HELCOM RECOMMENDATION 20/1

Adopted 23 March 1999
having regard to Article 13, Paragraph b)
of the Helsinki Convention 1974

MEASURES AIMED AT THE REDUCTION OF DISCHARGES FROM FRESH WATER FISH FARMING

THE COMMISSION,

RECALLING Paragraph 1 of Article 6 of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992 (Helsinki Convention), in which the Contracting Parties undertake to prevent and eliminate pollution of the Baltic Sea Area from land -based sources by using , inter alia, Best Environmental Practice for all sources and Best Available Technology for point sources,

RECALLING ALSO to Article 3 of the Helsinki Convention, in which the Contracting Parties shall individually or jointly take all appropriate legislative, administrative or other relevant measures to prevent and abate pollution in order to promote the ecological restoration of the Baltic Sea Area,

HAVING REGARD to the Ministerial Declaration of 1988, to the Baltic Sea Declaration of 1990 and to the Baltic Sea Environmental Declaration of 1992, calling, inter alia, for a substantial reduction of the load of pollutants most harmful to the ecosystem of the Baltic Sea,

RECOGNIZING the importance of discharges, nutrients in particular, from fresh water fish farms as sources of pollution of the aquatic environment,

DESIRING to limit the pollution from the fish farms located in the catchment area of the Baltic Sea by Best Available Technology (BAT) and Best Environmental Practice (BEP),

RECOMMENDS to the Governments of the Contracting Parties to the Helsinki Convention that the following measures of BAT and BEP should be used in fresh water fish farming:

1. Plant operation, feeding methods and fish feed, predominantly dry, which cause minimum nutrient discharges and improve fish health and fish quality, should be used and developed.

2. New types of fish farms and methods for sludge removal in fish farms should be developed and introduced so as to decrease the discharges of nutrients, organic matters and chemicals.

3. The number of fish in a certain water volume should be confirmed to water exchange rate, aeration and feeding method in order to prevent water pollution and eutrophication as well as fish diseases; dead fish should be collected as soon as possible.

4. Fish farming should be subject to permits or prior regulations by the competent authority or appropriate body in accordance with the following principles:

   a) limits to phosphorus and/or nitrogen discharges should be given in permits or prior regulations. Limits might also be expressed as maximum amounts of phosphorus and/or nitrogen in feed or maximum allowable feed consumption;

   b) future environmental effects of the proposed installation should be evaluated as part of the authorization process for intensive fish farms;

   c) permits and regulations should be reviewed at appropriate intervals taking into account existing permit conditions.

5. In all fresh water fish farms nutrient discharges should not exceed the annual average of 7 g phosphorus (tot-P) and 60 g nitrogen (tot-N)*) per 1 kg fish (living weight) produced.

   The nutrient limit values (N and P) are calculated on the basis that living fish contains 0.4% of phosphorus and 2.75% of nitrogen **).

   As a long term objective nutrient discharges in the new and reconstructed fresh water fish farms should not exceed the annual average of 6 g phosphorus (tot-P) and 50 g nitrogen (tot-N) per 1 kg fish (living weight) produced.

   Small land based fishfarms with a production not exceeding 1000 kg fish/year should not be covered by the recommendation

6. Regional planning should be employed as an instrument for directing fish farming activities to suitable areas and mitigating conflicts between fish farming and other uses of the water area. Fish farms should not be placed in areas reserved for nature protection, if that might conflict with the aims of protection.

   Sites of fish farms should be selected and discharges from them restricted by means of objective environmental impact evaluation methods in accordance with the holding capacity of the aquatic environment affected.

7. The discharges from and the ecological effects of fish farms should be adequately supervised by competent authority or appropriate body e.g. by means of fish farm operation records, discharge calculations, monitoring and environmental impact models. The monitoring should focus on measuring reliably and cost-effectively the impacts of fish farming on the eutrophic status, oxygen depletion and the state of the sediments in the affected area.

8. The use of bioactive chemicals and drugs at fish farms should be officially approved and effectively controlled to minimize hazards to the environment. The prophylactic use of chemicals should be avoided. Washing or drying of net cages should be used instead of application of toxic antifouling compounds. It is suggested to encourage the use of biological means to reduce the application of chemicals. The use of chloroamphenicols shall be denied.

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*) tot-N means the sum of organic and inorganic nitrogen

**) The current state of technology does not allow today to attain these limits, which should be reconsidered in 2004 and in any case not applied before 2005.

9. The transfer of cultivated fish and introduction of new species should be undertaken according to the recommendations of EIFAC and ICES thus avoiding the possible negative effects. The interaction between cultured and wild fish should be avoided to protect the locally adapted stock.

10. Waste or waste water resulting from the handling and processing of fish should be treated, disposed of and utilized so as not to cause pollution of the Baltic Sea, surface or ground water,

11. The cooperation between the aquaculture industry and the authorities should be intensified including an elaboration of the following instruments:

    a) keeping under review and the further development of BAT and BEP;

    b) exchange of information;

    c) overview of discharges of potentially hazardous chemicals from aquaculture;

    d) control and regulation of the amounts contaminants in fish flesh and shellfish, e.g. mussels;

    e) making sure that information is available on fish stock, chemicals and feed used;

    f) discussions of the calculation methods used as background for issuing permits taking into account the local environmental impact.

RECOMMENDS ALSO that this Recommendation should be implemented as from 1 January 2001 in fresh water fish farms for West European countries and from 1 January 2003 for countries in transition,

RECOMMENDS FURTHER that the Contracting Parties should report to the Commission starting in 2003 and every three years thereafter,

DECIDES that this Recommendation should be reconsidered in 2004 especially with regard to limit values for nutrients in the light of new developments for sludge removal and other measures to minimize water pollution.

REPORTING FORMAT FOR HELCOM RECOMMENDATION 20/1 CONCERNING MEASURES AIMED AT THE REDUCTION OF DISCHARGES FROM FRESH WATER FISH FARMING

Country _____

Year _____

Location (municipal or corresponding area):_____

1. Cultivated species and total annual production (growth of living weight) of each species, t/a

2. Number of fish farms, using

   - net cages or pens _____
   - floating basins or vessels _____
   - basins on shore discharging directly to the Baltic Sea _____
   - basins in fresh waters _____
   - others (describe) _____

3. Annual mean value for kg fish (living weight) per m^3 water and kg feed per kg fish (living weight) for fresh water fish farms using net cages or net pens

   _____

4. Annual mean value for kg feed per kg fish (living weight) for other fresh water fish farms

   _____

5. Number of fish farms which practice sludge removal, please describe further

   _____

   _____

6. Total feed consumption t/a, classified as

   - dry feed (dry matter more than 80%) _____
   - semi moist feed (dry matter 35-80%) _____
   - moist (fresh) feed (dry matter less than 35%) _____

7. Total mean percentage of phosphorus and nitrogen in the feed

   _____

8. Total and specific nutrient discharges

Nutrients	Load: t/a	Specific load g/kg fish (living weight) produced
tot-P		
tot-N		

9. Measures taken to assess the impacts of fresh water fish farms on the water environment and to set limits for maximum allowable discharges from fresh water fish farms as part of the authorization process (e.g. environmental risk assessment for site selection, water quality models, objectives and investigations, permit conditions and limit values).

10. Measures taken to supervise the discharges and environmental effects of fresh water fish farms (e.g. monitoring programmes and obligations, fresh water fish farm operation records, control visits, use of models).

11. Name and amount of used individual chemicals out of the following groups: therapeutic chemicals, disinfectants, anaesthetics, pesticides, hormones, herbicides, algicide, antifoulants, non-nutritive feed additives.