



© Tomasz Wilk

## DESIRE

Development of sustainable (adaptive) peatland management by restoration and paludiculture for nutrient retention and other ecosystem services in the Neman River catchment.

# Wetlands help to improve water quality in the Baltic Sea!

Agriculture is one of the main sources of water pollution. Fertilisers, containing elements such as phosphorus and nitrogen, are washed into rivers and flow to the sea. Wetlands, particularly peatlands, located in farmland areas can effectively filter contaminated water, acting as „kidneys” of the landscape. Although it is hard to imagine, the presence of peatlands in the Neman River basin has a significant impact on the water quality of the Baltic Sea! It is estimated that 90% of European peatlands have been degraded, which means that their retention and water filtration capacity is currently considerably impaired. Therefore, the protection and restoration of wetlands is of great importance – not only for water retention and purification, but also for the preservation of biodiversity and other ecosystem functions, such as carbon retention, climate mitigation or water regulation, e.g. drought and flood prevention.



© Jan Peters

## The DESIRE project – what do we want to achieve?

The main goal of the DESIRE project is to enhance the management of peatlands in the Neman River basin, in order to reduce the load of nutrients to the Baltic Sea. Through actions supporting restoration of the damaged peatlands in the agricultural landscape, the water quality in the region will improve.

The Neman River basin covers several countries, and so does the DESIRE project: it is a collaboration of partners and accompanying institutions from Germany, Poland, Lithuania, Russia and Belarus. International dimension of this initiative will ensure coherent and large-scale implementation of activities and efficient exchange of best practices between countries.





# The main project actions are:

- conducting a comprehensive inventory and mapping of the Neman catchment peatlands and publishing its results in an interactive on-line database;
- pilot restoration of some degraded peatlands and assessment whether they are suitable for paludiculture (economic use of wetland plants);
- analysis of the effectiveness of the rewetting using scientific methods and summarising the results in a peatland restoration handbook;
- creating tools supporting wider implementation of restoration actions and paludiculture, including drafting and proposing new agri-environmental packages, paludiculture strategies and content for water management plans for the Neman River basin;
- extensive communication, promotional and training actions in order to show the benefits of rewetting.



## Expected results

Thanks to the rewetting, the ecosystem functions of the selected peatlands will be improved and greatly revitalised. Additionally, good practices from the pilot sites will be up-scaled on a larger scale in the Neman River catchment and beyond. Decision-makers, administrative staff and other key stakeholders will be equipped with tools (interactive maps, strategies, guidelines, legal solutions and financial analyses) supporting implementation of restoration actions and paludiculture. The educational and promotional actions will ensure wide reception and use of project results. In the long run, the project will improve the quality of water in the Neman catchment, by reducing the biogenic load of agricultural origin. Peatland restoration will also support protection of natural resources, as well as adaptation of the region to climate change and the associated extreme weather events, such as droughts or floods. At the same time, by implementing the idea of paludiculture, the project will strengthen the economic stability of the region and promote the sustainable use of natural resources of peatlands.







© Philipp Schröder, lensescape.org

The project is implemented in the period of January 2019 – June 2021 (30 months) by eight partners and nine accompanying institutions from five countries – Germany, Poland, Lithuania, Russia and Belarus. The leader of the project is the University of Greifswald. The main goal of the DESIRE project is to support wetland management to improve water quality in the Neman River basin (and thus the Baltic Sea) and to restore other ecosystem functions of peatlands. The project is co-financed by the European Union under the European Regional Development Fund and the Baltic Sea Conservation Foundation.

OTOP © 2019



EUROPEAN  
REGIONAL  
DEVELOPMENT  
FUND



UNIVERSITÄT GREIFSWALD  
Wissen lockt. Seit 1456



Succow  
Stiftung



LITHUANIAN  
FUND FOR  
NATURE



Виштынецкий  
природный парк



VYTAUTAS  
MAGNUS  
UNIVERSITY  
MCMXXII