**IP(10)14** 

Aquaculture, Introductions and Transfers and Transgenics Focus Area Report

Denmark (in respect of Faroe Islands and Greenland) Faroe Islands

### NORTH ATLANTIC SALMON CONSERVATION ORGANIZATION

# Aquaculture, Introductions and Transfers and Transgenics

# Focus Area Report - Faroe Islands

February 2010

#### 1. Introduction

The following report is a synthesis of the latest available information in English on aquaculture management in the Faroe Islands with relevance to the implementation of measures recommended in the Resolution to Minimize Impacts from Aquaculture, Introductions and Transfers, and Transgenics on the Wild Salmon Stocks (The Williamsburg Resolution), CNL(06)48.

It should be noted from the outset that the extent and detail of information anticipated in CNL40.970 (Guidance on the Preparation of Focus Area Reports (FARs) on Aquaculture, Introductions and Transfers, and Transgenics (based on CNL(09)15 and incorporating the elements from the Guidance on Best Management Practices, SLG(09)5)) is in many cases not relevant in the context of Faroese aquaculture control, monitoring and risk management, due to the fact that there are no self-supporting wild salmon stocks in Faroese rivers. Equivalent measures have not been introduced for the conservation of introduced salmon stocks in Faroese rivers.

#### 1.1 Salmon stocks in the Faroe Islands

There is no record of Atlantic salmon spawning in rivers in the Faroe Islands in historical times. In 1947 Atlantic salmon fry from Iceland were released into several rivers in the Faroe Islands. Later in the 1980's salmon roe from Norway was introduced, in an attempt to get a higher proportion of multi sea-winter returns. Today there are only four small Faroese rivers supporting these introduced salmon stocks. Approximately 400 to 600 fish are caught each year.

The Atlantic salmon resources in the Faroese Fisheries Zone are comprised of salmon from rivers mostly in Northern Europe, but also to some extent from Southern Europe and to a small extent also from the Northwest Atlantic.

#### 1.2 Fish farming in the Faroe Islands

Fish farming in the Faroe Islands began in the 1970's. The clean, temperate oceanic waters and strong currents in the fjords around the Faroe Islands have proven to be ideal for fish farming. Faroese fish farming today, which is ocean-based in fjords around the islands, consists primarily of Atlantic salmon and large rainbow trout, and has become a significant and growing component of Faroese economic activity over the past two decades.

Figure 1 shows that in the late 1990's there was a large increase in the production of salmon and trout, at a time when world market prices were growing. Production peaked in 2003 with an export which corresponded to 25% of the value of total Faroese exports. In the following years the industry was faced with falling prices and diseases, mainly ISA. Comprehensive steps were taken to eliminate the risk of ISA. The result has been very successful. Since 2005 there have not been any outbreaks of disease in Faroese fish farms. The downturn in the incidence of disease has in turn seen a large increase in production.

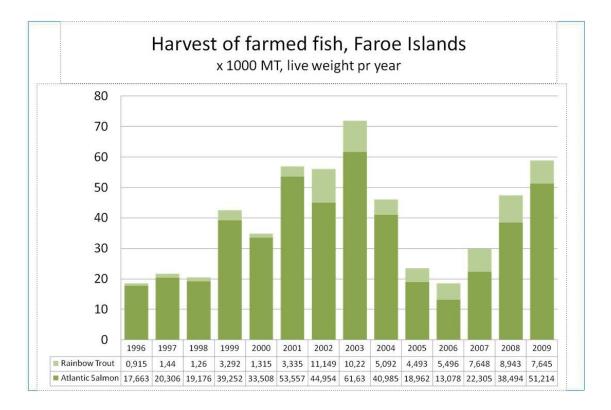


Figure 1 Faroese production of salmon and trout from 1996 to 2009

In 2008 the value of farmed fish exports was 955 million DKK, which corresponds to around 22% of the total value of Faroese exports. The main markets for Faroese farmed fish products are Europe and Asia.

#### 1.3 Faroese aquaculture policy and management

In Faroese aquaculture policy, safeguarding the environment in which fish farming takes place is fundamental to ensuring an economically self-sufficient and competitive fish farming industry. Measures to minimise the impact of rearing and production methods on the local coastal environment and stringent regimes for veterinary monitoring have been a major factor in the success of Faroese fish farming.

The Ministry of Trade and Industry is the government authority responsible for fish farming in the Faroe Islands, which includes developing and maintaining the legislative and operational framework for the aquaculture industry.

The Fish and Animal Disease Department of the Food and Veterinary Agency is the authority responsible for veterinary matters in relation to the fish farming industry. The department consists of two units, a laboratory and an inspection unit. Veterinary regulations are based on an agreement between the Faroe Islands and the EU on Veterinary Matters. The Food and Veterinary Agency is also responsible for issuing licences for fish farming in the Faroe Islands.

The Environment Agency is responsible for environmental matters in relation to the fish farming industry.

The Aquaculture Research Station (P/F Fiskaaling) focuses on international research cooperation with other institutions and the fish farming industry and aims to provide an active research environment in the Faroes in order to improve the knowledge base and ensure quality and productivity in Faroese fish farming. Areas of research include farming of existing and new species, gene and biotechnology; feed, water and production practises, enhancing the quality of farmed fish, fish health and farming environment, as well as egg and fry production for research and development projects.

A wide range of laws and associated executive orders are in place to regulate fish farming in the Faroe Islands. Not all of this legislation is available in English. Further details can be made provided upon request (see Appendix 1 for links to the relevant authorities).

#### 2. Monitoring and control of Faroese fish farms

#### 2.1. Licenses for fish farming

A licence issued by the Food and Veterinary Agency is required in order to build, prepare, restructure, expand, buy or operate a farm intended for the rearing of fish. Licenses for fish farming are only issued when minimum requirements have been met to prevent negative environmental impacts, ensure responsible working conditions, and maintain the required high standards for animal welfare and hygiene.

Today there are 24 licenses for fish farming in the Faroe Islands. An overview of fish farming sites is contained in Appendix 2.

#### 2.2. Fish Health Monitoring

Fish farming is regulated by the Act of Parliament No. 16 from 2001 on Diseases of Animals. The Fish and Animal Disease Department in the Food and Veterinary Agency monitors health status through all stages of production, from broodstock, egg, fry, smolt to the ready-to-harvest fish, based both on monthly health status and biomass reports, as well as on-site inspections.

Executive Order no. 134 from 2009 on disease prevention procedures in fish farms stipulates detailed requirements for physical installations on fish farms as well as the overall management.

Through specific requirements for the construction of facilities, fish farms must be able to handle all kinds of risk material without increasing the risk of introducing or spreading disease. Fish farmers must provide detailed production plans, stipulating the timeframe for introducing smolt, harvesting and periods of fallow. This means that a farm can only produce one generation of fish in each production cycle.

Table 1 shows the number of inspections on fish farms in recent years.

Table 1. Number of on-site inspections of the Fish and Animal Disease Department, Food and Veterinary Agency		
Year	Number of farms	Number of inspections
2009	26	179
2008	30	162
2007	23	113
2006	18	55

#### 2.3. Sea Lice Management

Sea lice have appeared in Faroese fish farms for many years but have not been a real problem for the industry until 2009. Comprehensive measures have been taken to improve the methods for treatment. Executive order no. 163 from 2009 on monitoring of sea lice requires counting every second week in the summer and once a month in the winter. The purpose of these regulations is to reduce the occurrence of sea lice in farmed fish and to impair resistance to preventative treatment. The executive order requires regular sampling for, and reporting of, sea lice in farmed fish and sets out the required procedures for treatment, which can also require coordinated efforts between fish farming facilities.

Medical treatment of sea lice is registered by date of treatment, medicine and dosages.

#### 3. Import and transportation

The approval of imports to the Faroe Islands of all animal livestock, including for fish farming purposes, depends upon the disease status of the exporting country, and must otherwise adhere to existing EU rules, regulations and procedures.

Executive order no. 98 from 2003 requires approval of transportation companies and transport units for all transportation of farmed fish, farmed fish products and equipment from fish farms at all stages of production.

#### 3.1 <u>Approval and monitoring of equipment</u>

All fish farming facilities must be approved by the Food and Veterinary Agency. All plants and waste disposal facilities must be installed and maintained in accordance with the standards stipulated and monitored by the Food and Veterinary Agency. Fish farming management plans are subject to approval by the Agency, and must fulfil all requirements for ensuring the quality and welfare of the fish, in accordance with the provisions of executive order no. 134 from 2009 on disease prevention procedures in fish farms.

Before the Food and Veterinary Agency can approve transportation of farmed fish from a facility, all associated equipment must be cleaned and disinfected. Certain specific components of the equipment, such as for example waste water cleaning equipment, must also be approved by the Food and Veterinary Agency.

Nets in fish farms are inspected on a monthly basis by certified divers. If fish escape it is the fish farmer's duty to report this immediately to the Food and Veterinary Agency. It is of crucial economical interest to the industry to avoid damage to nets. In recent years there have been only a few reported incidents of significant escapes.

### 4. Environmental Approval

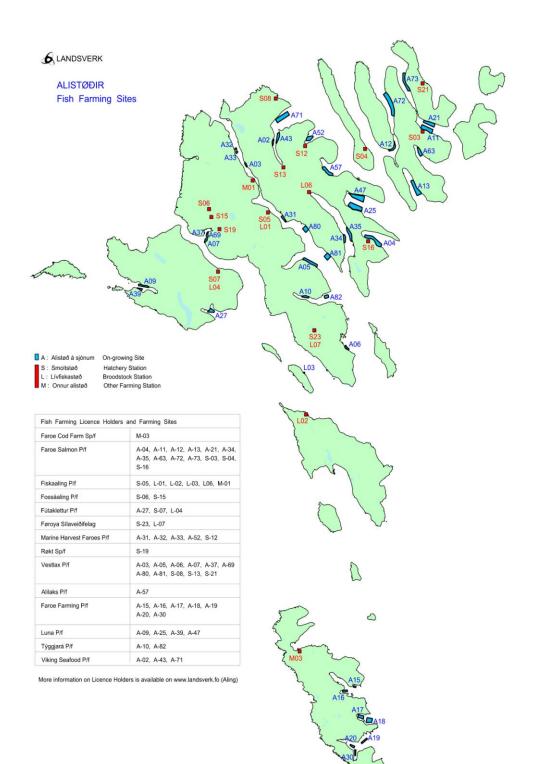
Each fish farming company requires environmental approval from the Environment Agency. Act of Parliament no. 134 from 1988 on the protection of the environment sets the rules for prevention of pollution and the conservation of a diverse animal and plant life. The Agency has set up a system under which fish farming areas in the Faroe Islands must be inspected, and this is based on similar environmental control systems in Norway and Scotland.

The control system requires regular monitoring of the seabed in fish farming areas. This monitoring is part of the compulsory internal control that is a prerequisite for the environmental approval of fish farms. As a result of the limit values in place, the site must not be used if levels of heavy metals become too high, or too much organic matter has accumulated. Operations may continue only when the state of the seabed has normalized.

## Appendix 1 Fish farming management, research and industry

Ministry of Industry and Trade	www.vms.fo
Food and Veterinary Agency	www.hfs.fo
Aquaculture Research Station	www.fiskaaling.fo
Fish Farmers Association	www.industry.fo

### Appendix 2



Tórshavn 13. 07. 2009