WATERDRIVE
8TH COMMUNICATION BRIEF

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Large-scale practical water management case in Poland including regional and national support

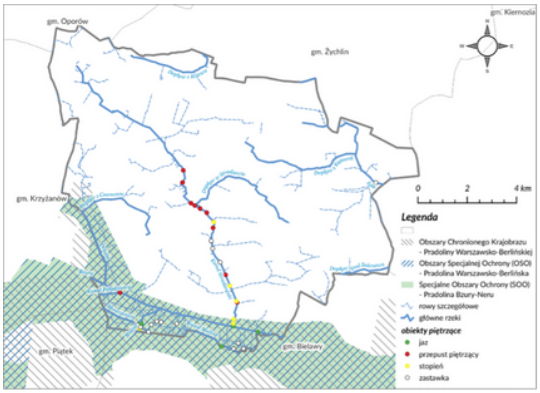
Waterdrive Interreg Baltic Sea Region
EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND
WITH FINANCIAL SUPPORT OF THE RUSSIAN FEDERATION

Dear reader!

The Polish Waterdrive team now can demonstrate how they went ahead with strengthening water management in an intensive agricultural area. This is maybe one of the most successful large-scale examples of holistic water management in an intensive agricultural region – the Kutno case area - heavily affected by drought. Here farmers have joined forces with the local water company, the municipal authorities and national Polish programs and financing.

Photo by Izydorczyk

Their work involves more than 5000 hectares and uses the existing channels and drainage infrastructure to regulate water level to the needs of agriculture, ecosystems and society. This is a very good example of what can be achieved through cross-sector cooperation building on local knowledge, committed institutions, research insights and national financing.



Bedlno Commune
part of Kutno County
Waterdrive Case Area in Poland

Area: 126 km²
Inhibitans: 5 221 (GUS, 2021)

Goals:
Increased water retention in agricultural areas by:
(1) Renovating the drainage system and switching to a controlled drainage system
(2) Landscaping - protection, restoration, construction of new measures (buffer zones, mid-field shrubs and trees, wetlands, small ponds)
(3) Building capacity for local cooperation

The progress in Kutno puts action behind Waterdrive recommendations like:

- Climate and water hot-spot areas – Targeting multiple policy areas and security
- Farmers' motivation and responsibilities – Competitiveness, incentives and leadership
- Catchment officers and water expertise – New competencies and expertise required.
- Role of local authorities and municipalities – Public and private partnerships
- Research for integrated climate- and water risk management

THE EFFECTS OF SEVERE DROUGHT AS A DRIVER FOR ACTION

Kinga Krauze and Katarzyna Izydorczyk (ERCE PAN)

Poland is one of the countries with very limited water resources. Renewable fresh water resources per capita amount to 1600 m^3 (annual averages from many years, GUS 2016), while already the level of 1700 m^3 per capita is considered as a critical one. It causes prolonged water stress, i.e. exceeding the level of water safety.

Analyses indicated also that 37.80% of agricultural and forest areas are endangered by extreme and strong agricultural drought which, together with areas endangered to a moderate degree (7.72%), qualifies as much as 45.52% of agricultural and forest areas as significantly endangered by agricultural drought (PPSS 2020).

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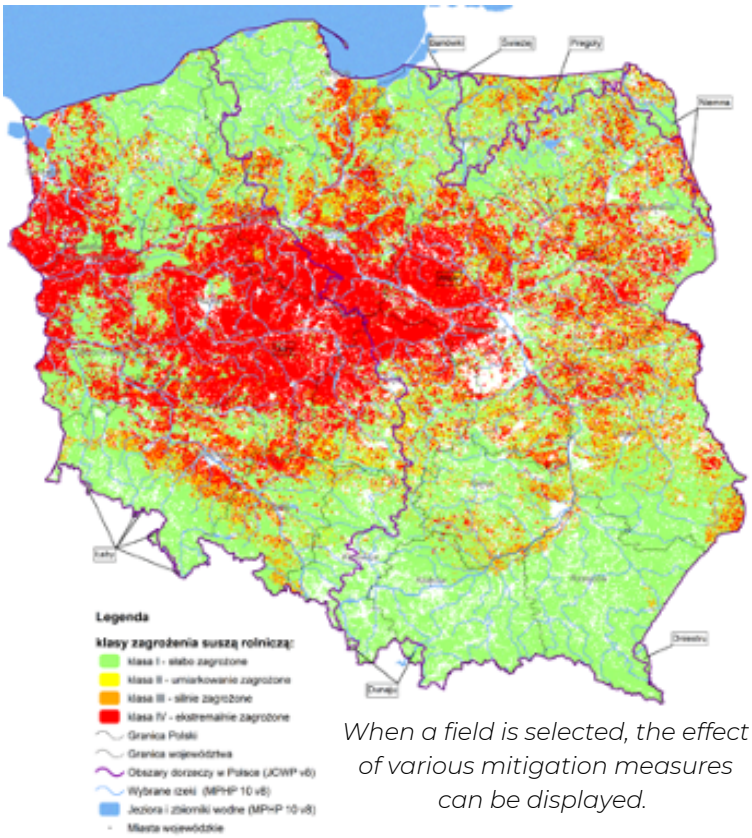

When a field is selected, the effect of various mitigation measures can be displayed.

CONTROLLED DRAINAGE AS A MEASURE FOR INCREASED WATER RETENTION: EXPERIENCE FROM BEDLNO COMMUNE (KUTNO COUNTY CASE AREA)

Wojciech Frątczak and Katarzyna Izydorczyk (ERCE PAN)

The droughts affecting farmers and residents have turned water management from a theoretical research task into an important element affecting agricultural production.

The discussion about the possibilities of water retention in agricultural areas was the main topic of Local WATERDRIVE Meetings, which took place in 2020. The meetings were attended by farmers from Bedlno Commune (water company - voluntary association of farmers, who are owners of land through which a drainage system passes., community council), representatives of National Water Holding Wody Polskie (responsible for water resources management; from local, catchment, regional and national level), water companies and local authorities from Kutno County, regional authorities, agricultural advisors, and experts.

Stakeholders identified the use of the drainage system as a basic tool in the fight against drought. Renovating the drainage system and switching to a controlled drainage system allows water to be collected in open ditches and underground pipes through damming facilities, what resulted increased water retention in the soil.

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NATURE-BASED SOLUTION FOR INCREASED WATER RETENTION IN LANDSCAPE LEVEL

Kinga Krauze, Tomasz Rychlicki and Katarzyna Izydorczyk (ERCE PAN)

The collaboratively developed The Local Action programme for increased water retention in the Bedlno Commune is focused on two main elements: the modernisation of the drainage system towards controlled run-off, and the application of nature-based solutions (NBS).

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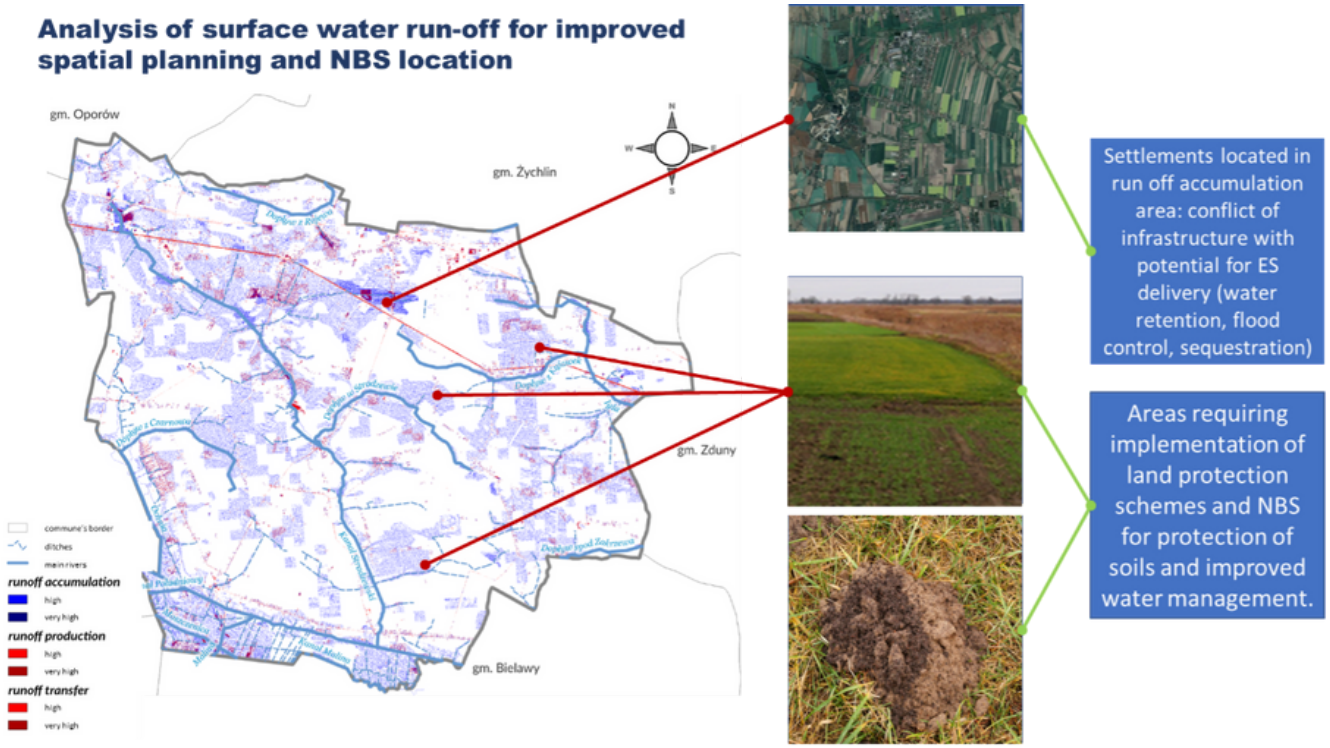

The multifunctionality of NBS: the wetland area within the Orłowo village operates as water retention facility, carbon sink, biodiversity refuge and place for relaxation and contact with nature. [photo by Izydorczyk]

Example from the Great Poland region: pond surrounded by the marshland located in the area of very intense agriculture, its quality as a ecosystem service provider is well indicated by variety of species it hosts (e.g. heron on the picture) [photo by Krauze]

NEW TYPE OF AGRICULTURAL ADVISORY SERVICES – WATER ADVISOR

Janusz Dąbrowski (CDR Brwinów)

The concept of the new type of specialization – water advisor - operating in the system of Polish public agricultural advisory services was developed as a part of the Waterdrive activities.
The aim of the new type of services is to extend the standard agricultural advisors services for development of more focused ones on water management in agriculture at farm level activities. The new specialization is based on already existing professional knowledge for advisors further developed by set of knowledge and skills acquired by advisors due to some additional professional trainings.

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LOCAL WATER PARTNERSHIP: NATIONAL INITIATIVE FOR LOCAL WATER MANAGEMENT IN AGRICULTURAL AREA

Katarzyna Izydorczyk (ERCE), Maciej Kowalczyk and Małgorzata Grodzicka-Kowalczyk (Pheno Horizone) and Janusz Dąbrowski (CDR Brwinów)

Multi-stakeholder cooperation started during the WATERDRIVE project found its continuation in official structures as a part of Local Water Partnerships in Kutno County (supported actively by the Waterdrive testing water advisor in the case area).
The initiative to create Local Water Partnerships was taken by the Ministry of Agriculture and Rural Development and the Agricultural Advisory Centre in Brwinów in cooperation with the Regional Agricultural Advisory Centres in 2020. The aim of the partnership is to diagnose the condition and principles of rational water management and drought prevention in the district. In the future, it will probably also be able to obtain funds for studies and expert opinions on water retention in agricultural areas and give opinions on planned investments.

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Local Water Partnership meeting in Kutno County (26.11.2021) to discuss the development of the Rural Water Management Development Plan for the Kutno County Local Water Partnership for 2022 – 2030 [Photo by PHENO HORIZON]

PARTICIPATORY TOOLBOX AND LEADERSHIP MANUAL IN PRACTICES: WORKSHOPS FOR WATER ADVISORS AND LOCAL WATER PARTNERSHIPS LEADERS

Małgorzata Grodzicka-Kowalczyk, Maciej Kowalczyk (PHENO HORIZON) and Katarzyna Boczek (CDR Brwinów)

As part of the WATERDRIVE project, the PHENO HORIZON team in cooperation with CDR Brwinów conducted workshops under the name: Role and tasks of Local Water Partnerships leaders in water management processes in the landscape.

Workshop work aimed at preparing for work using the Living Labs method: discussing the stakeholders and developing a list of benefits, developing a work schedule as part of the Living Lab, promoting the created Living Lab (preparation by participants of materials supporting stakeholder engagement – drawing a poster, preparing a presentation).

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Photo by PHENO HORIZON

WATERDRIVE PROJECT PARTNERS MEETING IN ŁÓDŹ (POLAND)

Małgorzata Grodzicka-Kowalczyk and Maciej Kowalczyk (PHENO HORIZON)

The final, hybrid meeting of the Waterdrive Project Partners took place on 1-2 December 2021. The stationary meeting was held in Lodz (Central Poland), the capital of the Lodzkie region, where the Kutno County - Waterdrive case area is located. In parallel, the meeting was held on an online platform to enable participation of all willing regardless of pandemic constraints.

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Photo by: In Videre Robert Szymczak

LOCAL MULTI-STAKEHOLDERS COOPERATION IN POLAND:
WATERDRIVE PROJECT PARTNERS MEETING WITH STAKEHOLDERS FROM KUTNO COUNTY CASE AREA (POLAND)

PHOTO: Waterdrive Project Partners meeting with stakeholders from Kutno County Case Area [photo by Izydorczyk]

Katarzyna Izydorczyk and Wojciech Frątczak (ERCE PAN)

During final Waterdrive meeting a field visit to the Bedlno commune took place on December 3, 2021. Bedlno Commune, one of 10 communes in the Kutno County Waterdrie case area, has been selected for testing Waterdrive approach in the small agricultural catchment scale.

One of the main reasons for choosing the commune was the location of the Stradzewski Channel basin, which lies entirely within the commune and is a system linked to the drainage system.

The Stradzewski Channel is 14 km long and its catchment area is 5 331 ha. The second factor was that the Bedlno Water Company (association of farmers) is one of the most effective water company in the Lodzkie Province.

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