

According to ecologists **Lake Prespa**, located on the border among [North Macedonia](#), Greece, and Albania, is a precious aquatic habitat and biodiversity site. However, such biodiversity is now in great danger due to the long-term decline of the lake's water level. A large number of studies has shown several reasons for the **loss of water**. The problem started decades ago, but it has intensified recently.

One of the main problems is the connection of Lake Prespa with Lake Ohrid. The water from Lake Prespa flows into Lake Ohrid because the former is located at an altitude of 853 metres, while the latter at 695 metres, and since the two systems are connected underground water from one slowly flows into the other.

### **Less and less water**

One of the main reasons for the decrease of the water level of [Lake Prespa](#) is the need to irrigate agricultural crops, which amounts to 35 million cubic metres of water a year, and the water well systems located in the three states that have directly used the water since the 1950s.

Research by the Institute of Biology at the Faculty of Science and Mathematics in Skopje notes the (un)controlled use of artificial fertilisers and especially pesticides around the lake. Additional pollution is caused by solid waste thrown in the waters, since there is a large number of unregulated dumps on the shores of the lake, and large amounts of garbage are also thrown into the rivers that eventually flow into the lake. In addition, climatic changes like the lack of rain and snow contribute to the reduction of the water level.

All those reasons have led to catastrophic changes in the chemical and physical balance of the water in the lake and to a decrease in the amount of oxygen, or even its absence in the deeper layers of the water. This threatens the survival of the animal and vegetable species living in the lake, home to numerous endemic species.

"Due to water receding, Lake Prespa now has a depth of only 15 metres, and the deepest layers lack oxygen due to eutrophication during the summer. Oxygen is a condition for life, and its reduction would lead to the extinction of life in Lake Prespa", the experts from the Hydrobiological Institute warned.

In the past, tens of thousands of years ago and about 1,000 years ago, the level of the lake was also low, but at that time there was no such intense human pressure. The current loss of water has far-reaching consequences because it occurs in a short period of time (from a geological point of view) and is accompanied by pollution.

### **A biodiversity treasure**

The number and diversity of species is the main feature of the biological diversity of the Prespa lake and wider region. In the past, it was 28.6 kilometres long, 16 kilometres wide,

and up to 76 metres deep.

The lake is home to about 2000 species of animals and plants (including 50 endemic animals and 19 endemic plants), over 200 species of birds, and 23 species of fish including 9 endemic ones (5 are unique to the Balkan Peninsula and 4 are unique to the lake itself).

Lake Prespa is composed of two interconnected lakes, Big and Small Prespa Lakes at the tri-border between North Macedonia (home to most of the Big Prespa Lake), Greece, and Albania. Lake Prespa is part of the territory of the Municipality of Resen. North Macedonia's share is about 761.6 km<sup>2</sup> (56.42%), Greece's 321.6 km<sup>2</sup> (23.82%), and Albania's 266.8 km<sup>2</sup> (19.76%).

Due to its specific hydrological, hydrobiological and geomorphological characteristics, natural landscapes, uniqueness, natural beauty of the area, and other assets, the lake was declared a protected area in North Macedonia in 2011.

### **Efforts to save the lake are growing**

Attempts to save the lake have been going on for decades. As reported by the local media, as early as 2000, a joint declaration was signed between Macedonia, Greece, and Albania which established a cross-border Lake Prespa Coordinating Body in order to coordinate the protection projects.

Help has also come from various international organisations such as UNDP through the Global Environment Facility. Projects are being implemented to introduce systems to control the use of artificial waste and pesticides in the production of apples. Apple farmers were also trained to use new water-saving techniques. As a result, a 60% reduction in the amount of water used for irrigation can be observed.

In addition, a project was introduced for the use of **biodegradable waste**, that is, the use of apples as compost (biological waste from gardening, household) for use in agriculture as a substitute for artificial fertiliser. During the implementation of the Declaration for the protection of Prespa Lake, a large part of the projects was aimed at cleaning the basin of Golema Reka as the largest river that flows into the lake itself from the deposited waste.

In 2020 an action plan was made and a Governing Body of Prespa Park and transboundary water management was formed in order for a group of experts from the three countries to cross-check the data and work together to save the lake. The groups have not met yet.

In December 2022, **EU Ambassador David Geer** announced that the financial assistance for Prespa will be increased, including for wastewater treatment plants and solid waste management, as well as other activities that the EU will undertake for the promotion of tourism and the protection of the environment, as well as help for various businesses active in this region, such as apple farmers. The lake's spanning over three countries creates a

chance for cross-border cooperation with the support of funds from the [European Union](#) – an element of hope for saving this water resource.

Source: balcanie caucaso