



**Economic and Social  
Council**

Distr.  
GENERAL

ECE/MP.WAT/WG.2/2007/16  
20 June 2007

ENGLISH ONLY

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**ECONOMIC COMMISSION FOR EUROPE**

MEETING OF THE PARTIES TO THE CONVENTION ON  
THE PROTECTION AND USE OF TRANSBOUNDARY  
WATERCOURSES AND INTERNATIONAL LAKES

Working Group on Monitoring and Assessment

Eighth meeting

Helsinki, Finland, 25–27 June 2007

Item 4 of the provisional agenda

**ASSESSMENT OF THE STATUS OF TRANSBOUNDARY WATERS  
IN THE UNECE REGION<sup>1</sup>**

**ASSESSMENT OF THE STATUS OF TRANSBOUNDARY LAKES  
(Updates of the assessment of transboundary lakes<sup>2</sup>)**

Submitted by the Chairperson of the Working Group on  
Monitoring and Assessment<sup>3</sup>

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<sup>1</sup> At their fourth meeting (Bonn, Germany, 20–22 November 2006), the Parties to the Convention mandated its Working Group on Monitoring and Assessment with the assessment of transboundary rivers, lakes and groundwaters in the UNECE region. For details, please refer to documents ECE/MP.WAT/WG.2/2007/1 and ECE/MP.WAT/WG.2/2007/3.

<sup>2</sup> The current document provides updates and additional information to the preliminary assessment of the status of transboundary lakes in the UNECE region (ECE/MP.WAT/2006/16/Add.1).

\*The present document was submitted late due to resources constraints in the secretariat and late submission by some countries.

## I. UPDATES BY GREECE ON LAKE DOJRAN<sup>3</sup>

In paragraph 43, substitute the existing text as follows:

43. In recent years, the lake has been struggling for survival. Since 1988, because of the decrease in water level and volume, according to biologists over 140 species of flora and fauna have disappeared. The water level has dropped 1.5 metres below its permitted hydro-biological minimum. Lake Dojran has been affected by quantity decrease and quality reduction since the early 1990s due to activities in both countries, such as water abstraction and municipal wastewater disposal. The situation was aggravated by the low precipitation in the period 1989-1993 and high evaporation rates observed in the lake basin.

## II. UPDATES BY LITHUANIA ON LAKE DRISVYATY/DRUKSHIAI<sup>4</sup>

In paragraphs 60 to 63, substitute the existing text as follows:

60. The lake is deep and is characterized by a large surface area and thermal stratification of water masses, oxygen-saturated bottom layers of water, moderately elevated concentrations of phosphorus compounds, slightly eutrophic waters, and the presence of a complex of glacial relict species. Altogether, 95 species of aquatic and semi-aquatic plants are found in the lake. Blue-green algae dominate the phytoplankton community. The micro- and macrozooplankton are composed of 250 taxons. The communities of macrozoobenthos number 143 species. The most noteworthy is a complex of relict species of the Quaternary period, among them *Limnocalanus macrurus*, *Mysis relicta*, *Pallasea quadrispinosa* and *Pontoporeia affinis* (all entered into the *Red Data Book* of Belarus).

61. The ichthyofauna of the lake is rich and diverse. The 26 species of fish include some especially valuable glacial relicts such as *Coregonus albula typica*, the white fish *Coregonus lavaretus maraenoides*, and the lake smelt *Osmerus eperlanus relicta*. The raccoon dog, the American mink, beavers, weasels, ermine and polecats are common in the areas surrounding the lake, though otters are rare. Almost all mammals economically valuable for hunting purposes are found in the adjacent forests.

62. The discharge of industrial thermal waters from the Ignalina power plant and non-purified sewage from the Lithuanian town of Visaginas are a potential problem. Lithuania has detected heavy metals (Cu, Zn, Cr, Ni, Pb, Cd, Hg) in the bottom sediments in the western part of the lake. However, the concentrations were similar to the concentrations of these elements in the sediments of rivers nearby the lake.

63. Thermal pollution affects the lake negatively, resulting in eutrophication and subsequent degradation of the most valuable relict component of a zoo- and phytocenosis complex.

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<sup>3</sup> Lake Dojran is part of the Vardar River basin.

<sup>4</sup> The lake is part of the Daugava River Basin District.

### III. UPDATES BY ESTONIA ON LAKE PEIPSI/CHUDSKOE OZERO<sup>5</sup>

In paragraphs 69 to 71, substitute the existing text as follows:

69. Lake Peipsi/Chudskoe is the fourth largest and the biggest transboundary lake in Europe (3,555 km<sup>2</sup>, area of the lake basin 47,815 km<sup>2</sup>). It is situated on the border between Estonia and the Russian Federation. Lake Peipsi belongs to the watershed of the Narva River, which connects Lake Peipsi with the Gulf of Finland of the Baltic Sea. The lake consists of three unequal parts: the biggest is the northern Lake Peipsi *s.s. (sensu stricto)*; the second biggest is Lake Pihkva/Pskovskoe, south of Lake Peipsi; and the narrow, strait-like Lake Lämmijärv/Teploe connects Lake Peipsi proper and Lake Pskovskoe. Lake Peipsi is relatively shallow (mean depth 7.1 m, maximum depth 15.3 m).

70. There are about 240 rivers flowing into Lake Peipsi. The largest rivers are the Velikaya (sub-basin area 25,600 km<sup>2</sup>), the Emajõgi (9,745 km<sup>2</sup>), the Võhandu (1,423 km<sup>2</sup>), and the Zhelcha (1,220 km<sup>2</sup>). Altogether, they make up about 80% of the whole basin area of Lake Peipsi and account for 80% of the total inflow into the lake. The mean annual water discharge via the Narva River into the Gulf of Finland is 12.6 km<sup>3</sup> (approximately 50% of the average volume of Lake Peipsi).

71. The pollution load into Lake Peipsi originates mainly from two different sources:

- (a) Point pollution sources, such as big towns (Pskov in the Russian Federation and Tartu in Estonia); and
- (b) Agriculture and other diffuse sources (nutrient leakage from soils).

### IV. UPDATES BY LITHUANIA ON LAKE GALADUS/GALADUSYS<sup>6</sup>

In paragraph 84, substitute the existing text as follows:

84. The main problem for the lake is eutrophication due to agricultural activities. The status of the lake can be considered as “mesotrophic”. An oxygen-saturated bottom layer of water and an enhanced productivity level characterize the lake. According to Polish classification, it belongs to water-quality class II.

### V. UPDATES BY AUSTRIA ON LAKE NEUSIEDL<sup>7</sup>

For the text in paragraphs 85 to 87, substitute:

85. Lake Neusiedl (also known as Neusiedler See and Fertő-tó) is located in the east of Austria and shared with Hungary. It belongs to the Danube River Basin District.

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<sup>5</sup> The lake is part of the Narva River basin.

<sup>6</sup> The lake is part of the Neman River Basin District.

<sup>7</sup> Submitted by the Government of Austria. The lake belongs to the Danube River Basin District.

86. The lake has an average surface area of 315 km<sup>2</sup> (depending on water fluctuations), of which 240 km<sup>2</sup> are located in Austria and 75 km<sup>2</sup> in Hungary. A fluctuation in the water level of the lake of +/- 1.0 cm changes the lake surface by up to 3 km<sup>2</sup>. More than half of its total area consists of reed beds; in certain parts the reed belt is 3 to 5 km wide. In the past, the lake had no outflow and therefore extremely large fluctuations of its surface area were recorded. Later, the Hanság Main Canal was built as a lake outlet.

87 The Neusiedler See has an average natural depth of 1.1 m; its maximal water depth is 1.8 m. In its history, it has dried out completely several times.

87 i. Since 1965, the water level is stabilized by the outlet sluice based on the 1965 agreement of the Hungarian-Austrian Water Commission (water level in April-August: 115.80 m above sea level; October-February: 115.70 m above sea level, transition period (March and September): 115.75 m above sea level). The main surface water input is through precipitation on the lake surface, as well as the Wulka River, Rákos Creek and other smaller tributaries. Groundwater inflow is insignificant.

87 ii. Due to its low depth, the lake is quickly mixed by wind action, and is therefore naturally turbid. The lake water has “a high salt concentration”.

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