In early 2013, the SLU (Swedish University of Agricultural Sciences), under the guidance of Professor Barbro Ulén, started a project to involve Polish farmers in taking their own initiatives to reduce excess nutrient from agricultural activities leaching into the Baltic Sea. The final report from the project has now been published and its outcomes indicate that it has been a success. Barbro Ulén relates her experiences from the project for BalticSea2020.

Background
Poland is the largest agricultural country bordering the Baltic Sea and has about 1.4 million farms. The nature of these farms is quite diverse. They range from small individual holdings to large industrial concerns (most of which are still quite small). Poland is also the country in the EU that releases the most nitrogen and phosphorus into the Baltic Sea (25% of the nitrogen and 31% of the phosphorus), mainly because of a large catchment basin, a significantly sized population (38 million) and large agricultural areas.

Currently, several projects are underway in an attempt to reduce the impact of agriculture on the Baltic Sea, but sometimes applicable knowledge levels are low. The EU Nitrates Directive, which was introduced in Poland in 2004, and which today extends to the whole country, has led to greater demand for “good” agricultural practices and reduced nutrient leaching. But, at the same time, the lack of qualified advisers poses a problem when it comes to communicating, for instance, improved manure management methodologies to farmers.

Cleaner Baltic Sea with advice to Polish farmers
Under the leadership of Professor Barbro Ulén, for the past three years, the Swedish University of Agricultural Sciences (SLU) has been running the project “Self-evaluation and risk analysis by farmers concerning losses of nutrients and low cost remedial measures”. The project has been used to train Polish farming advisers and to meet with farmers to inspire measures that have the capability of leading to reduced nutrient leaching from agriculture. It was begun in 2013 with support from BalticSea2020 and now, three years later, it has published its final report.

The results show that both advisers and farmers appreciated the project, but would rather that it had lasted longer.

- The experience of the advisers we met was varied, and their training was somewhat inadequate. The advisers are, in fact, ‘the weak link’ in the
knowledge chain and the profession itself has a low status in Poland, especially among the young, who are often seeking out better paid jobs. It was here that we were able to offer the advisers the opportunity of increasing their knowledge, which in the long run can enhance their credibility, as well as their status, Barbro Ulén says.

The project has been working in two specific rural areas with different conditions in terms of climate, farm size, type of production and type of soil. In early October 2013, two training days were arranged in Radom and Gdansk for a total of 60 farmingadvisers. The project went through, for example, how to assess the results of a soil mapping (a soil map provides an understanding of the soil’s properties), produce a fertiliser plan or calculate plant nutrient balances.

Workshops with practical exercises were organised during the training days. Using data from farms taken as examples, estimates were made of how different farm practices can have an influence on nitrogen leaching from individual fields, for example. The project has also produced a handbook in English and Polish for advisers in agriculture, which was published in late 2014. After training, the advisers made several visits to farms to put their experiences into practice, and to discuss risk assessments of phosphorus and nitrogen losses into the water and measures to reduce these. Outside a dairy farm in Poland. An farmingadviser explains what advantages a dam/wetland may have in reducing nutrient leakage for a farm. On site, they also looked at the farm’s manure usage and, together with the farmer, made observations with respect to soil variations.

- The advisers need to bring into consideration every aspect of agriculture including economies. During the farm visits, we observed that the advisers’ contact with the farmers was good and many of the latter are now making decisions pertinent to this year’s fertiliser applications based on, amongst other things, the soil maps developed.
with the help of the project, says Professor Ulén.

Barbro goes on to say that they also noticed knowledge differences among farmers in areas already covered by the EU Nitrates Directive, as compared with other areas. They were also generally aware of the fact that nutrient leaching was more complex than just that “manure runs down into the water”, even though their knowledge of nutrient leaching on the farm was small. What was realised from the project was that farmers in general, need more knowledge and training in how to assess the nutrient flows on the farm and a better knowledge of, for example, the significance of soil processing for turnover and risk of leaching. The advisers who took part in the course were given the opportunity of sharing their experiences. Barbro expressed a wish that, had there been more time, the advisers would have made more farm visits, to follow up on the initiatives that had been taken.

- The ‘concept’ of combining, for example, good food production with minimal damage to water quality is a very complex problem – in Poland as anywhere else. At the same time, farmers need to adapt their production to ever-changing conditions. It’s still only 28 % (60 farms) that are actively doing something to reduce nutrient leaching from their farms. I think it’s a fair result considering the shortage of time, says Barbro.

The project was finalised at the end of October this year, but has resulted in a continuation project under Polish direction, which will run over three years in the coastal zones of Pomerania, with the same aim – to get farmers at their own initiative, to reduce nutrient leaching from agriculture activity. It is now Barbro’s hope that more advisers will become involved and that more farmers will be inspired by the project and start taking appropriate measures on their farms. This is a continuing step in the right direction in helping reduce eutrophication in the Baltic Sea, she says.

- Some say there’s still a lot of talk and not much action when it comes to this type of investment in agriculture, but with this project we’ve taken a little action anyway, says Professor Ulén.

Read more about the project’s results in the final report, “Self-evaluation and risk analysis by farmers concerning losses of nutrients and low cost remedial measures” on our website, www.balticsea2020.org/english.

The project “Self-evaluation and risk analysis by farmers concerning losses of nutrients and low cost remedial measures” was run as a collaboration between the Swedish University of Agricultural Sciences, Polish Institute of Technology and Life Sciences (ITP), Polish Agricultural Advisory Centre in Radom (CDR), the Centre for the Farming Advice Service in Pomerania (PODR) and Mazovia (MODR), KTH Royal Institute of Technology as well as the companies POMInno, Gdynia, Pomerania, and VATEMA AB.

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