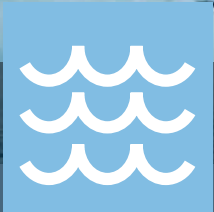




# WATER



Basin-wide management for wise use of water

THREE COUNTRIES, TWO LAKES, ONE FUTURE

ΤΡΕΙΣ ΧΩΡΕΣ, ΔΥΟ ΛΙΜΝΕΣ, ΕΝΑ ΜΕΛΛΟΝ

ТРИ ДРЖАВИ, ДВЕ ЕЗЕРА, ЕДНА ИДНИНА

TRE VENDE, DY LIQENE, NJË E ARDHME



[www.prespapark.org](http://www.prespapark.org)

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**Compiled by:** Krafting Group, Skopje

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Our **VISION** is Prespa lakes basin managed jointly by the three countries, for the preservation of natural and cultural heritage and the wellbeing of its peoples.

Our **MISSION** is to offer ways to restore and keep this balance.

**Prespa Park Coordination Committee**





The area of land that catches precipitation and drains it to a water body (river, lake) is called a basin. It can range in size from a few hectares to thousands of square kilometers. In a watershed the human activities on land and what happens to water and subsequently to the organisms that use water are interconnected. Thus, a basin-wide approach is the key to successful water management.



The Golema Reka river delta  
*Photo by Dimitrija Sekovski / UNDP*

### Basin-wide Management for Wise Use of Water

Water is essential to life and is arguably our most precious resource. Without appropriate water management we run the risk of overexploitation and contamination of this most essential commodity. Water moves through the global hydrologic cycle. Water from the cloud precipitates and falls to earth and

drains from the land transporting dissolved and solid materials from the land to the surface water and/or to ground water. This drainage water and these materials modify the physical, chemical and subsequent biological waterscapes of streams and lakes.

According to the Integrated Water Resources Management (IWRM) strategy stemming from the 1992 Dublin Principles, river basins - also referred to as catchments or watersheds - are usually the most appropriate physical entity on which to plan the management of water. According to these principles affirmed at the highest political level, water is an integral part of ecosystems, and it is a social and economic good whose quantity and quality should determine the nature of its utilization.

Pontoon bridge leading to the Aghios Achillios islet, where high profile *Prespeia* festival is held on the last weekend of August

*Photo by Sonja Seizova*



View over Micro Prespa

*Photo by Nehru Suleyman*



Golem Grad

*Photo by Aleksandar Ivanovski / UNDP*





Getting to know the Prespa basin

The total Prespa area, combining the drainage basins and the lakes, is 2,519.1km2. Micro Prespa (total surface app. 47.4 km2) belongs to Greece (43.5 km2), while a smaller part (approx. 4 km2) belongs to Albania. Macro Prespa (total surface

app. 259.4 km2) is divided between the three states, with the largest part belonging to FYR Macedonia. The lakes Micro and Macro Prespa are situated at approximately 850 metres above sea level amidst mountains rising to over 2,000 m.a.s.l. The highest peak in the region is

located on the Pelister Mountain (2,601m). There are four islands in the lakes, Aghios Achillios and Vidronissi, at the Greek part of Micro Prespa, and Mali Grad and Golem Grad in Macro Prespa in Albania and the FYR of Macedonia respectively.

Features	Lake Micro Prespa	Lake Macro Prespa
Surface in Greece	~ 43.5 km2	~ 37.6 km2
Surface in Albania	~ 3.9 km2	~ 45.5 km2
Surface in FYR Macedonia	0	~ 176.3 km2
Total lake surface	~ 47.4 km2	~ 259.4 km2
Maximum depth	8.4 m	55 m
Mean depth	4.1 m	18 m
Maximum length	13.6 km	28 km
Maximum width	6.1 km	17 km
Catchment basin in Greece	138 km2	71.6 km2
Catchment basin in Albania	51 km2	162 km2
Catchment basin in FYR Macedonia	0	1795.5 km2
Total catchment basin	189 km2	2029 km2
Mean altitude of the lakes	850.78	-



A village by the lake  
Photo by Nehru Suleyman

### What are the water uses

Every basin is of some use, or value, to human communities, including use for aesthetic enjoyment or preservation of natural condition.

There are also less obvious water uses, such as a variety of land-based activities, including forestry, tillage, planting, harvesting, drainage, and construction activities. All of these activities affect the water resources in the Prespa lakes basin.

Potable water supply (both surface and groundwater);
Farming (e.g. irrigation, livestock watering, livestock housing wash water);
Recreation and tourism (e.g. recreational fishing, swimming, aesthetic enjoyment, bird-watching, recreational boating);
Commercial and amateur fishery;
Industrial water supply (process water supply, coolant);
Fish and wildlife habitat (aquatic and riparian habitats, protection of rare and endangered species);
Water treatment functions (purification of wastewater, assimilation of storm-water).

Table 1: Major water uses in the Prespa lakes basin



## The two Prespa lakes meet

Photo by Sonja Seizova



One of the goals of the UN declared International Decade for Action, 'Water for Life' 2005-2015 is for all countries to stop the unsustainable exploitation of water resources and to develop integrated water resource management.

## Water Management

From the basin-wide perspective, the major water management issues in the Prespa lakes basin include: (1) the lack of basin-wide planning and management; (2) significant water level fluctuation of the lakes (including a significant drop of the Macro Prespa water level); (3) water quality deterioration (eutrophication); and (4) the lack of basin condition monitoring.

The Macro Prespa Lake has especially suffered from three sharp water level drops, which took place during the follow-

ing periods: 1975/1977 (1.2 m), 1987/1990 (3.7 m) and 2000/2002 (2.2 m). The causes of this phenomenon have not yet been fully investigated. However, it has been estimated that lost water volumes are by factors 2 to 6 higher than the estimated amount of water abstracted through human interventions. Parameters that could explain this loss are natural karstic underground outflows and the inflows that are in turn affected by the rainfall/snowfall pattern.



The two Prespa lakes meet  
Photo by Nehru Suleyman



Opening of the modern  
sluice gate between the two  
lakes, on May 14, 2005

*Photo by PPCC*

## Prespa

*Photo by Aleksandar Blazeski / UNDP*



The **water quality** of the Prespa lakes is obviously affected by human activities and negative impacts on biodiversity have been observed. Currently it is not possible to assess how much water quality and biodiversity have declined and which of the pollutants (communal waste water, industrial effluents, agriculture and sedimentation) are most harmful. Pollution, sedimentation and water abstraction jointly contribute to the degradation of aquatic habitats. The decreased water quality of the Macro Prespa Lake and the decline of beach quality are regarded as severe constraints for the development of tourism.



### Prespa Park for Wise Water Management

Following the integrated basin management approach principles, coordination of activities in all three countries is being promoted for the joint management of the Prespa waters. To this regard the establishment of a trilateral working group on water management is underway, with representation of the competent national and local authorities. The development of a joint management plan for the whole basin which will provide for sustainable use of available resources is the ultimate aim of this effort. Ecosystem and human needs of water will be an integral part of this process so that a balance can be struck to ensure sustainable development in the transboundary Pre-

spa Park. Complementary to this effort is the establishment of a basin-wide monitoring program for focusing on both biotic and abiotic parameters.

All these efforts are aligned with the requirements of the E.C. Water Framework Directive, aiming to “to contribute to the control of transboundary water problems, to protect aquatic ecosystems, and terrestrial ecosystems and wetlands directly depending on them”. These requirements include, among other:

- the requirement to characterise the drainage basin in terms of pressures, impacts and economic analysis;

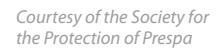
- the requirement to establish a monitoring network;
- the preparation of river basin management plans;
- the operationalisation of programmes of measures;

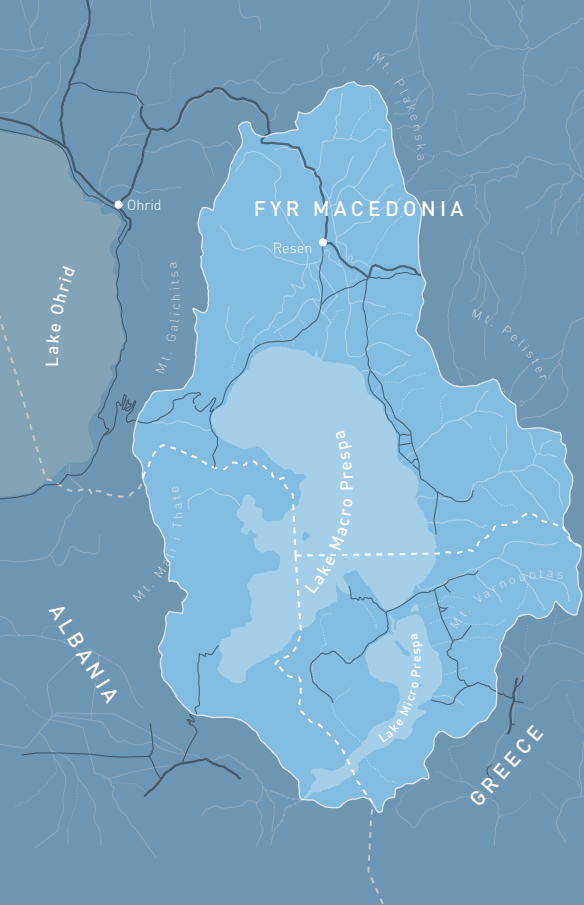
For river basins extending beyond the boundaries of the EU, the Directive calls Member States to produce a single basin management plan in cooperation with the relevant non-member States.

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Winter landscape on Prespa  
*Aleksandar Blazeski / UNDP*







#### Prespa Park boundaries

Adapted, courtesy of the Society for the Protection of Prespa

The Prespa Lakes basin (Southeast Europe) is a globally significant ecological and cultural landscape comprising four National Parks and several protected areas with unique habitats, flora and fauna.

In 2000 the Governments of Albania, FYR Macedonia and Greece agreed to work together to maintain the natural values of the area and introduce environmental management practices in the Prespa Park by integrating ecological, economic and social goals.

Two Wetlands of International Importance, designated under the Ramsar Convention on Wetlands, lie within the Transboundary Prespa Park boundaries. The area has been acknowledged as a Gift to the Earth by WWF-International, and European Union has included Prespa Lakes in its policies on water and species protection.

The Prespa Park Coordination Committee is a trilateral body representing governments, local authorities and civil society. It supports environmental protection and sustainable development in the Prespa Park for the preservation of natural and cultural heritage and the wellbeing of its peoples.

Since 2006 a GEF/UNDP Project supports Integrated Ecosystem Management in the transboundary Prespa Lakes Basin, to last until 2011.



#### Prespa Park Coordination Committee Secretariat

530 77 Aghios Germanos, Prespa, Greece

Phone: +30 23850 51211; Fax: +30 23850 51343

[www.prespapark.org](http://www.prespapark.org)

