

**Київський національний університет  
імені Тараса Шевченка**

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## THE ROLE OF INTERNATIONAL ORGANIZATIONS IN SUPPORTING THE ENVIRONMENTAL SAFETY OF SOCIETY

*Левченко І.В., Кушніренко Є.*

Національний університет "Полтавська політехніка імені Юрія Кондратюка"

Irma1994@ukr.net

yelyzaveta.ku@gmail.com

**Introduction.** International organizations play an important role in maintaining the environmental safety of society through various initiatives, programs and regulations aimed at protecting the environment and ensuring sustainable development. One of the most well-known is UNEP. Ukraine is a member of the UN and cooperates with various UN bodies, including the UN Environment Program (UNEP). UNEP actively assists Ukraine in developing and implementing strategies to protect nature and combat climate change.

**Materials and methods.** Now, during the full-scale war on the territory of Ukraine, UNEP continues to investigate the environmental situation in our country [1]. The war has affected at least twenty percent of the territory of all nature reserves in Ukraine - 812 sites are under threat. A recent report published by the organization says that scientists from Ukraine, Bulgaria and Turkey believe that about three thousand dolphins have been killed as a result of military action in the Black Sea.

**Results.** Numerous industrial facilities, warehouses and factories have been damaged, some of which stored a range of hazardous substances from solvents to ammonia and plastics. Targeted attacks on fuel storage facilities, part of the energy infrastructure, have further polluted the environment.

An emergency environmental assessment of the Kakhovka dam breach, conducted at the request of the Ukrainian government, found that the effects would be felt for decades and extend far beyond Ukraine's borders. The study, conducted by experts from 13 scientific institutions in Kiev and abroad, used official information, satellite images and remote sensing data. At the same time, difficulties in accessing the research site, which is located in the war zone, were noted [2].

The breach of the Kakhovka Dam, which occurred as a result of the war between Russia and Ukraine, led to a huge environmental disaster. Hundreds of square kilometers were flooded, while thousands of square kilometers of reservoirs and wetlands dried up. This is the most serious cause of environmental damage caused by Russia.

However, the dam breach is not the only environmental consequence of the war. It has also caused many other emergencies and incidents that are damaging to the environment. Pollution, garbage generation and the destruction of protected areas are just a few of the problems that have been exacerbated by the war.

The conflict has also worsened the situation with environmental monitoring and management, resulting in the loss of equipment and services. Even performing routine duties in this area has become extremely difficult. In addition, the war has increased the risk of gender-based violence and created new challenges for women and men.

All these factors together create extremely difficult conditions for environmental management and monitoring, and threaten environmental stability in the region.

The dam that was destroyed is located on the front line where the fighting is ongoing, making access and assessment of the situation extremely difficult. The movement of mines has rendered large areas downstream of the dam inaccessible, making it difficult to conduct assessments, research, mitigation and rehabilitation activities. The situation upstream of the dam stands out as even more serious, as ecosystems and species have been destroyed and species adaptation is almost impossible. In this area, as an alternative, river and steppe ecosystems will take the place of the reservoir, creating new habitats and ecosystems. It should be noted that the dam breach has an international impact, going far beyond the affected areas and significantly affecting the coherence and ecological connectivity of the Pan-European Ecological Network.(PEEN)/

The drying up of the Kakhovka Reservoir has led to a rapid transformation of its mature aquatic ecosystem into a riverine ecosystem type at the initial stage of development. Many damages to the reservoir and protected areas are considered irreversible, including the Velykyi Luh National Nature Park. The groundwater level in the region is already falling, leading to soil subsidence. The reservoir has dried up, and the level of wind erosion depends on the type of sediment and the level of protection of new vegetation or rewetting. Many seeds from the surrounding areas have probably been transported to the open areas, but it is not yet clear what vegetation can grow here. Water for irrigation, drinking water and water supply for industry, including the ZNPP, is a serious issue.

The flood on the Dnipro lasted for 14 days, during which a large amount of water passed through the flooded section of the river. This is a third or half of the annual water volume of the lower reaches of the river. The flood resulted in the loss of natural habitats, plant communities and species due to the washing away of samples, flooding of residential areas and pollution. Approximately 12,000 hectares of forest were affected by the flood. Although the dam breach did not result in significant accumulation of contaminants in the lower reaches of the river and its delta, deposits on the banks may impede transportation or use of the coast. A study of the accumulation of contaminants is needed, as the silt may contain residues of heavy metals, pesticides, fertilizers and other pollutants that have accumulated in the reservoir over several decades. In addition, sediments can cover displaced mines, making them difficult to detect.

After an event caused by the release of hazardous chemicals, it was found that there were many sites that could be considered hotspots of pollution. In addition, nutrient discharges from sewage facilities were found to lead to a localized risk of waterborne diseases. However, in general, there is nothing wrong with the surface waters of the Dnipro River in the lower reaches - the water is of acceptable quality. However, due to the lack of necessary information and analysis from different locations and by different parameters, it is currently impossible to conduct a comprehensive analysis. In total, the disaster generated at least two million cubic meters of waste, most of which was generated on the southern bank of the river.

Large river flows have temporarily brought fresh water to certain parts of the Black Sea, but this will have little impact on the sea, which already receives fresh water from other sources. However, it may have implications for the ecology of the Dnipro Delta, where species are accustomed to more saline conditions. Sedimentation could change the morphology of the coast for several months or years and affect transportation and economic use of the region. The future prospects of the region depend on the development of the military conflict. Reconstruction of the dam could stabilize the water level and prevent the colonization of the lake, but it is not known when this could happen. An alternative solution is to create an artificial reservoir that mimics the river environment. Evaluation of green solutions and nature-based solutions is important. The impact of a breakthrough on the Dnipro river regime is limited, as flood peaks are usually buffered by reservoirs upstream of the Dnipro dam, not by the Kakhovka reservoir.

Make the reconstruction of the Kakhovka dam a priority for the Ukrainian government. An important aspect of this reconstruction is the evaluation of green solutions and the use of nature-based solutions. It is important to note that the dam breach will not cause a significant increase in flood risk, as flood peaks are usually compensated by reservoirs upstream of the Dnipro dam, not the Kakhovka reservoir. The environmental consequences of the Kakhovka dam breach are not yet fully known, but the extent of the damage suggests significant impacts on ecosystems and biodiversity, especially on aquifer ecosystems and habitats. It is difficult to determine which damage is irreversible and which can be salvaged through future restoration efforts. The full impacts of this situation will only become clear in decades to come [3].

Several more assessments and significant funding will be required to address the full range of environmental impacts across all portions of the affected area. UNEP continues to investigate and seek solutions to the environmental challenges resulting from the military conflict.

The most important thing today, according to the UNEP representative, was to stop the conflict, as its environmental impact was only growing every day.

**Conclusions.** Answering the question of how to limit the impact on nature today, when the armed conflict is still ongoing, it is extremely difficult to do anything under these conditions. Where there are leaks of fuel or other toxic materials, the authorities can theoretically try to put barriers in the way of these flows, like sandbags, for example. However, this is virtually impossible in an active warfare environment. The priority in such cases is the protection of life and property. At the same time, it is necessary to raise awareness among the population about the environmental damage caused, as well as to warn people about the dangers it may pose to them. People should be able to avoid places with contaminated water or unsafe food sources.

Today, as war continues on Ukrainian soil, it is difficult to look to the post-war future. Nevertheless, the UNEP representative believes that the end of the war will not only bring welcome peace, but also open new opportunities for green, environmentally friendly reconstruction.

"Ukraine will be able to get rid of toxic materials and build a sustainable economy that protects nature, water sources and air from pollution," emphasized the UNEP [1] lead

scientist. In our opinion, many interesting innovative projects will appear during the reconstruction of Ukraine after the war. And this is a very positive perspective. UNEP will continue to support Ukraine on this path.

**Література:**

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