

SWEDEN

Implementing Local Development Strategies

Location

Gotland, Sweden

Programming period

2007 - 2013

Axis / Priority

Axis 4 – LEADER

Measure

M412 – 412 Environment /
land management

Funding (EUR)

Total budget: 154 554
EAFRD: 88 096

Project duration

2011 – 2013

Project promoter

Economic Association
Jordgumman

Contact

Eva Frölander
eva@gammelgarn.se
Tel. +46 498 52 333

Additional information

www.lantbruk.com/lantbruk/knot-ihop-vatmarker-pa-gotland-fick-mer-vatten

www.youtube.com/watch?v=9MtMexmqUYg&feature=youtu.be

This LEADER-funded project created several small wetlands and helped raise awareness of and interest in water protection among landowners. It also contributed to increasing the amount of available water in the island of Gotland.

Summary

Since the 1990's, access to ground water has been declining in the island of Gotland, Sweden. Private dug wells have been drying out, which is problematic especially for livestock farmers who have been obliged to tap water from a municipal water catchment. Drilling new wells had not brought a solution since the newly drilled wells produced either brackish or gassy water, or often there was high drilling cost for no water found.



In 2003, a study on the water system circle started to investigate the factors that had a crucial effect on the water access in the area and would increase the water resource for their wells. At first, three ponds and wetlands were created to test the effectiveness of the method which proved to be far better than expected. The 'Aquabrava' project supported the creation of an additional eight wetlands and ponds with a total area of 10 ha.

The project further set up a monitoring system, including metrics, methods and templates, and applied it in the year following the construction of the wetlands to document changes. Finally, a series of lectures and meetings were conducted to raise awareness and promote the construction or restoration of wetlands among landowners.

Results

The efficiency of the wetland system was proven when the autumn rain filled all wetlands and increased water levels in wells closest to the system within a week. A subsequent measurement showed increased water levels in wells located further away from the wetland system. The creation of wetlands and ponds noticeably increased access to water in the area even during periods of droughts.

The method has proved to be cost-efficient as the costs are limited to construction and maintenance.

Another advantage of the wetland system is that it is largely located on pasture land, thus providing the cattle with constant access to water: a highly valued asset by the farmers in the area. The system has also reduced the amount of water provided by other parts of the Gotland island.

Additionally, the wetland system provides a buffer zone reducing the eutrophication of the Baltic Sea as wetlands have now become stable ecosystems with high biodiversity in the watershed area. Species include different types of water plants and insects.

Finally, the wetland system provides social benefits – it has become a recreational area for strolls in the summer time and for ice-skating in the winter.

Lessons & Recommendations

- ❑ It is be advisable to monitor the wetland system and water level increases beyond the duration of the project in order to obtain better and more scientifically valid results.