Ecological Restoration of Mata Radeanu, Romania

Year of issue

2025

Summary

The project’s objective was to improve the conservation status of aquatic bird species in Lower Prut Floodplain Natural Park (Galați County, RO) through scientific inventory, monitoring, site restoration, awareness-raising, implementation of the park management plan, and the designation of Natura 2000 SPAs. Partners were the University of Bucharest, the Romanian Ornithological Society and Romsilva – Galați Forestry.

At Mața-Rădeanu, dykes were rebuilt to restore hydraulic control: a 1,800 m dyke separating Mața (Galați) from Cârja (Vaslui) and a 3,600 m dyke subdividing Mața; a birdwatching tower serves the complex. The area falls in SPA ROSPA0130 Mața-Cârja-Rădeanu and functions today as a large fish-farming/recreational fishing complex managed locally by AJVPS Galați; recent county risk documentation lists “Amenajarea Piscicolă Mața-Rădeanu.” In 2024, local press reported drought-related low water affecting this complex.

Photo Gallery



Location

46.090833, 28.097778

Project

NWRM

National ID

Romania_ 06

Sector

Hydromorphology

Installation Date

2009

Implementation status

Completed

Contact

Bogdan Barbu, RECImola Koszta

Overview

Location of the project

Within the Mața–Rădeanu fish-farming complex along the Prut dyke on the Galați–Vaslui border.

Country

Romania

NUTS2 Code

Sud-Est

Sponge measures implemented in the case study

Floodplain restoration and management

Lake restoration

Objectives

Improve the conservation status of 13 priority and 50+ other Birds Directive species present in the Lower Prut Floodplain Natural Park.
Re-establish the ecological balance of lakes by fixing degraded hydrological structures and improving/maintaining water levels.
Designate four SPAs (Romanian Natura 2000) and prepare/approve an integrated park management plan and administration.
Carry out inventories and monitoring, plus public engagement (village consultations, picture books, nature trails, six annual environment days, bird-watching towers).
Rehabilitate dykes to manage water levels: 1,800 m boundary dyke (Mața–Cârja) and 3,600 m internal dyke subdividing Mața.

Involved partners

Authority type	Authority name	Authority role
Regional / sub-national water authority	Regional Environmental Protection Agency Galati	Monitoring
Other	County Council Galati	Initiation of the measure
Other	University of Bucharest, Research Center for Environment and Impact Studies	Determination of design details of the measure
NGO	Romanian Ornithological Society	Monitoring
Other	Forestry Department Galati	Determination of design details of the measure
Other	Park Administration Lower Prut Floodplain	Determination of design details of the measure

Site Information

Climate Zone

Warm temperate dry

Precipitation

500.00 mm

Temperature (°C)

11.00 °C

Elevation range

8

Groundwater level

~9–32 m depth; flow toward the Lower Prut floodplain

Vegetation class

Aquatic & palustrine vegetation.

WFD Ecological status

Good

WFD Chemical status

Good

Water quality status

Organic loading and high mineralization; risks from agricultural pesticides and transboundary accidental discharges

Design and Implementation

Project scale

Micro

Project scale specifications

Site-level hydromorphology within a meso-scale park project.

Area subject to Land use change or Management/Practice change (ha)

605.40 ha

Favourable preconditions

Wetlands belong to the category of ecologically fragile areas, their dynamic being influenced mainly by the qualitative and quantitative characteristic of the water in the hydrographical basin in which they extend. For this reason, the conservation measures promoted in these spaces must be doubled by a strict control of the anthropic activities / arrangements using water for different purposes or as a medium of discharging some wastes.

Financing

Total cost

824710.00 €

Financing authorities

Authority name	Type of funding	Comments	Financing share
European Union	EU-funds: LIFE+	412,355 €	50 %
The Ministry of Environment and the Sustainable Development	National funds	412,355 € with all non-EU sources	50 %
Galati County Council	Local funds	412,355 € with all non-EU sources	50 %

Compensations

Non

Policy and Governance

Policy description

To deal with the degradation of hydrological structures, the project also aims to re-establish the ecological balance of the lakes, including improvement of the water level and its maintenance. The rehabilitation works are aimed at the maintaining of the water level of the Mata Lake for the protection of the existing habitats, an area making integral part of special conservation area in the Lower Prut Floodplain Natural Park, both during drought periods and the flooding ones.

Land ownership

State public domain (fish-farm area); operated by AJVPS Galați.

Policy targets

Increase Water Storage

Improved Biodiversity

Groundwater Recharge

Part of a wider plan

Oui

Wider plan

Wider plan type	Wider plan focus	Name
National	Environment & Biodiversity	Lower Danube Green Corridor programme

Public consultation

Oui

Consultation activities

Activity stage	Activity type	Key issues
Implementation phase	Awareness raising activities	These include information dissemination, consultation of every village in the area, and active participation and education with local educational material to be produced. The project takes into account that there is a relatively high illiteracy in the area and will address stakeholders in wide variety of ways, including picture books, nature trails, six annual environment days with expeditions into the area, children's exhibitions, and bird watching towers

Has contractual arrangements

Non

Impacts and Monitoring

Monitoring System

Monitoring requirements

The management plan puts ongoing monitoring with the park administration, while the Mața–Rădeanu case lists Regional Environmental Protection Agency Galați and SOR specifically as monitoring actors.

Monitoring parameters

As in the project framework, the site tracks bird population status and organochlorine pesticide bioaccumulation in birds, alongside water quality and quantity.

Maintenance

Maintenance requirements

The restored dykes are maintained (filling/compacting gaps) to manage water levels across the 1,800 m boundary dyke and the 3,600 m subdividing dyke; the complex also has a birdwatch tower.

Socio-economic Impacts

Direct benefits information

Better conditions for the birds population; increasing the number for aquatic bird species (especially those listed in Annex I of Birds Directive, Bern Convention and in ORNIS lists); improve the trophic state and saprobity of the target aquatic systems; allowing the water oxygenation of the lakes through the input of the fresh water from the Prut River; including the monitoring birds protocols in the adaptive Management Plan of Lower Prut Floodplain Natural Park;
Active fish-farming/recreational fishing platform (~607 ha, AJVPS), with generic tourism/recreation benefits from the restoration.

Ancillary benefits information

Supply the potential of fisheries resources; using the potential of providing services for tourism and recreation;

Biophysical impacts: Hydrology

Hydrological effects

Increased water storage and maintained levels

Biophysical impacts: Biodiversity

Improved biodiversity

Oui

Information on improved biodiversity

Restoration of aquatic birds sites in the natural protected area located in Lower Prut Floodplain Natural Park - Mata Lake

Biophysical impacts: Water & Soil Quality

Water quality overall improvements

Positive impact-WQ improvement

Information on water quality overall

Improved trophic state and saprobity and oxygenation of the lakes by fresh Prut inflows

Lessons Learned

Key lessons

Rehabilitating key dykes (1,800 m boundary; 3,600 m internal) restored hydraulic control and helped keep water levels within a range that protects habitats during both low-water and flood periods; restoration here also contributes to broadening habitat networks relevant to Natura 2000.

Barriers

Barrier type	Barrier role	Comments
Lacking financing sources	Main barrier	Park-level under-funded maintenance and siltation, reducing fish-farming usability by ~70% (a long-term operational constraint for hydraulic assets in the complex).
Other	Secondary barrier	Degradation of hydrological structures (reason for the dyke works).
Other	Secondary barrier	Physical gaps in dykes requiring filling/compaction during 2009 works.

Success factors

Success factor type	Success factor role	Comments
Attitude of decision makers	Main factor	Clear technical leadership/roles (County Council initiation; design inputs from Park Admin, Forestry Dept., University; monitoring by REPA Galați and SOR).
Financing possibilities	Main factor	Financing mix: EU LIFE+, national, county.
Communication activities	Secondary factor	Park-wide communication and education measures that supported uptake.

Transferability

Highly transferable to low-gradient river–floodplain lakes: modest channel dredging plus small sluices and dyke repairs can restore levels and habitat. Success hinges on sediment load and long-term maintenance, available inflows, protected-area rules and stakeholder alignment. Watch for rapid re-siltation, drought-driven low flows and fish-farm constraints; embed monitoring of birds and water quality.

Sources

Sources

Some aspects concerning wetland restoration programs in the Prut River Basin

Lower Prut Floodplain - Ecological restoration of the Lower Prut Floodplain Natural Park

Natural Park of the Lower Prut Floodplain - Project LIFE 05 NAT/RO /000155

Ecological Restoration of Mata-Radeanu Complex

Rehabilitation works for the dykes ON Mata Lake

Wetland and floodplain habitats management and solutions in Lower Meadow of Prut Natural Park

Bird fauna long-term monitoring in the Romanian Lower Prut river basin

Planul de management – Parcul Natural Lunca Joasă a Prutului Inferior (PNLJPI)

Anexa nr. 1 – Lista consolidată a ariilor naturale protejate din România (RONPA)

LIFE Public Database – LIFE05 NAT/RO/000155 “Ecological restoration of the Lower Prut Floodplain Natural Park”

“2.1.7 Sectorul pescăresc” – FLAG Galați Strategy (archive 2012–2015)

“Schema cu Riscurile Teritoriale din județul Galați – 2024” (PDF)

“Seceta prelungită seacă lacurile din judeţ şi distruge piscicultura”

“Amenajarea Mața-Rădeanu”

Forum thread: “Seceta prelungită seacă lacurile din judeţ”

EUNIS Site factsheet – ROSPA0130 “Mața – Cârja – Rădeanu”