[GE4]: WaterFarmers Dachverband Feldberegnung Uelzen (DFU) / Landwirtschaftskammer Niedersachsen (LWK)

BlueTransition

**Interreg** North Sea

How to make my region climate resilient

**Blue Transition** 

## **Pilot summary**

Increasing demand for irrigation water because of more frequent droughts require better management of groundwater bodies. Irrigation agriculture has been established in the region for over 60 years and contributes existentially to the preservation of agriculture in the districts of Uelzen.

General approach: adaptation to increasing droughts by reorganization of groundwater extraction for protection of creek runoffs and groundwater dependent terrestrial ecosystems in spite of increasing need for groundwater abstraction; balance demands for groundwater (nature and irrigation); upscale results from the "triple monitoring" approach developed in Interreg NSR-Project "TopSoil" (that was: identification of effects of specific groundwater abstractions on small river flows).



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Link to thematic issues: cooperative groundwater abstraction management; improving ecological value; (managed aquifer recharge)

## Activities

Through the created hydrogeological model / groundwater flow model and in conjunction with the triple monitoring from TopSoil, we have the opportunity to identify regions in which the demand can no longer be covered by the groundwater without negative impacts on groundwater dependent terrestrial ecosystems and bodies of water or creeks.

Also we will identify areas in which the previous groundwater abstractions can be continued and areas in which an increase in the extraction of groundwater may even take place.

The project will first identify these areas and then work together with those affected on site on ways and measures to achieve groundwater management and a balance between these areas without individual regions being cut off from the supply of irrigation water from groundwater. In this respect, this project is a climate adaptation project. The umbrella organisation "Feldberegnung Uelzen" has set out to make this compensation possible. Furthermore, groundwater-dependent terrestrial ecosystems and creeks are to be protected and preserved. This requires stabilisation of low-water runoff in the region's creeks and rivers and also the groundwater level at the

## terrestrial ecosystems.

## Governance

- Selection of sub-pilot or project areas
- Identification of problem areas for the future operation of irrigation wells
- Identification of problematic irrigation wells
- Formation of a steering group for the definition of general rules for problem solving at the level of the overall project
- Formation of working groups by stakeholders at local level

Participation

Implementation

Selection

- ➤Raising awareness
  - >Develop solutions an measures locally; Consider ideas, hints, aspects of farmers





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 Analyze and evaluate the impact of possible measures analyzed and evaluated by means of scenario-analysis within the existing model

Assess examine

Present results locally and nationally and clarify implementation

➤The different scenarios will be assessed concerning the criteria: feasibility, capacity for legal permission, cost-benefit-ratio (investment and running costs), durability, private procurements, expected general acceptance and more.