



HELCOM RECOMMENDATION 37/3

Adopted 11 March 2016,
having regard to Article 20, Paragraph 1 b)
of the Helsinki Convention

SUSTAINABLE AQUACULTURE IN THE BALTIC SEA REGION

THE COMMISSION,

RECALLING Article 3 and 6 and Regulation 1, Annex II of the Convention on the Protection of the Marine Environment of the Baltic Sea Area, 1992 (Helsinki Convention), requiring the Contracting Parties to prevent and eliminate pollution of the Baltic Sea Area from land-based sources by using, *inter alia*, Best Environmental Practice (BEP) for all sources and Best Available Technology (BAT) for point sources, minimizing or eliminating inputs to water and air from all sources by providing control strategies,

RECALLING ALSO 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 HELCOM Baltic Sea Action Plan (BSAP) and, for those Contracting Parties being also EU Member States, to relevant EU legislation, aiming at preventing further degradation of the marine and freshwater environments and at achieving a healthy sea in good environmental/ecological/chemical status by 2020/2021, with diverse biological components functioning in balance and supporting a wide range of sustainable human economic and social activities,

RECALLING FURTHER the 2013 HELCOM Copenhagen Ministerial Meeting agreement to develop a new HELCOM Recommendation on sustainable aquaculture by 2014 to substitute the existing HELCOM Recommendation 25/4 aiming at limiting potential environmental impacts of aquaculture activities such as the introduction of non-indigenous species, ecological and genetic impacts on wild fish stocks from unintended releases of farmed species, nutrient pollution, as well as introduction of antibiotics and other pharmaceuticals,

TAKING INTO ACCOUNT that in HELCOM BSAP and its follow-up process the Contracting Parties agreed, *inter alia*, on the following provisions to reach a healthy Baltic Sea:

- achieving the country allocated reduction targets of nutrients in order to reach good environmental status, and undertaking corresponding actions;
- maintaining or recovering water quality that enables the integrity, structure and functioning of the ecosystem;
- maintaining thriving and balanced communities of plants and animals, as well as viable populations of species to reach a favourable conservation status – through actions, *inter alia*, aiming at the prevention of introduction of alien species via different pathways, including aquaculture;
- addressing aquaculture as one of the potential sources which can cause or exacerbate eutrophication and the aforementioned issues,

HAVING REGARD to HELCOM Recommendation 25/4 on Measures aimed at the reduction of discharges from fresh water and marine fish farming, as far as it is not overridden by HELCOM Ministerial Declarations and Recommendations or other legal requirements,

RECOGNIZING the need to maintain Recommendation 25/4 until adoption of BAT and BEP based measures for application in marine and fresh water fish farming,

RECALLING the Baltic broad-scale Maritime Spatial Planning Principles, jointly adopted by HELCOM and VASAB, as a follow-up of HELCOM BSAP, whereby the ecosystem approach is an overarching principle,

RECALLING ALSO EU Directive 2014/89 establishing a framework for maritime spatial planning,

RECALLING FURTHER the 2003 HELCOM/OSPAR Ministerial Meeting Statement on the Ecosystem Approach to the Management of Human Activities,

RECALLING FURTHER that Ecosystem Approach to fisheries, as defined by FAO, is “an approach that strives to balance diverse societal objectives, by taking into account the knowledge and uncertainties about biotic, abiotic and human components of ecosystems and their interactions and applying an integrated approach to fisheries within ecologically meaningful boundaries”,

SUPPORTING the objectives of the Common Fisheries Policy, by adhering to the Maximum Sustainable Yield goals that also form a part of the BSAP and to ensure that aquaculture activities contribute to long-term environmental, economic, and social sustainability,

RECOGNIZING, *inter alia*, the relevance of direct discharges and losses, nutrients and organic material, from open-system marine and fresh water aquaculture, as potential negative impacts on the aquatic environment,

RESPECTING the need to prevent or minimize other possible environmental pressures and their negative impacts on marine ecosystems that can be associated with aquaculture, such as the introduction of non-indigenous species, ecological and genetic impacts on wild fish stocks from unintended releases of farmed fish, introduction of antibiotics and other pharmaceuticals, as well as hazardous substances and litter,

RECOGNIZING the need to fill, on a sustainable and ecologically sound basis, the growing gap between general seafood demand and supply globally,

RECALLING the need of strengthened regional self-supply with aquaculture products and, hence, reduced dependency of global imports, in contributing to global responsibility *via* use of sustainably developed and managed domestic resources,

TAKING NOTE OF:

- the need for a differentiated approach to specific types of aquaculture production for effective application of BAT and BEP in fresh water and marine fish farming;
- the possible supporting role of certain extensive aquaculture systems, particularly fresh water ones, in habitat conservation, if developed and maintained sustainably,

BEARING IN MIND that aquaculture has globally been the most rapidly growing form of primary food production during the past 30 years, while it was constant or decreasing in the EU and that the industry's technological and functional development has been fast; therefore, **ENCOURAGING** the industry to realize its great potential to develop and apply environmentally friendly technologies and production methods, both in marine and fresh water,

DESIRING to limit the negative impacts on the environment from aquaculture facilities located in the catchment area of the Baltic Sea and in the Baltic Sea by applying Best Available Techniques (BAT) and Best Environmental Practice (BEP),

RECALLING the Regulation (EU) No 304/2011 amending Council Regulation (EC) No 708/2007 concerning the use of alien and locally absent species in aquaculture, creating a framework governing aquaculture practices in EU member countries in order to ensure adequate protection of the aquatic environment from the risks associated with the use of non-native species and locally absent species in aquaculture,

RECALLING ALSO the requirement in HELCOM Recommendation 20/4 concerning anti-fouling paint containing organotin compounds to ban the retail sale or use of organotin paints for fish net cages,

RECALLING FURTHER the prohibition laid down in Annex XVII to the EU Regulation (EC) 1907/2006 on the registration, evaluation and authorization of chemicals (REACH), on the use of hazardous substances in anti-fouling of cages, floats, nets and any other appliances or equipment used for fish or shellfish farming,

ACKNOWLEDGING existing national and international legislation and competences, criteria and guidance for an ecologically sound aquaculture, including for the HELCOM countries being EU members CFP, MSFD, WFD, Habitats as well as Birds Directives, the EC Guidance on Aquaculture and Natura 2000, the EC Regulation No. 710/2009 as regards rules on organic aquaculture animal and seaweed production, and for Nordic countries the Nordic Council recommendation on RAS aquaculture (Rek. 5/2014), as well as **NOTING** the forthcoming development of similar guidance documents addressing the requirements of the EU Water and Marine Strategy Framework Directives in relation to aquaculture (as proposed in Strategic Guidelines for the sustainable development of EU aquaculture (COM(2013) 229 final), as applicable,

ACKNOWLEDGING ALSO the law of Russian Federation 148-FZ 02.07.2013 “On aquaculture (fish-farming) and amendments of some other related legal act of Russian Federation” as well as legal framework on protection of the water environment,

NOTING ALSO the targets and priorities outlined by the Strategy of aquaculture development in Russian Federation to the year 2020, and the Strategic National Plans on Aquaculture of EU members on the basis of the CFP,

RECALLING ALSO the EIA Directive (2011/92/EU) and its amendment 2014/52/EU which are in line with the UN ECE Espoo Convention on Environmental Impact Assessment in a transboundary context and similarly the SEA Directive (2001/42/EC),

RECOMMENDS to the Governments of the Contracting Parties to the Helsinki Convention to jointly develop by 2018 Best Available Technology (BAT) and Best Environmental Practice (BEP) descriptions for sustainable and environmentally friendly aquaculture in the Baltic Sea region and apply them, based on Annex II of the Convention and the following principles:

1. to endeavour, when developing marine and fresh water aquaculture, to maintain or restore ecosystem functions and services, to prevent or minimize emissions and discharges, minimize negative environmental effects (by e.g. spatial planning) and to relieve pressure on wild fish stocks;
2. to ensure that possible negative impacts from aquaculture will not hinder the achievement of a good environmental/ecological/chemical status, as agreed upon in HELCOM BSAP and relevant national and international legislation;
3. to take full account of nutrient discharges and losses from marine aquaculture in an overall endeavour by the Contracting Parties to keep inputs within Maximum Allowable Inputs for nitrogen and phosphorus for the Baltic Sea basins, as agreed at the 2013 HELCOM Copenhagen Ministerial Meeting and in its possible future updates;
4. to foster development and innovation towards ecologically sustainable farms and aquaculture technologies, including nutrient neutral and nutrient extractive ones, to avoid or minimize, and mitigate discharges of nutrients, organic matter, litter, chemicals and handling of escapees and diseases, as relevant;
5. to employ regional planning as an instrument for directing aquaculture activities to suitable areas and for mitigating conflicts between aquaculture and other uses of that area. Fish farms should not be placed in areas reserved for nature protection, if that might conflict with the aims of protection for that area;
6. to avoid or minimize potential negative impacts when establishing new or enlarging existing aquaculture facilities in the Baltic Sea Region;
7. to manage marine and fresh water aquaculture on the basis of the Ecosystem Approach, taking into account, *inter alia*, potential risks and impacts on the environment arising from the introduction of

non-indigenous species, and the ecological and genetic impacts on wild fish stocks and from unintended releases of indigenous species,

RECOMMENDS ALSO

8. to make better use or establish and maintain national databases of aquaculture or water permits and monitoring data in co-operation with the aquaculture sector. A better assessment of the nutrient loads from aquaculture should be based on data collected and reported to the HELCOM PLC database;
9. to develop specific measures aimed at reduction/mitigation/prevention, as appropriate, of nutrient release into the Baltic Sea, which have to be implemented simultaneously with the growth of fish production, consistent with measures foreseen in the national aquaculture development strategies;
10. to avoid the use of genetically modified species;
11. to ensure that the use of hormones does not impact the environment negatively;
12. in areas where the water quality status is deteriorated and where ecologically possible, aquaculture that contributes to improving the status of the aquatic environment should be encouraged. The promotion of such aquaculture systems should not deter from measures to address nutrient input close to source,

RECOMMENDS ALSO to the Governments of the Contracting Parties to develop, apply and enforce BAT and BEP measures aiming at sustainable aquaculture in the Baltic Sea Region, based on guidance, as contained in Annex 1 to this Recommendation. The guidance should be applied in marine and fresh water aquaculture, if not expressly differentiated,

DECIDES to review this Recommendation within three years upon development of the BAT/BAP descriptions, but no later than 2020, and thereafter as necessary,

DECIDES ALSO that actions taken by the Contracting Parties to implement this Recommendation should be reported for the first time in 2018 and thereafter every six years.

Guidance for BAT and BEP measures aiming at sustainable aquaculture in the Baltic Sea Region

The following paragraphs provide guidance for development and maintenance of sustainable, ecologically sound aquaculture in the Baltic Sea Region, while keeping in mind that the Baltic Sea is a vulnerable ecosystem whose current environmental status requires intensive efforts towards improvement. Against that background, these guidelines are to help the Contracting Parties when further developing, applying Best Available Techniques (BAT) and Best Environmental Practices (BEP) for effective implementation of this Recommendation, enhanced co-operation and provision of economic incentives while aiming at limiting potential negative environmental impacts of aquaculture activities.

1. Establish new or enlarge existing aquaculture facilities only upon granting permits or according to prior regulations by the competent authority or appropriate body in accordance with existing legislation (including EIA and SEA directives for EU Member States) and taking into account the following aspects:
 - a) when establishing aquaculture facilities, negative local environmental effects and threats to biodiversity should be avoided or minimized by careful planning processes including environmental impact assessment according to international, EU and national legislation as appropriate, and by selection of appropriate locations by means of objective environmental impact evaluation methods taking into account the hydrographic and hydrological conditions of the specific water area;
 - b) permits or regulations should aim at limiting emissions and discharges of phosphorus and nitrogen, thus striving to contribute, together with other sectors, to keeping the inputs within the Maximum Allowable Inputs as agreed in the HELCOM Ministerial Declaration 2013 (and following updates) in order to enable and not jeopardize the achievement of a good environmental/ecological/chemical status as agreed upon in HELCOM BSAP and relevant national, EU and international legislation- at the latest by 2021;
 - c) such permits or regulations should, *inter alia*:
 - i. take due account of the current status of the marine and fresh water area potentially affected by the aquaculture facility and other sources of nutrient release or negative environmental effects;
 - ii. take into account the carrying capacities of the directly affected ecosystem;
 - iii. avoid or minimize negative impacts on the current status of the environment and aim at not jeopardizing the achievement of a good ecological/environmental/chemical status of the area affected, and
 - d) evaluate future environmental effects of the proposed aquaculture facility as part of the authorization process for aquaculture;
 - e) take into account aquaculture intensity, the type of cultured organisms and the production method, the hydrographic framework according to the Ecosystem Approach;
 - f) select cultured species and rearing techniques so that the risks of genetic mixing of cultured and wild stocks, spreading of diseases and parasites, and impact of non-indigenous species to the environment, accidental releases and escapes are avoided or minimized.
2. Permits and regulations should be reviewed at appropriate intervals, set on a national level, taking into account existing permit conditions.
3. Encourage the aquaculture sector to develop and to implement environmentally friendly technologies, production methods, and feeds through appropriate incentives, e.g. a reduced administrative burden.
4. Promote sustainable fish feed composition to reduce pressure on wild fish and to prevent additional nutrient discharges by optimizing nutritive requirements and encourage the use of regionally sourced products as fish feed ingredients with an aim to decrease the net inflow of nutrients into the Baltic Sea.

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5. Assess and aim to avoid or minimize as far as possible the potential negative impact of aquaculture facilities located outside MPAs on these protected areas (in particular, HELCOM MPAs, NATURA 2000 sites and potential MPAs as designated under MSFD Art. 13 (4)) or other ecologically sensitive areas.
 6. Fish farms should not be placed in protected areas if they might compromise conservation objectives for which MPAs have been established.
 7. Supervise the discharges from and the ecological effects of aquaculture farms, e.g. by means of regular monitoring and e.g. aquaculture farm operation records, discharge calculations, monitoring and environmental impact models. Focus the monitoring on measuring reliably and cost-effectively the impacts of fish farming on the marine and fresh water environments, including the eutrophication status, oxygen depletion and the state of the sediments in the affected area.
 8. Minimize, strictly regulate and effectively control the use of legally approved bioactive chemicals, antibiotics and other pharmaceuticals at aquaculture farms and effectively control the abundance to avoid risks to the environment. Promote the use of vaccination ~~only~~ as prophylaxis only and encourage the use of biological means to reduce the application of chemicals. Promote also washing/drying of net cages instead of application of toxic compounds.
 10. Encourage the industry to adopt an open policy regarding the environmental issues related to aquaculture, to appropriately inform the public and the relevant institutions.
 11. The relocation and transport of cultured non-native species should be subject to special safety rules or permits according to respective national and EU legislation for EU Member States such as Regulation (EU) No708/2007 on the use of alien and locally absent species in aquaculture and Regulation (EU) No 307/2013 on the Prevention and Management of the Introduction of the Spread of Invasive Alien Species as well as the Recommendations of EIFAAC and ICES Code of Practice on the Introductions and Transfers of Marine Organisms.
 12. Treat, dispose of and utilize waste, litter or waste water resulting from the handling and processing of aquaculture products to minimize pollution to the Baltic Sea, surface or ground water.
 13. Improve and facilitate national and international co-operation between the aquaculture industry, stakeholders and the authorities including by making use of co-operation mechanisms including those established in the context of the CFP, with the aim to reach at informational background for an effective implementation of BAT/BEP.

In order to fulfill this objective the following actions should be taken:

- a. HELCOM should act as a regional platform for the regular exchange of information on the development and implementation of BAT and BEP. The platform can also be used for discussions of the calculation methods used as background for issuing permits, taking into account the local and regional environmental impacts and experiences gained;
- b. The Contracting Parties should provide information according to HELCOM Guidelines for the annual and periodical compilation and reporting of waterborne pollution inputs to the Baltic Sea (PLC-water) ;
- c. Make publicly available all relevant information at a national scale;
- d. In order to conduct regular assessments of the state of the environment of the Baltic Sea, as well as anthropogenic pressures on the marine environment, the Contracting Parties should provide necessary information required, e.g. for calculation of the HELCOM core indicators, i.a. aggregated country-wise and basin-wise data on location of aquaculture facilities, stocks of cultured species, chemicals and pharmaceuticals as used and gear and management practices;
- e. In order to fulfill the Regional Baltic Maritime Spatial Planning Roadmap 2013-2020, adopted by the 2013 HELCOM Ministerial Meeting, the Contracting Parties should compile and provide information on water areas designated for aquaculture, which is relevant for regional maritime spatial planning.