

Action Lab Gowienica

THE CATCHMENT

- located in the North-West Poland
- the surface area is 63.65 km²
- located in the Pleistocene ice-dammed lake with little morphological diversity and only gentle changes in altitude
- 96% of the catchment used for agriculture





AGRICULTURAL ACTIVITIES

- occurrence of very fertile soils and favorable climatic conditions make the catchment area intensively utilized in agriculture
- average crop yield more than 2 times higher then national average
- in past years meadows and grasslands converted into agricultural lands
- high fertilization to produce high yields
- animal husbandry decreasing in favour of crop production
- currently 82% of farms concentrate only on crop production

LOCAL CHALLENGES

large scale producers use monocultures and grow industrial plants (eg corn)



- usage of excessive doses of fertilizers and pesticides
- manure and slurry handling and storage is still not well solved
- contamination of the Gowienica river with sewage already at its source
- no control mechanisms to verify implementation of BMPs and PoMs

MITIGATION MEASURES & BMP's

- farmers are well informed about BMPs and mitigation measures
- large variety of BMPs is used within the catchment, however their application differs significantly between farms
- the most commonly used BMP is professional support in selection of appropriate plant protection product, calibration of sprayers for the appropriate and optimized application of PPP as well as soil analysis for pH, nutrients or organic matter
- discharge of untreated sewage into waters and soils as well as the use highly toxic pesticides is banned within the catchment; however there are little control mechanisms in place
- the catchment area has been designated a Nitrate Vulnerable Zone since 2004 and Miedwie intake protection zone since 2005



Trend towards better water quality in NO₃



At least 15 meetings/trainings with farmers in the catchment.



Collaborative Webtool for easier data exchange and visualization of water quality.



Convincing farmers to incentives coming from BMPs realization.



Gathering data from different sources for better understanding how the Gowienica catchment functions – rationalization of water monitoring networks and water quality analyses.



5 local stakeholders actively involved in discussion on water governance model.



GOVERNANCE

High percentage of arable land in the total catchment area, intensive and high-performance agricultural production based on demanding plants (wheat, rape), insufficiently developed and leaking sewerage network, under-financing of municipal investments in sewage management, underfunding of the environmental monitoring program, insufficient law enforcement tools in the field of wastewater management, low involvement of the local society are currently the main problems identified in the catchment, which need a holistic approach for improvement.

Policies to be developed shall focus on encouraging agricultural producers to increase effective BMP implementation proving benefits to farmers. Higher investment in the municipal economy, modernizing the sewerage network and the sewage treatment process is as much needed as implementation of effective law enforcement tools in the field of environmental protection. Interinstitutional cooperation in the field of water management and environmental protection shall be strengthen. Most of all actions shall focus on raising awareness and involvement of farmers and local residents in water protection.



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