



**Council**

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*Special Liaison Meeting to Review Measures to Minimise Impacts of  
Aquaculture on Wild Stocks*

*Presentation by Denmark (in respect of the Faroe Islands)*

NASCO EIGHTEEN ANNUAL MEETING  
MONDARIZ, SPAIN JUNE 2001

Special Liason Meeting to Review Measures to Minimise Impacts of  
Aquaculture on Wild Salmon Stocks

*by*

*Ari Johanneson*

# **Fishfarming in the Faroe Islands**

Measures taken to minimise the  
impacts of salmon aquaculture on  
wild stocks of Atlantic salmon

Ari Johanneson

## Fishfarming in the Faroe Islands

Measures taken to minimise  
the impacts of salmon  
aquaculture on wild stocks

## Contents

- Geography, Country and Population
- Facts on the fishfarming industry
- Ministry of Trade and Industry
- The Environmental Agency
- The Chief Veterinary Officer

## Geography

- The Faroes are located in the North Atlantic, at 62° latitude North and 7° longitude West
- Approx 430 kilometres south-east of Iceland, 600 kilometres west of Norway and 300 kilometres north-west from Scotland.



- The Faroes comprise of 18 islands, separated by narrow sounds or fjords.
- The total area is 1,399 sq.km. The largest island is Streymoy (375.5 sq.km) with the capital, Tórshavn.

- The overall length of the archipelago north-south is 113 kilometres, and 75 kilometres east-west.
- The islands' highest point is 882 metres.
- On average the land is over 300 metres above sea level.

- The total coast line is more than 1,000 kilometres.
- The islands are of volcanic origin.
- The population 1. January 2000 was 45,400.

- There are in all about 100 towns and villages; the largest town is the capital, Tórshavn, with approx 18.000 inhabitants.
- The second largest is Klaksvík with 5,100 inhabitants.

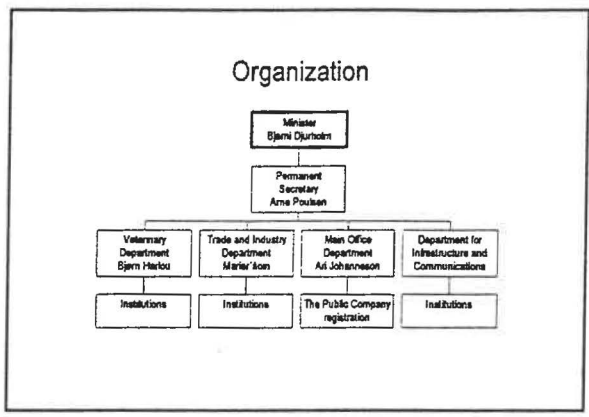
### **The fishfarming industry**

- Fishfarming as an industry started in the Faroes in the early part of the 1970s.
- First with the rearing of rainbow trout, thereafter progressing with salmon derived from a Norwegian broodstock.

- The fish-farming industry encompasses the maintenance of a suitable broodstock, ova, fry, smolts, and fish for the table.
- Also transporting, harvesting, cleaning, gutting, processing and sales.

- At the beginning of the 1990s the Fish Farming industry vent into a deep crises
- At that time the farming units were much smaller but there were much more of them

- After the crises in the early 1990's the structure in the fishfarming changed to fewer but bigger units
- Today there are 26 active fishfarms (fishfarming at sea) owned by about 15 companies



- The Ministry for Trade and Industry is the administrator of the fishfarming industry
- The Ministry is responsible for creating a correct and satisfactory working environment for this industry

- At the same time consideration must be given to:
  - ◆ The preservation of nature
  - ◆ The work environment
  - ◆ The protection of animals

### Legislation

- According to Act of the Faroese Parliament, the Ministry department is entitled to issue a license for fishfarming

- A license is required in order to build, prepare, restructure, expand, buy or operate a farm intended for the rearing of fish
- A license is also required to operate the rearing of fish, which do not require actual farm installations

- Farming is described as activities relating to the feeding of fish, the production of feed or fry, other aquatic creatures or plants, which are intended for consumption.

- To obtain a license it is necessary that Faroese hold or own 2/3 of the company equity, and retain 2/3 of the deciding company votes

- Also it is necessary, that no company must owe more than 25 % of the licenses in whole, and must not either control more than 25% of the equity or/and votes of the companies

**When the government issues a license consideration should be given to:**

- The knowledge of the applicant of fish farming activities
- Opportunities should be provided to develop this activity at a steady pace, securing an economic and scientific base at all levels of the production cycle

- Before the issuing of a license, the Ministry for Trade and Industry department shall inquire at the Public Works office and the Public Food and Environmental Agency
- The Public Works office administers the physical planning at sea, and estimates the impact of positioning a fishfarm in the area

- The Public Works office shall consider the appropriate council
- In the event a fish cage is to be located in the harbour region itself, the council is endowed to deny permission

- There is no cost associated in obtaining a license from the Ministry of Trade and Industry department
- In the awarded licenses, the prevention of disease spreading between farms is allocated as a high priority

- Sheltered areas for rearing in the Faroes in protected fjords is limited
- The intended growth in production of up to 75,000 ton in a few years time, will very much depend upon the success of farming in more exposed areas.

- Technically it also will involve bigger demands for the farming equipment
- It is estimated that approx 25% of the salmon produced in the Faroes is subjected to an added value process prior to export

- This added value is mainly obtained by exporting dinner portion cuts
- Only a small proportion of the salmon are smoked in the Faroes

- Approx 50% of the feed required for the Faroe fishfarming industry is produced by the Faroes and the rest is imported from Norway, Denmark and Iceland
- Feed intended for fishfarming must comply with EU regulations

### **Safety certification of a fishfarm**

- Active fishfarms must be surveyed by the Maritime Authority prior to operation

- Farms must comply with the rules for construction, etc
- The farms must undergo a survey every second year, and/or in conjunction with major repairs or reconstruction

### **The Public Food and Environmental Agency**

- Environment certification
- The Public Food and Environmental Agency administers environmental issues, and estimates the environmental

- According to the existing law, an environmental certification is required to farm and slaughter reared fish.
- Certification for a fish farm encompasses demands on bentic surveys at least once a year

- The farmer must inform the authorities on the amount of feed used, and how many fish are presented in the cages
- The farmer must as well once a year take tests of the bottom under the farmcages to give an estimate of the environment

### **The Chief Veterinary Officer**

- The chief vet, which has a staff of 3, is responsible for the following areas:
- Import and export of live fish for aquaculture
- Monitoring and control of diseases in farmed fish

- In addition to the Chief Vet the Fish Disease Service and the Fish Health Service operates under contract with the Faroese Government
- Both bodies report on an annual basis to the Chief Vet

- The Fish Disease Service and The Fish Health Service are responsible for veterinary consultations with, and inspections of, aquaculture establishments around the islands



- The services also have contracts with the Faroese Fish Farmers Association for 12 inspection visits per year to smolt farms (fresh water) and 6 - 8 inspection visits per year to fish farms (salt water)
- To guard farmed fish against disease, it has been forbidden to import ova or salmon fry to the Faroes

### **New Legislation**

- On the 1st of February 2001, when the Veterinary and Hygiene agreement with the EU came into force, the importation of "livestock" into the Faroes was made possible

- The new legislation contains all infectious diseases including:
  - Zoonoses
  - Hereditary afflicted diseases
  - Feed-and environmental determined diseases
- More specific lists over the diseases are mentioned in the enclosed lists 1 and 2 in addition to the legislation

### **Outbreak of ISA**

Three outbreaks of ISA have been recorded respectively in:

- Fuglafjørður in March 2000
- Oyndafjørður January 2001
- Funningsfjørður March 2001.

### **Initiatives taken to fight ISA**

- In case of an ISA outbreak, the farming zone will be observed and controlled by the Chief Vet

- No admittance to the area must be allowed strangers on land nor at sea
- Fish must not be moved to or from the site
- No slaughtering of fish must take place
- Any equipment used in the farming must not be moved out of the area
- Shoes and clothes of the workers on the farm have to be disinfected after use

- A timeplan must be figured out of the farmer for emergency slaughtering of the fish
- All fish with clinic outbreak has to be destroyed according to the existing rules

## Reimbursement

- In a situation where fish are destroyed following orders from the Chief Vet, a reimbursement fund was established in 1996 for the fishfarming industry

- The government and the industry each donated half of the funds equity capital

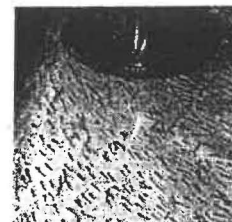
- With the new legislation the fund is abolished
- The public does not give any compensation for emergency slaughtering
- The farmers on the other hand have to insure their stock

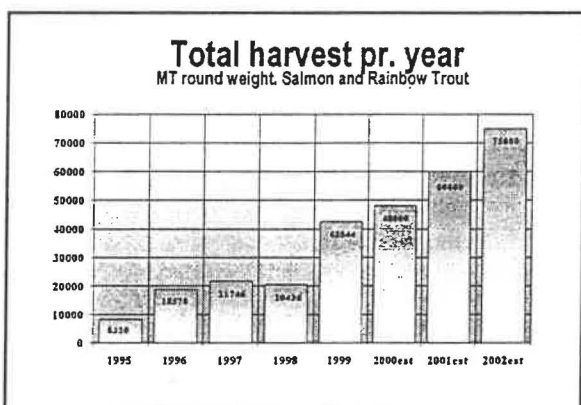
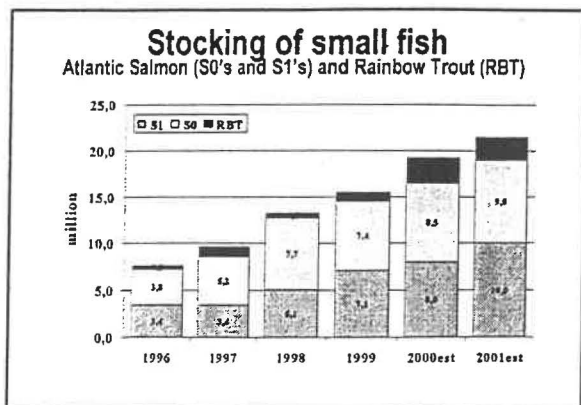
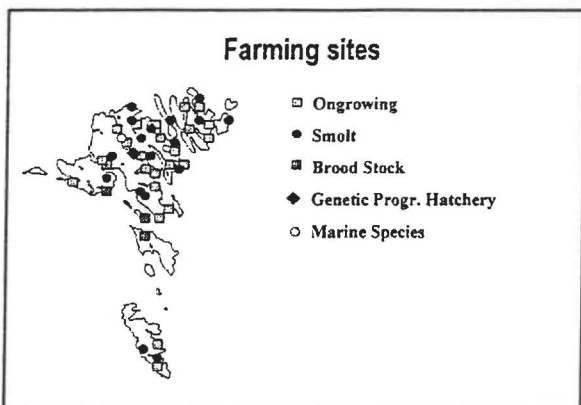
## Health programme

- A systematic health programme for control of fish diseases is expected to be finished this month
- The programme aims to fulfill EU requirements for regular inspection, sampling and reporting in all stages of production ("from fish to dish")

## Hatcheries

- There are 20 companies producing smolts
- They produce from 100,000 to 1.5 mill fish
- Over 50% of the salmon are put to sea as S0's
- More and more hatcheries are installing water-treatment equipment for recycling of the water
- Typical stocking sizes:
  - S0's: 35-55 grams
  - S1's: 40-80 grams





### Genetic Program

- A public owned company, Fiskaaling Ltd, has been given the task of providing the industry with sufficient ova and fry and improving existing salmonid strains

### Genetic program

Fiskaaling Ltd. (Government company)

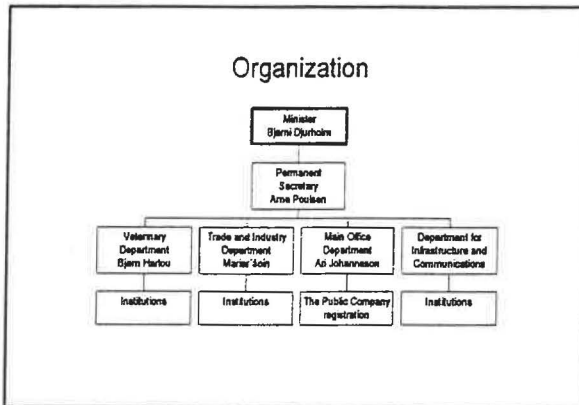
- Genetic program based on family selection started in 1990. 400 families are started each year
- Fish are tagged with an electronic tag and selected by:
  - Growth
  - Virus resistance
  - Bacterial resistance
  - Flesh colour
  - Fat distribution
  - Early maturing

### VINNUMALASTYRIÐ

Ministry of Trade and Industry of the Faroe Islands

Innihald  
Kunning  
English

Tel (+298) 35 60 00  
Fax (+298) 35 60 45  
P.O. 377  
P.O. 110 Fámjón  
Føroya lánstjórn  
Føroya lánstjórn  
Email: vmm@vmm.fo



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