

# Ramsar Advisory Mission No. 56: Serbia and Montenegro (2005)

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## Mission Report

### **Skadarsko Jezero, Serbia and Montenegro**

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#### **Introduction**

1. The Ramsar Convention gives special attention to assisting Contracting Parties in the management and conservation of listed sites whose ecological character is changing or likely to change as a result of technological development, pollution or other human interference. This is carried out through the Ramsar Advisory Missions (RAM), a technical assistance mechanism formally adopted by Recommendation 4.7 of the 1990 Conference of the Parties (formerly known as the Monitoring Procedure and the Management Guidance Procedure). The main objective of this mechanism is to provide assistance to countries in solving the problems at particular Ramsar Sites related to the maintenance of their ecological character.

#### **Skadarsko Jezero Ramsar Site N°784**

2. Skadarsko Jezero (lake Skadar or Shkodra, named after the Albanian town near its shores) is the largest freshwater lake in the Balkans with a surface varying between 370 and 530 km<sup>2</sup> depending on water level fluctuations (regularly up to 4m and more). Two thirds of the lake are situated in Montenegro, the rest in Albania. The karst lake is of tectonic origin with an average depth of 6m. About thirty underwater spring holes ("oka") are significantly deeper (up to 60m). The lake is abundantly fed by waters from numerous rivers and subterranean springs. River Moraca (flowing through the town Podgorica) contributes the largest volume of water (170m<sup>3</sup>/s on average). The Bojana river (Buna in Albanian) is the only outflow towards the Adriatic Sea. Lake Skadar supports a lush wetland vegetation of floating water plants, various reed, sedge and willow species. The flora is very rich with more than 25 rare and endemic species, including the typical water chestnut (*Trapa natans scutariensis*) and Skadar oak (*Quercus robur scutariensis*). On the hillsides around the lake remain woodlands (including old-growth chestnut *Castanea* forests) and Mediterranean shrub communities. The

diverse fauna includes endemic invertebrates, 48 fish species in the lake water catchment (39 inside the National Park), 281 bird species, and many other vertebrates. The traditional fisheries on the lake concern mainly carp (*Cyprinus carpio*), bleak (*Alburnus a. alburnus*) and eel (*Anguilla anguilla*). The lake provides important habitats for many species of nesting, staging and wintering waterbirds, some of which are globally threatened (e.g. Dalmatian pelican *Pelecanus crispus* and pygmy cormorant *Phalacrocorax pygmeus*). Large numbers of waterbirds occur during spring migration. Human activities include fishing and tourism, as well as poaching (cf. [www.ramsar.org/profile/profiles\\_serbia.htm](http://www.ramsar.org/profile/profiles_serbia.htm)).

3. On 15 December 1995, the Federal Ministry for Development, Science and Environment of the Federal Republic Yugoslavia contacted the Ramsar Secretariat with the request by the Minister for Environmental Protection in the Republic of Montenegro (Ms Ana Mišurović) to include Skadarsko Jezero (Skadar Lake) in the List of Wetlands of International Importance. Thus, the territory of the National Park (c.40,000 ha, designated in 1983) became Ramsar Site N°784. Information submitted at the time of Ramsar designation shows two special ornithological reserves (according to the Law on Nature Conservation) inside the National Park: Manastirska tapija and Panceva oka, as well as a number of general nature reserves: Grmožur island, Crni zar, Omerova Gorica, Karuc, Đurovacki školj and Mrijestilišta ukljeve under the direct management responsibility of the National Park. Additional specific areas are protected as nature monuments, for fish spawning and for the conservation of endemic species. Currently, the number and extent of these specially protected areas is under revision.

### **Background**

4. The Ministry of Agriculture, Forestry and Water Management is currently developing new hunting regulations for the Republic of Montenegro. After many years of substantive hunting pressure and waterbird disturbance, hunting inside Skadar Lake National Park was banned in 2003, in line with the new Law on National Parks and the local Physical Plan adopted by Parliament. However, on 2 August 2004, the Minister of Environmental Protection and Physical Planning (Mr Božo Vučinić) asked the Ramsar Secretariat for advice on standards and criteria for hunting on lake Skadar. This was provided in a letter of 10 August 2004, emphasizing Ramsar's "wise use" concept and stating that, if hunting was to be allowed again, this should be to an extent that is sustainable in the long term, neither degrading the ecological character of the wetland ecosystem nor depleting the affected populations, and providing local socio-economic benefits. Normally, a specific management plan needs to be drawn up for the wetland site in question to clarify these issues and regulate the extent of hunting.

5. During the latter part of 2004, the Ramsar Secretariat was informed on several occasions by local and visiting experts and NGOs about apparent ecological changes occurring at the Ramsar Site. Notably, a significant drop of wintering waterbird numbers from 250,000 (in January 1999) to 80,000 (in January 2004) was signaled, as revealed by the national counts for the International Waterbird Census (coordinated by Wetlands International). The informants feared that this may be the consequence of increased human activities, including illegal hunting and fishing. They also mentioned disturbance at the breeding colony of the threatened Dalmatian pelican and at the common tern colony on Grmožur island. In general, they evoked increasing pressure by recreation activities, including fishing, illegal fishing and poaching. The informants also expressed concern about illegal constructions, pointing specifically to Motel Plavnici, about planned peat extraction in strictly protected areas, and about pollutants possibly entering the lake from the KAP aluminum plant.

6. In a letter of 16 June 2005, Minister Vucinic provided the Ramsar Secretariat with detailed answers on these points, notably concerning fisheries, hunting, tourism, recreation and illegal buildings in the National Park, impacts of the aluminum plant and the general environmental evaluation of lake Skadar. He used this opportunity to invite a representative of the Ramsar Secretariat to visit the area. The holding of the international workshop on "Lake Skadar international designations for territorial development" on 18-19 October in Vranjina and Shkodra provided the ideal opportunity for this (cf. the short report on the event at [www.ramsar.org/wn/w.n.skadar\\_mtg\\_2005.htm](http://www.ramsar.org/wn/w.n.skadar_mtg_2005.htm)).

### **Issues considered by the Ramsar Advisory Mission**

#### **Management plan for the Ramsar Site**

7. During the on-site visit and through detailed discussions with National Park staff and with different stakeholders present at the international workshop, it became clear that substantial progress was achieved recently with the administration and management of the National Park public enterprise. Its new director, Zoran Mrdak, and his team have to be congratulated for this performance. A copy of the conservation and development programme "Program zaštite i razvoja 2005-2010" was given to the Ramsar adviser. This document partly fulfills the role of a management plan as outlined in Ramsar Handbook 8 - which should be consulted when updating the programme at the end of the five-year period.

8. Notably, several innovative economic incentives were introduced by the National Park public enterprise in order to create sufficient revenues for its own functioning -- an illustrative example is the renovated National Park headquarters building next to Vranjina village. Renovation works were undertaken with money levied by the Government through a specific tax on transports on the lake. The headquarters are centrally located in the National Park at the main road linking Montenegro's tourist coast and main Adriatic port Bar with the capital Podgorica and the road beyond to Belgrade. This provides a unique opportunity for the planned establishment of a showcase and visitor information centre on the top floor (overlooking the lake) on Montenegro's four National Parks and Skadar Lake in particular. It is hoped that in the near future specific management and operational investments will be able to profit from financial support by the Global Environment Facility (GEF), as part of the bilateral project (Montenegro and Albania) on "Lake Shkoder integrated ecosystem management".

9. It is suggested that, for a Ramsar Site of the extent and complexity of lake Skadar National Park, a clear zonation of the area would be beneficial, as detailed in Ramsar Handbook 8. This should include the coherent delineation of a) strictly protected areas where no human interventions should occur (except necessary monitoring and restoration activities) in order to avoid, e.g., disturbance to breeding birds or fraying fish (this can be seasonally limited in time), b) areas where sustainable resource uses (e.g., fishing or gravel exploitation) can take place according to certain rules (e.g., taking into account the needs for flood mitigation and landscape conservation measures, based on environmental impact assessment studies), and c) areas for tourist activities (boat trips, angling and leisure fishing on the lake), etc. In particular the planning of different, sustainable forms of tourism, providing local income (e.g., through private accommodation) and being compatible with the requirements of fragile species and habitats, should be further developed.

## **Current human activities and possible developments**

10. Specific information was provided by the Ministry for Environmental Protection and Physical Planning and the National Park on the current regulation of fisheries inside the Ramsar Site. The National Park is pursuing an innovative and promising approach to providing incentives for ecologically and economically sustainable fisheries on the lake. More detailed reporting of catch statistics by individual fishermen is currently being introduced. This will eventually provide better data and prepare for a fruitful cooperation with fish specialists in the Faculty of Sciences, in order to monitor the population dynamics of the economically important fish stocks. Cooperation between the National Park and the Department of Biology should continue and be further developed, as it is providing baseline data for the sustainable use of the lake's fish stocks.

11. The spectacular drop of wintering waterbird numbers, as well as the apparently very low numbers of breeding waterbirds, merit the establishment of a detailed monitoring programme in order to find out more about the causes for decline, acting either locally inside the National Park (disturbance, lack of food resources) or acting on the population dynamics at flyway scale (shift to other wintering areas, general population declines). Needless to say, National Park staff should continue to enforce the complete hunting ban inside the National Park, established in 2003 to avoid further disturbance through illegal hunting.

12. The National Park started to establish a detailed waterbird monitoring programme. This could be widened and include, e.g., individual marking of Dalmatian pelicans breeding on the lake, as part of the global population conservation programme for this species, coordinated by the Tour du Valat Foundation in France ([www.tourduvalat.org](http://www.tourduvalat.org)). Specific population monitoring programmes should be expanded to cover also key indicator species other than birds, e.g. waterbird food organisms, water plants and specific vertebrate indicator species. To this end, better and more formal cooperation between the staff of the National Park and the experts of the Institute for Nature Conservation in Podgorica is urgently needed, possibly in coordination with the Ministry for Environmental Protection and Physical Planning. Pooling relative strengths of the scientific expertise available at the Institute with the management expertise available at the National Park is a prerequisite for efficient conservation action on the ground. If felt necessary, technical advice on how best to set up a monitoring programme could be sought from Tour du Valat.

13. Several illegal buildings (restaurants, etc.) were recently erected along the lake shores. They need to be removed rapidly, if possible at the owners' costs. It is important that the National Park authorities can promote and implement a coherent land use policy according to the agreed Physical Plan for the area and the Park's conservation and development programme 2005-2010. The important tourist development of Motel Plavnici currently under construction, with a marina and special boat access to the lake, established with the Ministry of Environment's approval inside the core area of the National Park, should not be allowed to become a precedent for further unregulated developments (eventually to be legalized after their establishment inside the Park). Further such developments could seriously jeopardize the recognition of the National Park and Ramsar Site status at international level.

## **Possible environmental impacts of the aluminum plant KAP**

14. During the international workshop in Vranjina, the director of the board of the KAP aluminum plant (Mr Mihailo Banjevic) confirmed that the Government of Montenegro is

negotiating with a Russian company interested in acquiring the state-owned company, currently at a stand-still. The new owner of the company will have to shape it up within a period of five years to environmental standards compatible with the requirements of the European Union. To this end, the company considers investments of up to 55 million euros necessary for environmental protection, including the installation of new technology filters, the disposal of red mud, and the treatment of waste waters polluted by PCBs and heavy metals.

15. According to Deputy Environment Minister Mugoša, current water quality measures at different places in Skadar lake show that the water quality is satisfactory. However, nobody disputes the existence of heavily polluted waste water and mud, currently stored in potentially very dangerous large open-air basins, and the possible contamination of sediments in downstream Moraca river and Skadar lake through earlier outflows from the aluminum plant. Gravel excavations along the Moraca should not be undertaken without environmental impact assessments, as the danger of water pollution through contaminated sediment layers is possible. The Ministry for Environmental Protection and Physical Planning needs to be supported in its plan to establish a specific unit to monitor the environmental improvements to be undertaken by the aluminum plant and report on its progress through formal meetings with the company at six-monthly intervals. This should also lead to better public information about the current state of affairs, in accordance with the UNECE (Aarhus) Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (not yet ratified by Serbia and Montenegro).

#### **Potential impacts on site from upstream activities**

16. The need to provide the city of Podgorica (200,000 inhabitants) with a sewage treatment plant was confirmed by different stakeholders during the discussions, even if it is currently believed that the natural treatment capacities of lake Skadar's wetland ecosystems are still sufficient to cope with the urban effluents (also from other cities and villages) entering the lake through Moraca river (and other tributaries). For smaller settlements alongside the lake, also on the Albanian side, the creation of specific wetlands for domestic sewage treatment can be an economically interesting alternative. Such wetlands would fulfill water purification services, provide water reservoirs for agriculture and wetland vegetation for grazing, thatching and other purposes.

#### **Bilateral issues regarding the transboundary nature of this wetland ecosystem**

17. As early as 1980, the first ever wetlands directory, published by UNEP and IUCN, recognized lake Skadar as one of the most important wetland sites in the Western Palearctic. Since the 1990s, the importance (especially for biodiversity and nature conservation) of the downstream areas along the Bojana/Buna river has also increasingly been recognized (e.g., recent assessment reports by Euronatur with financial support from the MAVA Foundation). During the international workshop in Vranjina, the Albanian Environment Minister announced that the Albanian part of lake Skadar (Liqeni i Shkodrës) and the downstream area along the Buna river, including the Viluni lagoon at the Adriatic next to Velipoja village, will receive national protection status still in 2005 and be designated for inclusion in the Ramsar List of Wetlands of International Importance.

18. The announced Albanian Ramsar Site designation will provide the opportunity for the formal designation of lake Skadar/Shkodra and related wetlands as a transboundary Ramsar

Site by both countries. To this end, Montenegro may wish to extend its existing Ramsar Site to include the right-hand part of the Bojana/Buna river floodplain, including Sasko lake, the saltpans Solana Ulcinj and the remains of the lagoon Zoganjsko lake near Ulcinj. Also, the inclusion of relevant natural coastal areas into a transboundary Ramsar Site should be considered. Ramsar Site designation does not necessarily have to correspond to the same (strict) regulations applicable to the territory of Skadar Lake National Park. Ramsar designation could be helpful by adding a buffer zone with valuable areas around the existing National Park in Montenegro.

19. On 8 May 2003, both governments signed a Memorandum of Understanding committing them to conserve the natural resources of lake Skadar in a coordinated and integrated manner, to establish a bilateral Lake Management Commission, and to improve the relevant regulatory and institutional capacities at national level. The second session of the international workshop (in Shkodra on 19 October 2005) discussed the composition, functioning and tasks of the Lake Management Commission. It seems helpful that this Commission should eventually deal with all important aspects concerning the lake and its water catchment. This would concretely mean that the already earlier-established bilateral commission to manage the lake water level should eventually have to report to the Lake Management Commission or, better, become part of it.

20. Bilateral cooperation has also been established at grassroots level through the "Lake Forum", a result of the project on "transboundary cooperation through the management of shared natural resources", coordinated by the Regional Environment Centre (REC) offices in Podgorica and Shkodra. The project is financially supported by the Swiss Development Cooperation Agency (SDC) within the framework of the Regional Environmental Reconstruction Programme (REReP) of the Stability Pact for the Balkans. It was suggested that the work of this forum should be continued and its experiences used for the further development of a framework of bilateral cooperation. For specific activities, notably the preparation of a Strategic Action Plan (SAP) for lake Skadar ecosystem and its implementation, financial support should be provided through the GEF project mentioned above.

21. From these encouraging developments it can be concluded that increased bilateral cooperation on the management of lake Skadar and the resources in its water catchment basin is a high priority. UNESCO offered to facilitate the holding of a next international meeting on this theme in 2006. It is hoped that, by then, the Albanian part of the lake and its related wetland ecosystems will have been designated for the Ramsar List and will benefit from national protection status. This would provide the basis for a coordinated approach on both sides of the border, particularly regarding specific management issues such as protected areas zoning, common regulating of fishing, leisure activities, tourist development and water management, etc. The current situation provides a unique opportunity for the Montenegro National Park experts to share their experience with the Albanian neighbours, helping them to set up and manage a transboundary protected area.

### **Conclusions and Recommendations**

22. The authorities of Skadar Lake National Park are to be congratulated for their substantial progress with a modern, economically and environmentally sound management for this outstanding area and its biodiversity. They are encouraged to pursue this approach further to achieve high quality objectives for the conservation and management of the area's natural and

cultural heritage while maintaining existing and creating new socio-economic benefits for the local population derived from the ecosystem services provided by the protected area (fishing, tourism, recreation activities, etc.).

23. Ramsar Site documentation for this outstanding area is unfortunately outdated and does not correspond any longer with the requirements for Ramsar Information Sheets (RIS) and maps (outlined in Resolution VIII.13). The Ministry of Environmental Protection and Physical Planning is therefore requested to prepare an updated RIS and a Ramsar Site Map (most likely to be done by the National Park authorities), according to the guidelines and explanations provided in Handbook 7, accessible at [www.ramsar.org/ris/key\\_ris\\_index.htm](http://www.ramsar.org/ris/key_ris_index.htm), and to send it rapidly via e-mail to the Ramsar Secretariat. The relevant format and explanations were also handed to the Ministry in Podgorica on paper and CD.

24. It is suggested that the careful zoning of the National Park area should be continued in order to regulate different levels of human uses in the respective zones. In the light of the announced Ramsar Site declaration on the Albanian side, an extension of the existing Ramsar Site in Montenegro, to include areas along the Bojana river and related wetland ecosystems, should be envisaged. This would be in accordance with the finalization of the current spatial planning activities at national scale, and could take the form of adding a Ramsar buffer zone around the existing National Park area. This would provide the opportunity for a formal bilateral declaration of a transboundary Ramsar Site.

25. Increased, formal and regular cooperation between the National Park authorities and the Montenegro Institute for Nature Conservation is strongly recommended in order to develop and implement a monitoring programme for key indicators of the ecological character of the ecosystem. Pooling the respective strengths and expertise to establish a coherent monitoring programme is particularly urgent in the light of the spectacular decline of wintering waterbird numbers, for which the causes remain unknown. Possibly, the cooperation between the Institute and the National Park should be guided by the Ministry of Environmental Protection and Physical Planning.

26. Further vigilance and appropriate actions by the Ministry of Environmental Protection and Physical Planning and the National Park authorities are required concerning the removal of illegal buildings inside the National Park, the environmental upgrading and cleaning of the aluminum plant, and the need for treatment of the urban sewage produced by Podgorica and other towns and villages.

27. Finally, the conclusions of the international workshop in Vranjina and Shkodra on 18-19 October 2005 show that the time is ripe to integrate environmental concerns into a territorial development framework for the lake Skadar basin, to develop jointly a shared vision, and to articulate this into a series of concrete priority actions. Following the MoU of May 2003 between Montenegro and Albania, the bilateral Lake Management Commission should be established and entrusted with clear tasks. Its role and functioning should be clarified and decision-making procedures elaborated. Experience with transboundary cooperation gained through the work of the water management commission and the "Lake Forum" should be taken into account.

## **Acknowledgements**

The Ramsar Secretariat wishes to acknowledge the open and detailed information received from the Ministry of Environmental Protection and Physical Planning in Podgorica and the availability of Deputy Minister Mugoša and her staff to contribute to the positive outcome of the mission. In particular Mr Subotić is to be thanked for organizing many logistical details of the visit. I was welcomed very warmly by Mr Mrdak and his staff of Skadar Lake National Park. He devoted much of his time to the Ramsar mission while being simultaneously under heavy demand because of the needs of the international workshop in Vranjina and Shkodra. Mr Schneider-Jacoby of the NGO “Euronatur”, visiting conservation projects in the area, kindly agreed to participate in the Ramsar mission and to contribute his experience to the long discussions on the issues dealt with in the report.

### **Itinerary and people met**

- 16 October      Travel to Podgorica, discussions in the evening with *Martin Schneider-Jacoby* of Euronatur, and Ms *Francesca Antonelli* of the WWF Mediterranean Programme Office.
- 17 October      Meeting at the Skadar Lake National Park offices at Vranjina and extensive discussions with director *Zoran Mrdak*, biologist Ms *Nela Vešović* and Mr *Schneider-Jacoby*. Tour of the Montenegrin part of the lake in the speed boat of the National Park with the above, passing at Grmožur island, Pančeva oka bird reserve and the large tourist development of Motel Plavnici. In the evening, discussions in Podgorica with *Philippe Pypaert* and *Giorgio Andrian* of UNESCO-ROSTE and with *Pierre Galland* and *Alice Thomann* of the Swiss Agency for Development Cooperation (SDC).
- 18 October      Discussions with Deputy Minister Ms *Nada Mugoša* and *Victor Subotić* of the Montenegro Ministry of Environmental Protection and Physical Planning. Then, participation in the first session of the international workshop “Lake Skadar international designations for territorial development” at the National Park facilities in Vranjina. At this occasion, brief contacts with Environment Minister *Boro Vučinić* of Montenegro and Environment Minister *Lufter Xhuveli* of Albania. Discussions on the future Ramsar Site designation of the Albanian part of the lake and the Buna river outflow to the Adriatic with *Zamir Dedej*, director for nature conservation in the Albanian Ministry of Environment. Boat tour on the lake for the workshop participants and bus transfer to Shkodra in Albania, via Bar and Ulcinj along the Adriatic coast.
- 19 October      Presentation of the Ramsar Convention objectives and its guidance for the designation of transboundary Ramsar Sites and the management of shared water catchments during the second session of the international workshop in Shkodra as a panelist. Discussions with participants from Montenegro, Albania and abroad, including i.a. with Ms *Snezana Dragojević* (REC Podgorica) and Ms *Djana Bejko* (REC Shkodra), managing the project funded by SDC on “transboundary cooperation through the management of shared natural resources” focusing on Skadar lake, and with *Darko Savelić*, ornithologist of the Montenegro Institute for Nature Conservation. In the evening return to Podgorica with the Montenegrin delegation.



20 October Meeting at the Ministry for Environmental Protection and Physical Planning in Podgorica with Deputy Minister *Mugoša* and Mr *Subotić*, with the Ramsar focal point for Serbia and Montenegro in the Ministry for Science and Environmental Protection (in Belgrade), Mr *Milutin Pantović* and Ms *Jelena Dučić*, and with Mr *Mrdak*, National Park director, about the outcome of the mission. In the evening return travel to Gland.