



## THE GOALS OF THE WISEDRAVALIFE PROJECT

The mission of the WISEDRAVALIFE project (LIFE17NAT/HU/HU/000577 „Wise Water Management for the Conservation of Riverine and Floodplain Habitats along the Drava River”) was to improve the condition, water balance, and biodiversity of floodplain habitats on both sides of the river Drava.

Over the last six years, we have successfully explored the reasons for the riverbed incision of the Drava, found the appropriate treatments, and implemented them by modifying water regulation structures along the river and reconnecting a previously severed side stream.

In Lankóc Forest, where the invaluable riverine forests and wet meadows are still present, habitat restoration and improvement measures were applied, then six water-retaining structures were established to prevent further drying of the area.

Constant water cover is expected as a result of the restoration of the Heresznye branch on a 1 km long section. Furthermore, as a result of the groundwater level rise the condition of the forest ecosystem is anticipated to improve.

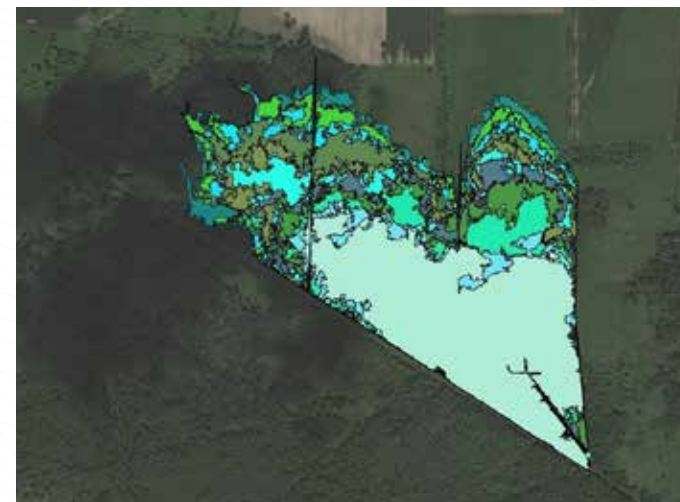
Following the removal of black locust, as invasive species, the area was reforested with native trees. In addition, artificial black stork nests and bat boxes have been installed in the Lankóc Forest.

## SCIENTIFIC BASIS

Within the framework of the project, experts from the water management, forestry, and nature conservation sectors collaborated, along with institutions and experts in technology, GIS, economics, social sciences, and law, in preparing individual interventions. The results of these extensive collaborations allowed us to understand the background of recent changes in the floodplain. This provides great support for developing better plans for further interventions, leading to more favorable outcomes for all stakeholders.

In the last 100 years, it has been proven that the riverbed incision of the Drava has exceeded 2 meters in some places. Additionally, previous river regulations and the establishment of the hydroelectric power plants with reservoirs upstream have also played a significant role.

Fine resolution terrain and hydrological models, as well as geodetic surveys, have enabled the implementation of water flow and water retention interventions in the most effective locations and methods. Utilizing a new, innovative technology called LIDAR (laser-based remote sensor), we were able to determine the optimal water retention points in the Lankóc Forest.



## COOPERATION WITH STAKEHOLDERS

The impact of these interventions, which affect both the riverbed and the floodplain, extends beyond the local level. By encompassing a larger area, they improve the daily life of people living in the surrounding regions, particularly in forest and meadow management, agriculture, and leisure activities.

Therefore, these kinds of interventions should be supported by those affected by the changes: they should understand and accept the reason and be willing to cooperate in the long-term maintenance of the results.

In addition to consultations among various sectors, we engaged in community forums to inform locals about the planned interventions and their expected effects. To minimize potential conflicts, we invested in lands and implemented compromise construction solutions.

## WATER RETENTION IN THE LANKÓC FOREST

Long-standing monitoring studies and the experiences of local citizens have confirmed that the Lankóc Forest and the surrounding meadows are experiencing drying. In the designated area, a total of 6 artifacts – bottom weirs with removable inlays - have been strategically placed for water retention. Since the intervention, water coverage has significantly increased, supporting the survival of natural habitats and species. Additionally, bat boxes and artificial black stork nests were installed to enhance their populations.

The program also involved replacing the invasive black locust population with native common oak and other species through replanting efforts. In addition, water level measures and information boards have been placed in the area for visitors.



## DISSEMINATION OF THE KNOWLEDGE GAINED TO ALL GENERATIONS

A website has been created for the program, where people can find information about the project, and access continuously updated news, media content, photos, videos, infographics, and educational resources (<https://wisedrava.wwf.hu/>). Additionally, the main content of the project is being shared on various social media platforms for educational purposes.

The aim of communicating with the population is to transfer the knowledge discovered during the project, build trust, inspire collaborative thinking, and provide information prior to actions. From the project's perspective, it is particularly important to prevent potential conflicts and promote cooperation.

Furthermore, we developed a floodplain landscape construction game as a demonstration tool to familiarize people of all ages with the living world of floodplain ecosystems.

We also organized summer programs for younger participants; many of whom were visiting the Lankóc forest for the first time. With the assistance of our experts, they explored the diverse wildlife in various habitats, including insects, butterflies, birds, and plants, providing valuable support to their teachers. During our camps, we emphasized the fundamentals of sustainability and the critical issues of nature conservation related to the Drava and its surroundings.

Participatory theater performances were organized for older students to learn about the stories and conflicts involving nature and local communities, helping them understand the consequences of their decisions. Engineering and biology students, along with their professors, gained insight into the project's implementations, preparations, implementation parameters, and the outcomes of their efforts in detail. Educational material on the sustainable use of rivers was provided for them.



Duration of the project: 01.06.2018 - 31.03.2024.

Total budget: 1,785,392 €

Eligible budget: 1,778,117 €

EU contribution: 1,057,071 € (59.45%)



## RESTORING THE FREE FLOWING OF THE DRAVA RIVER

The incision of the riverbed of Drava is one of the outcomes of river regulations, with its consequences becoming increasingly apparent. Side branches of the river only receive water during major floods, as the river deposits sediment, gradually filling them. Consequently, these side branches transform into backwaters, no longer carrying water, even during floods, when the water is drained.

THE RECONNECTED BRANCH NEAR HERESZNYE,  
SPANNING THE HUNGARIAN AND CROATIAN SECTIONS, MEASURES 1 KM  
IN LENGTH AND 15-70 METERS IN WIDTH.

Excavated bed material was relocated to the bank of the side branch and refilled into the main course of the Drava to alleviate sediment scarcity.

In Felsőszentmárton and Vejtí, 3 previously constructed river regulation structures (groynes and bank protection) were modified to enhance water inflow into the affected branches and facilitate the natural free flow of the river..



## MONITORING THE EFFECTS OF IMPLEMENTATIONS

The success of the executed condition improvements and habitat restorations was primarily determined by professional preparation. However, it is also crucial to follow up with monitoring the effects. This way, we can learn from our lessons and improve, allowing us to plan better for future actions.

Monitoring focuses on the impacts on nature, including:

- observing the process of morphological and biotic changes at the intervention points
- maintaining and operating the installed works
- supervising newly planted forests
- observing the use of stork nests and bat boxes
- widely distributing informative materials.

In the future, we plan to support the rise of ecotourism and education with several tools.

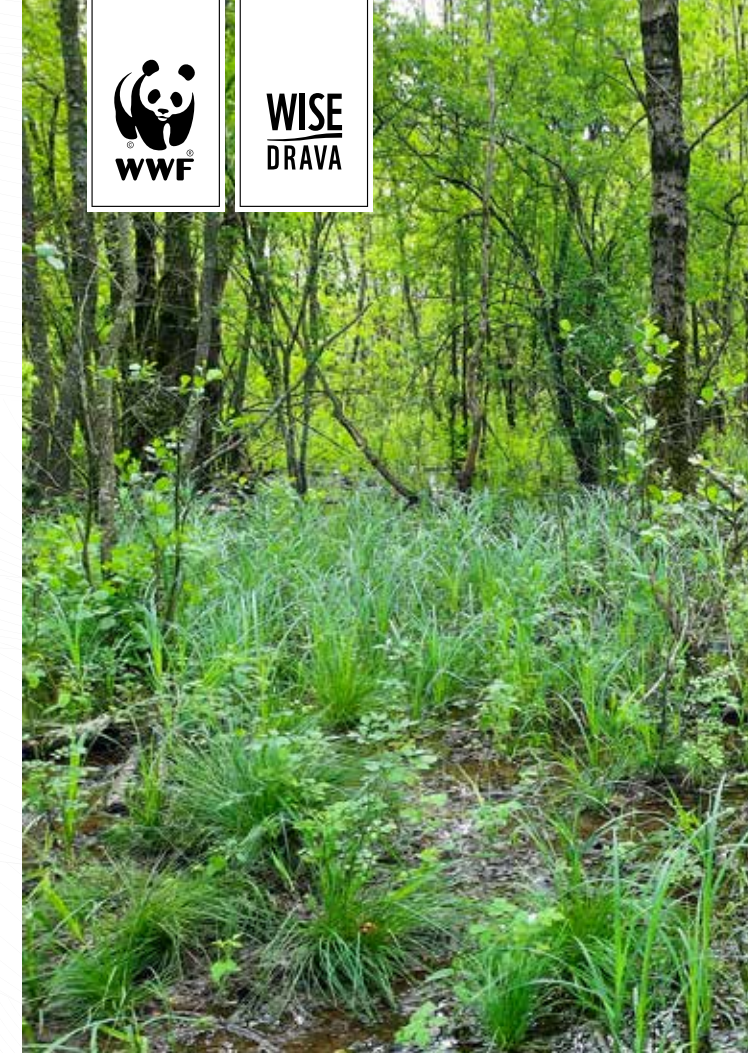
Our next goal is to upgrade the exhibition center in Drávaszentes with the materials and knowledge we have available.

We intend to maintain the protection of the purchased land in the long term.

Since most of the tasks we have covered are connected to the latest challenges of agriculture and water affairs, we would like to apply our solution strategies and good practices more extensively, supporting the mentioned sectors at both domestic and international levels.



WISE  
DRAVA



# WISEDRAVA LIFE PROJECT

