water pollution levels discovered a rising problem of cocaine contamination in water. Studying 13 longnose sharks, scientists detected the presence of narcotic substances in their liver and muscles. Though the discharge of such substances into water is a regular and not a new phenomenon, the concentration of cocaine and its breakdown product, benzoylecgonine, this time was 100 times higher than those previously found in the bodies of other marine life (De Farias Araujo et al., 2024).

Scientists have also discovered traces of cocaine and other illegal drugs in waters near big cities such as Amsterdam, Paris, London, etc. For example, the worst situation is in the Swiss town of Antwerp Zuid and the Spanish city of Tarragona, where 1598.74 and 1640.28 mg of cocaine per 1000 people were found in wastewater, respectively, while in Seoul, South Korea, no cocaine was found at all (Hunter, 2024).

It is important to note that this list does not include any Ukrainian cities, as research is impossible in times of war, but cocaine pollutes water around the world through wastewater leaks (Hunter, 2024), so the detection of drugs in Ukrainian rivers is a matter of time. And the discovery of cocaine and its decay products in the bodies of marine life underscores the need for a detailed study of this phenomenon and the search for effective solutions.

The interconnectedness of water systems in different parts of the world is

undeniable, as water migrates through rivers and groundwater, flows into seas and oceans, and is carried around the globe by various currents. Evaporation, condensation, and precipitation also contribute to the exchange of water in water systems. Thus, pollution localized in one place is transferred to other systems, threatening life and biodiversity globally, as well as the availability of clean food, drinking water and, consequently, human health. Hazardous emissions and waste discharges into rivers in one region can have far-reaching consequences for ecosystems in other parts of the world, eventually leading to a global environmental disaster.

Thus, the issue of protecting natural water resources is a top priority at the global level, requiring international cooperation and immediate coordinated action. Solving the problems of water pollution and preventing ecocides requires the response of international organizations and country leaders, including preserving and protecting Ukraine's natural resources, which have suffered amid the war with Russia.

References:

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