LITHUANIA

Report from case area Dovinės river basin
Summary (short description)

Introduction to the case area

The Dovine River Basin covers an area of approximately 588.7 km^2 and is located in the southern part of Lithuania (see Figure 1). The basin is one of the small catchment areas of the larger Neman river basin, which covers around 75% of the territory of Lithuania and is the 4th river basin in size in the whole Baltic Sea Region.

Figure 1. Location of Dovinė River Basin in Lithuania

The Dovine river catchment (see Figure 3) consists of a network of rivers and water bodies formed by five big lakes (Dusia 23,3 km^2, Zuvintas 9,3 km^2, Simnas 2,4 km^2, Giluitis 2,4 km^2, Amalvas 1,9 km^2) and a number of rivulets and small lakes. Within the borders of the basin lies one of the oldest and most unique protected areas of Lithuania –Zuvintas Biosphere Reserve. A part of the reserve is protected by the RAMSAR convention since 1993 and in 2011 the reserve was enlisted into UNESCO's Man and the Biosphere Programme.

In 19th and 20th century, land reclamation and wetland drainage projects were carried out in order to expand agricultural lands and make us of fertile lands in the Dovine river basin. Therefore, the natural hydrological cycle was interrupted, many wetlands were drained and meliorated to provide space for agricultural lands.

Currently, most of the surrounding areas are productive agricultural lands (productivity is higher than the average of the country). The forest cover is scarce, i.e. approximately 16 % of the area (the average in Lithuania – 33%). As a result, the water quality in the lakes within the Dovine river catchment, is remarkably deteriorating and results in eutrophication of the water bodies within the catchment. Zuvintas lake (Figure 2) in particular and the whole wetland system in the reserve is under heavy pressure of leaching of nutrients mostly from agricultural activity in the basin, which is degrading the ecosystems and their values.

Figure 2. Zuvintas lake. *Source: Zuvintas Biosphere Reserve Directorate*.

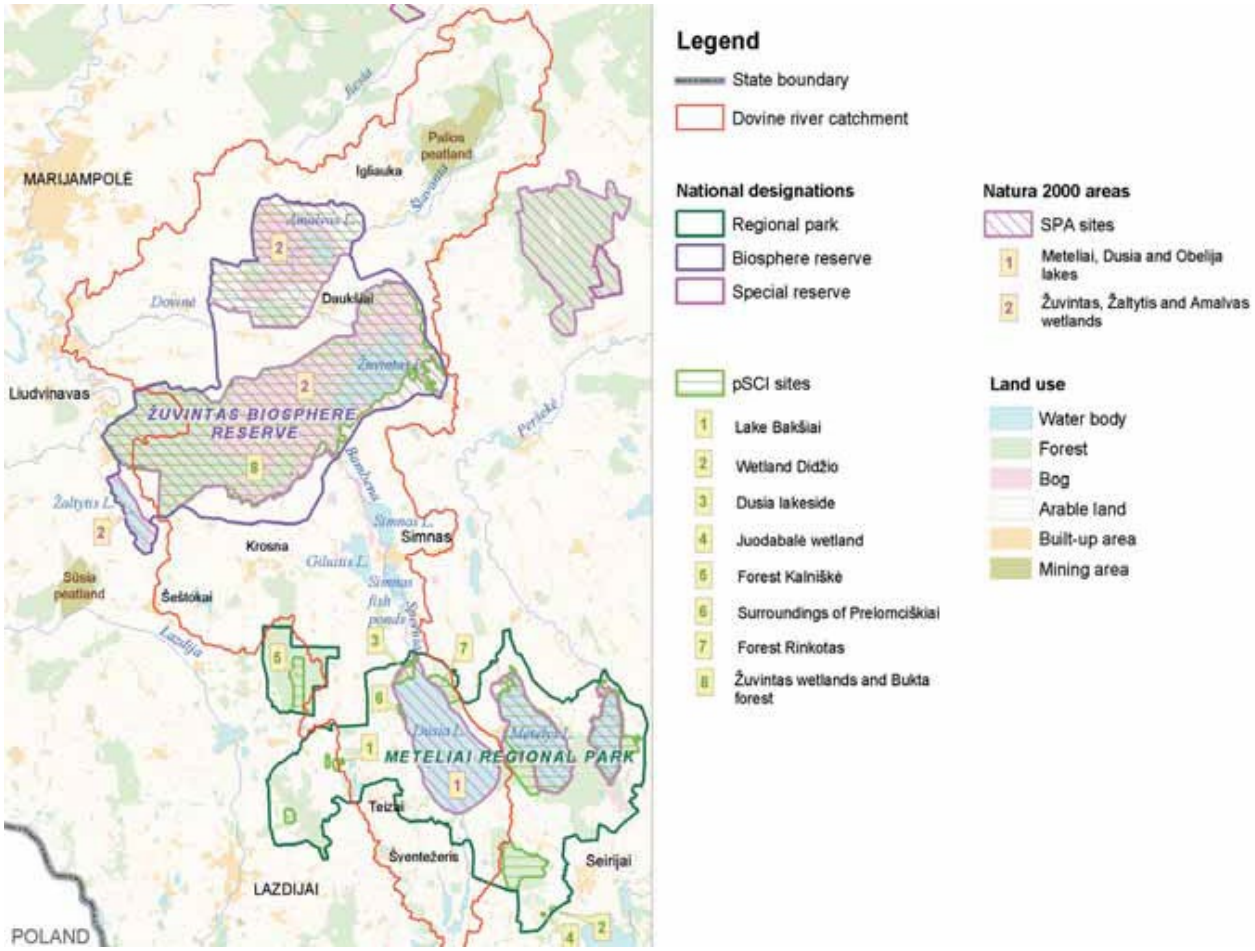

Figure 3. Overview of the Dovinė River Basin.

Strategic tasks/goals in the catchment

WP2 in Waterdrive will focus particularly on leaching of nutrients into the Zuvintas lake from surrounding territories. As a kick-off the team started a dialogue with Zuvintas Biosphere Reserve Directorate and hydrology expert to identify the needs for water pollution management. After communication with the reserve directorate it appears that there is a strong need for data to identify pollution sources and support water pollution management measures. Therefore, within Waterdrive project Baltic Environmental Forum (BEF-LT) will proceed with the procurement of the water quality monitoring programme, while facilitating the dialogue among the directorate and experts, to define the strategy for water quality monitoring and data collection. After the water quality monitoring programme will be developed, BEF-LT will initiate water quality measurements to collect the basic water quality data for Zuvintas lake. In addition, BEF-LT aims to involve local community, schools and farming companies in the dialogue about water pollution and water quality tendencies through local events.

In parallel, BEF-LT will conduct communication with local farming companies and local authorities to discuss and identify possible and most feasible water pollution management measures, basing on Zuvintas nature management plan and the results of the project "Management and Restoration of Natura 2000 sites thin the Dovine River Basin" (implemented in 2006), where the Dovine river basin was a pilot site. The measures discussed will indicate appropriate pathways addressing the degradation of the valuable ecosystems within the basin, which suffer from nutrient leaching, by integrating new modern methods and measures, which would be uptaken from the results and best-practises produced and exchanged within the Waterdrive project.

Focus Groups - local actions and implementation

BEF-LT aims to contact and involve the following stakeholders in the focus groups and stakeholder workshops to discuss appropriate water pollution management measures:

1. Simnas fishery ponds
2. Municipalities
3. Farming companies
4. Meteliai Regional Park
5. Zuvintas Biosphere Reserve
6. Agricultural Advisory Service
7. Environmental Agency Departments
8. Ministry of Environment
9. Ministry of Agriculture
10. Vytautas Magnus Univeristy

It is expected that by facilitating the dialogue among stakeholders, the most effective and appropriate nature-based solutions and other necessary measures to reduce water pollution will be identified. Also, that effective policies and compensation measures will be discussed and identified by engaging and facilitating collaboration among farmers and authorities.

Challenges

One of the challenges could be to maintain the interest from municipalities and farming companies to participate in the focus groups. Participation in the focus groups may seem as an extra work which is

not rewarding. Or there may be some scepticism or reluctance from the farmers to engage and take any action, if that action would require additional investment from their side or inconvenient change of orthodox farming practices or behaviour and would not bring any direct profits. Therefore, careful and clear communication will be needed to address farmers, help them understand their importance and influence of their farming practices to the water quality. Moreover, their participation, active engagement and fair contribution in the focus groups/stakeholder workshops will need to be ensured by moderators of these activities.

Conclusions

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