

Management of water and forest ecosystems in the Salaca River basin

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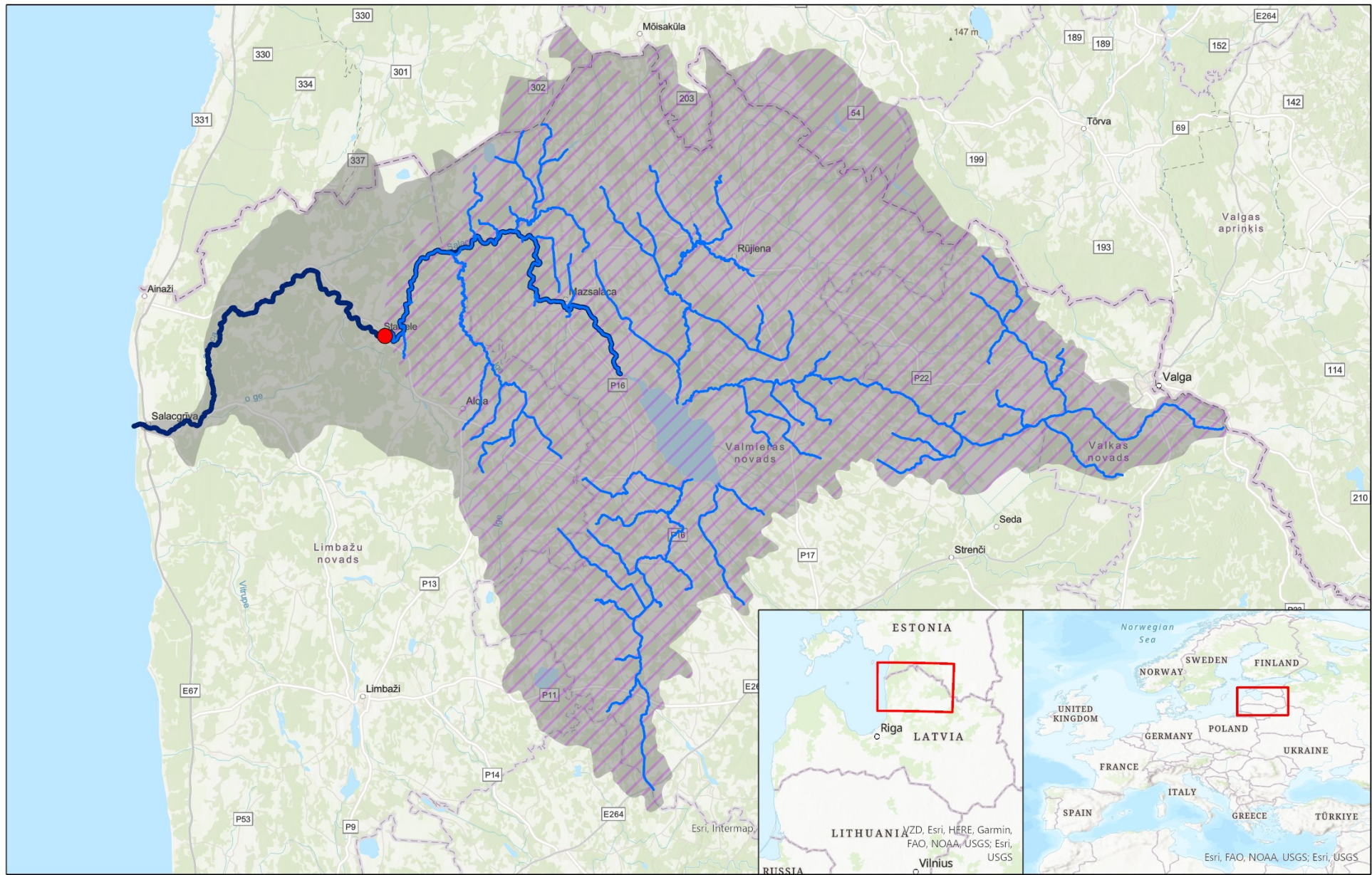
Atis Apelis, fishing club "Salackrasti"

2023

Salaca river

- Salaca River - the biggest salmon river on the east side of the Baltic Sea, Natura2000
- the Staicele Dam from the 19th century
- The Staicele dam affects the water quality and fish migration
- More than 80% of the banks of Salaca are covered with riparian forest
- Agricultural activities have been in serious decline
- Past grasslands are overgrown
- Riparian grasslands have been transformed to riparian forests





- Rivers of interest in Latvia (~613 km)
- Salaca river
- ▨ Area affected by the dam (2886 km²)
- Dam in Staicele
- Catchment area of Salaca river

Staicelele Dam on the Salaca river



EU protected biotopes 6230, 6410, 6450 are overgrown



Riparian forests

- Riparian forests are the transition zone between water and terrestrial ecosystems
- Retaining and accumulating pollutants and nutrients
- Riparian forest management with an ecosystem services approach



Riparian forests

- Grey alder stands are collapsing
- Other tree stands will overgrow in next decades



Challenges

- At various levels for more than 30 years
- Projects of various scales
 - in the restoration of freshwater habitats (EU biotope 3260*)
 - management of riparian forests
 - prevention of pollution, etc.
- Research (from 2012)
- Fundings (from 2022)
 - LIFE IS SALACA
 - Interreg RiForMa
 - National funding

Social Perception of Riparian Forests

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Abstract: Riparian forests are ecotones that differ from the surrounding landscapes, delineating the transition from terrestrial ecosystems into aquatic ones. Riparian forest management has been recognized as a possible method for promoting several ecological functions. In order to develop a sustainable and efficient relationship between river riparian forests and society, it is necessary to

Vegetation Affecting Water Quality in Small Streams: Case Study in Hemiboreal Forests, Latvia

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Abstract: Riparian forests are important ecosystems located along the margins of freshwaters. Riparian zones provide many ecosystem services, such as nutrient modification, erosion and temperature control, leading to improvements in water quality in adjacent water ecosystems. In many areas, riparian forest management is restricted to improve adjacent water quality. The potential influence of

Provision of Ecosystem Services in Riparian Hemiboreal Forest Fixed-Width Buffers

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Abstract: The importance of riparian forest protection is widely acknowledged. However, scientific discussions are still ongoing as to the most suitable and effective protection activities for these



European Commission LIFE Environment Programme

Adaptation of Water Framework Directive and Habitats Directive harmonization and integrated actions for freshwater quality improvement in Salaca river sub catchment



Projektu līdzfinansē
Eiropas Savienība



Valsts reģionālās
attīstības aģentūra



Dabas aizsardzības
pārvalde



BIOR

PĀRTIKAS DROŠĪBAS, ĪSTĪNĒKU VESELĪBAS
UN VIDES ZINĀTNISKAIS INSTITŪTS

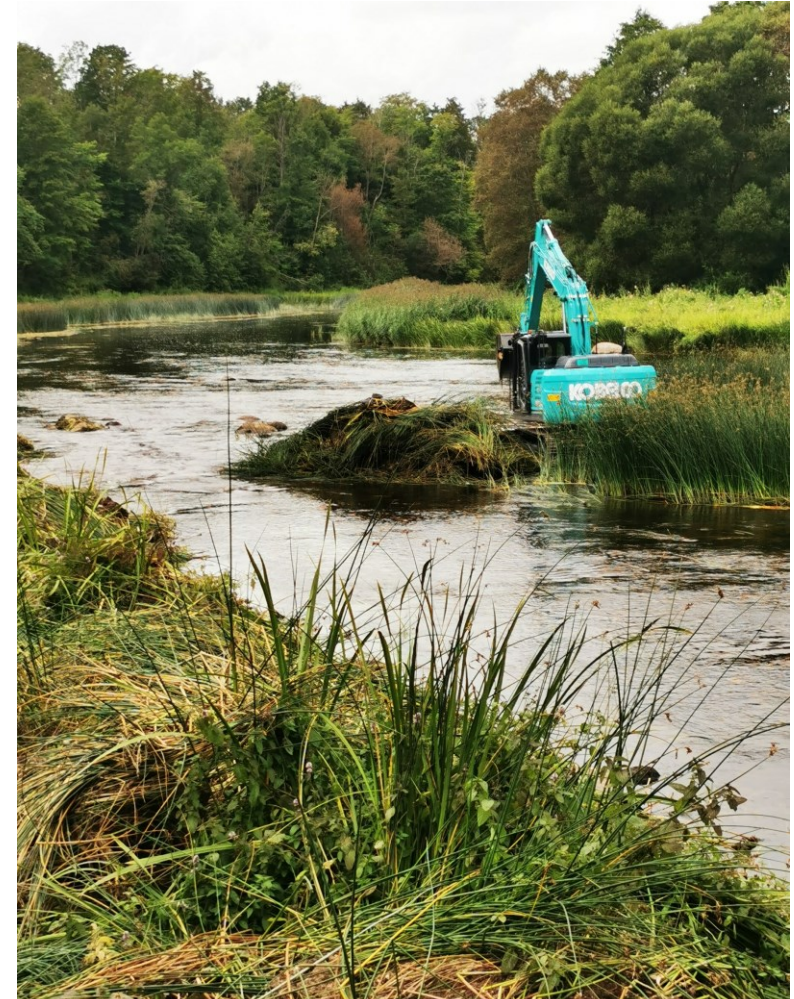


LVGMC

Activities

- The Habitats Directive and Water Framework Directive harmonization in model territory
- Development of riparian forest management methods
- Improvement of freshwater biotope
- Ecosystem service evaluation
- Development of Natura 2000 territory protection plan in new framework

Freshwater habitat restoration 3260



SALACA DAM REMOVAL

- Complex river restoration activities in Natura 2000
- ~613 km (2886km²) will be restored into free-flowing rivers
- ~2,5% of the goal of the EU Biodiversity Strategy for 2030
- ~ 46 000 m³ of dense sediments will be pumped out of river
- Sediments into peat bogs and quarries for afforestation
- **The project was not approved in 2024!!!**



Thank you for your attention!

Let's release the Salaca river for salmon and other species!

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