



# **WATERDRIVE**

Water driven rural development in the  
Baltic Sea Region

## Executive Summary

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Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Sweden

## 1. Contact Information

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## 2. Project Summary

Waters, ecosystems and local communities are under stress in the Baltic Sea Region (BSR), affected by high nutrient loadings and eutrophication. Responsible management of water resources in agricultural areas can reduce nutrient loadings by 30-50% and provide for healthier waters and more productive ecosystems. WATERDRIVE will enhance the opportunities and capacities for local authorities and communities in agricultural areas to reach such targets in a general context of sustainability and resource efficient growth.

WATERDRIVE is a pan-Baltic project with activities supporting transnational cooperation and actions in 8 countries: Poland, Lithuania, Latvia, Estonia, Finland, Sweden, Denmark and Germany. The experienced partnership is well anchored within the target groups, including local/regional authorities, agricultural advisory services, practitioners, farming communities and other water/land managers.

The project enhances local implementation practices for responsible water management, aiming to improve water quality and strengthen ecosystem services. Specifically, the project boosts capacity building in best practices for multi-actor implementation, facilitation by catchment officers, new technologies and decision support, spatial planning for precision water management, flood and drought management, and adaptation of policies and compensations systems. Activities are geared towards improving local implementation practices and achieving sustainable impact. The project does not focus on any specific measure or action, but provides tools and capacities for the target groups in order to optimise the management of their own water resources and ecosystems on a long-term basis.

National program evaluations, reviews by the European Court of Auditors, and HELCOM assessments indicate that there are major gaps in the realisation of water quality targets set by national and international directives, e.g. the WFD. The wide gaps reflect the lack of real opportunities and capacities for local authorities and communities to reach these targets and still develop a competitive rural business. WATERDRIVE aims to bridge this gap.

WATERDRIVE will combine environmental objectives with social and economic development objectives in rural areas. Project implementation requires a strong anchor within the target groups and simultaneous connections with the latest in innovation and research. This cross-sector implementation opens new opportunities for the target groups and enhances transnational cooperation. An inspiring possibility is the strategic adaptation of policies and compensation systems aiming to develop more cost-efficient agri-environment programs and compensation systems. An example can be the adaptation of result-based payment systems.

Around 20 rural communities will be involved during project implementation; however, approx. 100 communities across the BSR are expected to implement WATERDRIVE's results in the 5-year post-project completion period.

### 3. Project Structure

|                                                                  |                                                                                      |
|------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>WP1</b>                                                       | <b>Management and communication</b>                                                  |
| <b>Lead: Swedish University of Agricultural Sciences</b>         |                                                                                      |
| <b>WP2</b>                                                       | <b>Multi-actor implementation</b>                                                    |
| <b>Lead: SEGES</b>                                               |                                                                                      |
| 2.1                                                              | Best practices in multi-actor implementation                                         |
| 2.2                                                              | Leadership and coordination development                                              |
| <b>WP3</b>                                                       | <b>Advancing new technologies and methods</b>                                        |
| <b>Lead: Latvia University of Life Sciences and Technologies</b> |                                                                                      |
| 3.1                                                              | Accessibility to information about agri-environmental measures                       |
| 3.2                                                              | Multiscale decision support system                                                   |
| 3.3                                                              | Spatial planning in agricultural landscapes – methods and process                    |
| <b>WP4</b>                                                       | <b>Adapting policies and financing</b>                                               |
| <b>Lead: SEI-Tallinn</b>                                         |                                                                                      |
| 4.1                                                              | Learning more about alternative policies and compensation systems                    |
| 4.2                                                              | Guidelines for testing policy instruments                                            |
| <b>WP5</b>                                                       | <b>Strategic impacts and investments</b>                                             |
| <b>Lead: European Regional Centre for Ecohydrology</b>           |                                                                                      |
| 5.1                                                              | Recommendations and strategies for water management in agricultural areas of the BSR |
| 5.2                                                              | Training and educational packages for the target groups                              |
| 5.3                                                              | Development of larger technical investment proposals                                 |

## 4. Challenge to be addressed

The Baltic Sea is shallow and semi-enclosed, with a very long water exchange time of about 40 years. The varying brackish water conditions is challenging for all biological resources, and there are also high population centres in the drainage basin. For each person in the drainage basin there is not much more than an ordinary public swimming pool as a recipient for all anthropogenic effluents on an annual basis. Therefore, governments around the Baltic Sea must implement actions that are beyond what is required of most other European governments.

Reaching the sophisticated levels of water management needed to strengthen ecosystems in the BSR is indeed challenging and difficult for societies in general and local communities in particular. National program evaluations, reviews by the European Court of Auditors and HELCOM assessment all show that there are major gaps in the realisation of water quality targets set by national and international directives, e.g. the Water Framework Directive (WFD). The wide gaps reflect the lack of real opportunities and capacities for local authorities and local communities to reach these targets and still sustain a competitive rural business.

Recently published long-term data indicates that the ecological status is not improving, but in some areas is in fact deteriorating. However, there are also positive signs of recovery and improved water quality - a study performed in Sweden indicates that the capacity building and training efforts to minimise losses of nutrients from farms in parts of southern Sweden have been successful. There are also success stories of managing water resources jointly by local authorities and agricultural communities.

The challenge is to optimise the exact location of measures in the agricultural landscape. For example, a wetland in the wrong place costs as much to construct as a wetland in the right place. However, the difference in water quality improvements is drastic, with a factor as much as 1:10, depending on the location. This form of precision water management will save money for society but requires spatial planning and qualified decision support and can only be implemented with the knowledge and flexibility of local adaptations and regional support. However, in general local actors are not cooperating sufficiently enough across sectors and between actors, but there are also exceptional successful local cross-sector initiatives.

The question is what can we learn from these successful initiatives, and how can local actors be inspired and empowered to engage more in water management? The answer is probably found in a change of attitudes on several levels of society from local to national. There is not a lack of water management plans, nor a lack of biological and technical solutions, but there is a lack of success stories, financing and local level coordination and leadership. Without strengthening those essential elements of change and development, it will be difficult to reach the targets of the WFD and the HELCOM Baltic Sea Action Plan (BSAP).

WATERDRIVE bridges the gaps between high water quality targets set and real opportunities at hand for local authorities and communities. Local cross-sector water management practices, precision water management and transnational cooperation will be at the heart of the WATERDRIVE strategy. This strategy will come into action in the project pilot regions. Pilot regions have been invited to participate in the project through being a region/area with substantial problems related to loadings of nutrients, commitment to resolve the problems and, to some extent, available basic data and information to

facilitate a cross-sector dialogue on how to proceed. The pilot regions within WATERDRIVE are South West Finland, Southern Sweden, the Odense district in Denmark, the Schwentine-Holsteinische Schweiz model region in Germany, the Kujawsko-Pomorskie, Łódzkie, Lubelskie and Wielkopolskie regions in Poland, and the Zemgale Region in Latvia. Pilot regions for Estonia and Lithuania have not yet been confirmed.

The present financial compensation systems coming through the CAP Rural Development Program is primarily geared towards implementing actions on farm level and not particularly stimulating effectiveness of those actions on a drainage basin level. It is an inspiring opportunity to develop and adapt those policies and compensation systems aiming to enhance local implementation practises and precision water management on a catchment or drainage basin level. The CAP is the main financial instrument and, as mentioned, the EU commission is communicating the possibilities for increased flexibility and national and regional adaptations in the future programs. WATERDRIVE results can be used by the BSR countries and on the transnational level to facilitate a transition to more effective future programs.

## 5. Partnership

The WATERDRIVE partnership is designed to achieve long-term impacts and enhance individual and institutional capacities. WATERDRIVE has attracted highly experienced individuals working with water and land use quality issues as officials, advisors, spatial planners, farmers and researchers. The partnership has further attracted national support from the Polish Ministry of Agriculture and Rural Development, the Estonian Ministry for Rural Affairs, the Estonian Ministry for Environment, The Ministry of Agriculture of the Republic of Latvia and many regional and local authorities. The WATERDRIVE partnership is designed to enhance capacities on local, national and transnational levels and mobilise resources in the project pilot regions. The partnership rotates local implementation practices with the latest from innovation and research.

Other experienced partners are the Latvian Farmers Parliament (ZSA), Pro-Agria and the Finnish Field Drainage Association, SET-Tallinn as a policy expert and municipalities such as the Västervik Municipality in Sweden, the Jelgava Rural Municipality in Latvia, and the Baltic Environmental Forum Lithuania. Several additional municipalities and county/regional authorities are included as associated organisations. The cross sector local partnerships form project pilot regions. The number of local authorities in the project pilot areas is expected to increase after the start of the project.

The partnership also comprises of individuals with specific competences as facilitators and experts in spatial planning, water management and outreach. Those are e.g. the Finnish Environment Institute (SYKE), and the Polish PHENO Horizon. Research institutions including the European Regional Centre for Ecohydrology (ERCE), the Finnish Natural Resource Institute (LUKE), the Swedish University of Agricultural Sciences (SLU) and the Latvia University of Life Sciences and Technologies (LLU) contribute in their roles as coordinators and science based experts. Regional and national authorities the Swedish Board of Agriculture (SBA), the Agency for Agriculture, Environment and Rural Affairs of the German Federal State Schleswig-Holstein (LLUR), South Baltic Water District Authority/Kalmar County Administrative Board (SBWA) and associated partners the Zemgale Planning Region in Latvia and the South West Finland Centre for Economy, Transport and Environment (VARELY) are all connectors between the national authority level and the local implementation of responsible water management practices.

## Project Partners

| Role | Organisation (English)                                                                               | Organisation (Original)                                             | Country | Organisation Type                         |
|------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------|-------------------------------------------|
| PP1  | Swedish University of Agricultural Sciences                                                          | Sveriges Lantbruksuniversitet (SLU)                                 | SE      | National public authority                 |
| PP2  | South Baltic Water District Authority/Kalmar County Administrative Board                             | Södra Östersjöns vattendistrict/Länsstyrelsen Kalmar län            | SE      | Local public authority                    |
| PP3  | Swedish Board of Agriculture                                                                         | Jordbruksverket                                                     | SE      | National public authority                 |
| PP4  | Västervik Municipality                                                                               | Västerviks kommun                                                   | SE      | Local public authority                    |
| PP5  | Baltic Environmental Forum Lithuania                                                                 | Vsį Baltijos aplinkos forumas Lietuvoje                             | LT      | Interest groups including NGOs            |
| PP6  | Natural Resources Institute Finland                                                                  | Luonnonvarakeskus (Luke)                                            | FI      | Higher education and research institution |
| PP7  | Finnish Environment Institute                                                                        | Suomen ympäristökeskus (SYKE)                                       | FI      | National public authority                 |
| PP8  | ProAgria Southern Finland                                                                            | ProAgria Etelä Suomi ry                                             | FI      | Interest groups including NGOs            |
| PP9  | Finnish Field Drainage Association                                                                   | Salaojayhdistys ry                                                  | FI      | Interest groups including NGOs            |
| PP10 | Stockholm Environment Institute Tallinn Centre                                                       | Stockholmi Keskkonnainstituudi Tallinna Keskus                      | EE      | Higher education and research institution |
| PP11 | Jelgava Local Municipality                                                                           | Jelgavas Novads                                                     | LV      | Local public authority                    |
| PP12 | Latvia University of Life Sciences and Technologies                                                  | Latvijas Lauksaimniecības universitāte                              | LV      | Higher education and research institution |
| PP13 | Union Farmers' Parliament                                                                            | Biedriba Zemnieku Saeima                                            | LV      | Interest groups including NGOs            |
| PP14 | Agricultural Advisory Service in Brwinow                                                             | Centrum Doradztwa Rolniczego w Brwinowie                            | PL      | National public authority                 |
| PP15 | European Regional Centre for Ecohydrology                                                            | Europejskie Regionalne Centrum Ekohydrologii Polskiej Akademii Nauk | PL      | Business support organisation             |
| PP16 | PhenoHorizon OLP SP. zO.O.                                                                           | PhenoHorizon OLP Spółka z ograniczoną odpowiedzialnością            | PL      | Small and medium enterprise               |
| PP17 | Agency for Agriculture, Environment and Rural Affairs of the German Federal State Schleswig Holstein | Landesamt für Landwirtschaft, Umwelt und ländliche Räume            | DE      | Local public authority                    |
| PP18 | L&F SEGES                                                                                            | Landbrug & Fødevarer F.m.b.A.                                       | DK      | Business support organisation             |

## Associated Organisations

| Role | Organisation (English)                                                                  | Organisation (Original)                                       | Country | Organisation Type                         |
|------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------|---------|-------------------------------------------|
| AO1  | Ministry of Rural Affairs, Estonia                                                      | Maaeluministeerium                                            | EE      | National public authority                 |
| AO2  | Ministry of the Environment, Estonia                                                    | Keskkonnaministeerium                                         | EE      | National public authority                 |
| AO3  | Ministry of Agriculture and Rural Development, Poland                                   | Ministerstwo Rolnictwa i Rozwoju Wsi                          | PL      | National public authority                 |
| AO4  | Bauska Rural Municipality                                                               | Bauskas Novada Dome                                           | LV      | Local public authority                    |
| AO5  | National Water Management Authority "Polish Waters"                                     | Państwowe Gospodarstwo Wodne "Wody Polskie"                   | PL      | National public authority                 |
| AO6  | The Centre for Economic Development, Transport and the Environment of Southwest Finland | Varsinais-Suomen ELY-keskus (VARELY)                          | FI      | National public authority                 |
| AO7  | The Federation of Swedish Farmers                                                       | Lantbrukarnas Riksförbund                                     | SE      | Interest groups including NGOs            |
| AO8  | County Administrative Board Västmanland                                                 | Länsstyrelsen Västmanlands län                                | SE      | Regional public authority                 |
| AO9  | Race for the Baltic                                                                     | Race for the Baltic                                           | SE      | Interest groups including NGOs            |
| AO10 | Zemgale Planning Region                                                                 | Zemgales Planosanas Regions                                   | LV      | Regional public authority                 |
| AO11 | Penn State Agriculture and Environment Center                                           | Penn State Agriculture and Environment Center                 | Other   | Higher education and research institution |
| AO12 | Russian Academy of Sciences, P.P. Shirshov Institute of Oceanology Atlantic Branch      | Атлантическое отделение                                       | RU      | Higher education and research institution |
| AO13 | Baltic Institute for Ecology of the Hydrosphere Ltd.                                    | Балтийский институт экологии гидросферы                       | RU      | Higher education and research institution |
| AO14 | Odense Municipality                                                                     | Odense commune                                                | DK      | Local public authority                    |
| AO15 | National Council of Agricultural Chambers                                               | Krajowa Rada Izb Rolniczych (KRIR)                            | PL      | Business support organisation             |
| AO16 | Łódz Agricultural Advisory Center                                                       | Łódzki Ośrodek Doradztwa Rolniczego                           | PL      | Business support organisation             |
| AO17 | Marshal's Office of the Łódz Voivodship                                                 | Urząd Marzalkowski Województwa Łódzkiego                      | PL      | Regional public authority                 |
| AO18 | Marshal's Office of the Kujawsko-Pomorskie Voivodeship in Torun                         | Urząd Marzalkowski Województwa Kujawsko-Pomorskiego w Toruniu | PL      | Regional public authority                 |
| AO19 | The Regional Council in Kalmar County                                                   | Regionförbundet i Kalmar Län                                  | SE      | Regional public authority                 |
| AO20 | Centrovice                                                                              | Centrovice                                                    | DK      | Small and medium enterprise               |
| AO21 | DLMO                                                                                    | Dansk Landbrug Midt- og Østjylland (DLMØ)                     | DK      | Business support organisation             |
| AO22 | Ministry of Agriculture and Forestry, Finland                                           | Maa- ja metsätalousministeriö                                 | FI      | National public authority                 |

| Role | Organisation (English)                                                                      | Organisation (Original)                                                                     | Country | Organisation Type                          |
|------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------|--------------------------------------------|
| AO23 | Latvian Rural Advisory and Training Centre                                                  | Latvijas Lauku konsultāciju un izglītības centrs                                            | LV      | Business support organisation              |
| AO24 | Latvian Fund for Nature                                                                     | Latvijas Dabas fonds                                                                        | LV      | Interest groups including NGOs             |
| AO25 | The Baltic Sea Network for the European Agricultural Fund for Rural Development (BSN-EAFRD) | The Baltic Sea Network for the European Agricultural Fund for Rural Development (BSN-EAFRD) | LT      | Sectoral agency                            |
| AO26 | Kujawsko-Pomorskie Agricultural Advisory Centre                                             | Kujawsko-Pomorski Ośrodek Doradztwa Rolniczego w Minikowie                                  | PL      | Business support organisation              |
| AO27 | Lubelskie Agricultural Advisory Centre                                                      | Lubelski Ośrodek Doradztwa Rolniczego w Konskowoli                                          | PL      | Business support organisation              |
| AO28 | Wielkopolski Agricultural Advisory Centre                                                   | Wielkopolski Ośrodek Doradztwa Rolniczego w Poznaniu                                        | PL      | Business support organisation              |
| AO29 | Central Agricultural Library, Poland                                                        | Centralna Biblioteka Rolnicza                                                               | PL      | Infrastructure and public service provider |
| AO30 | Foundation of Managerial Initiatives                                                        | Fundacja Inicjatyw Menedżerskich (FIM)                                                      | PL      | Small and medium enterprise                |
| AO31 | Institute of Rural and Agricultural Development of the Polish Academy of Sciences           | Instytut Rozwoju Wsi i Rolnictwa Polskiej Akademii Nauk (IRWiR PAN)                         | PL      | Higher education and research institution  |
| AO32 | Latvian Environment, Geology and Meteorology Centre (LEGMC)                                 | Latvijas Vides, Ģeoloģijas un Meteoroloģijas Centrs                                         | LV      | Sectoral agency                            |
| AO33 | Lithuanian Agricultural Advisory Service                                                    | Lietuvos žemės ūkio konsultavimo tarnyba                                                    | LT      | Business support organisation              |
| AO34 | Ministry of Agriculture of the Republic of Latvia                                           | Zemkopības ministrija                                                                       | LV      | National public authority                  |
| AO35 | The Foundation for a Living Baltic Sea (Baltic Sea Action Group)                            | Elävä Itämeri säätiö                                                                        | FI      | Interest groups including NGOs             |