

Hrvatske vode (lead beneficiary)

WWF Austria

Green Osijek - Association for Nature and Environment protection

Public Institution for Management of Protected Natural Areas and Ecological Network of Virovitica - Podravina County

Public Institution for Management of Protected Natural Values in Varaždin County

Public Institution for Management of Protected Natural Areas in the Koprivnica - Križevci County

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#### **SUPPORTERS**

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#### CONTACT

info@drava-life.hr www.drava-life.hr

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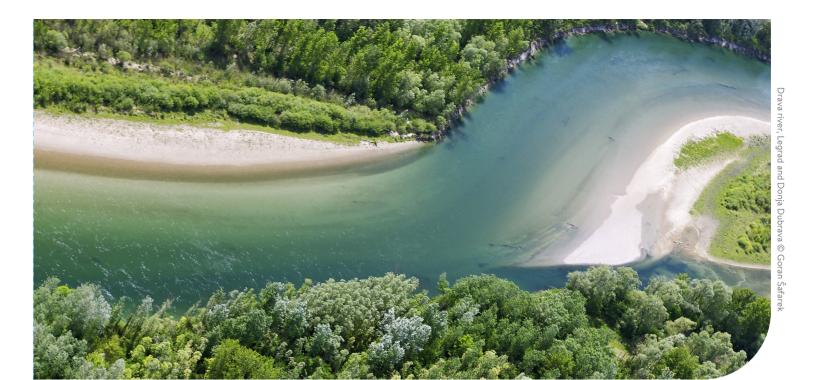








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# River restoration

# for nature and people

The "DRAVA LIFE – Integrated River Management" project aims to improve the condition of the riverine ecosystem on a 300 kilometre stretch of the Croatian Drava. This should be achieved through river restoration and integrated implementation of EU Directives, awareness raising actions and visitor management guidelines to protect endangered species of river birds, like the little tern.





Riverine ecosystems are amongst the most threatened ecosystems in Europe and the Drava River is no exception. The construction of 22 hydropower plants in Austria, Slovenia, and Croatia, crosscut the river and left only a small free-flowing section, mostly in Croatia, making the Croatian part of Drava one of the last semi-natural rivers in Central Europe.

Introduction of contemporary and environmentally acceptable management methods will integrate nature conservation and flood protection for the benefit of endangered habitats and species within the Natura 2000 sites, but will also contribute to better flood protection of inhabited areas along the Drava. Furthermore, it will increase the recreational value for local people, who use the area for fishing, swimming and relaxing.



# School children visit the Sand martin colony in Libanovec © Goran Safare



### Goals & objectives

DRAVA LIFE

**310 river kilometres** of the Drava River (rkm 322,8 - 15)

**67.800 hectares** in 5 counties

4 Natura 2000 sites

7 restoration sites

The main goal of the DRAVA LIFE project is to improve the Drava's ecosystem in Croatia through the implementation of different river restoration activities, awareness raising activities, establishment of transboundary cooperation and reduction of human disturbance of river birds. With this innovative river management approach, partners aim to create a best practice example of river restoration in Croatia and the region.

Carried out in cooperation with water management and nature protection authorities, as well as NGOs, key natural features of the Drava riverine ecosystem will be restored through the opening and creation of new side-arms, the removal and modification of embankments and groins, as well as the preservation of retention areas and natural steep river banks. This will significantly benefit numerous types of endangered habitats and species within Natura 2000 sites.

# Restoration for better flood management



The main actions within the project will be implemented on the following locations along the Drava River:

1. Otok Virje (312 - 314,3 rkm), 2. Stara Drava Varaždin (289,3 - 292 rkm), 3. Donja Dubrava - Legrad (240 - 241,45 rkm), 4. Most Botovo (226,6 - 227,9 rkm), 5. Novačka (214 - 217 rkm), 6. Miholjački Martinci (104 - 106 rkm), 7. Podravska Moslavina (96 - 98 rkm)

The restoration measures along 7 pilot sites will be implemented according to the principles and best practices of the flood risk management in the EU Floods Directive, and performed in a way that does not endanger the safety of the existing flood protection system.

The restoration of river side-arms and river bed will enable better flood protection within existing floodplains and contribute to local lowering of water levels in urban areas, near bridges and villages during floods.

The project will also have a positive effect on groundwater supplies, as the restoration actions will improve the river water infiltration into the groundwater and thus stabilize and lift groundwater levels. This will also make Drava's floodplain ecosystems more resilient to negative impacts of climate change.

### Awareness raising

During the project period, partners will try to reduce the human disturbance of river birds throughout the breeding season and increase the knowledge of Natura 2000 through different awareness raising instruments:

- educational centres and paths along the Drava,
- panels on breeding sites,
- information centres and info points,
- nature education corners,
- monitoring towers,
- Drava rangers,
- different communication and educational material.

Moreover, several exhibitions and campaigns will be organized in cooperation with local citizens and schools.

#### **Expected results of restoration actions:**

**1 kilometre** of dynamic river banks restored and preserved

**13 hectares** of new dynamic river zones with gravel, sand and muddy banks created

**14,5 kilometres** of side-arms restored or newly created

**300 hectares** of floodplain forests improved

# DRAVA LIFE – Integrated River Management

started on 1st December 2015 and will end on 30th November 2020, aims to:

- increase the number of pristine and dynamic riverine habitats and better connect Drava's ecosystems through reconnection and creation of new side-arms, removal of bank revetments/groins and preservation of dynamic steep river banks;
- create new water bodies and flooding areas within existing floodplains to reconnect the river with its floodplains and improve the dynamics between groundwater and surface waters, as well as improve sediment dynamics and minimize the risk of floods;
- reduce human disturbance and increase the population of endangered river birds e.g. little tern (Sterna albifrons) by using a visitor guidance plan and an action plan for river birds, in combination with concrete visitor management measures and public awareness campaigns on Natura 2000 sites along the Drava;
- improve cross-border cooperation along the Drava through transfer of know-how and best practices, as well as cooperation within the planned 5-country UNESCO Biosphere Reserve "Mura-Drava-Danube" (between Croatia, Austria, Hungary, Slovenia, Serbia);
- strengthen the inter-sectoral river management, where all relevant sectors participate in the decision-making processes.