Workshop on the possible development of environmental liceses for aquaculture based on the level of nutrient discharge to the surrounding environment as well as the possibility to introduce compensatory measures for differentiation of licences.

One of the main concern for the Baltic Sea is eutrophication and therefore actions reducing or pre-venting nutrient loading to Baltic Sea are highly emphasised in the environmental policy. At the same time EU is concerned about growing dependency on fish import and wants to encourage fish production within the EU. Blue Growth including sustainable growth of the aquaculture sector is one of the key objectives in the EU and national policies. Aquaculture is pointed out as one of the sectors with the highest growth potential. But to date, development, production and growth have not shown any major changes in the Baltic Sea area yet. It has been shown that one of the major bottlenecks for growth in the aquaculture sector are the environmental regulations.

In November 2019 the Swedish Board of Agriculture and the Finnish Ministry of Agriculture and Forestry organised the "Workshop and seminars on environmental licenses for aquaculture regulated through nutrient discharge, and the possibility for compensatory measures". The focus was on the importance of aquaculture legislation for the sustainable growth of Nordic aquaculture.

The workshop contributed to the understanding of how environmental consideration are included in the decision-making process for aquaculture in the Nordic countries general. The possibilities and consequences of introducing licenses for aquaculture, in areas with high nutrient load and environmental impact (specifically the Baltic region), based on nutrient discharge to the surrounding environmental were discussed at the workshop.

The workshop helped to assess the possible introduction and incentive to use compensatory measures that aim to remove nutrients from the environment by new methods and taking account of the lessons learned in the Nordic countries and in earlier projects. The workshop focused on measures that could be used for compensation of the nutrient discharge such as removal of sedi-ments under net cages, compensatory fishing or the introduction of specific fees that would be col-lected for effective compensatory measures in the vicinity of the aquaculture facility (in the coastal area or on land).

Based on the input at the workshop, conclusions of relevance for the legislation issues of today was summarized to that:

- The overarching European directives as e.g. the Common Agricultural Policy and the Water Framework Directive should be more aligned,
- On the national level, legislation should enable and support new technologies for aquaculture to mitigate environmental impacts and foresee compensation measures in the water basin management plans,
- Licences based on nutrient output instead of the former input, can create higher incentives for the industry to initiate this technological development. Permits on allowed environmental impact should be based on nutrient output calculations not on the feed quota where appropriate modelling is possible. Economical aspects should be considered during granting the permit and the license should be continued if the impact of the farm does not change.

- To minimize possible negative impacts on the marine environment, national regulations could foresee the inclusion of fish farm locations in their maritime spatial plans. These plans should include an estimation of the overall carrying capacity of the marine space.
- Compensation measures should be a part of an aquaculture policy, included either in
 the water basin management plans and/or in the permit requirements. Legislation
 could also include the options of financing for compensation (own finances, water
 improvement fund, compensation company) following the "polluter pays" principle.
 The compensation should be proportional to the environmental benefit achieved and
 not too costly. Compensations in aquatic systems should be considered specifically,
 apart from terrestrial areas.