

# Floating Cultures in River Deltas

**Delta Lady**  
Interreg Europe



European Union  
European Regional  
Development Fund

## Climate adaptation in deltas II: Wetland restoration

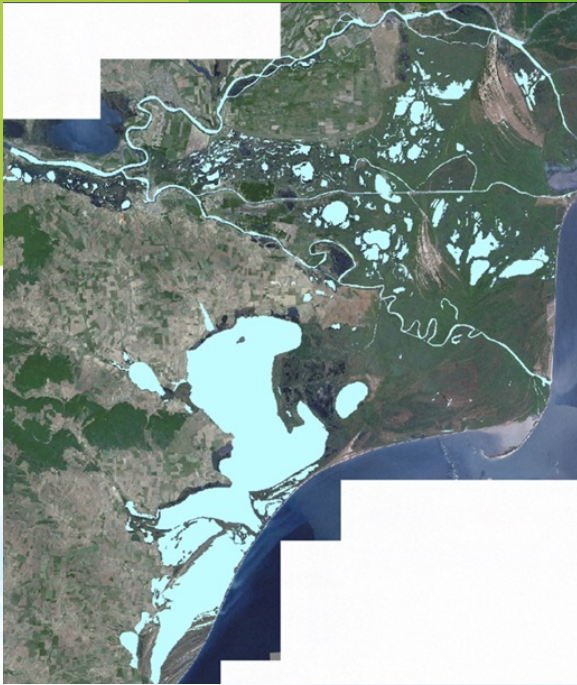
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### Danube Delta wetland restoration, Romania (Delta Lady)



INCDDD

The Danube Delta is the largest fen area of Southern-Central Europe (5800 km<sup>2</sup> in Romania and 50 km<sup>2</sup> in Ukraine)



Within the period 1960 -1989 106,000 ha of wetland areas where embankment for use as agriculture, forestry and fishery polders.

The ecological reconstruction work began in the Danube Delta in 1993 (GEF program, within the Biodiversity Conservation Project in the Danube Delta, funded by the World Bank).

Types of reconstructions:

- Reconnect polders to river flood pulse
- Improvement of water circulation of channels
- Biodiversity recovery ( fauna and flora)



## Decision tools for ecological restoration:

- *GIS analyses of vegetations, soils and elevation maps to predict habitat types distribution after restoration;*
- *Hydrological models ( e.g. SOBEK 3D)*
- *Experiments (e.g. : filtering capacity of the reed beds)*
- *Studies on - water quality, fauna and flora , habitat distributions*
- *Economical assessment*



## Results:

- Since 1993, over 51,000 ha, 48% of the area of polders built in the Danube Delta, have been restored, and others are proposed for ecological restoration.

However the transformation of wetlands into agricultural polders currently continues. Only in the latter 10 years, 8820.75 ha of reed marshes were drained for agriculture use.

- EDAPHIC-BLOOM DANUBE (<https://ddni.ro/wps/edaphic-bloom>)



## GOOD PRACTICES AND POLICY CHANGES

### Envisioned actions to be included in the new Danube Delta Biosphere Reservation Regulation 2023

#### Shifts in the way natural resources are exploited – the case of Reed

#### Chapter 6. VALUATION OF RENEWABLE NATURAL RESOURCES

##### 6.1 General provisions

Proposals: new articles to be included

- (1) Conservation of reed ecosystems is a priority for ARBDD for mitigation GHG emissions.
- (2) An improvement of the concession scheme for the reed resource is required.

## ART. 44

Specialized multidisciplinary studies are required to identify innovative solutions for the administration of the reed harvesting activity on the territory of the Complex of Protected Areas administered by the A.R.B.D.D. The goal is to encourage the local population to capitalize on resources, redefine the areas as well as revise the concession process.



## Changes in the new regulation is expected to support studies for finding the best solutions in order :

- To stop land reclamation for transforming wetland areas into agricultural ponds and preserve natural hydrological conditions in the Danube delta
- Preserve wetland function and values (wildlife habitat, nutrients sink and sediment trapping, protection against erosion, carbon stocking, nature environment for visiting – tourism, economical values)
- Improve economic management of reed marshes for a more substantial profit in the reed business
- Improve or enforce the principles of ecological management of wetlands ecosystems
- Mitigate climate changes

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**Thanks for your attention!**