



**Convention on Protection and Use of Transboundary Watercourses and
International Lakes**

**SEMINAR ON THE ROLE OF ECOSYSTEMS
AS WATER SUPPLIERS**
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BULGARIA NATIONAL REPORT

NATIONAL REPORT

On the role of ecosystems as water suppliers

First part prepared by

Milena ROUSSEVA
Water Directorate

Ministry of Environment and Water
22, Maria Louisa Blv.
1000, Sofia
Bulgaria
Tel.: +359 2 940 6588
Fax.: +359 2 980 9641
e-mail: mrousseva@moew.government.bg
wetlands_ppu@moew.government.bg

Marietta STOIMENOVA
Project Manager Wetland Restoration and
Pollution Reduction Project
Ministry of Environment and Water
22, Maria Louisa Blv.
1000, Sofia
Bulgaria
Tel.: +359 2 940 6610
Fax.: +359 2 980 8734
e-mail:

Vladimir Dontchev, Head of Water Protection dept.
Ministry of Environment and Water, 22, Maria Louisa Blv. 1000, Sofia, Bulgaria
Tel.: +359 2 940 6523, Fax.: +359 2 980 9641, E-mail: dontchevvl@moew.government.bg

PROTECTION AND RESTORATION OF WATER-RELATED ECOSYSTEMS

In June 2002, the Global Environment Facility (GEF) provided the Government of Bulgaria with funding for the implementation of project activities for the Wetlands Restoration and Pollution Reduction Project.

The development objective of the Wetlands Restoration and Pollution Reduction Project for Bulgaria is that local communities and local authorities in the Persina Nature Park and Kalimok/Brushlen Protected Site areas adopt sustainable natural resources management practices. There are two main project components. First, in the initial phase of this component, marshland will be recovered and restored in two already identified sites to demonstrate the use of wetlands as nutrient sinks. Additional sites are expected to be identified and restored later during project implementation. The GEF funds will finance consultancy services for the elaboration of detailed engineering designs, baseline surveys, and the supervision of construction and rehabilitation activities of small infrastructure which will regulate water flows.

The project development objective is that local communities and local authorities in the Persina Nature Park and Kalimok/Brushlen Protected Site areas adopt sustainable natural resources management practices. The project will help demonstrate how environmentally-friendly rural development activities can improve livelihoods.

The global environmental objective is to demonstrate and provide for replication of reduction of transboundary nutrient loads and other agricultural pollution flowing into the Danube River and the Black Sea Basins while at the same time conserving key target threatened species in the project areas through: (i) wetlands restoration and protected areas management programs, and (ii) support for stakeholders to adopt environmentally-friendly economic activities in the two project areas.

The project

The project will assist the Government of Bulgaria in: (i) the restoration of critical priority wetlands in the Danube River basin and piloting the use of riparian wetlands as nutrient traps; (ii) the establishment of comprehensive monitoring systems for water quality and ecosystem health; (iii) support for protected areas planning in Persina Nature Park and Kalimok/Brushlen Protected Site; (iv) strengthening capacity to protect and manage biodiversity and natural resources; (v) building public awareness of sustainable natural resources management and biodiversity conservation; and (vi) promoting and supporting entrepreneurial and agricultural activities within the project region which ensure the sustainability of natural resources and are compatible biodiversity conservation objectives. Although the project only directly addresses the restoration of selected priority wetlands in Bulgaria, these activities will play a critical demonstration role within the region, promoting nutrient reduction investments in other parts of Bulgaria and neighboring countries. The main global benefit is the reduction of transboundary pollution. Based on conservative estimates of 100 kg/ha/yr reduction of nitrogen and 10 kg/ha/yr of phosphorous, 375 tons of N and 39 tons of P could be reduced yearly. This accounts for approximately 5% of Bulgaria's total nutrient contribution to the Danube. The project consists of three components.

Component 1 Wetlands Restoration

This is the most innovative component to be included under the project, and if successful, will have high replication value throughout Bulgaria and the region. This component expects to restore 2,340 ha of former marshes in the two already identified sites. Additional sites are expected to be identified and restore during project implementation. Selection criteria for site selection will

include: ecological potential, floodplain type and with, current land use, and nutrient reduction potential.

Restoration of Belene Island and Kalimok/Brushlen Wetlands This sub-component expects to restore about 1,290 ha in Belene Island and about 1,050 ha in Kalimok/Brushlen Marshes. Restored wetlands will only involve state or municipal land. No private land is expected to be flooded. Existing dykes will be raised or new dykes will be built to protect private property. This sub-component will support the elaboration of detailed engineering design and supervision of civil works. It will also support the construction and rehabilitation of small infrastructure needed for the restoration of wetlands in Belene Island and Kalimok/Brushlen, including sluices, canals, protective dykes, access roads, improvement on irrigation/drainage conditions to make equivalent amounts of state land adjacent to the restoration area available for lease.

Belene Island.

Within Persina Nature Park, the project will support the wetland restoration on eastern Belene Island, a 15 km long island, the western portion of which is currently under the jurisdiction of the Ministry of Justice which operates a prison on this side, while the eastern portion is a managed Nature Reserve under the jurisdiction of the Ministry of Environment and Water.

Kalimok/Brushlen Marshes.

The other identified site, within the Kalimok/Brushlen Protected Site covering about 6,000 ha, is located 60 kilometers east of Ruse. Up until the 1950, the marsh complex was a key part of the region for valuable fish resources. In the 1950, the Danube river protection dyke was constructed between Ruse and Tutrakan for agricultural purposes, which cut off fish from their historical spawning grounds.

Restoration of Additional Sites

This sub-component, which focuses specifically on the replication of wetland restoration activities in other areas of Bulgaria, is expected to be financed by the donors with interest on environment/water resources issues. The Government of Bulgaria through the Ministry of Environment and Water is seeking for funding sources.

Component 2 Protected Areas Management

This component will support the next step towards sustainable restoration and protection of the two protected sites. The project will support preparation of protected areas management plans as well as implementation of priority actions within the framework of protected areas management regimes.

The GEF grant will support the following activities: implementation of priority protected areas management actions, including management, operation and maintenance and Supply of maintenance Equipment for Restored wetlands and associated protected areas, establishment of a contingency relief fund, establishment of a farmer transition support program, establishment of Public Awareness Program, including Small Grant Scheme for Biodiversity Conservation and Communication Strategy development and implementation; Development of Nutrient Reduction Strategy Guidelines; Strengthening Implementing Agencies Capacity by supply of equipment, vehicles and boats, renovation of the existing PA office premises, architectural design and construction of administration /visitor centers for both territories, design of the park administration

infrastructure, border demarcation, trails and interpretation points construction, training abroad and study tours for the park administration staff and stakeholders.

The funding from the National Phare Program will support the development of protected areas management plans in each protected area. The program supports also the establishment of a comprehensive monitoring program in each project site to monitor and manage the ecosystem and biodiversity of the two restored wetlands and protected sites.

Component 3 Project Coordination, Management and Monitoring

This component will support a Project Coordinating Unit (PCU) within the Ministry of Environment and Water (MoEW) in Sofia with field staff located in Persina Nature Park and Kalimok/Brushlen Protected Site and with substantial physical presence in the project area to coordinate, manage and monitor the activities under the project. The PCU is responsible for procurement, financial management, and disbursement related to the activities funded by the GEF grant; financial management reporting of overall project; monitoring/evaluation and reporting of overall progress implementation; coordination with the Russe BSC and the PHARE-Unit within the MoEW responsible for the implementation of project activities supported through parallel financing; and coordination with central ministries and their regional and local branches. Each of the protected areas administrations is assisted by a full-time Local PCU Liaison Officer (funded by the project) to facilitate procurement of project related goods, works and services, coordination, and reporting of project implementation. The Local PCU Liaison Officers will be hosted within the premises of the protected areas administrations.

THE INTEGRATED APPROACH AS A DEVELOPMENT OPPORTUNITY

Integrated Water Resources Management plans

According to the Water Framework Directive each country has to prepare Integrated River Basin Management Plans. Wetlands will be included in the IRBMP as areas which require special protection.

The new National Strategy for management and Development of Water Sector was approved by the Council of Ministers in June 2004. It envisages public responsible, opened and predictable policy in the sphere of water management, rational and effective use of water resources, as well as water protection and rehabilitation of the quality of water resources. The Strategy is based on the outcomes of the 12th session of the UN Commission on sustainable development.

The New Water Act (under preparation) will be based on the main principles of protection and use of water resources. The Water Act will fully cover all requirements of European Environmental legislation in the sphere of water.

Information dissemination and public participation

LEGAL AND ADMINISTRATIVE DIMENSION

Bulgaria is a party of the following conventions:

1. **Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention)** – The Convention is adopted by Council of Ministers on November 1974. The Convention entered into force for the Republic of Bulgaria on 27 February 1986. Promulgated in State Gazette ? 56/10 July 1992.

Transposition into Legislative Acts – The principles of the Convention is transposed in Protected Areas Act and Biological Diversity Act.

The instruments for implementation - The Bulgarian-Swiss Biodiversity Conservation Program, the GEF World bank and state budget fund activities under the Convention.

- 2. Convention on the Protection and Use of Transboundary Watercourses and International Lakes** – The Convention is signed by the Republic of Bulgaria on 18 March 1992 in Helsinki, Finland and is ratified September 2003. The Convention entered into force for the Republic of Bulgaria on 26 January 2004.

Transposition into Legislative Acts – The principles of the Convention is transposed in Waters Act and Environment Protection Act.

The instruments for implementation - Permits, control, sanctions, environmental impact assessment, monitoring.

- 3. Convention on the Transboundary Effects of Industrial Accidents** – The Convention is signed by the Republic of Bulgaria on 18 March in Helsinki, Finland and ratified in 1995. The Convention entered into force for the Republic of Bulgaria on 12 May 1995. Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters, signed on 21 May 2003 in Kiev, Ukraine.

Transposition into Legislative Acts – The principles of the Convention is transposed in Environment Protection Act, Chapter 7, Paragraph 1 and Regulation on the conditions and requirements for issuing permits for the construction and operation of new and operation of working enterprises and facilities, establishing systems for prevention of industrial accidents with hazardous substances and mitigation of their effects.

The instruments for implementation - Permits under the Environment Protection Act, under Article 104 issued by the Ministry of Environment and Water, control on the enterprises under the Environment Protection Act, under Article 113, documentation in accordance with the Regulation, prepared by the enterprises.

- 4. Convention on the Environmental Impact Assessment in a Transboundary Context** - (The Republic of Bulgaria signed the Protocol on Strategic Environmental Assessment on 21 May 2003 in Kiev, Ukraine). The convention is signed by the Republic of Bulgaria on 25 February 1991 in Espoo, Finland and ratified in 1995. The Convention entered into force for the Republic of Bulgaria on 10 September 1997. Amended, State Gazette ? 89/1999.

Transposition into Legislative Acts - The principles of the Convention is transposed in the Environment Protection Act and Regulation on the conditions and requirements for environmental impact assessment procedure regarding investment proposals on construction, activities and technologies (Council of Ministers Decree 59/2003)

The instruments for implementation - Environmental impact assessment procedure is undertaken. Decision on environmental impact assessment is issued, which is under control. When requirements under this decision are not implemented fines and sanctions are imposed under Article 166 of the Environment Protection Act

Intersectoral coordination – Bulgaria is a member of the International Commission for the Protection of the Danube River and Black Sea Commission. The governmental authorities work in joint working groups for preparing the environmental policy in the sphere of water protection and use.

REPUBLIC OF BULGARIA
MINISTRY OF AGRICULTURE AND FORESTS
NATIONAL FORESTRY BOARD



55, Hristo Botev str., BG – 1050 Sofia, telefax: +359 2 981 37 36,
nug@nug.bg

INFORMATION ON THE ROLE OF WATER-RELATED ECOSYSTEMS

A. PROTECTION AND RESTORATION OF WATER-RELATED ECOSYSTEMS

• **Protection measures:**

- **Legislative**

Public issues, such as ownership and management – reproduction, use and protection of forests in Republic of Bulgaria are regulated with Forestry Act. The main aim of the Forestry Act is to preserve the Bulgarian forests as a national wealth. They are main environment-forming factor, whose reproduction, sustainable development and multifunctional use are of the interest of the owners and the society.

According their functions forests are divided into the following groups: mainly industrial purpose and environment-forming forests, protective and recreation forests and forests within protected areas. The protective and recreation forests have mainly water protecting and erosion preventing, irrigation, recreation and other functions and are subdivided into:

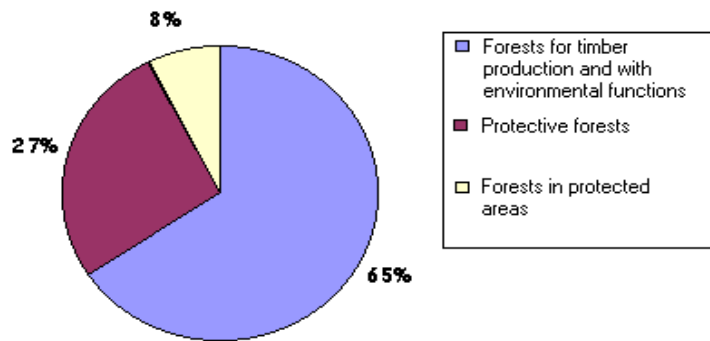
- water protecting - water supplying areas, catchment areas of water basins and flows, areas of individual springs;
- erosion preventing - eroded forest lands, lands on precipitous and rocky terrains; the area of the upper frontier of the forest; the coastal sections of the Black Sea, the Danube River and major rivers; non-sylvicultural areas, covered with trees and brushwood; flood plain lands and forests, planted under technical projects to combat erosion;
- irrigation - forest belts for sheltering farmland, engineering installations and forests around industrial pollution centers;

The Bulgarian forests cover 4,04 mln. ha or circa 36,3 % of the national territory. Approximately 80% of the forests are in the mountain regions (over than 700 m altitude) and 85% of streams and water courses in the country originate in forest lands. The protective and recreation forests have mainly water protecting, erosion preventing, irrigation, recreation and other functions. "Forest areas for water protecting" means forest water supplying areas, catchment areas of water basins and flows, areas of individual springs. The total forest area determinate as "water protecting" is 245 542 ha.

- **Administrative**

Based on the Forestry Act the forests and the other wooded lands are categorized according to their functions.

Functional distribution of the forest fund area in Bulgaria



Nowadays, 27% of Bulgarian forests are managed as forests with protection functions and 8% of the forests are placed in the protected areas. Having in mind that the forests in protected areas do have protection functions as well, may come to conclusion that one third of the Bulgarian forests have protection character. In these forests there is a limited regime of harvesting.

The economical dimensions apply to lost benefits for the country and other owners regarding harvested timber. Average income per year from the harvested timber on a national level amounts approximately to 80 million BGN. This amount comes from app. 65% of the Bulgarian forests. The forecasted income from timber from all forests of the country according present prices amounts to 120 million BGN, respectively the lost benefits because of conservation measures in forest ecosystems aiming sustainable water protection functions, amount to 40 million BGN per year.

- **Measures for restoration**

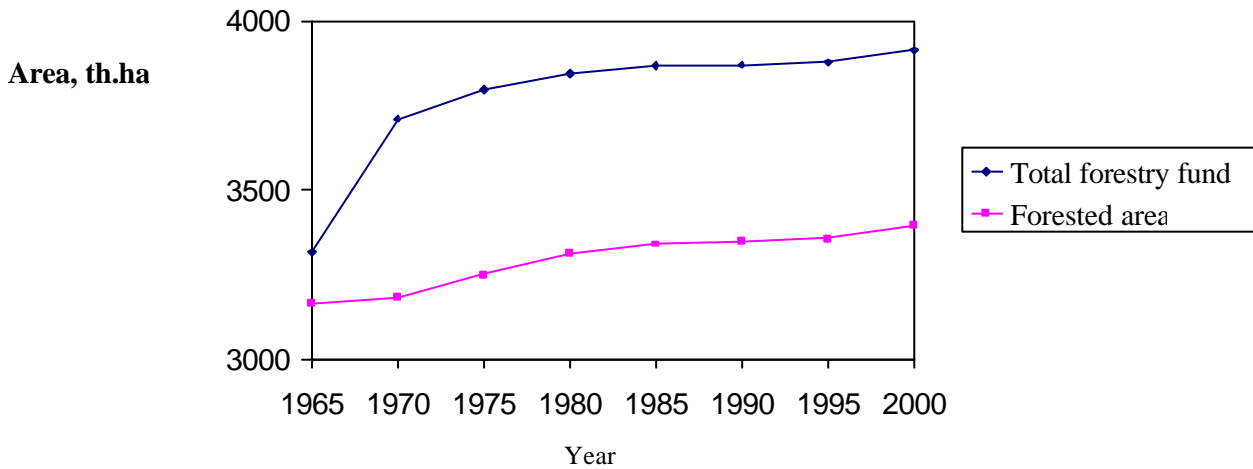
- **Legislative**

Forest Act assures whole complex of measures for restoration activities of the water related forest ecosystems. They are connected to:

- forest regeneration and growing of young forests
- afforestation
- erosion combat

- **Administrative**

Changes in the forestry fund area and forested area



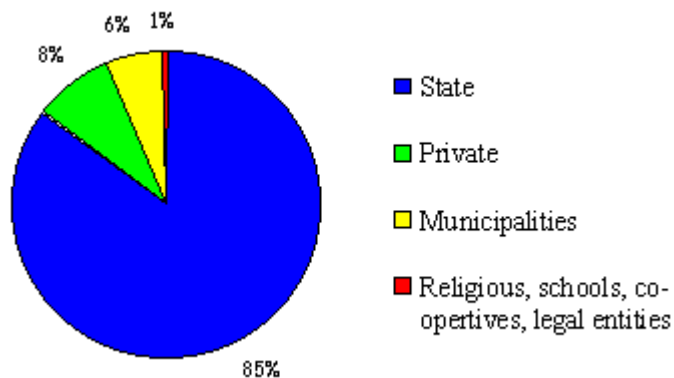
The restoration measures can be noted by the constantly increase of the forested area in the country. During the last 40 years it has increased with 7% and this growth is basically due to the new forests with critical importance for regulation of the water recourses – these are forests on steep and eroded terrains and forests close to river flows and dams as well.

The economic aspects apply to the expenses for activities in the following directions:

- growing of young forests – 3 million BGN per year
- afforestation – 25 million BGN per year
- erosion combat – 1 million BGN per year

B. THE INTEGRATED APPROACH AS A DEVELOPMENT OPPORTUNITY

The distribution of the forest territories according to kinds of ownership is as follows:



As a result of the restitution process there is a fragmentation of forest ownership, especially in protective forests. Private forest owners are thousands and their forests are small with most being less than 1 ha. This can cause problems in sustainable forest management and in protection and restoration of water-related ecosystems.

The occurrence of different kinds of ownership raises problems to be solved, that pertain to the management and harvesting of the forests that are not owned by the State:

➤ **Managing small-sized forest holdings**

Special efforts should be directed with respect to this to find a suitable form and stimulus for associating forest owners for the joint planning and carrying-out of the management of their estates.

➤ **Motivating the owners to protect and sustainable manage their forests.**

It is necessary to popularize the modern, multifunctional forms of harvesting of forest resources so that they are managed sustainable and in an environmentally sound way, in favor of the particular owners and the whole society..

➤ **To restrict fragmentation of forest ownership** by implementing a minimum size restriction for a forest holding and encourage amalgamations (forest land consolidation) and cooperative management through associations with different legal status.

➤ **To provide support to the owners** for activities concerning the afforestation, regeneration and tending of the forests, their management planning and certification as well as establishment of a system for administrative servicing and a network of centers for education and consulting of private forest owners.

In October 2002, the Government of Bulgaria launched a process of formulating a National Forest Policy and Strategy (NFPS). The process is a major undertaking, involving inputs from experts as well as all relevant stakeholder groups and society as a whole and it sets the stage for all major decisions concerning the sector for the next 10 years. The present document looks at the forest sector including both forestry and forest industry – woodworking, furniture, pulp and paper industry.

NFPS estimate the role of the forests for the water resources and follows a politics for their sustainable management.