

## **Baltic farmers admit water pollution by agriculture but expect improved evidence**

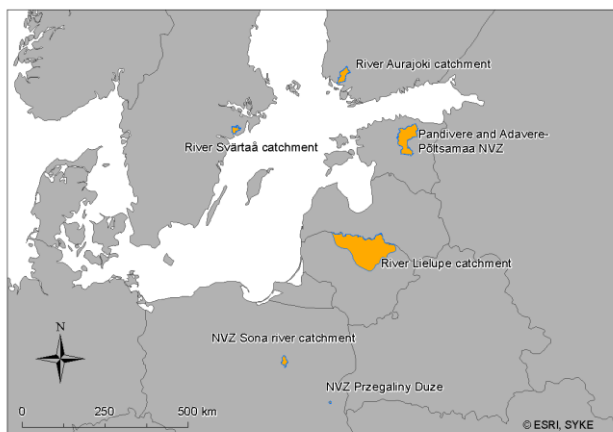
One of the goals of the report *The Role of River Basin Management Plans in 5 Baltic Sea countries* in addressing diffuse pollution from agriculture to limit the eutrophication of the Baltic Sea was to understand the opinion of farmers specifically towards water pollution by agriculture, as well as the behavioural barriers which keep farmers from attaining good water quality. The report focuses on the opinion of pilot area farmers from Estonia, Lithuania, Poland, Sweden and Finland.

### **Key Findings**

- A majority of farmers in the pilot areas around the Baltic Sea are aware of the problems with water quality in the surface waters.
- Farmers see that water pollution might be a consequence of their own misbehaviour and are aware of the importance of different abatement measures.
- Estonian and Polish farmers regard manure storage as one of the main sources of contamination of water. According to the farmers, there is a need for special support to modernize the storage systems. Raising environmental awareness was also considered very helpful in protecting the waters.
- Diffuse pollution due to improperly timed or applied fertilizers was seen as a serious problem, but nutrient load from the fields was mainly seen as a secondary issue.
- The answers reflected a roughly even split between farmers: those who are oriented mainly towards production, and those who, besides being entrepreneurs, consider themselves also responsible for land protection and providing public goods.
- Farmers believe they have general knowledge of the environmental requirements; they draw their information mainly from trainings, the internet and friends.

## Importance of farmers' opinions

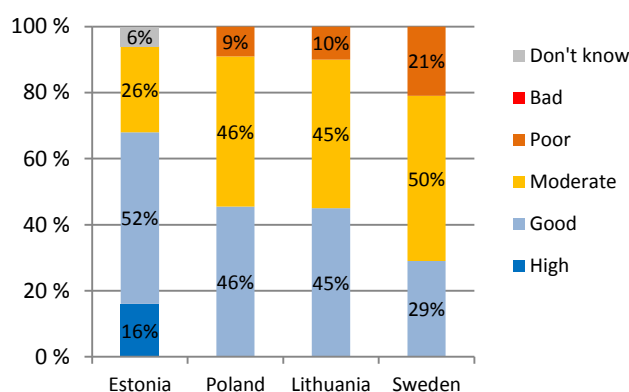
Farmers are the actors responsible for the implementation of environmentally sound agricultural practices, and their actions are determined by farmers' attitudes. This survey gathered information about farmers' opinions on the appropriateness of the current water protection measures and their pro-active uptake of the measures. An understanding of farmers' opinions can help increase the attractiveness of agri-environment support schemes and raise the efficiency of water protection measures in the River Basin Management Plans. The questionnaire for the Baltic Compass project was distributed in the pilot areas of the four Baltic Sea region countries: Estonia, Sweden, Poland and Lithuania, where the number of respondents varied from 17 to 52. Finnish catchment farmers' opinions are drawn from the TEHO project and were only included where relevant.



Map of the pilot areas in the Baltic Sea region countries

## Awareness

The survey showed that farmers in the pilot areas were aware of the problems with surface water quality though to a different extent in each country.

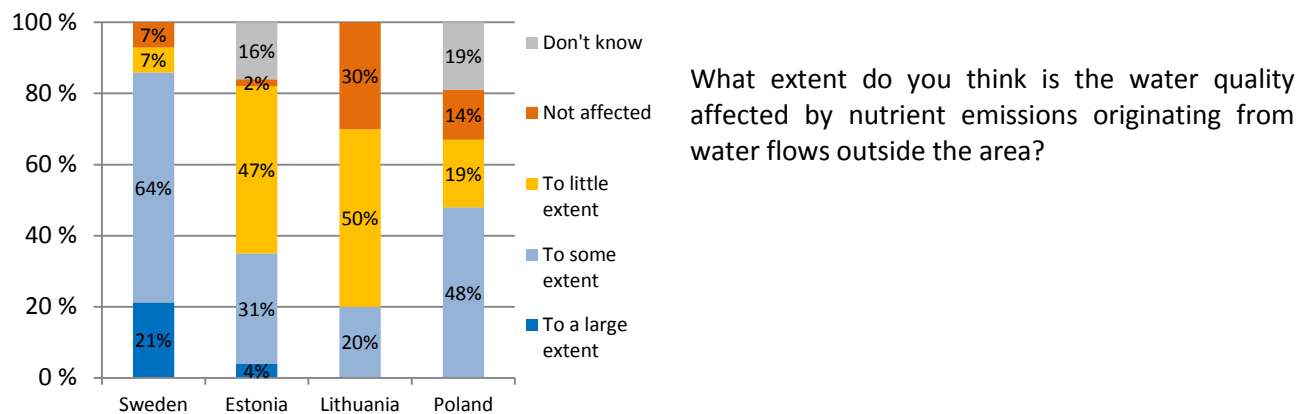


What is the quality of water in water bodies in your area (for fishing, bathing, drinking for livestock, etc.)?

The fact that majority of the respondents regarded the quality of recreational water to be moderate, shows high environmental awareness and recognition that the problem exists. Finnish pilot area farmers were also considered to be more environmentally aware or concerned than average, due to the participation in a voluntary TEHO project.

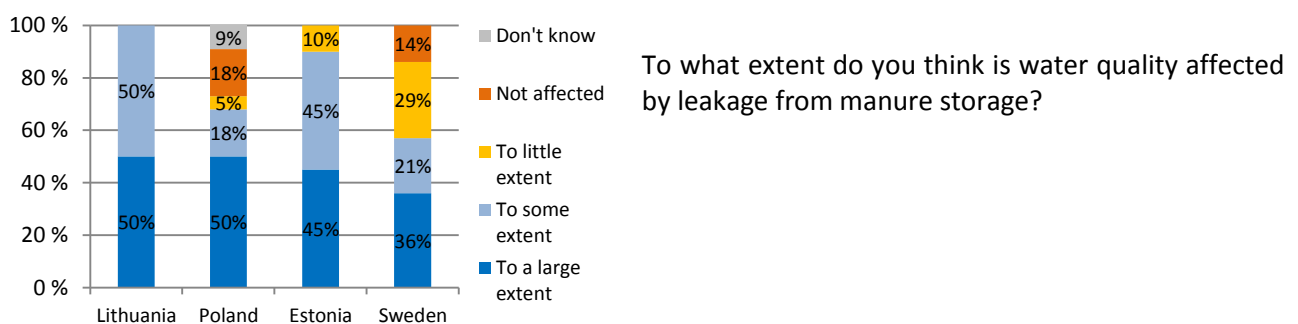
## The origin of water pollution

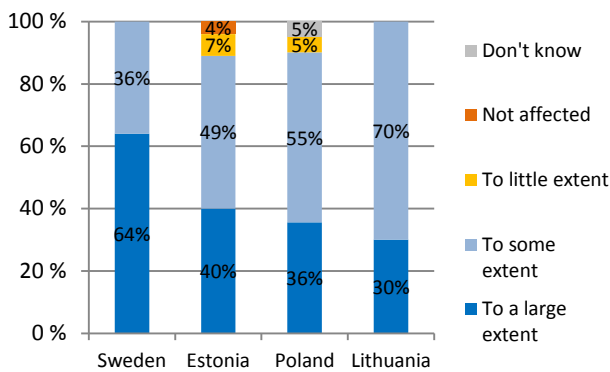
The survey revealed farmers' concern about the effect of agricultural activities on water quality. Farmers considered themselves responsible for possible pollution rather than believe someone else to be liable for the deterioration of waters. For example, respondents regarded nutrient emission through air or via water flows from outside the Nitrate Vulnerable Zone area as factors that have either little or no effect.



Polish and Estonian farmers identified leakage from manure and silage storage as well as from manure storage facilities as one of the largest sources of water pollution of all sources listed. Yet the farmers operating in Svärtaå basin Sweden did not see manure storage facilities as a priority problem. These findings are also understandable, since point source contamination is not as large problem in Sweden as it still is in Poland and Estonia.

Diffuse pollution was seen as a serious problem when the right timing and application method for fertilizers is neglected. Yet fertilizer load from fields was not considered an important factor. Several farmers expressed the view that chemical fertilizers are necessary because there is a lack of manure to fertilize the fields. Also, many argued, the high restrictions on fertilizer load exclude the possibility of over-application.





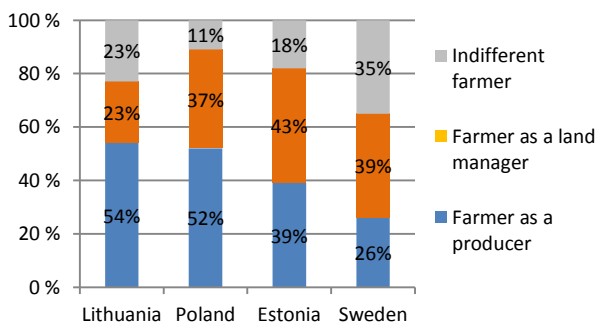
To what extent do you think is water quality affected by the timing of fertilizer application (month, weather, etc.)?

## Necessary measures

Farmers evaluated the effect of different water protection actions and described their willingness to implement those measures. Measures to limit pollution load from the fields, such as proper timing of fertilizer application as well as modernization of the manure storage to reduce point source pollution, were rather popular among the farmers across the pilot areas. Voluntary measures, such as establishing wetlands, which have proven to be effective nutrient reducers, were also quite popular in Sweden and Lithuania. In Lithuania for example the support is designated not for construction, but for management of wetlands, which also contribute to reduction of nutrient leakage. Finnish farmers were interested in small, feasible wetlands, but found it hard to implement. The answers of Estonian, Lithuanian and Polish farmers strongly indicated their worries about manure storage facilities. These respondents either agreed strongly or partly with the statement that there were not enough support schemes to meet the requirements for manure storage. Those supports are necessary, farmers argued, since storage facilities are still not meeting the standards. Besides, raising environmental awareness was considered to be one of the most important measures improving water protection. This shows that farmers are willing to learn and care about the consequences of their actions.

## Role of farmers

A slight majority of Estonian and Swedish farmers saw their role as a “land manager” – an agricultural producer who is not only an entrepreneur, but also a steward of the land, a person responsible for the protection of the natural environment. These respondents agreed that farmers play an important role in providing an attractive and well-managed countryside and that the role of farmers is to deliver public goods (e.g. environmental protection) as well as food. The results from the Polish and Lithuanian survey showed a greater number of “producers” – for whom environmental protection was a secondary issue. These respondents agreed that farmers must be oriented primarily towards production if they want to be competitive and that the spending priority of the government for the countryside should be paying farmers to produce food.



Farmers' perception of their role in environmental protection, according to the answers to the statements.

## Information availability

The survey showed that the majority of farmers felt the supervision system of agricultural or environmental institutions should be left unchanged or slightly intensified. This shows that farmers are rather satisfied with the current system and agree on its necessity. Simplifying the support system and reducing bureaucracy was the top priority for many Finnish. Firsthand sources of information on water protection were trainings, local advisory centres, the internet, neighbours and friends. Also it can be concluded from the results that an overwhelming share of the farmers participating in the studies found their knowledge of the environmental requirements to be general, rather than specific, which reflects the need for more information.

### **Recommendations for improving communication between farmers and authorities and thus increasing the effectiveness of water protection management**

**Public consultation and participation.** Participatory processes need to be included in consultations, and be more broadly embraced, as a concept, in public policy-making.

**Measures or outcomes?** Farmers will respond better to more outcome-based approaches instead of prescriptive measures. Objectives and outcomes are in place in the Water Framework Directive (WFD), but they become vague at the local level when talking to farmers.

**Positive communication.** Offering positive solutions works better than a negative approach when dealing with target groups. Starting from desired outcomes would help to define measures. Policy-makers should talk with the farmers about what they aim to achieve with these measures.

**Adaptive bureaucratic system.** Flexibility in the system is needed, e.g. in paying farmers (in advance, during or after a desired action) and in reporting forms.

**Innovative advisory services.** Advisory service should be adjusted to the areas and local needs; greater support for advisory services is also needed. Applying collectively for a measure could be a solution for small farmers. Information technology could also be a way to help small farmers benefit from different programmes.

# Baltic Compass

This policy brief is based on a Summary Report made for the Baltic COMPASS project. Policy brief is compiled by the Stockholm Environment Institute Tallinn Centre together with its partners from Baltic Environmental Forum Lithuania, Finnish Environment Institute (SYKE), Swedish Agricultural Board, Swedish University of Agriculture Sciences (SLU) and Institute of Technology and Life Sciences from Poland. The full version of the report is available: [www.balticcompass.org](http://www.balticcompass.org)

Baltic Compass promotes sustainable agriculture in the Baltic Sea region. The region's 90 million inhabitants anticipate both high quality food produced in the region and a healthy environment, including a cleaner Baltic Sea. Baltic Compass looks for innovative solutions needed for the future of the region and its agriculture, environment and business.

Baltic Compass has a wide approach to the agri-environmental challenges, covering agricultural best practices, investment support and technologies, water assessment and scenarios, and policy and governance issues.

Baltic Compass is financed by the European Union as a strategic project for its support to investments and policy adaptation. The 22 partners represent national authorities, interest organizations, scientific institutes and innovation centres from the Baltic Sea Region countries. Baltic Compass is a three year project running until December 2012.

