

## The work of the LIFE Project on the agricultural landscape in the southern part of the island of Öland, Sweden<sup>(1)</sup>

### ■ Basic profile

①Climate: Despite the high latitude, the North Atlantic current gives southern Sweden a temperate climate. Annual rainfall is 500-700mm with seasonal changes small on average. Annual Average Temperature: 6.7°C

Annual Rainfall: 540.2mm

②Area: 450,000km<sup>2</sup> ③Population: (2008) 9.16 Million

④Land-use<sup>(2)</sup> (2005) Agricultural Land 27,100 km<sup>2</sup> (6.6%) [Farmland 22,000 km<sup>2</sup>(5.3%), Pasture 5,100 km<sup>2</sup> (1.3%) ], Forest 275,000 km<sup>2</sup> (67.1%), Others 118,000km<sup>2</sup> (26.3%)



Fig.1 Öland Island in Sweden

### ■ Southern Öland: Regional Profile

Since the EU's CAP reforms to agricultural management in 1992, Agro-Environmental and other regulations have attached importance to extensively managed agricultural land with high biodiversity and semi-natural vegetation. Sweden joined the EU in 1995.

A unique [limestone](#) barren plain known as the Stora Alvaret lies on the island, having been used for grazing livestock for several thousand years. Visiting in 1741, Carl Linnaeus wrote that, "It is noteworthy how some plants are able to thrive on the driest and most barren places of the alvar" <sup>(3)</sup>. However, decreasing use over the last 30 years has led to the grasslands becoming overgrown, with many flowering plants (phanerogams) disappearing, leading to further deterioration.

From 1996 onwards the South Öland agricultural landscape was re-recognized by the EU through the work of the LIFE Project, and registered as a [UNESCO World Heritage](#) site in 2000.



**Photo 1** Stora Alvaret – even the shrubby cinquefoil is grazed by cattle. Photo T. Jansson

■ EC. LIFE Focus / LIFE and agri-environment supporting Natura 2000 (2003) p17.<sup>(1)</sup>

LIFE is the EU’s financial instrument supporting environmental and nature conservation projects throughout the EU. An analysis has been made for the 309 LIFE II projects co-financed between 1996 and 1999. Of these, 129 (42%) concerned, wholly or partly, the types of dynamic habitats where recurring management by farmers is vital.

In Sweden, out of 20 LIFE-Nature projects co-financed between 1995 (year of EU accession) and 2002 (second selection round under LIFE III), 5 have used agri-environmental measures as a supplement to the work directly undertaken by LIFE. This means one in four, which is quite high considering the preponderance of forest habitats among Swedish projects<sup>(1)</sup>.

**Table 1** The Reconciliation between Agricultural Policy (CAP) and Environmental Policy(Natura2000) in Sweden

Year	Main Items
(1992)	(EU CAP Agri-environmental Regulation 2078/92)
1994	The grazing area of the Stora Alvaret decreased less than 60% of the original
1995	Sweden joined the EU
1997	CAP High Natural Value Farmland(HNV
1999	EU CAP Agri-environmental measures of the rural development Regulation 1257/99
2000	The grazing area of the Stora Alvaret recovered to 85%
2001	EU Council: Biodiversity Action Plan for Agriculture
2005	The grazing area of the Stora Alvaret had increased to 98%

■ **Investing in Restoration of Alvar Grasslands**

The island of Öland off the Swedish coast has large areas of natural grassland on “alvars” (rocky pavements left behind after the retreat of the Ice Age glaciers)

traditionally grazed by livestock. However, as alvars have poor soil and can only support low livestock densities, they were among the first to be abandoned during post-war rationalisation of farming. By 1994 only 60% of Stora Alvaret, with 26,000 hectares the largest alvar on Öland, was still being grazed. The rest of the area had become overgrown. The 1996 LIFE project “Stora Alvaret” was launched to recover the grassland habitats.

What did LIFE do?

: Cleared 1,600 hectares of overgrowth, reestablishing the typical grassland habitats. Farmers were contracted to do this work.

: Encouraged farmers to take up contracts under existing agri-environmental measures.

How did agri-environment contribute?

: Regulation 2078/92 gave premia for extensive grazing. Thus, recurring management of the restored land was ensured so that it would not revert to scrub.

What was the outcome?

: By the end of the project in 2000, 85% of Stora Alvaret was again being grazed.

Farmers were very enthusiastic, as the combination of increased grazing areas and agri-environmental support considerably improved their economic situation. Local firms became specialised in clearing and restoration of overgrown land.

The project demonstrated that it was possible to incite farmers to restore overgrown land and that this had beneficial effects on nature. The project beneficiary, the Kalmar County administration, succeeded in using these results to get scrub clearing activities included in the new Swedish Rural Development Plan under Regulation 1257/99. Thus the benefits of this project now stretch well beyond the boundaries of Stora Alvaret.



**Photo 2** Stora Alvaret : A variety of shrubs have been left to support biodiversity and provide grazing refuges in dry years. June 2001. Photo: Ejvind Rose<sup>n</sup>(<sup>4</sup>).

The EU Council discussed the crisis of high nature value farmland in 2004. High nature value farmland is threatened by two contrasting trends: intensification and abandonment. The biodiversity of the grazing grassland in Stora Alvaret had lost once by abandonment. This LIFE Project has discontinued management of the agricultural land, and the biodiversity of the plains and agricultural landscape is continuing to deteriorate; however, appropriate management and extensive livestock farming appears to be bringing about a recovery in biodiversity<sup>(1)</sup>.

## References

- (1) EC, LIFE Focus / LIFE and agri-environment supporting Natura 2000 – Experience from the LIFE programme, (2003),  
[http://ec.europa.eu/environment/life/publications/lifepublications/lifefocus/documents/agrienvironment\\_en.pdf](http://ec.europa.eu/environment/life/publications/lifepublications/lifefocus/documents/agrienvironment_en.pdf)
- (2) The data was limited to apparent land use.
- (3) Carl Linnaeus, Öländska och Gothländska resa, Stockholm, Sweden (1745) :  
[http://en.wikipedia.org/wiki/stora\\_alvaret](http://en.wikipedia.org/wiki/stora_alvaret)
- (4) Eivind Rose'n. Alvar Vegetation of Ö Land Chages, Monitoring and Restoration. (2006).  
<http://www.ria.ie/cgi-bin/ria/papers/100637.pdf>