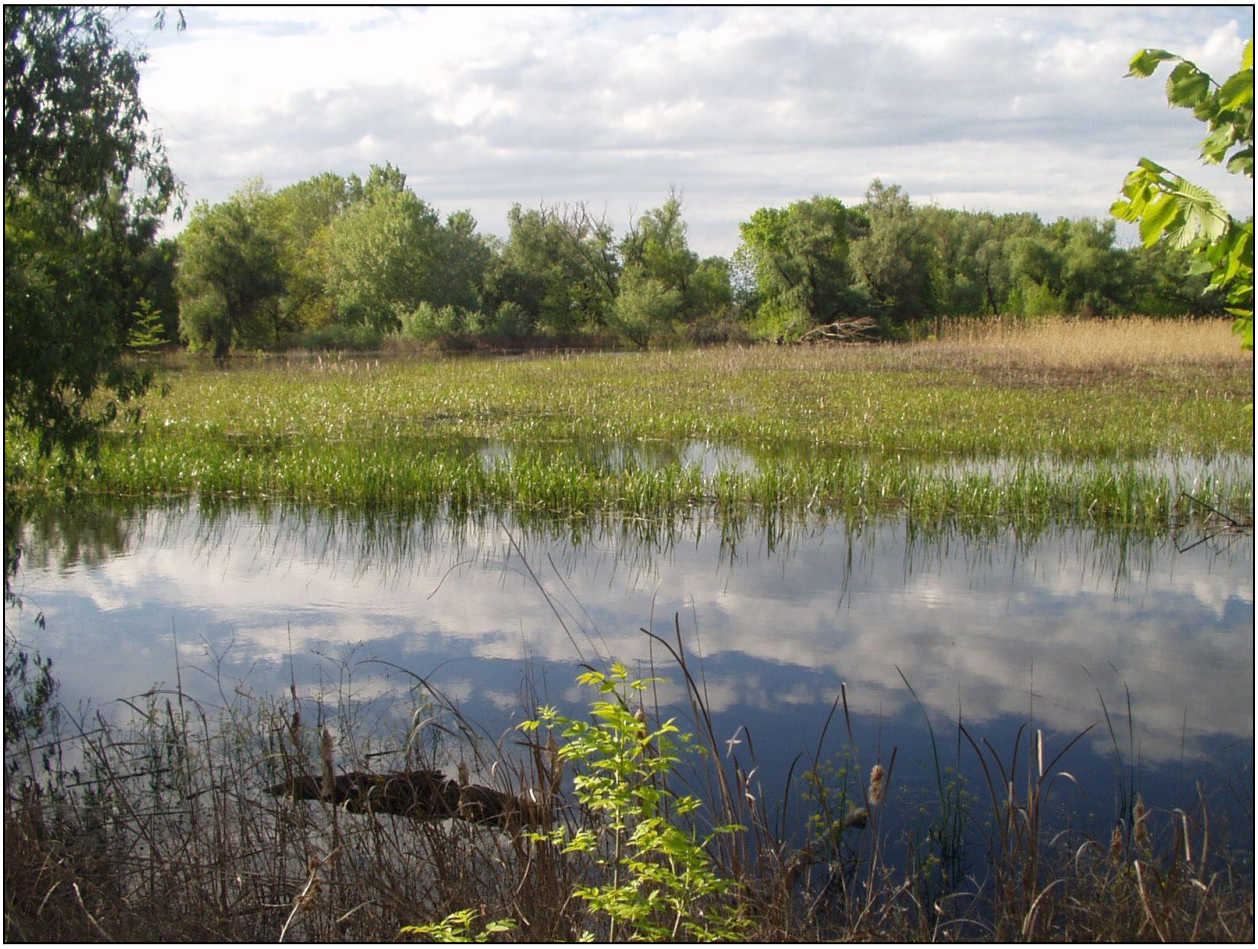
Restoration Cases
Flagship Collection

Case #19: Restoring floodplains and wetland corridors in the Lower Danube River and Danube Delta



Natural flooding is restored on Tartaru Island in the Danube Delta. Photo credit: Misha Nesterenko, World Wildlife Fund

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In brief

Overview

From its origins in Germany, the Danube River flows through 19 countries. Decades of mismanagement led to devastating impacts on forests and wetlands in the Lower Danube floodplains, which extend over 1,000 km though Bulgaria, Romania, Moldova and Ukraine before reaching the Black Sea. By 2008, 72% and 30% of the floodplains were lost in the Lower Danube and the Danube Delta, respectively. In response to more frequent flooding, declining soil fertility, and species and habitat loss, international efforts began in 2000 to protect and restore the forested floodplains and wetland ecosystems through the Lower Danube Green Corridor Declaration. By 2020, over 60,000 hectares of Lower Danube floodplains were under restoration, including 6,000 hectares of islands in Romania that were reconnected to the river. The Danube Delta Biosphere Reserve has largely achieved its objectives for conservation of globally significant biodiversity, especially for birds.

Exemplary practices

Country-level action plans designated priority areas of floodplain for protection and restoration. International conventions focused on improving water quality and reducing flood risk in the Danube River Basin. The Danube Delta Biosphere Reserve created opportunities for restoration and cooperation between countries, government agencies, NGOs, and local communities. Dikes were removed in some parts of the Danube Delta to restore flooded wetlands. In many small sites, invasive plant species were removed and tens of thousands of native trees were planted, assisting forest natural regeneration over larger areas. These activities, along with other floodplain management plans, are contributing to more effective floodwater retention, improved freshwater ecosystem services, and return of native biodiversity in the region.

Key lessons learned

- *Site-based restoration interventions through small-scale pilot projects serve to demonstrate and test approaches, engage local communities, and provide capacity building opportunities.*
- *Transboundary collaboration and implementation require the support of internationally-accepted institutional mechanisms and capable NGO partners.*
- *Restoring floodplains enables positive impacts across sectors, including agriculture, energy, transport, and tourism.*
- *The first step of restoration often requires stopping or reversing degradation.*
- *Restoring floodplain ecosystems requires paying attention to the complexity of feedback loops across different ecosystems.*