

Friend of the Sea Standard

FOS- Aqua Marine **Criteria and indicators for the Certification** **of sustainable marine aquaculture**



Friend of the Sea

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1	18/01/2013	First issue		
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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 preservation projects.

The certification diagram of Friend of the Sea assesses according to sustainability criteria and indicators fishing and aquaculture projects. The certification, granted by Independent Certification Bodies following an audit, ensures that a product complies with sustainability requirements.

The Friend of the Sea certification diagram for sustainable aquaculture is structured in order to **comply with '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'.

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 labour should not be used in a manner inconsistent with ILO conventions and international standards.

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

Following the reference Friend of the Sea Criteria used during the audit. For each criterion the respective Minimum Substantive Criterion observed is mentioned in brackets.

1. Management of sustainable aquaculture system (45)
2. Location of the site and environmental footprint Assessment (44,49)
3. Infrastructure (44, 51)
4. Fattening (48)
5. Feeding (52)
6. OGM and growth hormones (50)
7. Prevention of diseases and use of drugs (30)
8. Management of waters and wastewaters (47)
9. Hazardous substances (45, 51)
10. Management of energy
11. Social Accountability (55, 56, 57)
12. Traceability (126, 33)

Each one of these criteria contains essential or important indicators or recommendations.

Essential indicators: for the essential requirement a 100% conformity is required in order to allow the Certification Body to recommend the Company for Certification. Each deficiency towards these requirements is considered as a Major non-conformity and it is required to undertake appropriate corrective measures, to be implemented within three months from when the non-conformity was found. The Company shall provide satisfactory evidence on the correction of all major non-conformities to the Certification Body. Exclusively for requirements 2.1 and 2.2, considering the complexity of possible missing data to be retrieved, the time interval allowed for the correction of non-conformities is extended to 6 months.

Important Indicators: for important requirements a 100% conformity is required in order to allow the Certification Body to recommend the Company for Certification. Each deficiency towards these requirements is considered as a Minor non-conformity and it is required to propose appropriate corrective measures (declaration of intents and implementation plan), to be submitted to the Certification Body within three months from when the non-conformity was found. This proposal shall also include a chronogram concerning the implementation of each correction measure. Each corrective action shall be fully implemented within a year.

Recommended Indicators: the compliance with these requirements is not strictly required in order to obtain the certification. However, during the inspection all the aspects concerning these requirements will be checked and each deficiency will be highlighted in the Auditing Report as a recommendation. The Company shall evaluate the possible necessity of implementing corrective measures and, within the following inspection, shall inform the Certification Body regarding the decisions taken and the corrective measures implemented.

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

Description of the organisation

This document shall be compiled only by the Certifying Body and the Auditor in charge of the inspection; it shall be filled in the mother tongue or in English only if spoken fluently.

a) NAME OF THE ORGANISATION TO BE AUDITED:

b) NAME OF THE ORGANISATION THAT REQUESTED THE AUDIT:

c) IS THE ORGANISATION TO BE AUDITED PART OF A GROUP?

d) ADDRESS OF THE ORGANISATION TO BE AUDITED:

e) NAME AND CONTACTS OF THE PERSON RESPONSIBLE FOR THE ORGANISATION TO BE AUDITED:

f) COMMON NAME OF THE SPECIES BRED:

(e.g.: Gilthead seabream)

g) SCIENTIFIC NAME OF THE SPECIES BRED:

(e.g.: Sparus aurata)

h) AUDITED SITES:

(list name of the site and location)

i) SITES VISITED BY THE AUDITOR:

(if different from f)

j) DESCRIPTION OF THE AQUACULTURE SYSTEM:

(E. g. location, extension, cage design, etc. If available include a map)

k) DESCRIPTION OF BREEDING TECHNIQUES:

(Summary of breeding techniques from brood stock, to hatching, to the finished product)

l) ACTIVITY OF THE ORGANISATION 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 PRODUCTS:

(List of brands under which the product is sold. If available include images of the brands)

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 was presented**

(If not the Auditor shall provide a short description)

☐ **The Organisation was informed of the possibility, in case of approval, of using the Friend of the Sea logo on the certified products**

☐ **The Organisation has a document certifying the roles of the staff carrying out the audit**

☐ **The duration of the Audit was agreed**

☐ **The information included in the Preliminary Information have been confirmed:** (in case of changes send an update promptly)

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

NOTES FOR THE AUDITOR

- 1) The auditor shall fill-in all the fields in the checklist
- 2) The directions to fill-in the checklist are written in the blue fields
- 3) The Auditor shall explain 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 the positive or negative answers. YES, NO, N.A. are not enough
- 6) Each relevant document shall be added to the final Audit Report in a separate and numbered Attachment
- 7) Photographic explanations added to the checklist and/or attached are appreciated

1 - MANAGEMENT OF THE AQUACULTURE SYSTEM

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments (State the number of the relevant procedure and the manual, if any, (quality, environment or other) where it is included.)
1.1	A sustainable aquaculture system shall implement management procedures for the following aspects:				
1.1.1	responsibility and authority of the environmental management of the company	Important	The organisation shall have appointed at least one employee as responsible of the environmental management of the company		
1.1.2	control of documents and registers (including the update of the environmental laws to comply with)	Important	The procedure shall require at least one yearly check and update of the environmental laws. Documents and registers shall be kept for at least 6 years.		
1.1.3	control of monitoring systems and measurement of environmental footprint parameters	Important	Control and measurement 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	readiness for environmental emergencies and capability to address to them	Important	The procedure 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 Organisation, report the number of the relevant procedure and the manual, if any, (quality, environment or other) that includes it.

2 - LOCATION OF THE SITE

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments (Provide documental evidence. Specify expiry, validity of permit or licence. Specify title, date, author and relevant conclusions of EFA or footprint study pursuant to point 2.3)
2.1	The organisation obtained a licence or permit for the development of the site, if required by the national regulation.	Essential	The Organisation provides evidence of valid and up-to-date permit or licence.		
2.2	An Environmental Footprint Assessment (EFA) was carried out with a positive outcome, if required by the national regulation.	Essential	The organisation provides evidence of a positive EFA.		
The auditor shall check if prior to the realisation of the system an environmental footprint assessment was carried out. The Auditor shall specify title, date, author and conclusions concerning the EFA examined. Since in many countries an environmental footprint assessment is not mandatory before the realisation of a system, this requirement can be balanced with a full conformity with the requirement 2.3.					
2.3	In case the national regulations do not require an Environmental Footprint Assessment, the Organisation shall arrange a footprint study carried out by a third party and such 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 Organisation provides evidence of footprint study carried out by a third party, that shall have kept into consideration at least the following parameters: 1.1 technical-scientific data on condition, structure and functioning of the environment; 1.2 data on the technological characteristics of the system; 1.3 forecast on the behaviour of the environment and interactions between project and environmental components; 1.4 summary and comparison of footprint and direct/indirect benefits of the system.</p> <p>The study shall assess and calculate environmental footprint</p>		

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments (Provide documental evidence. Specify expiry, validity of permit or licence. Specify title, date author and relevant conclusions of VIA or footprint study pursuant to point 2.3)
			<p>direct or indirect, short or long term, permanent or temporary, single or cumulative.</p> <p>2. The study takes into consideration the following environmental factors, also in connection to each other:</p> <p>2.1 human being, 2.2 fauna, 2.3 flora, 2.4 soil, 2.5 water, 2.6 air, 2.7 climatic factors and 2.8 landscape; 2.9 cultural heritage.</p>		

The Auditor shall specify title, date, author and conclusions concerning the Environmental Footprint Assessment examined. The Auditor shall confirm that the environmental footprint assessment kept into account all the factors mentioned in the Reference Quantitative Parameters

3 - INFRASTRUCTURES

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments (State the number of the required procedures and the reference Manual. Describe the systems implemented (filters, screens, nets, etc.) and attach technical documents (relevant photos or videos).
3.1	The average yearly percentage of fish escape assessed is not higher than 0.5% of the total of bred fish.	Important	The organisation shall provide evidence of the compliance with the maximum limit of 0.5% of fish escape of the total of bred fish and undertakes not to exceed such average.		
3.2	In order to minimise the leakage of eggs, larvae and bred species, the Organisation implemented:				

3.2.1	screens, filters or similar	Essential	The Organisation shall have a technical declaration of the supplier that certifies the suitability of nets, filters and other structures for the reduction of the leakage of eggs, larvae and bred species.		
3.2.2	control and maintenance procedures	Essential	The procedures shall require control and maintenance to be performed at least every six months.		
3.2.3	procedures and alert systems in case of exceptional atmospheric events	Essential	The procedures shall require at least a yearly simulation.		
3.3	In order to prevent other organisms, such as birds or other predators, from entering the system, the Organisation implemented:				
3.3.1	screens, filters, cover-up nets or similar	Essential	The organisation shall have a technical declaration of the supplier that certifies the suitability of nets, filters, and other structures for preventing other organisms such as birds or other predators from entering the system.		
3.3.2	control and maintenance procedures	Essential	The procedures shall require control and maintenance to be performed at least every six months.		
3.4	In case of escapes of animals, the organisation provided procedures for:				
3.4.1	recording escapes	Essential	The records shall be carried out at least once a week also stating the absence of escapes.		
3.4.2	promptly notify the competent local authorities	Essential	The procedure shall include telephone number and email address of the competent authorities to be contacted in case of fish escape. The procedure shall require that the Competent Authorities are alerted within a maximum of 30 minutes		

			from detecting the escape		
3.4.3	implement corrective measures addressed to reduce future risks of further escapes due to similar causes	Essential	The procedure shall require the implementation of corrective actions within 6 months from the detection of notification of the issue.		
The Auditor shall state the number of the required procedures and the reference Manual. The Auditor shall describe the systems implemented (filters, screens, nets, etc.) and attach technical documents (relevant photos or videos).					
3.5	The Organisation does not use toxic anti-vegetative paint.	Essential	The organisation shall provide an independent scientific assessment that proves non-toxicity.		
In case the Organisation declares they use anti-vegetative paint, the Auditor shall request a copy of the technical characteristic of the paint used, proving their non-toxicity. In case the Organisation declares they do not use anti-vegetative paint, the Auditor shall request evidence of the alternative methods used.					

4 - FATTENING

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments
4.1	Species that may be fished for fattening shall originate from fishing activities approved by Friend of the Sea. http://www.friendofthesea.org/fisheries.asp	Essential	The updated list of the fleet approved by Friend of the Sea is available on http://www.friendofthesea.org/fisheries.asp		
Fattening refers to the aquaculture method that involves feeding and breeding of individuals fished in nature (e.g.: Red tuna and Eel). The Auditor shall describe the origins (area of fishing, fishing method, flag of the fleet) of the fished species.					

5 - FEEDING

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments (refer the name of the supplier, name of the product and formulation of the food. Include conversion index analysis).

5.1	The Organisation uses animal feed certified by Friend of the Sea, when available on the market for the species bred. http://www.friendofthesea.org/certified-products.asp Alternatively the Organisation uses trimmings from processing of edible products.	Recommendation	The updated list is available on the Friend of the Sea website http://www.friendofthesea.org/certified-products.asp		
5.2	The Organisation uses animal feed produced by IFFO certified plants such as Responsible Sourcing / Responsible Production.	Essential	The updated list of the plants certified by IFFO is available on http://www.iffonet/default.asp?contentID=742		
The Auditor shall provide a list of all the animal feeds used by the Organisation, stating name of supplier, name of product and formulation.					
5.3	The Organisation records historical data concerning the conversion index of the food.	Important	The records shall be carried out at least every six months		
The Auditor shall attach a copy of such analysis to the 'Audit Report.					

6 - GMO AND GROWTH HORMONES

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments (verify drug purchase register and related documents)
6.1	The use of GMO fish species is not allowed.	Essential	Absence of GMO fish species		
6.2	The use of growth hormones is not allowed.	Essential	Absence of growth hormones		

7 - DISEASE PREVENTION AND USE OF DRUGS

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments (report on the control of drug use register)
7.1	The Organisation does not use drugs for preventive measures.	Essential	Such commitment shall be formally specified in the Company Policies		
7.2	The use of drugs allowed by the regulation and other chemical compounds is only justified in case of specific issues. http://www.fao.org/fishery/nalo/search/en	Essential	As reference to the existing international regulation, refer to http://www.fao.org/fishery/nalo/search/en		
The Auditor requests to see drug use procedures and registers.					

8 - MANAGEMENT OF WATERS AND WASTEWATERS

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments (Attach a copy of the latest analysis of the effluents performed by the Competent National Bodies, completed with official declaration of conformity with the regulation)
8.1	The water quality parameters and the sediment parameters under the sea cages shall comply with the provisions of the existing regulations.	Essential	As reference to the existing international regulation, refer to http://www.fao.org/fishery/nalo/search/en		
The Auditor encloses a copy of the latest analysis of the effluents carried out by the competent national bodies completed with official declaration of conformity with the regulation.					
8.2	When national regulations are not in place, water quality parameters shall comply with the following parameters:				
8.2.1	Ammonium (NH ₄)	Essential	≤1 mg/L		
8.2.2	Nitrate (NO ₃ ⁻)	Essential	≤15 mg/L		
8.2.3	Nitrite (NO ₂ ⁻)	Essential	≤1 mg/L		
8.2.4	Phosphorus (PO ₄)	Essential	≤0.2 mg/L		
8.2.5	Dissolved Oxygen	Essential	≥5 mg/L		
8.2.6	CO ₂	Essential	<2.0 ppm		
8.2.7	Cd	Essential	≤0.05 mg/kg		
8.2.8	Pb	Essential	≤0.03 mg/kg		
8.2.9	Zn	Essential	≤0.02 mg/kg		
8.2.10	Cu	Essential	≤0.01 mg/kg		
8.2.11	Trophic Index value	Recommendati	<6		
8.3	Water quality parameters shall be monitored at least once every six months.	Important	The monitoring shall be carried out at least every six months.		
8.4	The company keeps the results of the analysis carried out.	Important	The registers shall be kept for at least 5 years.		
8.5	The distance between the lower part of the cage and the bottom shall be at least 15 metres	Essential	The organisation shall provide evidence that the cages are placed at least 15 metres from the sea-bottom.		
The Auditor requests to examine the monitoring frequency and method procedure and takes note of the number of the procedure and the manual that includes it. The auditor requests to view the previous yearly analysis of waters and sediments. * Trophic index= log. $\left(\frac{CHL * DO * N * P}{1.5} + 1.5\right) / 1.2$ (CHL: chlorofille ,DO: dissolved O2).					

9- HAZARDOUS SUBSTANCES

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments (Report on the control of the relevant purchase register)
9.1	Using toxic and persistent chemical compounds (e.g. TBT, Malachite Green, DDT) is forbidden. The use of forbidden substances shall occur in compliance with the safety regulations.	Essential	As reference to the existing international regulation verify http://www.fa		
The Auditor requests to view the use procedures of the hazardous substances contained in the Safety Manuals and reports the number of the procedure. The Auditor shall also verify its compliance during the inspection.					

10- ENERGY MANAGEMENT

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments
10.1	The Organisation shall keep a register of the energy consumption, updated at least once a year.	Important	The at least-yearly frequency of the energy consumption records shall be included in the procedure. The register shall state at least the following parameters: 1. incoming energy sources, 2. energy consumption values and 3. consumption per production phase and 4. per product		
10.2	The Organisation undertakes to achieve a yearly energy consumption reduction per product unit.	Recommendation			
The Auditor shall request copies of the registers.					

6 - SOCIAL ACCOUNTABILITY

No.	Requirement	Level	Reference quantity parameters	Y/N	Comments (Report on documental evidence provided by the organisation and evidence collected on-site through interviews with
11.1	The Organisation shall respect human rights, complying with the following requirements:				
11.1.1	comply with national regulations and ILO on child labour	Essential	Refer to ILO: http://www.ilo.org/global/standards/introduction-to-international-labour-standards/language/en/index.htm		

11.1.2	pay the workers adequate salaries compliant at least with minimum legal wages	Essential	Minimum wages vary depending on the country. The Auditor shall verify the Organisation knows about it.		
11.1.3	grant their workers access to healthcare	Essential			
11.1.4	apply the safety measures required by the law	Essential			
11.2	The organisation should be SA8000-certified.	Recommendation			

The Auditor shall verify the compliance with the requirements through documental evidence (work-contract samples) and on-site observation.

12- TRACEABILITY

No.	Requirement	Level	Y/N	Comments
12.1	The Company shall implement a traceability system that allows verifying that the certified products come from approved systems and there is no possibility of exchange with products coming from non-certified systems.	Essential		

Further comments:

The Auditor shall also fill-in the following fields

- ☐ **The products of Organisation come from an aquaculture system which COMPLIES with Friend of the Sea requirements.**
- ☐ **The products of Organisation 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 conformed within 3 months)

Specify the points

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

Specify the points

RECOMMENDATIONS (to be communicated within the next inspection)

Specify the points