



BULGARIA

Wetlands Restoration and Pollution Reduction Project

Project Summary and Scope

The global environmental objective of the project is to serve as a model for the reduction of transboundary nutrient pollution loads flowing into the Danube River and Black Sea basins, while conserving important endangered species in the protected areas. According to the Transboundary Diagnostic Analysis, Bulgaria is responsible for an annual 7,500 tons of nitrogen (N) and 720 tons of phosphorus (P) running into the Danube. Properly functioning wetlands can retain and recycle nutrients and offer cost-effective solutions to abate N and P loads to meet water quality standards. At the time of appraisal, the cost-effectiveness ratios for the restored wetlands and the best agricultural practices were estimated at USD 1.3 to USD 5 per kg for N and USD 28.9 to USD 46.2 per kg for P (figures from the Implementation Completion Report, June 23, 2009).

Main project objectives:

- To demonstrate and provide for replication of the reduction of transboundary nutrient loads and other agricultural pollution flowing into the Danube River and Black Sea basins.
- To ensure the protection of key target threatened species in the protected areas through wetlands restoration and protected areas management programmes.
- To provide support to local stakeholders in adopting environmentally friendly economic activities in the two project areas.

Pilot activities:

- Restoration of approximately 3,000 ha of former floodplains — Kalimok marsh and Persina marshes — and use of their capacity for nutrient reduction.
- Involvement of local stakeholders in decision making — management of Kalimok-Brushlen protected site by non-governmental association of local stakeholders.
- Support to the sustainable environmentally friendly use of natural resources around the restored wetlands.

INVESTMENT

GEF **USD 7.5 million**

TOTAL PROJECT COST

USD 13.6 million

OTHER FUNDING

EU, Bulgarian Government, Austrian Government, local authorities

PROJECT DURATION

2002–2007

NUTRIENT CHALLENGES

- Poor agricultural practices, including inappropriate and over-applications of fertilizers and pesticides, leading to water pollution
- Draining and dyking of floodplains and wetlands reducing capacity for water purification
- Transboundary nutrient pollution loads, flowing into the Danube River and Black Sea basins

EARLY NUTRIENT BMP “WINS”

- BAP guidelines developed; capacity building among farmers



Best Practices

- Establishment of Farmer Transition Support Fund (FTSF)** — FTSF was established to assist local farmers in adopting environmentally sustainable agricultural practices. The programme successfully implemented seven demonstration projects under the Best Agricultural Practices (BAP) concept in both restoration sites. Grants from US\$5,000 to US\$47,000 supported activities in organic farming (4 projects), production of packaged fuel (1 project), pasture restoration (1 project), and manure management (1 project). Grants enabled farmers to transition to organic fruit production, and three farmers became organic-certified producers. One project established an enterprise to recycle wetlands waste materials such as harvested reeds and waste wood to produce briquettes and other packaged solid fuels, which will reduce nutrients from the wetlands and provide a renewable energy source for local people. All these projects reduced nutrient and pesticide pollution in the region and have strengthened farmers' economic potential by opening organic markets. The FTSF programme was also a catalyst for farmers' abilities to apply for future funding from national and EU sources.
- Including the National Programme for the Development of Agriculture and the Rural Regions** — The project piloted the restoration of 4,035 ha of former marshes (double the original target) in two protected areas and brought under improved management and protection 27,700 ha with globally significant biodiversity habitats thanks to the developed management plans.
- Nutrient Reduction Strategy Guidelines** — The Bulgarian Government developed a new strategy for integrated water resources management, which is in compliance with the EU Water Framework Directive (WFD). This strategy addresses the role of the wetlands.

Other Key Successes

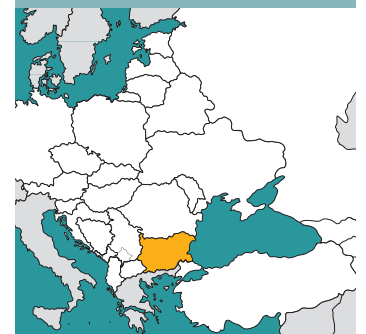
- The outcome of the first test flooding in April 2008 showed that the Danube River water in the wetlands improved its characteristics. With the restoration of habitats, the diversity and quantity of birds and fish increased. After the first flooding in Belene, 10 new fish species entered the wetlands. Rare bird species returned to the area, including the glossy ibis, black-winged stilt and mute swan.
- A new idea and a turnaround in perceptions — wetlands are now seen not only as a beautiful wildlife habitat, but also as contributing to sustainable development and economic growth. They bring environmental and economic benefits, and act as a buffer against floods.
- Fifty-five small grant projects have been successfully implemented on the two project sites under the Small Grant Programme for Biodiversity Conservation, with more than 5,500 students, 250 children and 23 NGOs taking part, and more than 65 professionals trained.

Key Agricultural BMP Indicators

- Improved agricultural practices in Belene and Kalimok and increased local awareness and support for biodiversity conservation.
- Wetlands restoration investments made in Belene Island, Kalimok marshes and other priority sites restored to promote nutrient trapping.
- Implementation of the farmer transition support fund programme.

Further Information

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About the Living Water Exchange

The Living Water Exchange, a GEF/UNDP project promoting nutrient reduction best practices in Central and Eastern Europe, will share information and accelerate the replication of the most appropriate nutrient reduction practices developed from GEF and other investments in the region.

For more information, please visit <http://nutrient-bestpractices.iwlearn.org/> or email Chuck Chaitovitz chuck@getf.org