

SPECIFIC ENVIRONMENTAL PLANS IMPROVE WATER QUALITY



Summary

Due to poor water quality many European lakes are about to lose their function as drinking water reservoirs and recreational areas. In the Norwegian Aquarius pilot area local authorities, agricultural advisors, farmers and scientists have collaborated to reduce the phosphorus (P) loads which cause high eutrophication and toxic phytoplankton blooms in the local lake.

Thanks to specific environmental plans (e.g. buffers strips, wetlands and no soil tillage in autumn) created for each farm, the use of P-fertilization is now reduced by 75 per cent. At the same time, farmers have increased their engagement to improve water quality.

Main Benefits

General aspects

- » The farmers become engaged as water managers, and they are aware of the challenges they are facing as food producers in a changing climate.
- » The water quality in the western part of Lake Vansjø has been improved.

Economic/job creation

- » The focus on agricultural research and field experiments has resulted in less use of fertilizers while yield and quality are maintained. This implies both better finances for the farmer and a better nutrient balance.

Innovative aspects

- » The formation of local networks between authorities, agricultural advisors, farmers and scientists.
- » There has been additional research on the effect of different filter materials in constructed wetlands.

Boosters for Implementation

- » Individual advice resulted in an environmental plan for each farm. Local farmers were engaged in a collective action network.
- » We had the opportunity to pay grants to compensate for extra costs/reduced income due to reduced tillage, buffer strips, constructed wetlands and other mitigation measures.
- » The exchange of knowledge and experiences between farmers and researchers.
- » Establishment of local regulations with a set of restrictions on farming practices.

Barriers for Further Implementation

- » The farmers' incomes are mostly based on plant production. The value of green goods such as recreation and outdoor activities has to be payable to enable and continue-collective action for improved water quality.

How to Get Over Barriers

- » Keep up the focus on individual advice, extended by field trials to ensure that the new practice with reduced tillage and reduced use of fertilizers is profitable for the farmers.
- » In cases where the new practice is not profitable or affordable, the farmers need financial compensations.

Policy Recommendations

- » The farmers very often struggle to make a living out of agriculture. It is harder to make farming affordable with a set of restrictions and regulations for the farming practice. It is therefore necessary to financially compensate farmers for the implementation of mitigation measures.

More Information

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Farmers as water managers