

Implementability of Agri-Environmental Targets in Finland

BALTIC COMPASS promotes sustainable agriculture in the Baltic Sea Region. The 90 million people living in the region deserve locally produced, high-quality food, but it is also important to protect the very vulnerable Baltic Sea. Baltic Compass fosters win-win solutions for the agricultural and environmental sectors to promote a more sustainable rural economy and healthier ecosystems. This policy brief focuses on agro-environmental targets as a basis for combating eutrophication in the Baltic Sea caused by agricultural run-off.

Key agri-environmental targets

In 2006 the Finnish Government adopted a new set of Water Protection Policy Outlines to 2015. In these outlines, tackling eutrophication is the key objective for water protection. The outlines set a clear target for agriculture by 2015 to reduce nutrient loads by a third of the mean loads in 2001–2005. A further long-term reduction target is to half the nutrient loads from agriculture as soon as possible.

Agri-environment payments are considered the most important policy measures in controlling the nutrient load from agriculture. Environmental permits regulate, among other things, the storage and management of manure. For example, building or changing a larger animal shelter requires an environmental permit.

Measured by nutrient balance, the nutrient loading potential of Finnish agriculture has steadily decreased for both nitrogen and phosphorus. The reduction has been especially strong for phosphorus balance. The observed reduction in nutrient surplus is primarily due to decreased use of mineral fertilisers. However, there are indications that nutrient leaching from manure from large animal production units is becoming a more serious problem. In spite of the reduction in nutrient loading potential, there is no clear indication of a reduction of the nutrient load in watercourses in all regions. The phosphorus load has decreased in most regions, while the nitrogen load has increased.

Agriculture and environment in Finland

Traditional Finnish agriculture is based on a large number of small family farms. In recent decades Finland's agricultural sector has undergone considerable structural changes – changes which accelerated after Finland joined the EU in 1995. In the early 1960's there were about 330,000 farms in Finland, a number that had dropped to 63,716 by 2009.

Finland has rich water resources with abundant lakes and rivers, as well as relatively clean groundwater resources. According to the EU classification of Finnish surface waters, 57% of the country's lake area and 52% of the length of its rivers are in 'good' or 'excellent' condition. However, only 36 % of the surface area of coastal waters is in good condition. The most common problem with surface waters is eutrophication caused by excessive nutrient loads.

Due to effective control of point sources, agriculture has become the most important single source of human-caused phosphorus and nitrogen loading in watercourses in Finland. It accounts for 68 % of phosphorus and 53 % of nitrogen loading.

Implementing actors

Finland's Rural Development Programme and River Basin Management Plans have been prepared in close collaboration with various actors, including authorities at the national, regional and local levels, research agencies and universities, the Central Union of Agricultural Producers and Forest Owners, and advisory organizations as well as NGOs. The role of citizens has been more limited.

The Ministry of the Environment and the Ministry of Agriculture and Forestry have main responsibility for agro-environmental targets. The Ministry of Agriculture and Forestry has responsibility for the water resources management and rural development programmes, and thus also the responsibility for agri-environment payments. The Ministry of the Environment is responsible for implementing the Water Framework and Nitrates directives and environmental permits. The Agency for Rural Affairs is in charge of agri-environment payments, and the Finnish Environment Institute is the expert body supporting the implementation of the River Basin Management Plans.

Finnish administration is relatively de-centralized, and many tasks are given to either regional or local authorities. Thus the main responsibility of the River Basin Management Plans lies with the Centres for Economic Development, Transport and the Environment. However, the River Basin Districts don't follow the borders of Centres for Economic Development, Transport and the Environment (Figure 1). On the one hand this means it is more difficult to produce information for the River Basin Management Plans, but on the other hand, the process increases co-operation across regions.

Regional State Administrative Agencies and Municipalities issue environmental permits, and the Centres for Economic Development, Transport and the Environment supervise and monitor them. Municipalities, together with Regional Councils, have a key role in land-use planning guiding, for example, which areas are used for agriculture.

Figure 1. Implementing agencies of agro-environmental measures at the national, regional, and local levels. The tasks marked in blue are related to water resources, green refers to agri-environment payments, purple to regional development, and orange to environmental permit procedure.



Methodology

This policy brief is based on a review of key policy documents on Finnish water protection, national legislation related to water protection and control of nutrients in agriculture, the Rural Development Programme for Mainland Finland 2007-2013, and other relevant documents related to Finnish agriculture or agri-environmental schemes. Input from the closing seminar of the TEHO project held on 30 March was also used. This seminar gathered over 150 registered participants representing authorities, research organizations, farmers, extension organizations, and NGOs.

Key challenges to implementation

It is a big challenge to reach the Finnish Government's target to reduce the nutrient load from agriculture by a third by 2015, and to halve it in the long term. Also, getting to and keeping coastal waters in a good condition is particularly challenging in the area of Archipelago Sea. Although nutrient balances for both phosphorus and nitrogen have steadily reduced during the last decades, this positive development has not been reflected in the condition of Finland's waters. Thus more efficient and better focused actions are needed.

Maintaining land productivity is a key factor in efficient nutrient use, and thus environmental management in agriculture. Rented fields cause problems since the rental contracts are short – only two to three years long in some regions. Short contracts do not motivate farmers to take care of the land.

The agri-environment payments are considered the main tool in the implementation of agro-environmental targets in Finland. This is well justified, since about 90 % of Finnish farmers participate in the agri-environment scheme. The agri-environmental measures have helped to cut mineral fertilizer use to better suit the needs of cultivated plants. The set fertilization limits do not fully apply to manure, which increases the nutrient loading potential in areas with a high concentration of animal production.

The agri-environment measures tend to be uniform in all farms, and their effectiveness is based on many farmers taking small steps to implement basic and additional measures. However, follow-up results and current discussions show that these small steps are not enough to guarantee a reduction in nutrient discharge or to keep coastal waters in a desirable state. Special actions should be focused on vulnerable regions, regions with a high nutrient content in the soil, and regions with a heavy concentration of animal husbandry. Agri-environment payments in the form of special contracts together with efficient extension services are needed.

The number of farmers implementing two special measures – buffer zones and multifunctional wetlands – has been below government targets. Farmers consider payment for the measures sufficient, but heavy bureaucracy in the application procedure has seriously inhibited uptake. Stakeholders have made a general request to lighten the bureaucratic load of both rural development and agricultural support payments.

Limited resources in environmental administration are an administrative challenge. There is no specific funding for the implementation of the Water Framework Directive. Another administrative challenge is that the roles of various ministries and the Finnish Environment Institute in implementing the Water Framework Directive are not clearly defined, causing problems in administrative guidance. Moreover, the River Basin Districts don't follow the borders of Centres for Economic Development, Transport and the Environment. It is thus more difficult to produce information for the River Basin Management Plans, but on the other hand, the process increases co-operation across regions.

A systematic monitoring framework is crucial for measuring the effect of policies. The current environmental monitoring system is not able to monitor the impact of agro-environmental measures on water quality, partly because the EU RDP monitoring framework does not require evaluation of environmental impact of measures. Therefore the link between measures and nutrient discharge or water quality targets is not verifiable. There is also a mismatch in the monitoring system

between water quality assessments of inland and coastal waters. However, uncertainties in the classification and nutrient loading data as well as impact assessment methodology do not in any case allow monitoring of very exact targets.

There are gaps in knowledge on the share of the natural wash-out in the total nutrient load. Finland uses information based on measurements made mainly on forested areas. Also, there is limited monitoring of the nutrient load from agriculture. Even though agriculture is the most important source of nutrient load, forested areas are monitored more than agricultural areas.

Citizens have shown little enthusiasm for participation in River Basin Management Planning. This is partly due to the quality of public information that has been produced. The challenge is to provide more concrete information of local interest that describes different opinions on the issues in hand.

A major challenge remains in the governance and policy drafting processes. In past years it has been the task of special working groups to revise the agro-environmental payment scheme in the Finnish RDPs. These groups have consulted both interest groups and ad-hoc stakeholders, and specific proposals have been developed. However, proposals developed outside these working groups are very rarely passed on to the working group for further policy revision procedures.

Key findings

The current agri-environment payments in Finland are not efficient enough to reduce nutrient discharge from agricultural sources. There is a consensus that the high coverage of the agri-environmental payments should be maintained in the new agri-environment scheme, but the basic measures should be modified and combined with focused, environmentally efficient measures: the right measures to the right place. Bureaucracy should be reduced and the new system should be simpler. Farmers need much more face-to-face extension and advisory services on environmental management.

Cooperation is key to the success of environmental management related to agriculture. The TEHO project has shown that different actors can work together, and by working together find that they may have surprisingly similar goals in agricultural water protection. The big challenge is to spread this positive cooperation to other areas, and to engage more actors.

Agri-environment payments could be based on environmental services provided instead of the current cost-based payments. Researchers and policy actors have suggested agri-environmental auctions as one way of increasing the efficiency of agri-environment payments. Auctions could help to achieve more environmental benefit with the same resources.

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