WILLOW PLANTING
CREATES MULTIPLE BENEFITS

Summary

Climate change causes increased risk for run off of nitrogen in many European areas. In the Danish Aquarius pilot - a sub catchment to Mariager Fjord - the main focus was to identify possible win-win solutions in collaboration between different stakeholders in order to improve water quality.

Willow plantations in high risk areas of nitrogen run off can be a cost effective solution. Mapping of these high risk areas is crucial.

Main Benefits

General aspects

Growing willow can lead to:

- Improved water quality in the fjord due to less nitrogen leaching from fields.
- Reaching the municipality's climate objectives by linking local supply and demand of high energy crops for renewable energy.
- New business opportunities for farmers by becoming energy suppliers.

Economic/job creation

Growing willow can lead to:

- Reduced public costs for reaching the Water Framework Directive goals on good water quality for the fjord.
- New business opportunities for farmers as an alternative to taking arable land out of production or to restricting production conditions on arable land in general.

Innovative aspects

- By involving all primary stakeholders, optimal legal, economic and production conditions can be created for supplying energy willow as a new product to a new local market, while meeting water quality and climate objectives.

Boosters for Implementation

- An improved mapping identifying those areas where nitrogen runoff is high.
- A catchment stakeholder group where different perspectives on win-win-opportunities are represented.

Barriers for Further Implementation

- Lack of acceptance of using mapping for the identification of specific high risk areas due to a potential clash with the national implementation of the Water Framework Directive, where focus is on general regulation.
- Lack of opportunities for implementing locally generated solutions due to nationally approved methods for granting allowances.
- Lack of market-driven financing opportunities.
- Lack of innovative capacity for changing extension procedures.
- Finding solutions in collaboration requires reliability and trust between all stakeholders.

How to Get Over Barriers

Make test areas in which

- Improved mapping methods are used to identify future opportunities for Water Framework Directive implementation.
- Existing regulation is made responsive to locally generated win-win solutions.
- Innovative collaboration with banks on finding new products for private financing is being tested.
- Catchment stakeholders get time and real responsibility for reaching their goals.

Policy Recommendations

- Policy should promote the use of locally generated solutions and the fact that such solutions differ due to different local bio-physical and production conditions.
- Policy should actively support the creation of catchment stakeholder groups.

More Information

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