

Friend of the Sea Standards

FOS-Aqua - Shellfish Criteria and indicators for the certification of farmed shellfish

REV	DATE	REASON	VALIDATION	APPROVAL
1	18/01/2013	First Issue		
2	03/11/2015	First review		
3	16/06/2016	Second review		

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Foreword

Friend of the Sea is a non-governmental organisation established in 2008, whose aim is to safeguard the marine environment and its resources incentivising a sustainable market and implementing specific protection and conservation projects.

The certification scheme of Friend of the Sea assesses fisheries and fish farms against sustainability criteria and indicators. To ensure compliance with the sustainability requirements, certification is granted by an independent body following a third-party audit.

Friend of the Sea criteria for sustainable aquaculture follow **the United Nations (UN) Food and Agriculture Organization (FAO) 'Technical Guidelines on Aquaculture Certification - Version Approved by the 29th Session of Committee on Fisheries (COFI) - held in Rome, Italy from 31 January to 04 February 2011'**. Therefore, all indicators refer to criteria that comply with the 'Minimum substantive criteria for addressing environmental and social integrity in aquaculture certification schemes. Some of the criteria addressed by the present certification scheme are reported here.

'37. Aquaculture should be planned and practised in an environmentally responsible manner, in accordance with appropriate local, national and international laws and regulations.

44. Environmental impact assessments should be conducted, according to national legislation, prior to approval of establishment of aquaculture operations.

45. Regular monitoring of on-farm and off-farm environmental quality should be carried out, combined with good record keeping and use of appropriate methodologies.

46. Evaluation and mitigation of the adverse impacts on surrounding natural ecosystems, including fauna, flora and habitats should be carried out.

47. Measures should be adopted to promote efficient water management and use as well as proper management of effluents to reduce impacts on surrounding land and water resources should be adopted.

48. Where possible, hatchery produced seed should be used for culture. When wild seeds are used, they should be collected using responsible practices.

49. Exotic species are to be used only when they pose an acceptable level of risk to the natural environment, biodiversity and ecosystem health.

50. *With reference to paragraph 9.3.1 of the Code of Conduct for Responsible Fisheries, where genetic material of an aquatic organism has been altered in a way that does not occur naturally, science-based risk assessment should be used to address possible risks on a case-by-case basis. Induction of polyploidy is not included.*

51. *Infrastructure construction and waste disposal should be conducted responsibly.*

52. *Feeds, feed additives, chemicals, veterinary drugs including antimicrobials, manure and fertilizer should be used responsibly to minimize their adverse impacts on the environment and to promote economic viability.*

55. *Workers should be treated responsibly and in accordance with national labour rules and regulations and, where appropriate, relevant ILO conventions.*

56. *Workers should be paid wages and provided benefits and working conditions according to national laws and regulations.*

57. *Child labor should not be used in a manner inconsistent with ILO conventions and international standards.*

126. *Two types of assessments are required for certification: Conformity assessment: Whether an aquaculture activity conforms to the standards and related certification criteria. Chain of custody assessment: Whether adequate measures are in place to identify and differentiate products from a certified aquaculture operation, including production and subsequent stages of processing, distribution and marketing (traceability).'*

Friend of the Sea criteria and their compliance with FAO Minimum Substantive Criteria

The FAO Minimum Substantive Criteria (reference number in brackets) in relation to each Friend of the Sea criterion are as follows:

1. Management of sustainable aquaculture system (37, 44, 45)
2. Location of the site and environmental impact assessment (44, 46)
3. GMO and growth hormones (50, 52)
4. Prevention of diseases and biosecurity (49)
5. Waters and sediments management (47)
6. Habitat and species interaction (48)
7. Waste management (51)
8. Hazardous substances (52)
9. Energy management
10. Social accountability (55, 56, 57)
11. Traceability (126)

Each criterion contains essential or important indicators or recommendations.

Essential indicators: the organization shall be 100% compliant with essential requirements to be recommended for certification by the certification body. Failure to comply with essential requirements is a major nonconformity (NC). To achieve certification, corrective actions shall be implemented within three months from the date of assessment of NCs. The organization shall provide the certification body with satisfactory evidence of correction of all major NCs, if necessary, with additional audits. Exclusively for requirement 2.3, considering the complexity of possible missing data to be retrieved, the time interval allowed for the correction of NCs is extended to 6 months.

Important Indicators: the organisation shall be 100% compliant with important requirements for the company to be recommended for certification. Failure to comply with important requirements is a minor NC. To achieve certification, proposals to carry out corrective actions shall be submitted to the certification body within maximum three weeks from the date of assessment of the NCs. In the proposal, the company shall include the timeframe for the implementation of each corrective action.

Recommended Indicators: it is not compulsory for the organization to comply with recommended indicators to achieve certification. Nonetheless, all the aspects related to these requirements will be reviewed and any NCs will be highlighted in the audit report as a 'recommendation'. The company should consider the necessity of corrective actions and, during the next inspection, inform the certification body about the corrective measures undertaken.

If a requirement is not applicable for the audited organization, it should be marked with N.A.

Description of the organization

Only the Certifying Body and Auditor in charge of the inspection can complete this document. It shall be completed in the Certifying Body or Auditor's mother tongue or in English if spoken fluently.

a) NAME OF THE ORGANIZATION TO BE AUDITED:
b) NAME OF THE ORGANIZATION THAT REQUESTED THE AUDIT:
c) IS THE ORGANIZATION TO BE AUDITED AS PART OF A GROUP?
d) ADDRESS OF THE ORGANIZATION TO BE AUDITED:
e) NAME AND CONTACT DETAILS OF THE PERSON RESPONSIBLE FOR THE ORGANIZATION TO BE AUDITED:
f) COMMON NAME OF THE SPECIES BRED: (e. g. Pacific oyster)
g) SCIENTIFIC NAME OF THE SPECIES BRED: (e. g. <i>Crassostrea gigas</i>)
h) SITES TO BE AUDITED: (please list site names and locations)

i) SITES VISITED BY THE AUDITOR:

(if different from h)

j) DESCRIPTION OF THE AQUACULTURE SYSTEM:

(e. g. land, bay, offshore, extensive, intensive, basin, tank, cage, nets, geographical extension, etc. If available please include a map)

k) DESCRIPTION OF BREEDING TECHNIQUES:

(summary of breeding techniques from broodstock, to hatching to the finished product)

l) ACTIVITY OF THE ORGANIZATION TO BE AUDITED:

- breeding**
- pre-transformation**
- final transformation**
- import**
- export**
- distribution**
- other (description):**

m) DESCRIPTION OF THE FINAL PRODUCT:

(e. g. fresh, frozen, canned, other)

n) BRANDS OF FINISHED PRODUCT:

(please list brands under which the product is sold. If available include images of each brand)

o) DESCRIPTION AND LOCATION OF FREEZERS AND WAREHOUSES, IF ANY:
(for product traceability purposes)

p) TOTAL NUMBER OF EMPLOYEES:
(optional)

q) ENVIRONMENTAL CERTIFICATIONS AND AWARDS:

r) ADDITIONAL INFORMATION:

- The Friend of the Sea project has been outlined to the organization**
(If not the auditor shall provide a short description to the organisation)

- The organization was informed of the opportunity, in case of approval, of using the Friend of the Sea logo on the certified products**

- The organization has been provided with a document outlining the roles and qualifications of the staff carrying out the audit**

- The duration of the audit has been agreed**

- The information given in the Preliminary Information Form has been checked and confirmed**
(in case of changes, please send an update promptly)

CERTIFICATION BODY:	AUDIT TEAM:	AUDIT START AND END DATE:
SIGNATURE OF AUDITOR:	NAME OF THE RESPONSIBLE PERSON FROM THE ORGANIZATION ACCOMPANYING THE AUDITOR DURING THE AUDIT:	AUDIT CODE:

NOTES FOR THE AUDITOR

- 1) The auditor shall complete all fields in the checklist
- 2) Instructions on how to fill in the checklist are written in the blue fields
- 3) The auditor shall give an explanation when the qualification requirements are not applicable
- 4) The auditor shall write YES when the organisation complies with a requirement and NO when it doesn't
- 5) The auditor shall comment and explain all answers. YES, NO, N.A. only are not accepted
- 6) Each relevant document shall be attached to the final Audit Report in a separate and numbered attachment
- 7) Photographic evidence added to the checklist and/or attached to the report are desirable

1 - MANAGEMENT OF THE AQUACULTURE SYSTEM

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments State the reference number of the relevant procedure and the organization's manual where it is included, if available.
1.1	A sustainable aquaculture system shall implement management procedures for the following:				
1.1.1	responsibility and authority of the environmental management of the company	Important	The organization shall have appointed at least one employee responsible for the environmental management aspect of the company		
1.1.2	control of documents (including an update of the environmental laws to comply with)	Important	Procedures shall require at least one yearly check and update of applicable environmental laws. Documents shall be kept for at least 6 years.		
1.1.3	control of monitoring systems and assessment of environmental footprint parameters	Important	Control and assessment of environmental footprint shall be carried out at least every six months.		
1.1.4	control and maintenance of infrastructures	Important	Control and maintenance of infrastructures shall be carried out at least every six months.		
1.1.5	environmental emergencies prevention and response plan, including for chemicals and hydrocarbons spills	Important	Procedures shall require a simulation of environmental emergency at least once a year.		
1.1.6	management of corrective measures (due to non-conformities and recommendations)	Important	The procedure shall require the correction of non-conformities and recommendations within at least 6 months from the detection or notification of the non-conformity.		
The auditor shall check the procedures adopted by the organization, report the number of the relevant procedure and the manual, if any, (quality, environment or other) that includes it.					

2 – SITE LOCATION

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments Provide documentary evidence. Specify expiry, validity of permit or licence. Specify title, date, author and relevant conclusions of EIA or footprint study addressing point 2.3
2.1	The organization obtained a licence or permit for the development of the site, if required by national regulation.	Essential	The organization provides evidence of valid and up-to-date permit or licence.		
2.2	An Environmental Impact Assessment (EIA) was carried out with a positive outcome, if required by the national regulation.	Essential	The organization provides evidence of a positive EIA.		

The auditor shall check if an environmental footprint assessment was carried out prior to the establishment of the farm. The auditor shall specify title, date, author and conclusions concerning the environmental impact assessment (EIA) examined. Since in many countries an EIA is not mandatory before the establishment of a farm, this requirement can be balanced with a full conformity with the requirement 2.3.

2.3	In case national regulation does not require an Environmental Impact Assessment, the organization shall arrange an environmental footprint study to be carried out by a third-party organization. The study shall verify that critical ecosystems, such mangroves, rivers, lakes, bays, estuaries, wet areas, swamps and morasses have not been altered.	Essential	<p>1. The organization can provide evidence of a footprint study carried out by a third-party organization, that shall consider the following parameters:</p> <p>1.1 technical-scientific data on condition, structure and functioning of the ecosystem, including an assessment of tidal flow and volume;</p> <p>1.2 effects of the farm activities on the environmental biotic and abiotic components;</p> <p>1.3 direct and indirect effects on the ecosystem.</p> <p>The study shall assess and calculate environmental footprint direct or indirect, short or long term, permanent or temporary, single or cumulative.</p> <p>2. The study takes into account the following environmental factors:</p> <ul style="list-style-type: none"> • human beings, • fauna, • flora, • soil, • water, • air, • climate, • landscape; • cultural heritage. 		
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The auditor shall specify title, date, author and conclusions from the EIA. The auditor shall confirm that the EIA included all factors mentioned in the Reference Quantitative Parameters section.

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments
2.4	The farm structure is placed in areas with an appropriate depth, according to tidal flow and does not interfere significantly with natural sedimentation processes.	Essential	The organization provides evidence that the sites have been assessed		

The auditor shall verify the organization has run the above-mentioned evaluations, taking into consideration national legislation, local authority regulations and available scientific publications. In the case of the auditor not being able to access any official documentation, he/she will evaluate and take a decision on the organization's compliance based on his/her own experience and the local environmental conditions.

3- HABITAT AND SPECIES INTERACTION

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments
3.1	The organization takes all necessary precautions to minimise the damage of the seabed and organisms inhabiting it during shellfish harvest when conducted by dredging. Only applicable to farms growing shellfish on the seafloor and harvesting by dredging	Essential	The organization provides evidence that seabed monitoring plans are in place		
3.2	Changes in the sedimentation patterns are monitored. The organization has established procedures for restoration of seabed and natural sedimentation (e.g. fallowing) following local legislation and appropriate to the site conditions	Essential	The organization provides evidence that monitoring and restoration plans are in place according to local legislation		
3.3	Only non-lethal methods are used for the control of pests and predators, e. g. exclusion, deterrents and removal	Essential			
3.4	The organisation and its staff are aware of the locations of sensitive habitats within 30m of the boundary of the farm	Essential			

A 'sensitive habitat' is a habitat that is biological and ecological valuable or critically important at a local, national, or global level.

Examples include mangrove and wetland forests, and all the protected areas.

4- GMO and GROWTH HORMONES

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments
4.1	The use of genetically modified shellfish species is prohibited.	Essential	Absence of GMO		

4.2	The use of growth hormones is prohibited.	Essential	Absence of growth hormones		
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5- DISEASE PREVENTION AND BIOSECURITY

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments Verify drug purchase register and related documents
5.1	For hatchery produced seed, the organisation does not farm non-native species to the area, unless the non-native species have been previously introduced and are now fully established in the area.	Essential	If non-native species are farmed, the organization needs to provide evidence that the species are fully established in the area and do not represent any threat for native species.		
5.2	Biosecurity measures to reduce the risk of parasite and pathogen infection are in place, e.g. hatchery produced seed is washed before transfer between sites and equipment is washed in adherence to local regulations.	Essential	The organization provides documentation showing compliance with established protocol or evidence of following appropriate best management practices for preventing and managing disease and pest introduction with seed and/or farm equipment		
<p>The auditor shall verify the organization has put in place biosecurity measures appropriate to the local parameters, based on his or her own experience. Biosecurity measures can vary depending on company structure and geographical location. Refer to the link to view some of the most widespread threats and associated biosecurity measures; https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/278580/Shellfish_biosecurity_measures_plan.pdf</p>					
5.3.	Drugs allowed by regulation are only used in cases of special circumstances.	Essential	Refer to the existing international regulation http://www.fao.org/fishery/nalo/search/en		

6 - MANAGEMENT OF WATERS AND SEDIMENTS

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments Attach a copy of the latest analyses of the effluents and sediments quality performed by the relevant national bodies, complete with official declaration of conformity with the regulation
6.1	The qualitative parameters of the sediment under the farm system shall comply with the existing regulations.	Essential	Refer to the existing international regulation http://www.fao.org/fishery/nalo/search/en Levels of total free sulphide in superficial sediment, benthic community structure, bottom video/imaging can be used to assess sediments quality		

The auditor shall enclose a copy of the latest analysis of sediments carried out by relevant national bodies complete with an official declaration of conformity to the regulation.

6.2	The chemico-physical parameters of the effluents shall comply with the national legislation (only applicable to hatcheries and land-based nurseries utilising open systems) and shall be monitored at least once a year	Essential	Refer to the existing international regulation http://www.fao.org/fishery/nalo/search/en		
6.3	The quality of the seabed shall be monitored once every six months or according to the local legislation.	Important	Refer to the existing local legislation		
6.4	The company keeps the results of the analyses carried out.	Important	Reports shall be kept for a minimum of 5 years.		

The auditor shall examine the monitoring frequency and method procedure and record the number of the procedure and the manual that includes it. The auditor shall view the previous yearly analysis of waters and sediments.

7 - WASTE MANAGEMENT

No.	Requirement	Level	Reference parameters	Y/N	Comments
7.1	The organization recycles, re-uses or reprocesses all materials used during farm activities, conservation and transport of the product up to the selling point, including packaging.	Essential	Procedure and evidence of conformity.		
7.2	Best practice methods are implemented to reduce quantity of organic material (e. g. non-target fouling species) and shell waste discharged.	Essential	Procedure and evidence of conformity.		
7.3	A plan detailing appropriate storage and disposal of organic and non-organic waste including hydrocarbons is in place.	Essential	Procedure and evidence of conformity.		

8 - HAZARDOUS SUBSTANCES

No.	Requirement	Level	Reference parameters	Y/N	Comments Verify chemical purchase register and related documents
8.1	Using toxic and persistent chemical compounds including toxic antifouling paints (e. g. TBT, Malachite Green, DDT) is forbidden. The use of forbidden substances shall be carried out in compliance with associated safety regulations.	Essential	Refer to the existing international regulation http://www.fao.org/fishery/nalo/search/en		

The auditor shall view the procedures for the use of hazardous substances contained in the Safety Manuals and report the procedure number. The auditor shall also verify compliance during the inspection.

9 - ENERGY MANAGEMENT

No.	Requirement	Level	Reference parameters	Y/N	Comments
9.1	The organization shall keep a register of the energy consumption, updated at least once a year.	Important	The frequency of energy consumption records (minimum yearly) shall be included in the procedure. The register shall state at least the following parameters: 1. incoming energy sources, 2. energy consumption values, 3. consumption per production phase and per product unit.		
9.2	The organization undertakes measures to achieve a yearly energy consumption reduction per product unit and commits to use renewable energy.	Recommendation			
The auditor shall request copies of the reports.					

10 - SOCIAL ACCOUNTABILITY

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments Report documental evidence provided by the organisation and evidence collected on-site through interviews with employees
10.1	The organization shall respect human rights, complying with the following requirements:				
10.1.1	The organization complies with national regulations and the ILO on child labour	Essential	Refer to the ILO: http://www.ilo.org/global/standards/introduction-to-international-labour-standards/language--en/index.htm		
10.1.2	Workers shall be paid adequate salaries compliant with minimum legal wages	Essential	Minimum wages vary depending on the country. The auditor shall verify the organization is aware of these.		
10.1.3	Workers shall be granted access to healthcare	Essential			

10.1.4	Safety measures required by the law are applied	Essential			
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The auditor shall verify the compliance with the requirements through documental evidence (work contract samples) and on-site observation.

11 - TRACEABILITY

No.	Requirement	Level	Y/N	Comments
11.1	The organization shall implement a traceability system that verifies that the certified product comes from approved systems and there is no possibility of exchange with products coming from non-certified systems.	Essential		

ADDITIONAL COMMENTS:

The auditor shall also complete the following fields

- The products of the organization come from an aquaculture system which COMPLIES with Friend of the Sea requirements.**

- The products of the organization come from an aquaculture system which DOES NOT COMPLY with Friend of the Sea requirements.**

The auditor found the following non-conformities:

MAJOR NON-CONFORMITIES (to be corrected within 3 months)

Please specify

MINOR NON-CONFORMITIES (to be reported within 3 weeks and corrected within 1 year)

Please specify

RECOMMENDATIONS (to be communicated within the next inspection)

Please specify