ECOLOGICAL PROBLEMS OF WATER RESOURCES IN UKRAINE Borys Pavliuchenko

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

To begin with, Ukraine cannot boast of large reserves of water resources; water covers only 4 percent of the country's territory. Ukraine's water resources are in first place rivers and lakes, but their water resources were not distributed evenly on the country's territory, so more than 1100 artificial ponds were built.

Water pollution is one of the major problems, according to the words of ex head of the State Agency of Water Resources of Ukraine, Mykhailo Horev "during 2019 in surface waters in Ukraine were dropped 48,5 thousand tons of harmful substances. Waters are heavily polluted by communal drains, which contain heavy metals, organic and bacterial pollutants. Also, waters are polluted by enterprises that discharge untreated or insufficiently treated wastewater into them, the number of such enterprises is 539. 18 percent of all sewages in Ukraine are polluted. "When biogenic substances, such as phosphorus and nitrogen, enter water, intensive reproduction of algae occurs, especially blue-green algae, which in the process of their biological development reduce the oxygen content in water, form toxic substances and cause the mass death of hydrofauna. Fresh water becomes unfit for drinking and dangerous for life. That is why Kyiv's city beaches are closed for visitors every year," says Tetvana Tymochko, head of the All-Ukrainian Environmental League. Weather conditions can be harmful to the waters. During hot weather, water can bloom massively, which in turn can lead to a decrease in the level of dissolved oxygen in the water, worsening smell, color and transparency, which indicates contamination. In addition to that, small ponds may dry up in hot weather. One of the problems is that surface runoff can pollute rivers and lakes with substances from erodible lands. Also, rains can degrade water quality by washing in dirt from the streets and enterprises.

For solving the problem, we need to build treatment plants on lakes and rivers and check the state of already existing ones. Set rules of water purification and adhere to them. It is important to enhance state supervision and control of emissions from plants and enterprises. Treatment plants should be set in cities and especially in plant's sewers.

References:

- 1. Save water: Ukrainian water bodies suffer from pollution. Retrived from https://www.unian.ua/ecology/naturalresources/1455473-zberegti-vodu-ukrajinski-vodoymi-poterpayut-vid-zabrudnennya.html
- 2. Utilities are the biggest water polluters in Ukraine. Retrived from https://www.ukrinform.ua/rubric-economy/2883961-v-ukraini-najbilse-zabrudnue-

vodu-komunalne-gospodarstvo.html