

MANAGEMENT OF MICRO PRESPA'S LAKE – ENVIRONMENTAL IMPACTS AND PERSPECTIVES

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Prespa Region is located in the intersection of the borders of Albania, Greece and FYROM. Micro Prespa and Macro Prespa are the main important water bodies of the area. Both lakes are located at an altitude of approximately 850 m above the sea level. The current joint surface area of Macro and Micro Prespa Lakes is approximately 313 km².

Prespa lakes have a very specific aquatic flora and fauna with a high endemic rate. There are 50 animal species and 19 plant species that are endemic to the Prespa watershed. There are 266 species of birds that inhabit the Prespa basin, some of them with great interest e.g. *Pelecanus crispus*. The Prespa basin is very rich in insects (especially butterflies), in birds, invertebrates etc. A major contribution to the biodiversity is given by the lakes.

Micro Prespa Lake is shallow, with a maximum water depth of approx. 8 meters. Its total lake surface is 47.4 km² with a total catchment basin surface of 189 km² is shared between Greece and Albania.

Albania shares the southwestern part of Micro Prespa Lake, consisting of only 8.5% of the lake overall surface and 27% of its catchment basin surface. This part of the lake is about 5 km long and several decameters wide (in its southwestern part) up to 3.7 km.

The livelihood of the villages around the lake is strongly connected and depended on the wellbeing of the lake: they count on the lake as a source of their drinking water, cleaning water, fishing, irrigation, as well as for husbandry feeding and rest. The geologic construction of the territories around the lake, composed of steep limestone rocks has resulted in soil and landscape degradation. Under these geological conditions and the particular climate, the lake has become of outmost importance. Therefore there is a strong and increasing interest on the side of the communities for the sustainable management of the lakes and the related resources.

In the last decades the Albanian part of Micro Prespa Lake has been transformed into a wetland. It represents an essential part of the ecosystem of Micro Prespa Lake. Its surface varies during the year: it is larger during the wet season and smaller during the dry one. The water level reduces because of the higher evaporation and its use for irrigation.

Wetland is mainly used for fishing and hunting of water birds. Peasants of the villages nearby place their fishing boats and build up fishing or hunting facilities in the wetlands. In summer time, when water withdraws fully, a part of the wetland's surface is used for cultivating vegetables and forages or is conserved and used for pastures (mainly for livestock).

The use of wetlands for economic purposes has brought about considerable environmental impacts. Fishing, which increased rapidly after the '90ies and particularly after 1997, has damaged the wetland fauna. The agriculture use of wetlands, intensive agriculture in particular of vegetables and forages, requiring higher quantities of irrigation water, fertilizers and other chemical substances, have abused water, have contaminated it, and have endangered the life of several species. Forests have been abused as well. Unfortunately, monitoring of economic activities and of their ecological impacts to the wetlands, so

far has been very weak. Little evidence exists on the economic value of the wetland, on benefits and loss due to the current use and attitude towards the ecosystem at Micro Prespa Lake.

Minimization up to the full ceasing of those economic activities that damage and pollute wetlands, strict enforcement of legislation, monitoring of development and their ecological impacts, as well as raising the awareness of the local community on the economic and ecological value of wetlands resources, would be crucial steps towards the sustainable management of Micro Prespa Lake and the related ecosystem.

During the last decade, actions have been taken, at least at the policy level, aiming to improve the situation with such important eco-regions such as the complex of the Prespa Lakes.

Considering the particular environmental and ecological values of the area, the special cultural and ethnographic and historic values, by Decision of Council of Ministers no. 80, date 18.02.1999 Prespa region, including a surface of 27,750 ha, was given the status of National Park.

On 2 February 2000 the Prime Ministers of Albania, Greece and FYROM signed the "Declaration on the creation of the Prespa Park and the Environmental Protection and Sustainable Development of the Prespa Lakes and their surroundings".

Later on, in 2002, a Memorandum of Understanding and Cooperation in the field of environmental protection was signed between the Ministry for the Environment, Physical Planning and Public Works of the Hellenic Republic and the Ministry of Environment of the Republic of Albania. Between other things, the focus of the MoU is to especially cooperate in the environmental protection and sustainable development of the Prespa Lakes and their surroundings.

A number of laws and by-laws have been adopted in the mean time, between which the Law no.8906, date 6.6.2002 "On the protected areas" and the Law No. 9103, dt. 10.7.2003, "On the protection of transboundary lakes" are of particular importance.

Law no.8906, date 6.6.2002 "On the protected areas" describes the National Park as "Wide territories no less than 1000 hectares, having unique national and international values, a major part of which are natural ecosystems, little affected by human activity, where plants, animals and natural physical environment are of a special educational and scientific importance".

Within the national park the second level of protection is applied, where the following activities are prohibited: intensive land use causing fundamental or irreversible changes to biodiversity, ecosystems and land cover; disposal of outside wastes in the territory of the national park; dissemination of non local animals and plants that can modify the local biodiversity; construction of roads, motor-ways, railways, urban areas, lines of high voltage, etc; washing and sprinkling of roads with chemicals; circulation of transport means out of the approved roads; mining of minerals, stones, peat; mass sports and tourism activity outside the approved places.

The law no. 9103, date 10.7.2003, "On the protection of transboundary lakes" aims at the environmental protection of the transboundary lakes in their natural state, guaranteeing the appropriate conditions for the development of life and ecosystems in these lakes, through the promotion of useful activities in compliance with the requirements of the sustainable development principle and stopping of activities that threaten them. It is implemented in the transboundary waters and their respective watersheds of the Albanian part of Shkodra Lake; of Ohrid Lake; and of Prespa Lakes.

The law obliges all physical and legal persons, public or private, Albanian or foreigners, who use water, natural and biological assets of the lake and its watershed or exercise various activities in them; physical and legal persons, public or private, Albanian or foreigners, whose activities are undertaken in the watershed and who can cause damages to the lakes through their activities, to protect the transboundary lakes and implement the provisions of this law.

The law calls for the development and implementation of management plans, including all water based activities, such as: fishery, forestry, agriculture, tourism, communication and industry; local plans for rehabilitation; special monitoring programs etc.

In the Albanian part, the water of the transboundary lakes is public real estate. The private real estate, such as the agricultural land, unused land, urban territories, meadows, pastures, forests and forest lands, included in the lake's water basin, remain private even after its declaration as protected area. Their owners enjoy all the rights given them by the Constitutions and other relevant laws.

The following actions are prohibited in the transboundary lakes and in their watersheds: dumping, disposal or processing of any kind of waste; discharges of any kind of untreated waste water; cement constructions on shore, excavation of sand, gravel and any other material from the shores or shallow waters; landscape affecting activities; lake water use without permitting; uncontrolled cutting of trees and forests; inappropriate utilization and burning of pastures; illegal fishing, hunting, collection of medicinal, taniferous and ether-oil plants, of snails, frogs, tortoises, and reptiles; introduction of non local fish, animal, bird or plant species.

The law also calls for an inventory of species and their habitats in the transboundary waters and watershed so that they are protected from any danger or extinction. Based on the inventory, actions plans for the biodiversity and habitat protection are to be drafted and implemented.

Both the above cited laws call for the establishment of the park administration or the lake administration, as well. So far, a number of several rangers only have been appointed as part of this administration. Soon it will be further strengthened with other employees. In the meantime, measures such as the ongoing GEF/UNDP on the integrated ecosystem management in the Prespa Lakes Basin of Albania, FYROM and Greece, the coming KfW project meant to draft the Prespa Management Plans, and inventory of species are steps made towards improving implementation into practice of the above mentioned laws, which has been very week so far.

Nevertheless, it has to be mentioned that the comprehensive rules set by those and other relevant acts on the protected areas and/or transboundary lakes, can only be sustainably managed through sustainable financing from the state budgets (national or local ones). These budgets can be extended further through the establishment of local ecofunds created through the collection of the tariffs paid to the administration by businesses permitted to exert their activity in the territory of the park, as well as the lake tariff, paid by them to the water authority for the right issued them to exert activity near a transboundary lake. Such a promising instrument has not been practiced yet, although the tariffs have been approved in principle by the respective laws.