THE DISASTER AT KAKHOVKA HEPP AS ONE OF THE RESULTS OF RUSSIA'S ARMED AGGRESSION AGAINST UKRAINE *Mariia Hupalenko*

Educational and Research Institute of Nuclear and Heat Power Engineering, National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute"

Ukraine is considered the least water-provided country in Europe - only 4% of the country's total area is occupied by reservoirs. Accordingly, the level of water resources in Ukraine is not sufficient (Hohol, 2020, p.1).

Toxic and biogenic substances cause great damage to water resources. For example, nitrate pollution is characteristic of agricultural territories (Nepran, 2021, p.49). But toxic substances are not the only problem.

Water resources suffer from anthropogenic factors, for example, increased use of water resources, disorderly uncontrolled economic activity, siltation and pollution of water bodies. As a result, excessive flowering of water and its shallowing (Hohol, 2020, p.1).

On February 24, 2022, Russia launched a full-scale invasion of the territory of Ukraine. But it would not be russia if it called a spade a spade, which is why it calls the war of aggression against Ukraine a «special military operation», tries to deny its attack in 2014 and part of the war that lasted 8 years, and justifies the full occupation of Crimea with pseudo-historical factors.

On June 6, 2023, the Russian occupiers committed a crime again – they blew up the dam of the Kakhovka HEPP, despite the fact that the dam is a civilian facility (Romanenko, Nepomniachy, 2023 p.9). Russia again officially denies its crime.

About 700,000 Ukrainians were left without drinking water. The enemy did not

stop shelling even during evacuation and rescue measures. (Romanenko, Nepomniachy, 2023, p.11).

As a result of the world-scale disaster caused by the Russian Federation, the ecosystems below the Dnipro, the Black Sea estuary and the Dnipro estuary were disturbed.

Accordingly, this creates unfavorable conditions for the habitat of not only hydrobionts, the death of terrestrial animals is possible if the land is flooded. It is possible to exterminate entire populations of rodents, as well as animals listed in the Red Book of Ukraine.

In addition to animals, the plant life was also affected - some plants will die due to dehydration, and others due to the inability to adapt to life under water.

The Kakhovka HEPP cannot be restored, so it will create enormous difficulties in water supply for agricultural needs. Also, now it is impossible to control floods and floods (Romanenko, Nepomniachy, 2023, p.11-13).

The lack of quality drinking water and the destruction of housing are not the only threats to humanity. The risks of contracting hepatitis, cholera or contracting an intestinal infection have increased significantly. Because underwater cemeteries, landfills, fields, etc. catalyze the reproduction process of these infections.

An outbreak of anthrax is also predicted, as a section of land was flooded, in which cattle were buried 50-70 years ago, which suffered from this disease ("VisitUKRAINE").

According to NBU estimates, crop losses (cereals and vegetables) and the impact on Ukraine's energy system are moderate (Romanenko, Nepomniachy, 2023, p.15-17). However, this disaster has led to the death of people, animals, ecosystems, can cause outbreaks of dangerous diseases and has made settlements uninhabitable. We should not forget about this ecocide, as well as about other crimes of the Russian occupiers. And we must make every effort to help those who need it and punish the guilty!

References:

- 1. Hohol, A. (2020). ENVIRONMENTAL PROBLEMS OF WATER RESOURCES IN THE TERRITORY OF UKRAINE. 1.
- Nepran, I. (2021). ENVIRONMENTAL PROBLEMS OF WATER SOURCES AND THE WAYS OF THEIR SOLUTION. I International Internet-conference "Modern problems of environmental control and audit". 50.
- Romanenko, Y. Nepomniachy, O. (2023). CONSEQUENCES OF THE DESTRUCTION OF THE KAHOVKA HEPP. MODERN ASPECTS OF VĚDY Svazek XXXV international collective monograph. 11-17.
- 4. Consequences of blowing up Kakhovska HPP: what diseases threaten Ukraine and the world. (2023, June 13). Retrieved from: <u>https://visitukraine.today/uk/blog/2042/posledstviya-podryva-kaxovskoi-ges-kakie-bolezni-ugrozayut-ukraine-i-miru</u>.