



GLOBAL BENCHMARK TOOL

Confidence in certified seafood

VERSION 1, OCTOBER 2015



GSSI is a global platform and partnership of seafood companies, NGOs, experts, governmental and intergovernmental organizations working towards more sustainable seafood for everyone.



GLOBAL BENCHMARK TOOL

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INTRODUCTION

Why GSSI's Global Benchmark Tool was developed

The problem

As seafood production increases to meet rising global demand, so have concerns of members of the seafood supply chain, consumers and environmental NGOs over the impact that production is having on the environment. One way of providing assurances of more sustainable practices in both aquaculture production and wild capture fisheries is the use of seafood certification schemes. But the increase of schemes has led to confusion among producers, retailers and consumers over how to recognize a credible seafood certification scheme. This confusion is making decision-making more difficult, and seafood more costly, for everyone.

The solution

The Global Sustainable Seafood Initiative (GSSI) is a unique solution to this problem. For the first time members of the seafood supply chain, NGOs, governmental and intergovernmental organizations and a number of independent experts have come up with a collective, non-competitive approach to provide clarity on seafood certification and ensure consumer confidence in certified seafood.

They've done this by following the reference documents at the heart of the process: the FAO Code of Conduct for Responsible Fisheries (CCRF), the FAO Guidelines for Ecolabelling of Fish and Fishery Products from Marine/Inland Capture Fisheries and the FAO Technical Guidelines for Aquaculture Certification (FAO Guidelines). GSSI used this foundation to create a Global Benchmark Tool for seafood certification schemes.

GSSI's Global Benchmark Tool includes *GSSI Essential Components* that are based on the CCRF and the FAO Guidelines and which seafood certification schemes must meet to be recognized by GSSI. GSSI has also created *GSSI Supplementary Components*, which allows schemes to show their diverse approach and helps stakeholders understand where differences between schemes may exist. These *GSSI Supplementary Components* are grounded in the CCRF and related FAO documents, ISO normative standards and ISEAL codes.

This shared solution will make information available across the seafood supply chain to drive change and lower costs. For producers, it means more options to choose the scheme that is right for them and reduce the need for multiple audits. For seafood buyers, it means simpler, more consistent data to guide their purchasing decisions. And for NGOs it means more open and checked information to help promote environmental sustainability.

Through its Global Benchmark Tool GSSI works towards its collective objective to minimize the overall environmental impact of how we catch, grow and deliver seafood to meet a growing global demand.

INTRODUCTION

The backdrop to GSSI

GSSI vision: more sustainable seafood for everyone

GSSI mission: ensure confidence in the supply and promotion of certified seafood as well as to promote improvement in the seafood certification schemes

GSSI objectives:

- provide an international multi-stakeholder platform for collaboration and knowledge exchange in seafood sustainability
- develop an internationally agreed set of *GSSI Components* to measure and compare the performance of seafood certification schemes, in order to facilitate their implementation and use
- build, operate and maintain a common, consistent and global benchmark tool for seafood certification schemes
- reduce cost by eliminating redundancy and improving operational efficiency of seafood certification schemes thereby increasing affordability and flexibility within the supply chain

GSSI aims high:

- GSSI has grown from 17 Funding Partner companies in 2013 to 32 in 2015 and welcomes new partners
- GSSI is encouraging seafood certification schemes to go through its Global Benchmark Tool
- GSSI aims that by 2020, 30% of seafood catch/production (tons of raw fish/shellfish per year) will be certified to a GSSI recognized scheme

GSSI does:

- drive change towards sustainability through a multi-stakeholder process
- deliver recognition of seafood certification schemes aligned with the FAO Guidelines
- increase comparability and transparency in seafood certification
- enable informed choice for procurement of certified seafood

GSSI does not:

- undertake any accreditation or certification
- develop or own any standards
- rank certification schemes
- define sustainable or responsible seafood
- permit any consumer facing labelling about its recognition
- make policy for any business or scheme

GSSI is committed to promoting improvement in seafood certification schemes. As such, GSSI will review the Global Benchmark Tool on a regular basis.

GSSI principles to guide long-term change:

- improvement of seafood sustainability shall be at the heart of the work for all GSSI participants
- the benchmarking process shall be self-financing with agreed and fair contributions for benchmarking services and membership
- financing of activities on the neutral platform may include contributions from funders
- the partnership shall aspire to engaging with small and less developed schemes to provide them with a pathway towards recognition by GSSI

INTRODUCTION

How the Global Benchmark Tool works

GSSI's Global Benchmark Tool is made up of 3 parts:

- **Process:** steps a scheme goes through to be recognized by GSSI
- **Framework:** information on *GSSI Essential Components*, grounded in the CCRF and FAO Guidelines, which a scheme needs to meet to be recognized by GSSI and information on *GSSI Supplementary Components*, which show a scheme's diverse approach
- **Result:** the statement of GSSI Recognition and Benchmark Report

Benchmark Process

Seafood certification schemes go through a 7-step Benchmark Process to be recognized by GSSI. The expert-led process involves objective assessments made against the Benchmark Framework. The process has been designed to be independent, impartial and transparent.

- 1 Application**
Schemes interested in applying for GSSI recognition contact the GSSI Secretariat.
- 2 Desktop Review**
Independent Experts review the application and provided evidence.
- 3 Office Visit**
The Independent Experts visit the scheme's office to review evidence and complete the interim Benchmark Report.
- 4 Benchmark Committee Meeting**
The Benchmark Committee evaluates the interim Benchmark Report.
- 5 Public Consultation**
The Benchmark Report and the Benchmark Committee's recommendation for recognition go to public consultation.
- 6 Recognition Decision by Steering Board**
The Steering Board takes a decision for GSSI Recognition of the scheme based on the final recommendation of the Benchmark Committee.
- 7 Monitoring of Continued Alignment**
Recognized schemes annually report relevant changes to GSSI, in combination with regular reassessments through GSSI.

Benchmark Framework

All seafood certification schemes will be assessed against Sections A and B. Depending on the scope of the seafood certification scheme, they will also be assessed against either Section C or D or both.

- A** *GSSI Essential Components and GSSI Supplementary Components for Governance of Seafood Certification Schemes*
- B** *GSSI Essential Components and GSSI Supplementary Components for Operational Management of Seafood Certification Schemes*
- C** *GSSI Essential Components and GSSI Supplementary Components for Aquaculture Certification Standards*
- D** *GSSI Essential Components and GSSI Supplementary Components for Fisheries Certification Standards*

INTRODUCTION

GSSI Essential Components

The *GSSI Essential Components* are grounded in the CCRF and FAO Guidelines. These are the full range of criteria, which a scheme needs to meet to be recognized by GSSI.

GSSI Supplementary Components

The *GSSI Supplementary Components* are defined by the GSSI Expert Working Groups and grounded in the CCRF and related FAO documents, ISO normative standards and ISEAL codes. Their purpose is to outline the status of existing practices in seafood certification and they can be built on going forward. A rationale for each *GSSI Supplementary Component* explains its value to both schemes and stakeholders. The Benchmark Process will verify if a seafood certification scheme meets *GSSI Supplementary Components*. Meeting *GSSI Supplementary Components* is not required for GSSI Recognition.

Benchmark Result

Once a seafood certification scheme has gone through the Benchmark Process and is found in alignment with all *GSSI Essential Components* it will be publically recognized by GSSI. GSSI will publish a statement and a Benchmark Report on www.ourgssi.org.

Then it's over to the seafood sector to make use of the information to help in decision-making. For producers, it means more options to choose the scheme that is right for them and reduce the need for multiple audits. For seafood buyers, it means simpler, more consistent data to guide their purchasing decisions. And for NGOs it means more open and checked information to help promote environmental sustainability.





GLOBAL BENCHMARK TOOL

1

2

3

**Benchmark
Process**

4

5

6

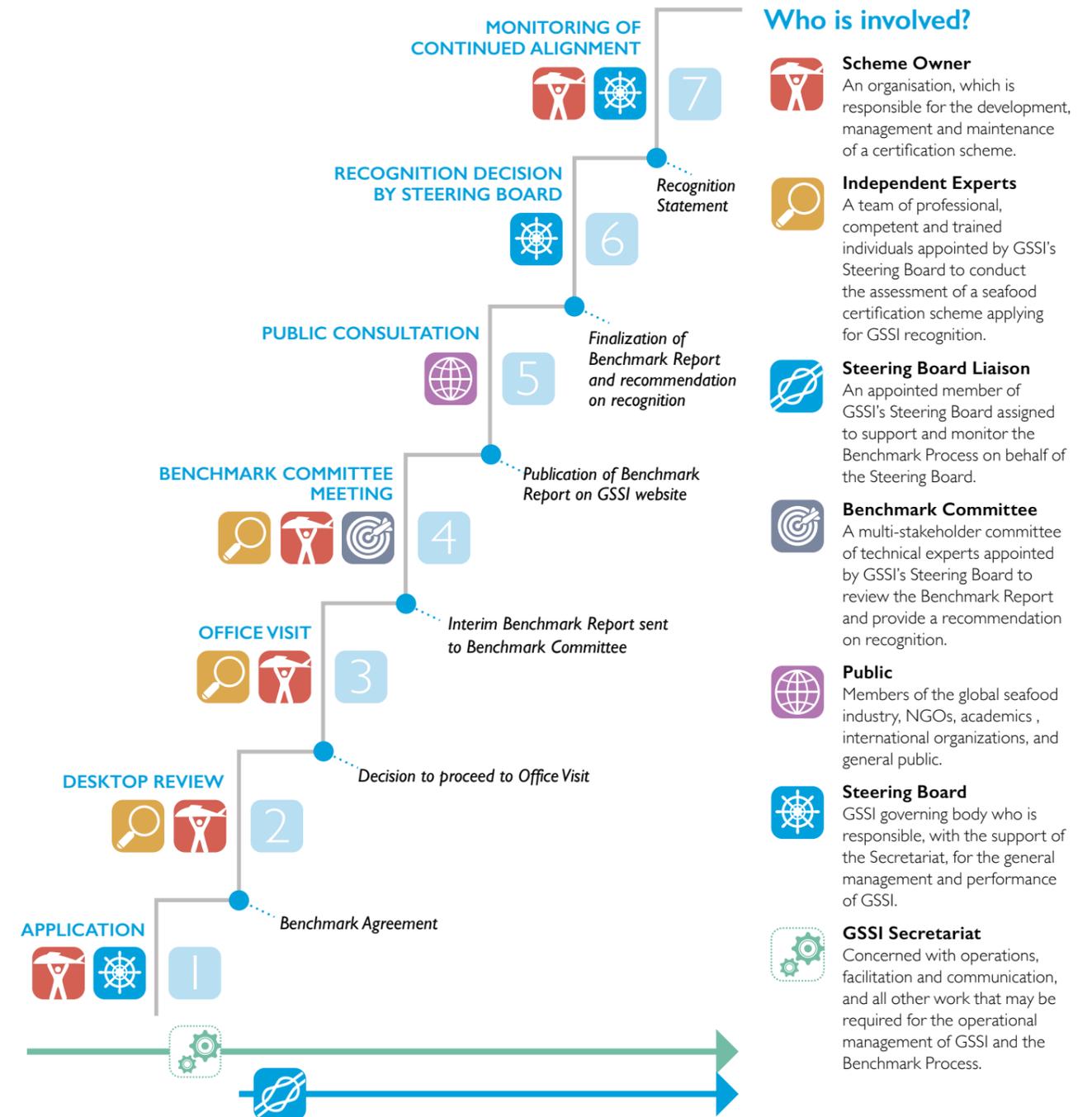
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Steps of the Benchmark Process

Seafood certification schemes go through a 7-step Benchmark Process to be recognized by GSSI. The expert-led process involves objective assessments against the Benchmark Framework. The process has been designed to be independent, impartial and transparent, and is expected to be concluded within 6 months, with a maximum extension to 12 months.

DESCRIPTION	
1	<p>Application</p> <p>The Benchmark Process begins once a Scheme Owner decides to apply for recognition and contacts the Secretariat, who provides an overview of the process. This is followed by the signing of a Benchmark Agreement, which formalizes the relationship between the Scheme Owner and GSSI. The Steering Board then appoints a Steering Board Liaison to support the Benchmark Process. A team of two Independent Experts (IE) who conduct the Benchmark Process, and a Benchmark Committee to review the work of the IEs are also appointed by the Steering Board and approved by the Scheme Owner. After the application is checked for completeness by the Secretariat, the IE team begins the Desktop Review.</p>
2	<p>Desktop Review</p> <p>This step helps to assess the Scheme Owner's capability to proceed and successfully complete the Benchmark Process within the expected timeframe. The submitted application is reviewed by a team of two IEs; a Process IE reviews evidence for alignment submitted for Section A and B and a Technical IE reviews evidence submitted for Section C or D. Following an exchange with the Scheme Owner the IE team issues a Desktop Report. Based on the Desktop Report the IE team can recommend to proceed to the Office Visit, request the Scheme Owner to improve their application, or recommend to discontinue the Benchmark Process. The decision how to proceed is made with the agreement of the Scheme Owner; if no agreement can be reached the Steering Board Liaison refers the matter to the Steering Board for resolution.</p>
3	<p>Office Visit</p> <p>The Office Visit may be conducted by the Process IE or both IEs, depending on the outstanding issues of the Desktop Review. If non-alignments are to be found, corrective actions with time-frames to address the non-alignments may be agreed between the IE and the Scheme Owner. Findings of the Desktop Review and Office Visit, including corrective actions, are documented in the Interim Benchmark Report. The Scheme Owner is given 2 weeks to review and comment on the Interim Benchmark Report. The Secretariat will then forward the agreed report to the Benchmark Committee. In the event that agreement on the report cannot be reached, the Steering Board Liaison refers the matter to the Steering Board for resolution.</p>
4	<p>Benchmark Committee Meeting</p> <p>The Benchmark Committee acts as the 'Quality Assurance' for the work undertaken by the IE team in the Desktop Review and Office Visit. The Benchmark Committee consists of the Steering Board Liaison (Chair of the Committee), IEs from the respective Sections and voluntary experts from across the sector. This meeting results in a Benchmark Report with a consensus-based recommendation for recognition or non-recognition. If no consensus can be reached the matter is forwarded to the GSSI Steering Board by the Steering Board Liaison. To proceed with the public consultation a recommendation for recognition is required.</p>
5	<p>Public Consultation</p> <p>If recognition is recommended by the Benchmark Committee, the Scheme Owner's approval is required to publish the Benchmark Report for a four-week Public Consultation. All comments submitted during this period are given careful consideration by the Benchmark Committee in their final recommendation for recognition. In the event that the Benchmark Committee changes their recommendation after Public Consultation, the Steering Board, guided by the Benchmark Committee Members, decides upon any further action.</p>
6	<p>Recognition Decision by Steering Board</p> <p>The Steering Board is briefed by the Steering Board Liaison on the Benchmark Report and the Benchmark Committee's recommendation for recognition. The Steering Board reviews the Benchmark Report and the process and decides to accept or reject the Benchmark Committee's recommendation. If the recommendation is rejected, the Steering Board provides the Scheme Owner with a rationale for the decision and outlines further actions. Following a positive decision for recognition by the Steering Board, a GSSI Recognition Statement, the Benchmark Report, including the public comments, will be published online at www.ourgssi.org.</p>
7	<p>Monitoring of Continued Alignment</p> <p>GSSI ensures continued alignment of recognized schemes with <i>GSSI Essential Components</i> through an annual reporting process of relevant changes. A full reassessment will be required every 3 years, or after significant change to the scheme.</p>

From Application to Recognition: Key steps and responsibilities in the GSSI Benchmark Process





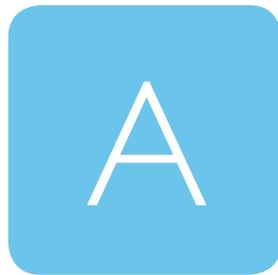
GLOBAL BENCHMARK TOOL



Benchmark
Framework

***GSSI Essential Components and
GSSI Supplementary Components
for Governance of Seafood
Certification Schemes***

page 17



***GSSI Essential Components
and GSSI Supplementary
Components for
Operational Management
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***GSSI Essential Components
and GSSI Supplementary
Components for Aquaculture
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***GSSI Essential Components
and GSSI Supplementary Components
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How to read the Benchmark Framework

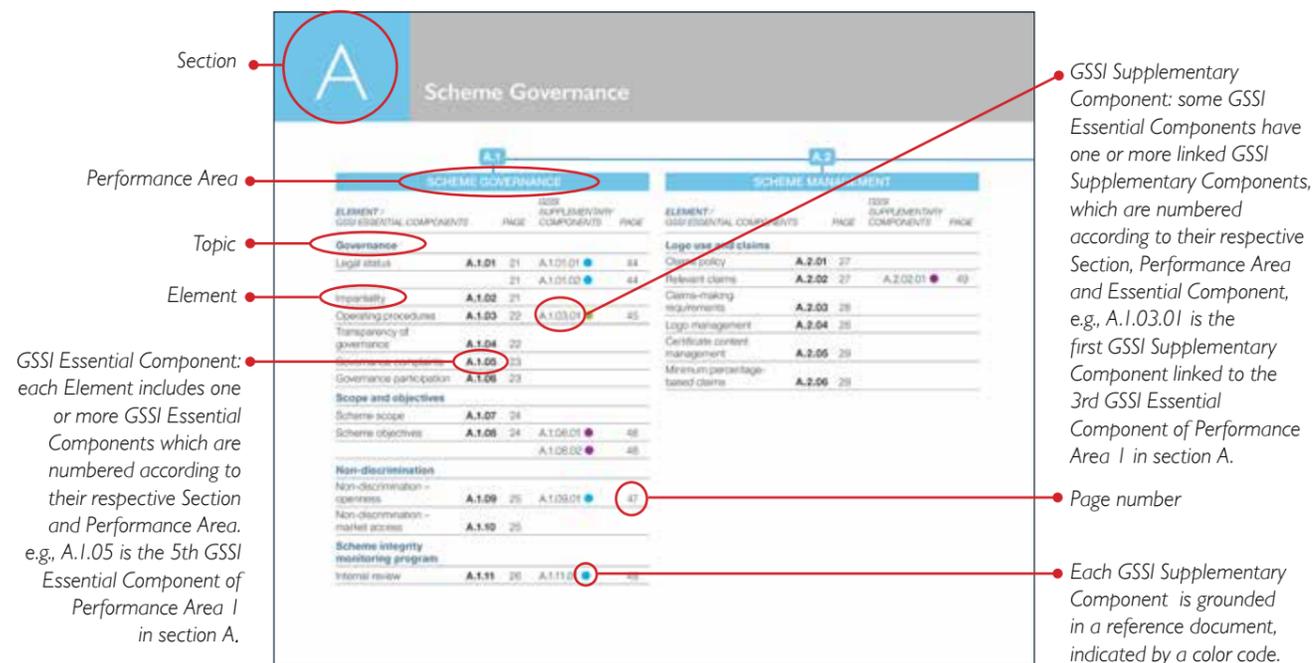
Structure of the Benchmark Framework

The Benchmark Framework has four Sections, with a number of Performance Areas, each of which includes elements organised by topic.



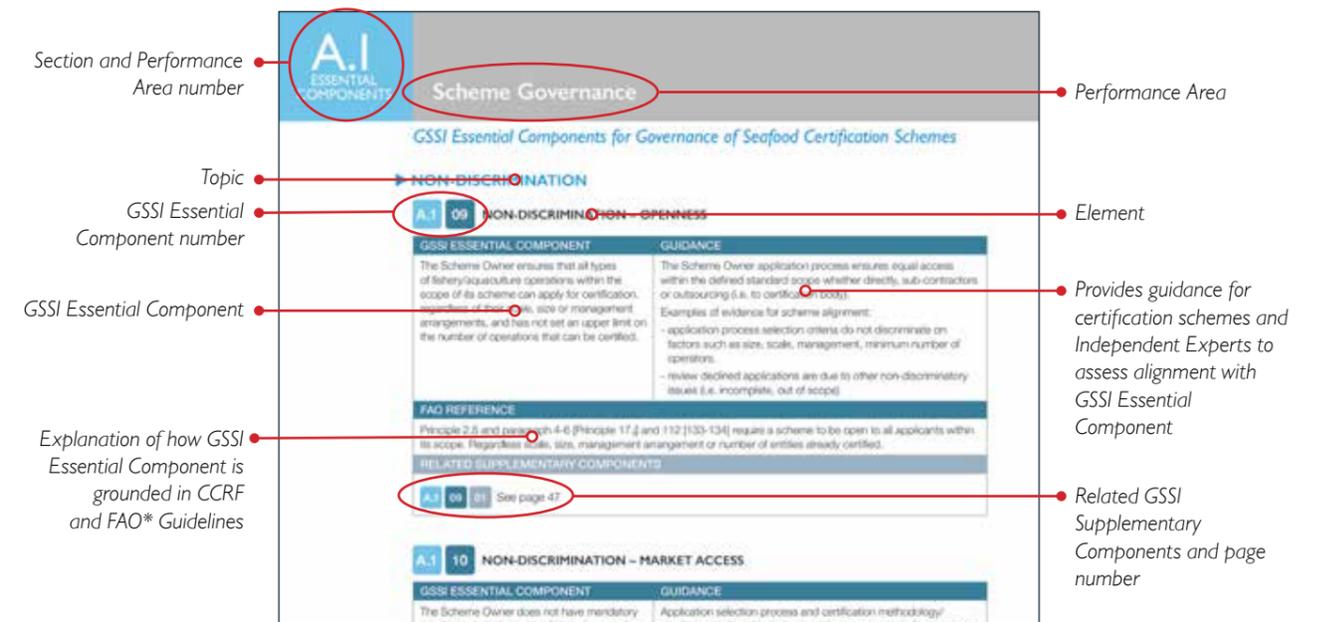
Organisation of GSSI Essential Components and GSSI Supplementary Components within the Sections of the Benchmark Framework

Each Section of the Benchmark Framework is summarized by an introduction which includes GSSI Essential Components and GSSI Supplementary Components organized by Topics and Elements with corresponding page numbers.



GSSI Essential Components

Criteria grounded in the Code of Conduct for Responsible Fisheries (CCRF) and the FAO Guidelines*, which a seafood certification scheme needs to meet to be recognised by GSSI.

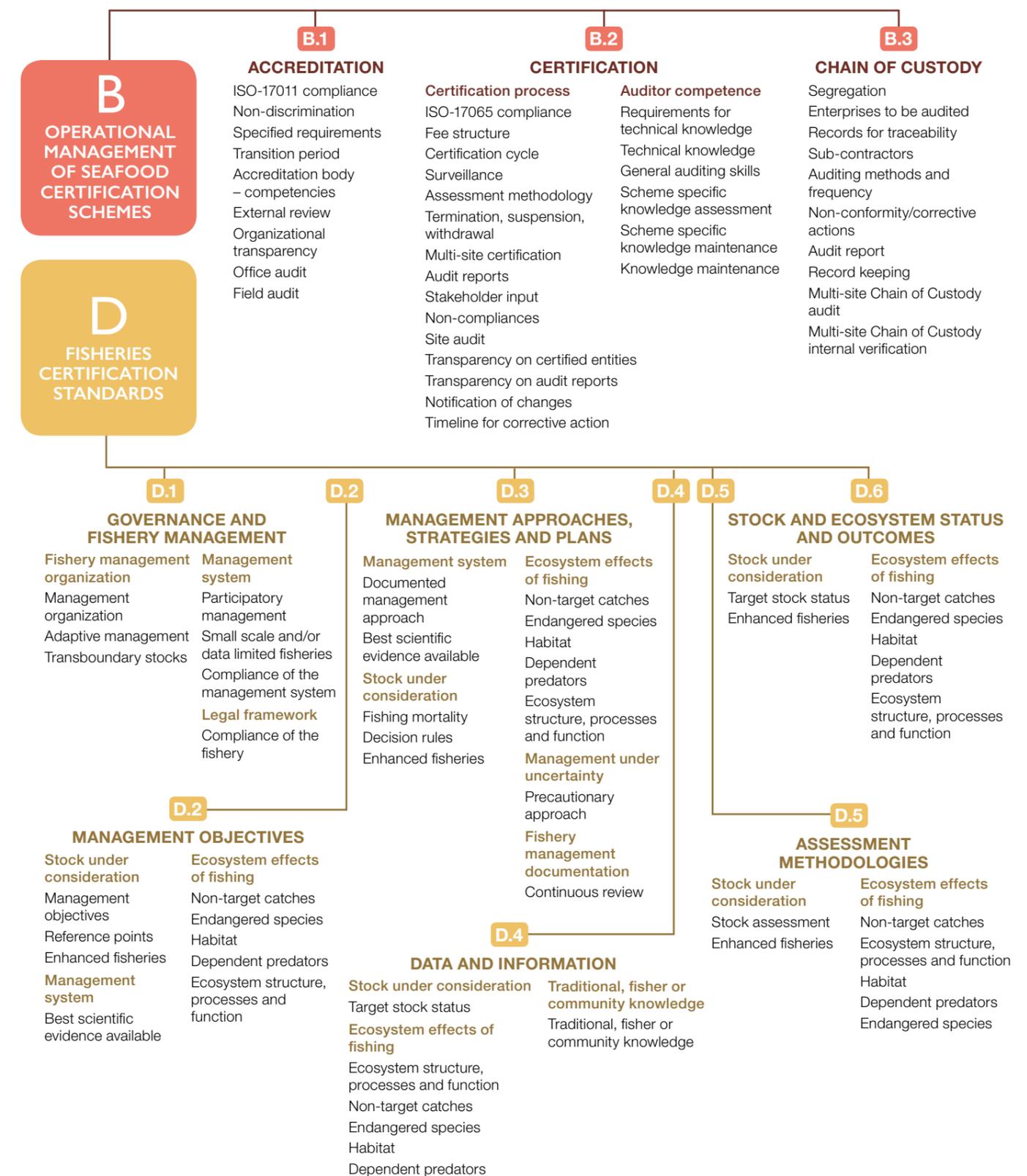
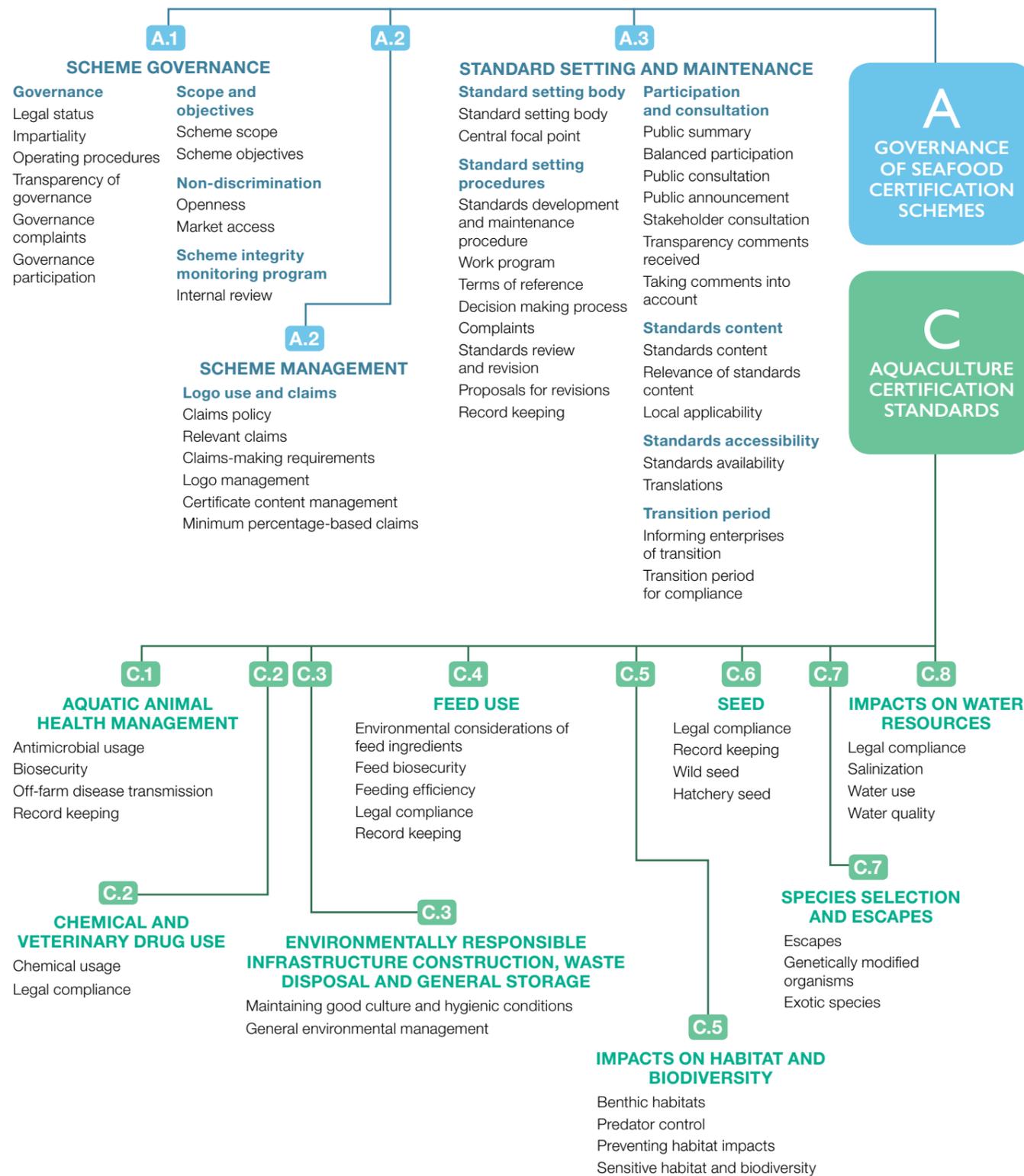


GSSI Supplementary Components

Criteria grounded in the FAO Code of Conduct for Responsible Fisheries and related FAO documents, ISO normative standards and ISEAL codes. They show a seafood certification scheme's diverse approach and help stakeholders understand where differences exist. A seafood certification scheme does not need to meet them for GSSI recognition.



*FAO Guidelines for the Ecolabelling of Fish and Fishery Products from Marine/Inland Capture Fisheries and FAO Technical Guidelines on Aquaculture Certification



A

A.1

A.2

A.3

SCHEME GOVERNANCE			
ELEMENT / GSSI ESSENTIAL COMPONENTS	PAGE	GSSI SUPPLEMENTARY COMPONENTS	PAGE
Governance			
Legal status	A.1.01	21	A.1.01.01 ● ● 44
		21	A.1.01.02 ● 44
Impartiality	A.1.02	21	
Operating procedures	A.1.03	22	A.1.03.01 ● 45
Transparency of governance	A.1.04	22	
Governance complaints	A.1.05	23	
Governance participation	A.1.06	23	
Scope and objectives			
Scheme scope	A.1.07	24	
Scheme objectives	A.1.08	24	A.1.08.01 ● 46
			A.1.08.02 ● ● 46
Non-discrimination			
Non-discrimination – openness	A.1.09	25	A.1.09.01 ● 47
Non-discrimination – market access	A.1.10	25	
Scheme integrity monitoring program			
Internal review	A.1.11	26	A.1.11.01 ● 48

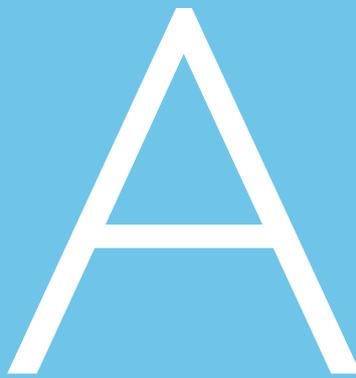
SCHEME MANAGEMENT			
ELEMENT / GSSI ESSENTIAL COMPONENTS	PAGE	GSSI SUPPLEMENTARY COMPONENTS	PAGE
Logo use and claims			
Claims policy	A.2.01	27	
Relevant claims	A.2.02	27	A.2.02.01 ● ● 49
Claims-making requirements	A.2.03	28	
Logo management	A.2.04	28	
Certificate content management	A.2.05	29	
Minimum percentage-based claims	A.2.06	29	

STANDARD SETTING AND MAINTENANCE					
ELEMENT / GSSI ESSENTIAL COMPONENTS	PAGE	GSSI SUPPLEMENTARY COMPONENTS	PAGE	ELEMENT / GSSI ESSENTIAL COMPONENTS	PAGE
Standard setting body					
Standard setting body	A.3.01	30		Standards content	
Central focal point	A.3.02	30		Standards content	A.3.18 38
Standard setting procedures					
Standards development and maintenance procedure	A.3.03	30		Relevance of standards content	A.3.19 39
Work program	A.3.04	31			A.3.20 39
Terms of reference	A.3.05	31	A.3.05.01 ● 50	Local applicability	A.3.21 40
Decision making process	A.3.06	32	A.3.06.01 ● ● 51	Standards accessibility	
			A.3.06.02 ● ● 51	Standards availability	A.3.22 40
			A.3.06.03 ● ● 52	Translations	A.3.23 41
			A.3.06.04 ● ● 52	Transition period	
			A.3.06.05 ● 53	Informing enterprises of transition	A.3.24 41
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Balanced participation	A.3.12	35			
Public consultation	A.3.13	36	A.3.13.01 ● 55		
Public announcement	A.3.14	36			
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			A.3.15.02 ● ● 56		
Transparency on comments received	A.3.16	37			
Taking comments into account	A.3.17	38	A.3.17.01 ● 56		

For Section A the *GSSI Supplementary Components* outline the status of existing practices in seafood certification and how they build from the principles of the FAO Guidelines for Certification and Ecolabelling, ISO normative standards, ISEAL codes. They can be built on going forward as technical guidelines evolve. Each *GSSI Supplementary Component* has a rationale to explain the value that alignment with it offers to both schemes and stakeholders.

SOURCE DOCUMENTS

- ISEAL Code of Good Practice for Setting Social and Environmental Standards V6. 2014
- ISEAL Code of Good Practice for Assessing the Impacts of Social and Environmental Standards, V2. 2014
- ISO/IEC 17067:2013, Conformity assessment – Fundamentals of product certification and guidelines for product certification schemes
- Further elaboration on FAO Guidelines for the Ecolabelling of Fish and Fishery Products from Marine/Inland Capture Fisheries and FAO Technical Guidelines on Aquaculture Certification



GSSI ESSENTIAL COMPONENTS
FOR GOVERNANCE
OF SEAFOOD CERTIFICATION SCHEMES

GSSI Essential Components for Governance of Seafood Certification Schemes

► GOVERNANCE

A.1 01 LEGAL STATUS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner is a legal entity, or an organization that is a partnership of legal entities, or a government or inter-governmental agency.</p>	<p>Scheme Owner is an entity which could be held legally responsible for its operations.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - an official document showing registration with legal authorities and current legal status of organization. Examples include incorporation papers, statutes, business licenses and registration with tax authorities. <p>For government Scheme Owners, clear lines of responsibility and authority on decision making should be identified.</p> <p>Pre-application to require scheme to identify legal registered entity or lead government agency/department.</p>
FAO REFERENCE	
<p>Principles 2.7 [17.i] of FAO Guidelines require clear accountability for all involved parties, including the owners of schemes. GSSI can only recognize an organization that is a legal entity, thereby establishing clear accountability; this is in line with ISO 17067 6.3.3. Exceptions are made for the case that a Scheme Owner is a government or inter-governmental body; these arrangements are specifically indicated in Para. 37.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>A.1 01 01 See page 44</p>	<p>A.1 01 02 See page 44</p>

A.1 02 IMPARTIALITY

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner is not directly engaged in the operational affairs (auditing or certification) of the certification or accreditation program.</p> <p>Note: This does not include complaint resolution or performance review.</p>	<p>Scheme Owner is not directly engaged in auditing, certification or accreditation activities in order to ensure freedom of commercial or financial pressure of assurance processes and decision making. This does not include complaint resolution or performance reviews.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - impartiality policy, impartiality clauses in certification body and accreditation body contracts, management control procedures
FAO REFERENCE	
<p>38 [63]. Updated paragraph [63] from the Aquaculture Guidelines states it is essential that a Scheme Owner is not directly engaged in its operational affairs, i.e. undertaking accreditation or certification.</p> <p>Avoids conflict of interest by the Scheme Owner while accounting for possible role in arbitrating complaints that are unresolved</p>	

GSSI Essential Components for Governance of Seafood Certification Schemes

A.1 03 OPERATING PROCEDURES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner operates to a documented set of governance policies and procedures specifying at least the following:</p> <ul style="list-style-type: none"> - Board or governance body election or appointment process, - Board or governance body representation and Terms of Reference, - Member categories (where applicable), - Income generation or funding processes, - An organizational structure, - The decision making processes of each governance body, - Key personnel roles (responsibility and authority), - Managing conflict of interest, and - A conformity assessment program. 	<p>The Scheme Owner has policies/procedures available covering all aspects in this <i>Essential Component</i> except Member categories if not applicable.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - statutes and by-laws, organizational chart, internal procedures, job descriptions, conflict of interest statements, quality assurance manuals
FAO REFERENCE	
<p>38 [61, 63, 64] [FAO draft evaluation Framework Aquaculture].</p> <p>FAO Guideline references above do require Scheme Owners to be transparent, credible and robust with good governance, and to have clear written rules, procedures, and decision making process.</p> <p>This <i>Essential Component</i> specifies the attributes for this based on ISO 17067. Section 6.7 states a scheme should specify operating procedures, particularly responsibility for governance of schemes.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>A.1 03 01 See page 45</p>	

A.1 04 TRANSPARENCY OF GOVERNANCE

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner makes information freely and publicly available about the scheme's governance structure, Scheme Ownership, standards and standard-setting procedures, and the composition, operating procedures and responsibilities of its governance bodies.</p>	<p>All applicable listed governance documents are easily accessible online, free or at cost of any printing and handling costs.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - applicable documents posted on website, easy to find and free to download. If printed copies are offered - charges are reasonable to cover printing and handling.
FAO REFERENCE	
<p>Principle 2.4 combined with para. 3, and Principle [17.d], require the principle of transparency to be applied on all aspects of a certification scheme. This requirement supports transparency of operating practices of a certification scheme.</p>	

GSSI Essential Components for Governance of Seafood Certification Schemes

A.1 05 GOVERNANCE COMPLAINTS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner has a transparent process to assess complaints based on a publicly available procedure for resolving complaints related to governance, scheme management and executive functions.</p>	<p>Complaints procedure is documented and clearly outlines steps, timelines and responsibilities to address and resolve complaints. The process for submitting a complaint - how and to whom - is public and easily understood. A process is in place to identify when and if the complaint is addressed and resolved.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - easily found complaint process and submission form online. - documentation of existing complaints and their resolution. - possibly request accreditation and certification bodies for previous submissions of complaints and resolution.
FAO REFERENCE	
<p>[61] requires institutions involved in establishing and implementing a certification scheme should be transparent, credible and robust with good governance. [64] Requires the owner of a certification scheme to have clear written rules and procedures and decision making process.</p> <p>FAO states in 147 [167] that the Scheme Owner is required to have available a complaints policy for dealing with certification, it is therefore considered a Scheme Owner should also have a complaints policy for governance to ensure good and robust governance as required by 38 [61, 64]. In line with Principle 2.4 combined with para. 3, and Principle [17.d], this policy should be made public.</p>	

A.1 06 GOVERNANCE PARTICIPATION

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires that stakeholders have the opportunity to participate in or provide direct input to the top governance body.</p>	<p>The Scheme Owner provides freely accessible public information outlining how stakeholders can participate in or provide direct input to the top governance body.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - online process document for submission of input, governance body selection process and stakeholder composition, review of previous stakeholder inputs and verify if/how this reached top governance.
FAO REFERENCE	
<p>Implementation of Principle 2.4, and 2.7 and [17.e and 17.i] requiring balanced and fair participation by all interested parties and be open to scrutiny. Where paragraph 3 indicates Principle 2.4 to also apply to its organizational structure. In line with Principle 2.7 [17.i] this <i>Essential Component</i> ensures a level of accountability of the Scheme Owner to its stakeholders</p>	

GSSI Essential Components for Governance of Seafood Certification Schemes

► SCOPE AND OBJECTIVES

A.1 07 SCHEME SCOPE

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner has a defined scope for certification under its scheme.	<p>The Scheme Owner clearly defines scope that standard covers, for example which species, production systems/gear type, geographical locations, company structures (single units, groupings of sites/boats, smallholder groups/small-scale fisheries, subcontractors, product categories, certifiable units in the chain of custody etc.).</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - explicit scope definition in certification methodology/requirements, standards, objectives. - contracts with accreditation bodies, certification bodies and/or certified operations
FAO REFERENCE	
<p>101-103 [125-127] require a scheme to specify the scope of certification. [FAO draft evaluation Framework Aquaculture] requires a certification scheme to publically declare its scope.</p> <p>A clear scope is required to understand which type of enterprises fall within the competence area of the scheme; this is in line with ISO 17067 Section 6.5.1 & 6.3.7.</p>	

A.1 08 SCHEME OBJECTIVES

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner has defined objectives for its scheme that aim for responsible use of the resource and has publicly available performance indicators related to scheme objectives.	<p>Objectives for the scheme are defined and documented.</p> <p>The defined objectives cover all environmental resources covered in the standards; this would normally be for example fish populations, habitats and ecosystems, water, possibly energy, endangered species and biodiversity within the impact zone. Indirect use of resources for e.g. feed production may also be addressed. For each objective and associated resources, performance indicators are defined, documented and publically available.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - standard document with objectives and thresholds.
FAO REFERENCE	
<p>40 [66] require a standard to reflect the objectives, results and outcomes that are being pursued through the certification scheme, including quantitative and qualitative criteria and indicators. In line with Principle 2.4 and [17.d] these should be made transparent.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
A.1 08 01 See page 46	A.1 08 02 See page 46

GSSI Essential Components for Governance of Seafood Certification Schemes

► NON-DISCRIMINATION

A.1 09 NON-DISCRIMINATION – OPENNESS

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner ensures that all types of fishery/aquaculture operations within the scope of its scheme can apply for certification, regardless of their scale, size or management arrangements, and has not set an upper limit on the number of operations that can be certified.	The Scheme Owner application process ensures equal access within the defined standard scope whether directly, sub-contractors or outsourcing (i.e. to certification body). Examples of evidence for scheme alignment: - application process selection criteria do not discriminate on factors such as size, scale, management, minimum number of operators. - review declined applications are due to other non-discriminatory issues (i.e. incomplete, out of scope)
FAO REFERENCE	
Principle 2.5 and paragraph 4-6 [Principle 17.j] and 112 [133-134] require a scheme to be open to all applicants within its scope. Regardless scale, size, management arrangement or number of entities already certified.	
RELATED SUPPLEMENTARY COMPONENTS	
A.1 09 01 See page 47	

A.1 10 NON-DISCRIMINATION – MARKET ACCESS

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner does not have mandatory requirements that require a fishery / aquaculture operation to be certified in order to access any markets.	Application selection process and certification methodology/ requirements do not include mandatory requirements for access to markets. Absence of such requirements indicates alignment.
FAO REFERENCE	
Principle 2.3 & 2.6 and paragraph 41 [Principle 17.k].	

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► SCHEME INTEGRITY MONITORING PROGRAM

A.1 11 INTERNAL REVIEW

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner undertakes a fully documented annual management review of scheme performance, including its assurance program, and the performance of certification and accreditation bodies. The results of the review are used to revise its operating procedures and practices, where necessary.</p>	<p>System exists for an annual documented management review that covers scheme performance, assurance program, accreditation bodies and certification bodies as applicable. A documented system to use the results of the review to revise operating procedures and systems is available.</p>
FAO REFERENCE	
<p>[61] requires institutions involved in establishing and implementing a certification scheme should be transparent, credible and robust with good governance.</p> <p>In 77 [99] and 120 [141] FAO requires internal reviews for both certification bodies and accreditation bodies in order to be considered credible and robust. Therefore this is considered a specification of [61] to ensure credibility, robustness and good governance of a Scheme Owner. This <i>Essential Component</i> is in line with ISO 17067 6.4.5.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>A.1 11 01 See page 48</p>	

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▶ LOGO USE AND CLAIMS

A.2 01 CLAIMS POLICY

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner has a publicly available policy governing use of symbols, logos and claims.	Scheme Owner has a policy that covers use of symbols, logos and claims if applicable to its system. The policy is public, easily accessible and available in languages appropriate to geographic scope.
FAO REFERENCE	
141 [161] require the Scheme Owners have documented procedures governing use of logos and symbols relative to relevance of claims. In line with Principle 2.4 and [17.d] and ISO 17021 8.3.1, these should be made publically available.	

A.2 02 RELEVANT CLAIMS

GSSI ESSENTIAL COMPONENT	GUIDANCE
Through the claims policy, the Scheme Owner ensures copyright is protected and that symbols, logos and claims are only applied to activities that are within the scope of certification, do not overstate or mislead users relative to the defined scope, and are relevant to that scope.	<p>Claims policy (see A.2.01), contracts and MoUs ensure that logo use and claims are copyright protected and are restricted to activities within the scope of certification. This includes symbols, logos and claims on and off product, such as marketing materials, consumer brochures and the internet.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - legal registration of logos and seals with applicable agents. - claims policy covers clear scope for on and off product use, claims and statements including policy for misuse. - contractual relationships specify explicitly adherence to claims policy. - records of applications for use of claims, records of complaints or violations.
FAO REFERENCE	
141, 142, 143 [161-163, 165] require the Scheme Owners have documented procedures, written authorizations and mechanisms to ensure use of logos and symbols relative to relevance of claims. In line with Principle 2.5, 4-6 and [Principle 17.] these should not lead to barriers to trade.	
RELATED SUPPLEMENTARY COMPONENTS	
A.2 02 01 See page 49	

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A.2 03 CLAIMS-MAKING REQUIREMENTS

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner requires that the certified organization does not make or permit any misleading statement or use regarding the status or scope of its certification.	<p>The Scheme Owner has a contract, MoU or other formal arrangement with certified entity.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - publically available Logo Use and Claim document which is explicitly referenced in formal arrangement with certified entity. - other examples include direct logo agreements, licensing or membership agreements with the Scheme Owner or its commercial partner or indirect contracts/agreements through the certification body. - in the latter case the requirements to include this in contracts/ agreements should be outlined in certification requirements/ methodologies or similar contract/agreement between the Scheme Owner and the certification body.
FAO REFERENCE	
<p>141-143, 145 [161-163, 165] require the Scheme Owners to have documented procedures, written authorizations, mechanisms and take suitable action to ensure use of logos and symbols relative to claims are relevant.</p> <p>These requirements were taken directly from requirements in ISO 17021 8.3.4 to control a scheme's logo and claims. Although ISO directed at the certification body these requirements outline common practice for the scheme.</p>	

A.2 04 LOGO MANAGEMENT

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner or its delegated authority issues written and enforceable authorizations and/or licenses to use the scheme's mark/ claim/logo only when the facility and/or product has been certified as being in conformity with the relevant standard.	<p>Contracts or formal agreements with the certified entity specify legal responsibility for the use of the scheme's mark/claim/logo only when the facility and/or product are certified.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - direct logo agreements, licensing or membership agreements with the Scheme Owner or a delegated authority. - indirect contracts/agreements through the certification body. - in the latter case the requirements should be outlined in certification requirements/methodologies or similar contract/ agreement between the Scheme Owner and the certification body to include this in contracts/agreements.
FAO REFERENCE	
<p>This <i>Essential Component</i> is taken directly from FAO 142 [162]. Creates an enforceable link between the use of claims and labels to the act of being certified</p>	

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A.2 05 CERTIFICATE CONTENT MANAGEMENT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires certificates to include, at a minimum:</p> <ul style="list-style-type: none"> – the name and address of the accreditation body or Scheme Owner; – the name and address of the certification body; – the name and address of the certification holder; – the effective date of issue of the certificate; – the substance (scope of certification) of the certificate; – the term for which the certification is valid; – signature of the issuing officer. 	<p>The issuer of the certificate ensures that minimum information enables identification and contact information of assurance process parties (accreditation body, Scheme Owner and certification body), unique name and address of certified entity, date and validity, scope and signature of issuing officer.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - mandatory normative documents such as certification requirements/methodologies with certification bodies that cover all points listed. - mandatory certificate template includes all points listed. - review examples of certificates.
FAO REFERENCE	
<p>This <i>Essential Component</i> is taken directly from FAO 146 [166]. Ensures sufficient information on the certificate to validate its legitimacy.</p>	

A.2 06 MINIMUM PERCENTAGE-BASED CLAIMS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>Where a seafood ingredient can be certified, the Scheme Owner requires that at least 95% of the total seafood ingredient within a product is of certified origin in order for the scheme's logo or certification mark to be used. Where there is less than 95%, the scheme requires that the percentage must be stated and the logo or certification mark cannot be used.</p>	<p>The Scheme Owner specifies minimum percentages for use of logo and claims in mixed products. This states that at least 95% of the total seafood ingredient that can be certified, for unqualified claims and for lower percentages, a qualifying statement of the percentage must be used in conjunction with the logo or claim.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - normative documents such as scope definition, certification requirements/ methodologies or other agreements between the Scheme Owner and certification body that define these percentage claims. - logo use and claims policy which is explicitly referenced in formal contracts and agreements with certification bodies and/or certified entities. - review examples of issued certificates where these are public or product information in online databases of certified products where these are available. - if the Scheme Owner does not allow mixed product, then this <i>Essential Component</i> is aligned.
FAO REFERENCE	
<p>Specification 141 [161] in order to support integrity of the claim such that products with minimal certified content cannot be claimed as certified. It is common practice to have a declared percentage requirement of minimal certified seafood product in order to allow a certified claim.</p>	

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▶ STANDARD SETTING BODY

A.3 01 STANDARD SETTING BODY

GSSI ESSENTIAL COMPONENT	GUIDANCE
A Scheme Owner or other suitable arrangement (e.g. technical committee of independent experts, delegated standard-setting body) is assigned with the tasks of setting, reviewing, revising, assessing, verifying and approving standards.	<p>The organizational chart clearly identifies the responsible person for assigning the management of the standard setting process. In addition, the organizational chart or related TORs/contracts with external bodies identifies where each of the tasks (setting, reviewing, revising, assessing, verifying and approving standards) are assigned to.</p> <p>This documentation clearly indicates where the overall responsibility for the standard setting process lies.</p>
FAO REFERENCE	
This <i>Essential Component</i> is taken almost directly from FAO clauses 44 and 45 [68-69]. Requiring the establishment of a clear body responsible for the management of the standard-setting process	

A.3 02 CENTRAL FOCAL POINT

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner identifies a central point of contact for standards-related enquiries and for submission of comments. The Scheme Owner makes contact information for this contact point readily available including on the internet.	<p>Contact details for standard related enquiries and comments are easily available for the public, including online. This can be the same as a general contact point, but should explicitly identify standard related scope.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - review website and verify that point of contact responds to enquiries. - review past enquiries and submitted comments
FAO REFERENCE	
59 [81] require that a central focal point for standards related enquiries is identified and contact information is made easily available.	
This <i>Essential Component</i> provides stakeholders with a point of contact for any questions or submissions.	

▶ STANDARD SETTING PROCEDURES

A.3 03 STANDARDS DEVELOPMENT AND MAINTENANCE PROCEDURE

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner has publicly available procedures for the process under which each standard is developed and revised.	Procedures defining the process of standard development and revision are easily available for the public, such as online, in appropriate languages.
FAO REFERENCE	
Reflective of FAO 47, 51, 52, 56 [71-73], the requirement ensures a consistent and transparent approach to standard-setting. In line with Principles 2.4 and [17.d] procedures should be made transparent.	

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A.3 04 WORK PROGRAM

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>A work program is prepared and made publicly available at least every six months, including:</p> <ul style="list-style-type: none"> – Scheme Owner's name and address – the list of standards currently under preparation; – the list of standards currently under reviewing or revision; – the list of standards which were adopted in the preceding period. 	<p>A work program for standard setting and revision is easily available for the public, such as online. The program is updated at a minimum every 6 months. The work program contains all listed items.</p>
FAO REFERENCE	
<p>Taken directly from 50 [73]. It provides stakeholders with an overview of the status of different standards under responsibility of the Scheme Owner</p>	

A.3 05 TERMS OF REFERENCE

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>At the outset of a new standard development or revision process, the Scheme Owner develops or updates terms of reference (ToRs), which includes at least the following elements:</p> <ul style="list-style-type: none"> – Proposed scope of the standard and intended geographic application; – Clear objectives that the standard seeks to achieve and how those are linked to the organization's intended change. 	<p>The Scheme Owner has mechanism in place to develop or update ToR at the outset of standard development or revision process that includes: proposed scope, geographical application and objectives.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - outlined in an internal procedure and part of the quality handbook for standard setting. <p>For Scheme Owners that have standard development or a revision process going on, check online availability of this information.</p>
FAO REFERENCE	
<p>40, 44, 47, 56 [66, 71-75]. According to 40 [66] the standard should reflect the objectives of a certification scheme. 44, 47, 56 [71-75] require a standard setting body to be in place with clear rules of procedure and a decision making process. The <i>Essential Component</i>, with the terms of reference, provides stakeholders with consistency of understanding of what the standard intends to achieve.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>A.3 05 01 See page 50</p>	

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A.3 06 DECISION MAKING PROCESS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner strives for consensus decisions on the content of the standard. Where consensus cannot be achieved, the Scheme Owner defines criteria in advance to determine when alternative decision-making procedures should come into effect and what the decision-making thresholds will be.</p>	<p>A mechanism is in place to assure a consensus decision is found where possible. In addition, the mechanism describes how decisions shall be made when a consensus is not possible. The mechanism assures that stakeholders are informed about this mechanism.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - internal procedures and/or quality handbook for standard setting and maintenance outlines decision making. - meeting minutes/email correspondence. <p>Standard setting archives and draft standards and meeting minutes could verify that this mechanism was implemented during previous decision-making.</p>
FAO REFERENCE	
<p>56 [64] require written procedures to guide the decision making process. [ISEAL Standard-Setting Code 5.6.3] [ISO 59 4.1 & 4.2] provide more detail to requirement for defined decision-making procedures, both reference documents refer to the use of the “consensus” principle in governing standards development.</p> <p>Consensus decisions support finding a workable compromise between stakeholder views. Having alternative procedures as a back-up ensures stakeholder clarity</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>A.3 06 01 See page 51</p>	<p>A.3 06 02 See page 51</p>
<p>A.3 06 03 See page 52</p>	
<p>A.3 06 04 See page 52</p>	<p>A.3 06 05 See page 53</p>

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A.3 07 COMPLAINTS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner, or delegated authority makes impartial and documented efforts to resolve procedural complaints related to standard-setting, based on a publicly documented complaints resolution mechanism. Decisions taken on complaints are disclosed at least to the affected parties.</p>	<p>The Scheme Owner or delegated authority has a publicly available complaint resolution mechanism related to standard setting. A general contact may be used, but must explicitly note standard setting complaints. Resolutions are documented and free of bias. Decisions on complaints are disclosed, at a minimum, to affected parties.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - internal quality assurance manual. - previous complaints have been resolved according to this policy. - decisions taken on previous complaints have been disclosed to the affected party. <p>Possibly request and cross-check with any previous procedural complaints from stakeholders.</p>
FAO REFERENCE	
<p>47 [72] Requires activities of the standard-setting body are carried out in a transparent manner following written rules and procedures. The procedures should contain a mechanism for impartial resolution of any substantive or procedural disputes about the handling of standard-setting matters.</p> <p>FAO and ISO-59 do not require the decisions taken in this matter to be made publically available.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>A.3 07 01 See page 53</p>	

A.3 08 STANDARDS REVIEW AND REVISION

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner reviews standards at least every five years for continued relevance and for effectiveness in meeting their stated objectives and, if necessary, revises them in a timely manner.</p>	<p>The Scheme Owner has a process in place for reviewing all standards to ensure continued relevance and meeting stated objectives. Relevance can include market uptake, stakeholder scope and support. Outcome and assessment reports can identify progress towards objectives. Review should be at least every five years.</p> <p>Example of evidence of alignment:</p> <ul style="list-style-type: none"> - internal procedure, quality handbook, public work program. - monitoring and evaluation system. - public comments and consideration of reports for standard revisions.
FAO REFERENCE	
<p>FAO 60 [82] and ISO 59 4.6 require that standards are reviewed on regular published intervals. Requirement further specified based on ISEAL 5.8.1 which require a review every 5 years.</p> <p>This <i>Essential Component</i> recognizes that good practices are dynamic and that standards need to be revised to ensure continued relevance</p>	

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A.3 09 PROPOSALS FOR REVISIONS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner allows for comments on the standard to be submitted by any interested party at any time and considers them during the subsequent standards revision process.</p>	<p>The Scheme Owner has a permanent publicly available point of contact defined online for the submission of comments on the standard. This is not just during the development or revision process. A general point of contact online is acceptable for small schemes, as long as it explicitly states that all stakeholders can submit comments on the standard at any time. All comments on standards are considered in subsequent revision process.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - scheme's website with form for submitting comments on standards. - internal procedure, quality handbook describing the receiving, filing and incorporation of submissions during the subsequent revision process. <p>Review ongoing submissions by interested parties on file.</p>
FAO REFERENCE	
<p>Taken directly from 61 [83]. This <i>Essential Component</i> enables stakeholders to provide input at any time on how the standard is working and how to improve it.</p>	

A.3 10 RECORD KEEPING

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner keeps on file for a period of at least one full standards revision the following records related to each standard development or revision process:</p> <ul style="list-style-type: none"> - policies and procedures guiding the standard-setting activity; - lists of stakeholders contacted; - interested parties involved at each stage of the process; - comments received and a synopsis of how those comments were taken into account; and - all drafts and final versions of the standard. 	<p>The Scheme Owner has a mechanism in place to assure all records outlined remain on file for at least one full standards revision period.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - internal procedure, quality handbook describing records to be kept, document and retention policy. <p>Review the full range of records for the most previous standard development and revision process.</p>
FAO REFERENCE	
<p>59 [81] require that proper records are prepared and maintained of standard development activity.</p> <p>ISO 17011 5.4.2 requires records are retained for a period consistent with its contractual and legal obligations. Therefore records related to standards need to be kept at minimum for the life of the standard 5 years. ISEAL 5.10.1 defines 5 years as well as the specific records that shall be kept.</p> <p>This <i>Essential Component</i> supports consistency of standard-setting practice and makes evidence accessible in the event of a complaint submission</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>A.3 10 01 See page 54</p>	

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► PARTICIPATION AND CONSULTATION

A.3 11 PUBLIC SUMMARY

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>At the outset of a standard development or revision process, the Scheme Owner makes publicly available a summary of the process that includes:</p> <ul style="list-style-type: none"> – contact information and information on how to contribute to the consultation; – summary of the terms of reference for the standard, including the proposed scope, objectives and justification of the need for the standard; – steps in the standard-setting process, including timelines and clearly identified opportunities for contributing; and – decision-making procedures, including how decisions are made and who makes them. 	<p>The Scheme Owner has a mechanism in place assuring that a summary of the process is made easily available for the public online at the outset of the process. This includes Who and How to contribute, timeline, summary ToR (A.3.05) and decision making (who and how).</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - internal procedure/quality handbook describing elements and process of public summary. - examples of availability of past or current information.
FAO REFERENCE	
<p>44, 47, 56 [71-75] require a standard setting body to be in place with clear rules of procedure and a decision making process. This <i>Essential Component</i> reflects those intentions by providing stakeholders with the information they need to know to decide whether to participate in standards development.</p>	

A.3 12 BALANCED PARTICIPATION

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner or delegated authority ensures participation by independent technical experts and encourages balanced participation by stakeholders in the standard development, revision and approval process.</p>	<p>The Scheme Owner, or delegated authority, has mechanism to ensure participation of necessary technical experts and balance of different stakeholder perspectives in standard development and maintenance. A balanced participation of stakeholders would include: fisheries/aquaculture management authorities, the fishing/aquaculture industry, fish workers organizations, fishing/aquaculture communities, the scientific community, environmental interest groups, fish processors/traders/retailers, aquaculture input providers such as feed providers, hatcheries/nurseries and possibly treatment providers, as well as consumer associations.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - internal procedure/quality handbook for standard development - revision and approval processes that describe how balance is achieved, such as through stakeholder mapping, announcements and invitation. <p>Draft documents and meeting minutes/email correspondence indicate that during standard development, revision and approval processes of the past, independent technical experts participated, and a balanced participation by stakeholders was encouraged.</p>
FAO REFERENCE	
<p>Adapted from 54 [76]. List of stakeholders to be considered as outlined in the guidelines is included in the guidance. This <i>Essential Component</i> supports necessary technical expertise in standards development as well as a balance of perspectives.</p>	

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A.3 13 PUBLIC CONSULTATION

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner allows a period of at least 60 days for the submission of comments on the draft standard.	The Scheme Owner has a mechanism in place to assure a minimum of 60 days for comments on the draft standard. Examples of evidence for scheme alignment: - internal procedure/quality handbook defining public comment period. - ToR Review previous comments and dates for submission on draft standards.
FAO REFERENCE	
Taken directly from 57 [79]. This <i>Essential Component</i> provides necessary transparency about the standards development process.	
RELATED SUPPLEMENTARY COMPONENTS	
A.3 13 01 See page 55	

A.3 14 PUBLIC ANNOUNCEMENT

GSSI ESSENTIAL COMPONENT	GUIDANCE
No later than the start of the comment period, the Scheme Owner publishes a notice announcing the period for commenting in a national or, as may be, regional or international publication of standardization activities and/or on the internet.	Timely announcements are made regarding the public comment period in appropriate channels so that they are easily available to relevant stakeholders. This can be online or in an appropriate publication. Dates should be clearly stated. Examples of evidence for scheme alignment: - internal procedure defining process. - previous announcements are dated and were published before the beginning of the comment period.
FAO REFERENCE	
Taken directly from 57 [79]. This <i>Essential Component</i> provides necessary transparency about the standards development process.	

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A.3 15 STAKEHOLDER CONSULTATION

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner ensures that interested parties can participate in the standard-setting process through a consultation forum or are made aware of alternative mechanisms by which they can participate.	The Scheme Owner has a mechanism in place to ensure all interested stakeholders can participate in standard setting process through a forum or alternative mechanisms or tools. Examples of evidence for scheme alignment: - internal procedure/quality handbook defining public consultation process. - ToR. Review participation, communication and mechanisms/tools of past or current consultation.
FAO REFERENCE	
Taken directly from 55 [77]. This <i>Essential Component</i> provides the mechanisms through which stakeholders can participate.	
RELATED SUPPLEMENTARY COMPONENTS	
A.3 15 01 See page 55	A.3 15 02 See page 56

A.3 16 TRANSPARENCY ON COMMENTS RECEIVED

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner makes publicly available all comments received in the consultation in a non-attributable way.	All comments received during the public comment period are made publically available without attribution or identifier. Examples of evidence for scheme alignment: - internal procedure/quality handbook describing policy, current or past public comment comments posted online.
FAO REFERENCE	
Further elaboration on 57, 58, 61 [76, 77, 83]. This <i>Essential Component</i> provides a level of transparency of the input received in standards consultations.	

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A.3 17 TAKING COMMENTS INTO ACCOUNT

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner takes into account in further processing of the standard, comments received during the period for commenting.	The Scheme Owner has a process for considering all comments received during the public consultation on the standard. Comments which are integrated into the standard should be clearly identified. Examples of evidence for scheme alignment: - some sort of system (e.g. excel) for organizing, categorizing and responding to comments. - review past consultation system, comments and response taken.
FAO REFERENCE	
Taken directly from 58 [80], followed the language from [80] which does not require the inclusion of explanations for deviations from relevant national or international standards. This <i>Essential Component</i> ensures that stakeholder comments are taken into account in the further drafting.	
RELATED SUPPLEMENTARY COMPONENTS	
A.3 17 01 See page 56	

► STANDARDS CONTENT

A.3 18 STANDARDS CONTENT

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner ensures that the standard is consistent with the following requirements: – only includes language that is clear, specific, objective and verifiable; – is expressed in terms of process, management and / or performance criteria, rather than design or descriptive characteristics; (ISO 59) – does not favor a particular technology, patented item or service provider; and (ISO 59) – attributes or cites all original intellectual sources of content.	The Scheme Owner has a mechanism in place to review standards in respect to the listed requirements. Examples of evidence for scheme alignment: - internal procedure/quality handbook defining all list requirements. Some standards state these in their preamble as principles or references. - review that this list was checked for the current standards - review standards and if available mandatory checklists/audit manuals in respect to the listed requirements. - review any available complaints relating to this requirement.
FAO REFERENCE	
Supports consistent application and interpretation of the standard and reflection of best practices as per 63 [85]. The <i>Essential Component</i> wording has been adapted from ISEAL 6.3.1 and ISO 59 section 5.	

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A.3 19 RELEVANCE OF STANDARDS CONTENT

GSSI ESSENTIAL COMPONENT	GUIDANCE
As part of the standard development process, the Scheme Owner assesses the feasibility and auditability of requirements in the draft standard.	<p>The Scheme Owner has a mechanism in place to test the feasibility (cost, time) and auditability (interpretation, consistency) of requirements prior to finalization of the standards.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - internal procedure, quality handbook, standard setting work plan. - review assessment outcomes of past processes including revisions based on findings.
FAO REFERENCE	
[85] is a further clarification of para. 63. It requires that a Scheme Owner validates the standard is effective in meeting the certification goals, meaningful, objective and auditable.	

A.3 20 RELEVANCE OF STANDARDS CONTENT

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner demonstrates that all criteria in the standard contribute to the standard's defined objectives.	<p>Criteria are related to how the Scheme Owner's objectives are met by identifying the acceptable performance. Often they are logically grouped around principles and objectives.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - comparison of the Scheme Owner performance indicators with the standard's criteria. - monitoring and evaluation system of the performance indicators. - criteria that are not monitored and not evaluated may be surplus to the objective of the standards.
FAO REFERENCE	
Taken directly from 40 [66]. ISO 59 section 5 outlines this concept in general.	

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A.3 21 LOCAL APPLICABILITY

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner ensures that the standard is locally applicable. Where the Scheme Owner adapts the standard for direct application at the national or regional level, the Scheme Owner develops interpretive guidance or related policies and procedures for how to take into account local environmental and regulatory conditions.</p>	<p>The Scheme Owner has mechanisms in place to ensure local applicability and relevance. For national or regional standards, the Scheme Owner has a process to take into account local environmental and regulatory conditions through guidance and policies.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - policies, internal procedures and quality handbook documenting process to consider environmental and regulatory aspects. - compare geographical scope of standard and implementation (certificates) with available documented interpretation guidance. - assessment or monitoring reporting indicating where locally specific guidance is required.
FAO REFERENCE	
<p>ISEAL 6.4.1, ISO 59.7. ISO 59 requires a general coordination of international, national and regional levels. ISEAL requires interpretive guidance is formally developed.</p> <p>This <i>Essential Component</i> provides a mechanism to ensure that the standard is locally applicable in the regions where it is applied, reflecting the requirements for validation of standards in 63 [85].</p>	

► STANDARDS ACCESSIBILITY

A.3 22 STANDARDS AVAILABILITY

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner promptly publishes adopted standards, and makes them available for free on the internet, and on request, to any interested party.</p>	<p>Standards are published in a timely fashion and are freely available online and on request. Validity dates coincide with publication dates of standards (taking transition periods into account) and the public work program on standard setting and maintenance.</p>
FAO REFERENCE	
<p>Taken directly from 49 (equivalent [71-73] in aquaculture). Free availability of standards reduces barriers to access and supports necessary transparency, in line with Principles 2.4 and 2.5 [17.d and 17.k]</p>	

GSSI Essential Components for Governance of Seafood Certification Schemes

A.3 23 TRANSLATIONS

GSSI ESSENTIAL COMPONENT	GUIDANCE
Where a scheme is globally applicable, the Scheme Owner makes translations of the standard into English, French or Spanish freely available and authorizes translations into other languages where necessary for credible implementation of the standard.	<p>The Scheme Owner has a mechanism in place to identify the applicability and need for translations based on geographical scope of certification, as well as the geographical range of certified entities and products. For global schemes, the Scheme Owner should translate and make available the standard in English, French and Spanish and authorize into other languages to positively affect transparency and effective implementation.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - internal procedure, quality handbook, current language availability, work plan of translations
FAO REFERENCE	
<p>Adapted from FAO 53 [75]. Instead on naming specific languages as per FAO the requirement was writing to apply in only countries where scheme certificates have been issued. This is similar to ISEAL Standard Setting Code 5.7.3, and more practical.</p> <p>Having translations supports accessibility of the standard for stakeholders</p>	

► TRANSITION PERIOD

A.3 24 INFORMING ENTERPRISES OF TRANSITION

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner ensures that certified enterprises are informed of the revised standard and transition period, either directly or through their certification bodies.	<p>The Scheme Owner has a mechanism in place assuring that certified entities are informed of standard revision and transition periods. This can be done directly or through other assurance bodies.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - internal procedures, quality handbook, contracts/agreements or formal arrangements with certification bodies. - review process of previous revisions if applicable.
FAO REFERENCE	
<p>This requirement further defines FAO para. 60 [82] based on ISEAL Standard-Setting Code 5.9.2. This is in line with FAO Principles 2.4 and [17.d] on transparency and ensures that certified enterprises are aware of any revisions to the standard and how long they have to comply.</p>	

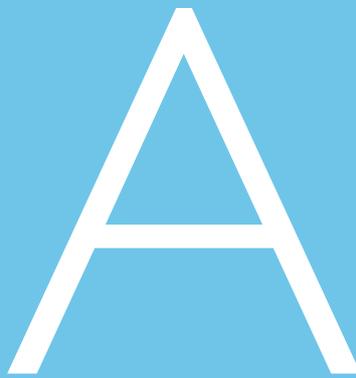
GSSI Essential Components for Governance of Seafood Certification Schemes

A.3 25 TRANSITION PERIOD FOR COMPLIANCE

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner requires that the unit of certification is given a period of at least three years to come into compliance with revised fishery standards and at least one year for revised aquaculture standards.	<p>Certified entities are given sufficient time to come into compliance with revised standards, for fisheries – minimum 3 years and at least one year for revised aquaculture standards.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - standards, certification requirements/methodologies which state minimum transition period for revised standards
FAO REFERENCE	
FAO 60 [82] require an appropriate period of time for certificated entities to come in compliance with the revised standard. For Fisheries this should be a minimum of 3 years.	

A.3 26 TRANSITION PERIOD FOR COMPLIANCE

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner notes in the standard the date of a revision or reaffirmation of the standard along with a transition period after which the revised standard will come into effect.	Standards include date of version and any transition period for the certified entity to come into compliance. If there are normative documents other than the standard and certification requirements/ methodologies which affect compliance of fisheries/aquaculture, these similarly should contain the described validity dates.
FAO REFERENCE	
This <i>Essential Component</i> further defines FAO para. 60 [82] based on ISEAL Standard-Setting Code 5.9.1. This is in line with FAO Principles 2.4 and [17.d] on transparency and makes clear to stakeholders, which standard is in effect and when it will be revised.	



GSSI SUPPLEMENTARY COMPONENTS
FOR GOVERNANCE
OF SEAFOOD CERTIFICATION SCHEMES

GSSI Supplementary Components for Governance of Seafood Certification Schemes

► GOVERNANCE

A.1 01 01 LEGAL STATUS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The Scheme Owner has insurance or reserves to cover the operations of the scheme.</p> <p>Note: This does not apply to government-run schemes as they are self-insured.</p>	<p>The Scheme Owner shall be able to demonstrate that it has evaluated the risks arising from its activities and that it has adequate arrangements (e.g. insurance and/ or reserves) to cover liabilities arising from its operations in each of its fields of activities and the geographic areas in which it operates. (adapted ISO 17021 5.3 and ISO 17065 4.3)</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - system for business risk assessment, insurance policy, - clauses in accreditation body and/or certification body contracts addressing liability.
REFERENCE	
<p>[61] requires institutions involved in establishing and implementing a certification scheme should be transparent, credible and robust with good governance. [64] Requires the owner of a certification scheme to have clear written rules and procedures and decision making process.</p> <p>70-71 [92-93], and 113-114 [135-136] require the same arrangements for accreditation bodies and certification bodies to function appropriately therefore this requirement should also apply to a Scheme Owner on order to ensure good governance.</p> <p>Based on ISO 17067 Section 6.3.8 -11, this is common practice for any legal entity and ensures they are covered for eventualities.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
A.1.01 The Scheme Owner is a legal entity, or an organization that is a partnership of legal entities, or a government or inter-governmental agency.	Demonstrates that the Scheme Owner has adequately evaluated risks arising from its activities.

A.1 01 02 LEGAL STATUS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The Scheme Owner provides, within its means, translations into appropriate languages of its standard-setting procedures, most recent work program, and draft and final versions of its standards.</p>	<p>Scheme owner has a process for determining the need for translation and publication of documents in appropriate language to ensure access and transparency based on scope of activities and geographies. The procedure includes an assessment in order to ensure accurate translation.</p> <p>Examples of evidence for scheme alignment :</p> <ul style="list-style-type: none"> - relevant policy and procedure document control system, - work plans covering language needs assessment, - process for ensuring accuracy of translations.
REFERENCE	
<p>53 [75] requires standards to be translated into appropriate languages. This <i>Supplementary Component</i> ensures that translations of the standard will be accurate and will not be misrepresented.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
A.1.01 The Scheme Owner is a legal entity, or an organization that is a partnership of legal entities, or a government or inter-governmental agency.	Strengthens transparency and accessibility to stakeholders based on scope of activities and geographic regions.

GSSI Supplementary Components for Governance of Seafood Certification Schemes

A.1 03 01 OPERATING PROCEDURES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The Scheme Owner carries out a regular performance review of its top decision-making body, with results that are made publicly available.</p>	<p>Scheme owner ensures continuous improvement of its operations by undertaking an annual performance review of its governance body. Results are made publically available to ensure transparency and accountability.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - online performance review findings and defined actions, - annual report which includes summary of review, - findings and actions.
REFERENCE	
<p>Adapted from ISO/IEC 17067:2013. Considered good practice and would result in higher integrity of the scheme</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>A.1.03 The Scheme Owner operates to a documented set of governance policies and procedures specifying at least the following:</p> <ul style="list-style-type: none"> - Board or governance body election or appointment process, - Board or governance body representation and terms of reference, - Member categories (where applicable), - Income generation or funding processes, - An organizational structure, - The decision making processes of each governance body, - Key personnel roles (responsibility and authority), - Managing conflict of interest, and - A conformity assessment program. 	<p>Supports competent and professional operations, and a level of transparency to stakeholders.</p>

GSSI Supplementary Components for Governance of Seafood Certification Schemes

A.1 08 01 SCHEME OBJECTIVES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The Scheme Owner has a documented monitoring and evaluation system through which it collects data on its performance indicators, and uses this to inform the revision of its standard.	<p>The Scheme Owner has a documented system to monitor and assess its defined performance indicators. Monitoring information is shared with standards committee.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - monitoring system including data collected - previous monitoring information has been assessed and documented inputs developed for the next standard revision process, - requirement for full ISEAL members.
REFERENCE	
Combination of ISEAL Impacts Code 5.1, 8.2, 9.1. This would be considered good practice but is not normally done and would result in higher integrity of the scheme.	
RELATED ESSENTIAL COMPONENT	RATIONALE
A.1.08 The Scheme Owner has defined objectives for its scheme that aim for responsible use of the resource and has publicly available performance indicators related to scheme objectives.	Provides the data for understanding and communicating on progress towards scheme objectives. A foundation for a continuous improvement model.

A.1 08 02 SCHEME OBJECTIVES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The Scheme Owner can demonstrate it has delivered against its scheme objectives through outcome and impact evaluations of its scheme.	<p>The Scheme Owner has a system to periodically conduct in-depth assessments of its performance. The number, regularity and extent of outcome or impact evaluations should be commensurate with the maturity, scale and intensity of the activities of the standards system.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - documented outcome or impact evaluations, - requirement for full ISEAL members.
REFERENCE	
<p>Builds from the principle 2.12 [17.f] of the FAO Guidelines principles, which stipulate that certification schemes should be practical, viable and verifiable (2.12 FAO Ecolabelling Guidelines) and fully effective in achieving their designated objectives (17.f FAO Aquaculture Certification Guidelines).</p> <p>Adapted from ISEAL Impacts Code 8.5. This would be considered good practice but is not normally done and would result in higher integrity of the scheme.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
A.1.08 The Scheme Owner has defined objectives for its scheme that aim for responsible use of the resource and has publicly available performance indicators related to scheme objectives.	Independent evaluations reinforce the findings of the monitoring and evaluation and provide a level of independence that increases integrity.

GSSI Supplementary Components for Governance of Seafood Certification Schemes

► **NON-DISCRIMINATION**

A.1 09 01 NON-DISCRIMINATION - OPENNESS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The Scheme Owner has procedures for taking into account the special circumstances of data deficient and/ or small-scale fishery/ aquaculture operations.</p>	<p>The Scheme Owner processes and policies reduce barriers or promote access of small scale enterprises. This may include specific small scale standards or exemptions that do not lower the requirements of the standards themselves.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - separate specific standard for small scale enterprises or programs such as capacity building and access to finance targeted to small scale enterprises. Policies may include sliding scale fees or simplified reporting templates.
REFERENCE	
<p>Building from 4, 6 and 29 [172-176] which specifically require schemes to take into account special considerations for small-scale fisheries and aquaculture, however without lowering the standard.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>A.1.09 The Scheme Owner ensures that all types of fishery/aquaculture operations within the scope of its scheme can apply for certification, regardless of their scale, size or management arrangements, and has not set an upper limit on the number of operations that can be certified.</p>	<p>Avoids discrimination against operations on the basis of scale or level of development.</p>

GSSI Supplementary Components for Governance of Seafood Certification Schemes

► **SCHEME INTEGRITY MONITORING PROGRAM**

A.1 11 01 INTERNAL REVIEW

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The Scheme Owner ensures the management review is, is carried out with the involvement of directly affected stakeholders and addresses any issues of concern raised by stakeholders.</p>	<p>Directly affected stakeholders are defined by the Scheme Owner. A system exists to ensure sufficient time and opportunity for all directly affected stakeholders to provide input. Submissions are reviewed and addressed transparently.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - documented stakeholder identification, - examples of invite and information system to inform stakeholders how to submit issues of concern or general input, - documented process for handling, reviewing and responding to issues raised.
REFERENCE	
<p>Building from 77, 120, 141 [99, 252, 161], It is common good practice for certification bodies and, to a certain extent, accreditation bodies to have a formal internal documented review. Following the principle of transparency it is reasonable for a Scheme to do this more openly including stakeholders.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>A.1.11 The Scheme Owner undertakes a fully documented annual management review of scheme performance, including its assurance program, and the performance of certification and accreditation bodies. The results of the review are used to revise its operating procedures and practices, where necessary.</p>	<p>Ensures stakeholder accountability in the management review.</p>

GSSI Supplementary Components for Governance of Seafood Certification Schemes

► **LOGO USE AND CLAIMS**

A.2 02 01 RELEVANT CLAIMS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The Scheme Owner has data to substantiate claims about meeting its scheme objectives, e.g. with impacts data or monitoring and evaluation results.</p>	<p>The Scheme Owner ensures claims (e.g. in a publications or on a website) are accurate and supported by data such as through outcome or impacts reports. This could be through a system and/or assignment of responsibility to check claims or statements made by the scheme itself.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - Review claims by schemes of meeting its objectives (this may be in the form of an annual update, 10 year success booklets, internet news, presentation materials for fairs, or other advertising materials). - For such claims, a documented assessment of the publicly available in the form of outcome or impact reports supporting the claim/results. - ISEAL Improvement criteria
REFERENCE	
<p>Adapted from ISEAL Impacts Code 10.3, building further from the FAO Ecolabelling Guidelines principles. Principle 2.12 [17.f] stipulates that certification schemes should be practical, viable and verifiable.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>A.2.02 Through the claims policy, the Scheme Owner ensures copyright is protected and that symbols, logos and claims are only applied to activities that are within the scope of certification, do not overstate or mislead users relative to the defined scope, and are relevant to that scope.</p>	<p>Demonstrates scheme is achieving what it intended and supports truthfulness in claims. This data may only be available after a scheme has been in operation for a number of years.</p>

GSSI Supplementary Components for Governance of Seafood Certification Schemes

▶ STANDARD SETTING PROCEDURES

A.3 **05** **01** **TERMS OF REFERENCE**

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The terms of reference also include:</p> <ul style="list-style-type: none"> - A justification of the need for the standard, including an assessment of the most important environmental issues falling within the scope of the standard; whether the proposed standard will meet an expressed need; and documentation of what other standards exist or are in the process of development which meet all or part of the expressed need; - An assessment of risks in implementing the standard and how to mitigate for these. 	<p>The terms of reference for standard development and revision includes justification of need, issues and risks and how the standard addresses these.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - documented due diligence process, - preamble of terms of reference covering these aspects.
REFERENCE	
Adapted from ISEAL Standard-Setting Code 5.1. This <i>Supplementary Component</i> builds on and goes beyond A.3.05.	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>A.3.05 At the outset of a new standard development or revision process, the Scheme Owner develops or updates terms of reference (ToRs), which includes at least the following elements:</p> <ul style="list-style-type: none"> - Proposed scope of the standard and intended geographic application; - Clear objectives that the standard seeks to achieve and how those are linked to the organization's intended change. 	<p>Additional requirements ensure the Scheme Owner has done due diligence in determining the need and positive impact of developing a new standard.</p>

GSSI Supplementary Components for Governance of Seafood Certification Schemes

A.3 06 01 DECISION MAKING PROCESS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The Scheme Owner ensures participation in standards decision-making bodies is open to all stakeholders.	Standard owner process and procedures for participation in standard's decision-making bodies ensures open participation of all stakeholders.
REFERENCE	
Adapted from ISEAL Standard Setting Code 5.6.1, building on from A.3.06 and FAO 47, 55 [72, 77]	
GSSI SUPPLEMENTARY COMPONENT	RATIONALE
A.3.06 The Scheme Owner strives for consensus decisions on the content of the standard. Where consensus cannot be achieved, the Scheme Owner defines criteria in advance to determine when alternative decision-making procedures should come into effect and what the decision-making thresholds will be.	Supports openness in decision-making. Not all stakeholders can participate but all should be given the opportunity to put their name forward.

A.3 06 02 DECISION MAKING PROCESS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The Scheme Owner's decision-making process for standards development or revision ensures that no category of stakeholders has a majority vote in decision-making.	Standard owner voting procedure process ensures balance in decision making where no single category of stakeholder has a majority in decision making. Examples of evidence for scheme alignment: - internal procedures and/or quality handbook, - previous voting from minutes if available.
REFERENCE	
Adapted from ISEAL Standard-Setting Code 5.6.3, building from A.3.06 and FAO 47, 55, 56 [72, 77, 64].	
GSSI SUPPLEMENTARY COMPONENT	RATIONALE
A.3.06 The Scheme Owner strives for consensus decisions on the content of the standard. Where consensus cannot be achieved, the Scheme Owner defines criteria in advance to determine when alternative decision-making procedures should come into effect and what the decision-making thresholds will be.	Ensures that no one stakeholder group is able to dominate decision-making – a key tenet of a multi-stakeholder process.

GSSI Supplementary Components for Governance of Seafood Certification Schemes

A.3 06 03 DECISION MAKING PROCESS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The Scheme Owner has procedures in place to ensure that directly affected stakeholders have the opportunity to be represented in decision-making.	<p>The standard owner defines directly affected stakeholders, including certified entities and any active technical and/or stakeholder working groups.</p> <p>A procedure is in place, assuring and describing how directly affected stakeholders can be represented in decision-making. A mechanism is in place to inform directly affected stakeholders of this opportunity.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - stakeholder mapping, meeting minutes and email correspondence to verify if stakeholders have been informed.
REFERENCE	
Adapted from ISEAL Standard-Setting Code 5.6.1, building from A.3.06 and FAO 47, 55, 56 [72, 77, 64].	
RELATED ESSENTIAL COMPONENT	RATIONALE
A.3.06 The Scheme Owner strives for consensus decisions on the content of the standard. Where consensus cannot be achieved, the Scheme Owner defines criteria in advance to determine when alternative decision-making procedures should come into effect and what the decision-making thresholds will be.	Directly affected stakeholders are the ones that will be impacted by implementation of the standard and need to have a voice in decision-making

A.3 06 04 DECISION MAKING PROCESS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
Where the Scheme Owner limits decision-making to members, it ensures that membership criteria and application procedures are transparent and non-discriminatory.	<p>For membership organization where decision making is limited to members, the application process and selection criteria are easily available and ensure balanced participation of stakeholders. These criteria could be “Not Applicable” if the Scheme Owner is not a member based organization.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - application procedure, forms, completed applications and any reasons for declining.
REFERENCE	
Adapted from ISEAL Standard-Setting Code 5.6.2, building from A.3.06 and FAO 47, 55, 56 [72, 77, 64].	
RELATED ESSENTIAL COMPONENT	RATIONALE
A.3.06 The Scheme Owner strives for consensus decisions on the content of the standard. Where consensus cannot be achieved, the Scheme Owner defines criteria in advance to determine when alternative decision-making procedures should come into effect and what the decision-making thresholds will be.	Supports transparency and non-discrimination over who can participate.

GSSI Supplementary Components for Governance of Seafood Certification Schemes

A.3 06 05 DECISION MAKING PROCESS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The Scheme Owner makes public any decisions on the content of the standard as well as a summary of deliberations in arriving at the decision.	<p>The standard owner has a process in place to document decisions made on standard content, as well as a summary of deliberations in arriving at the decision. Records are made public, such as online.</p> <p>Example of evidence of alignment:</p> <ul style="list-style-type: none"> - standards development or revision process description, - template for comments and response, - review of past development or revision documents.
REFERENCE	
Builds from 56 [64] which require written procedures to guide the decision making process. Strengthened by the application of Principle 2.4 and [17.d] on transparency on the <i>Essential Component</i> .	
RELATED ESSENTIAL COMPONENT	RATIONALE
A.3.06 The Scheme Owner strives for consensus decisions on the content of the standard. Where consensus cannot be achieved, the Scheme Owner defines criteria in advance to determine when alternative decision-making procedures should come into effect and what the decision-making thresholds will be.	Supports transparency in how decisions are made.

A.3 07 01 COMPLAINTS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
Decisions taken on complaints and justifications for those decisions are made publicly available.	Decisions on complaints related to standard setting and justification for decision are publicly available (e.g. online on website).
REFERENCE	
<p>47 [72] Requires activities of the standard-setting body are carried out in a transparent manner following written rules and procedures. The procedures should contain a mechanism for impartial resolution of any substantive or procedural disputes about the handling of standard-setting matters.</p> <p>Requiring the publication of decisions taken in this matter will improve transparency of the complaints resolution process. This follows the ISEAL Standard setting Code and further implements Principle 2.4 and [17.d] on transparency.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
A.3.07 The Scheme Owner, or delegated authority makes impartial and documented efforts to resolve procedural complaints related to standard-setting, based on a publicly documented complaints resolution mechanism. Decisions taken on complaints are disclosed at least to the affected parties.	Improves transparency of the complaints resolution process.

GSSI Supplementary Components for Governance of Seafood Certification Schemes

A.3 10 01 RECORD KEEPING

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The Scheme Owner makes records in A.3.10 available to interested parties upon request.	<p>The Scheme Owner has a mechanism to ensure records described in A.3.10 are provided to stakeholders on request for the last revision process.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - policy/procedure describing system and process to provide information, - online form for request, past actual requests and action taken, - possibly request records through online contact.
REFERENCE	
Adapted from ISEAL Standard-Setting Code 5.10.1. FAO 59 [81] requires that proper records are prepared and maintained of standard development activity. Strengthened by the application of Principle 2.4 and [17.d] on transparency on the <i>Essential Component</i> .	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>A.3.10 The Scheme Owner keeps on file for a period of at least one full standards revision the following records related to each standard development or revision process:</p> <ul style="list-style-type: none"> - policies and procedures guiding the standard-setting activity; - lists of stakeholders contacted; - interested parties involved at each stage of the process; - comments received and a synopsis of how those comments were taken into account; and - all draft and final versions of the standard. 	Support transparency in record-keeping.

GSSI Supplementary Components for Governance of Seafood Certification Schemes

▶ PARTICIPATION AND CONSULTATION

A.3 13 01 PUBLIC CONSULTATION

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The Scheme Owner requires at least two rounds for comment submissions on the draft standard by interested parties, with one round of at least 60 days and the other of at least 30 days.	<p>The Scheme Owner has a mechanism in place to ensure comment periods as per <i>Supplementary Component</i>.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - internal procedure/quality handbook defining public comment periods in line with <i>Supplementary Component</i>. - terms of reference review previous comments and dates for submission on draft standards.
REFERENCE	
Adapted from ISEAL Standard-Setting Code 5.4.1, going beyond A.3.13 by requiring a second consultation period.	
RELATED ESSENTIAL COMPONENT	RATIONALE
A.3.13 The Scheme Owner allows a period of at least 60 days for the submission of comments on the draft standard.	Strengthens stakeholder engagement and transparency on how comments were taken into account.

A.3 15 01 STAKEHOLDER CONSULTATION

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The Scheme Owner identifies stakeholders who will be directly affected by the standard and those that are not well-represented in consultations and proactively seeks their contributions.	<p>The Scheme Owner documents directly affected stakeholders and identifies those not as represented in past consultations or have potential barriers to participate to proactively seek their input through alternative mechanisms and tools that are that are accessible and culturally appropriate for the stakeholder groups in question such online or in in-person workshops.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - stakeholder mapping including participation in past consultations - meeting minutes, announcements, publications and or email communication indicate that the Scheme Owner is proactively seeking the input of specific stakeholder groups.
REFERENCE	
Adapted from ISEAL Standard-Setting Code 5.4.4. This <i>Supplementary Component</i> builds on A.3.15.	
RELATED ESSENTIAL COMPONENT	RATIONALE
A.3.15 The Scheme Owner ensures that interested parties can participate in the standard-setting process through a consultation forum or are made aware of alternative mechanisms by which they can participate.	Puts the onus on the Scheme Owner to take steps to strengthen the balance and participation of key stakeholders.

GSSI Supplementary Components for Governance of Seafood Certification Schemes

A.3 15 02 STAKEHOLDER CONSULTATION

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The Scheme Owner makes efforts to address constraints to participation in standard-setting faced by disadvantaged stakeholders such as small-scale operations and vulnerable groups.	The Scheme Owner defines disadvantaged stakeholders and addresses potential barriers to participation such as language, culture, access to internet, costs, technical accessibility, etc. through alternative mechanisms and tools that are that are accessible and culturally appropriate for the stakeholder groups in question.
REFERENCE	
Adapted from ISEAL Standard-Setting Code 5.4.4, building from 4 and 6 [172-176] which specifically require schemes to take into account special considerations for small-scale fisheries and aquaculture.	
RELATED ESSENTIAL COMPONENT	RATIONALE
A.3.15 The Scheme Owner ensures that interested parties can participate in the standard-setting process through a consultation forum or are made aware of alternative mechanisms by which they can participate.	Supports participation by stakeholders who may face constraints to active engagement.

A.3 17 01 TAKING COMMENTS INTO ACCOUNT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The Scheme Owner makes publicly available a synopsis of how these comments were addressed and sends the synopsis to all parties that submitted comments.	<p>The Scheme Owner develops a summary of how comments were addressed, makes publicly available as well as sends to everyone who submitted comments.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - system, internal procedure/quality handbook that describes how comments are summarized and made available publicly and to commenters, - review of current and past standard public consultation information flow including synopsis.
REFERENCE	
Adapted from ISEAL Standard-Setting Code 5.4.5. Builds on A.3.17, ensures stakeholders can see how their input was addressed in standards revisions.	
RELATED ESSENTIAL COMPONENT	RATIONALE
A.3.17 The Scheme Owner takes into account in further processing of the standard, comments received during the period for commenting.	Ensures stakeholders can see how their input was addressed in standards revisions.

B

B.1

ACCREDITATION

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B.2

CERTIFICATION

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B.3

CHAIN OF CUSTODY

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For Section B the GSSI Supplementary Components outline the status of existing practices in seafood certification and how they build from the principles of the FAO Guidelines for Certification and Ecolabelling, ISO normative standards, ISEAL codes and the GFSI Guidance Document. They can be built on going forward as technical guidelines evolve. Each GSSI Supplementary Component has a rationale to explain the value that alignment with it offers to both schemes and stakeholders.

SOURCE DOCUMENTS

- *Assuring Compliance with Social and Environmental Standards, Code of Good Practice*, ISEAL Alliance, 2012
- Further elaboration on FAO Guidelines for the Ecolabelling of Fish and Fishery Products from Marine/Inland Capture Fisheries and FAO Technical Guidelines on Aquaculture Certification
- GFSI Guidance Document, Sixth Edition, Version 6.3, GFSI, October 2013

B

GSSI ESSENTIAL COMPONENTS FOR OPERATIONAL MANAGEMENT OF SEAFOOD CERTIFICATION SCHEMES

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.1 01 ISO-17011 COMPLIANCE

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner has a contractual, enforceable arrangement or formal understanding that requires accreditation bodies to be compliant with the requirements of ISO/IEC 17011:2004.</p>	<p>The Scheme Owner has a contract, memorandum of understanding or enforceable arrangement with a certification body or accreditation body that require the accreditation bodies to be accredited to ISO/IEC 17011:2004.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contracts, - memorandums of understanding and/or memorandum of agreements between scheme and accreditation bodies or certification bodies that specify accreditation bodies to be compliant with ISO/IEC 17011:2004. - accreditation bodies' certificate of accreditation (on website).
FAO REFERENCE	
<p>The FAO Guidelines in paragraph 64, 66, [86, 87, 88] require that accreditation is conducted by a competent body in line with the requirements set forth in ISO/IEC 17011:2004 [86]. An arrangement between the Scheme Owner and Accreditation Body ensures only competent accreditation bodies offer accreditation for their scheme.</p> <p>Paragraphs 67, 69-77, 79-84, 87-95, 97-99 [86, 89, 91-99, 101-106, 109-119, 121-123] are addressed through conformance with ISO/IEC 17011:2004.</p>	

B.1 02 NON-DISCRIMINATION

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner ensures that accreditation services are available to certifying bodies irrespective of their country of residence, size, and of the existing number of already accredited bodies, within the scope of the scheme.</p>	<p>The Scheme Owner ensures that access to accreditation is open to qualified certification bodies without consideration of size, country or number of existing accredited certification bodies. This could be through contracts/agreements, in referenced policies or certification requirements/methodologies.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - application process/forms, - review list of accredited certification bodies
FAO REFERENCE	
<p>The FAO Guidelines in paragraph 67 [89] require that access to the services of the accreditation body or entity should be open to all certification entities irrespective of their location. Access should not be conditional upon the size of the applicant body or membership in any association or group, nor should accreditation be conditional upon the number of certification bodies already accredited.</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.1 03 SPECIFIED REQUIREMENTS

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner specifies the requirements for certification bodies that the accreditation body is required to verify.	<p>The Scheme Owner defines requirements for certification bodies to ensure accurate and consistent implementation. These are verified as part of the accreditation process by the accreditation body.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - requirements are specified in certification requirements/ methodologies or a separate certification body and/or accreditation manual. - reference to requirements in contracts or formal agreements with certification bodies or accreditation bodies.
FAO REFERENCE	
<p>The FAO Guidelines in paragraph [65] indicate that <i>“the certification scheme should lay down rules and regulations under which the certification body or entity is required to operate”</i>. In paragraph 64 [87] it is specified that it is the role of the Accreditation Body to conduct an <i>“independent assessment of the competence of the certification body or entity”</i>.</p>	

B.1 04 TRANSITION PERIOD

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>Subsequent to any changes in the requirements for assessing certification bodies, the Scheme Owner ensures certification bodies are given a defined time period within which to conform to the changes.</p> <p>Special considerations should be given to accredited bodies in developing countries and countries in transition.</p>	<p>The Scheme Owner specifies transition periods for any changes to certification requirements (B.1.03) for certification bodies to come into compliance with changes. For certification bodies in developing countries consideration is given that may include a longer transition period, capacity building or other measures.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - see B.1.03 reference to transition period and/or special consideration for developing country certification bodies.
FAO REFERENCE	
<p>The FAO Guidelines in paragraph 95 [119] require accredited certification bodies are provided with a defined time period to implement any changes in the accreditation requirements, paragraph 96 [120] requires that within this process special considerations should be given to accredited bodies in developing countries and countries in transition.</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.1 05 ACCREDITATION BODY COMPETENCIES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner only works with accreditation bodies that have personnel with the necessary education, training, technical knowledge and experience for performing accreditation functions in fisheries and aquaculture operations.</p>	<p>The Scheme Owner ensures personnel competency through contracts or enforceable arrangements with accreditation bodies. Personnel competency includes education, training on the standard, technical knowledge and experience and can be defined by the Scheme Owner.</p> <p>Examples of objective evidence:</p> <ul style="list-style-type: none"> - agreement/contract between the Scheme Owner and certification body to use national accreditation bodies which are IAF members and signatories to the Multilateral Recognition Arrangement for ISO 17065. - contract/agreement between the Scheme Owner and the accreditation body if applicable, certification/accreditation manuals. - review of CVs of accreditation body staff.
FAO REFERENCE	
<p>The FAO Guidelines in paragraph 79-80 [101-102] require an accreditation body has qualified personnel to conduct assessment against all accreditation requirements.</p>	

B.1 06 EXTERNAL REVIEW

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner ensures that external audits are carried out on the accreditation body to assess performance.</p>	<p>The Scheme Owner ensures accreditation bodies undergo external/independent performance assessments.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - assessment process and requirements of IAF, ISEAL or other membership organization. - Scheme Owner accreditation manual or requirements, contracts or agreements, assessment reports.
FAO REFERENCE	
<p>The FAO Guidelines in paragraph 78 [100] describe that an accreditation body may receive external audits. This level of independent oversight is good practice in accreditation systems, e.g. the peer review system for members of the International Accreditation Forum (IAF). It is not normal practice to make the outcomes of these reviews publicly available.</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.1 07 ORGANIZATIONAL TRANSPARENCY

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner ensures that the accreditation body is transparent about its organizational structure and the financial and other kinds of support it receives from public or private entities.	<p>Scheme owner ensures accreditation body transparency regarding organizational structure and financial support. The Scheme Owner requires disclosure of this information directly from the accreditation body.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - accreditation body website with information, certification/ accreditation manuals, contracts and/or agreements. - agreement/contract between the Scheme Owner and certification body to use national accreditation bodies which are IAF members and signatories to the Multilateral Recognition Arrangement for ISO 17065; - annual or periodic reports.
FAO REFERENCE	
The FAO Guidelines in paragraph 69 [91] require an accreditation body is “transparent about its organizational structure and the financial and other kinds of support it receives from public or private entities.”	

B.1 08 OFFICE AUDIT

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner ensures that the accreditation process includes an on-site audit of the certification body.	<p>The Scheme Owner specifies that accreditation includes an on-site audit of the certification body.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - accreditation/certification requirements/methodologies, accreditation body office audit reports, audit schedule. - specified in accreditation body or certification body contracts/ agreements. - agreement/contract between the Scheme Owner and certification body to use national accreditation bodies which are IAF members and signatories to the Multilateral Recognition Arrangement for ISO 17065.
FAO REFERENCE	
Not specifically defined in the FAO Guidelines, however this is considered a requirement for good practice in accreditation of seafood certification schemes, in the GSSI Public Consultation and Expert Consultation Workshops. It is considered a necessary level of rigor of the accreditation audit to better assess the operations of the certification bodies.	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.1 09 FIELD AUDIT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner ensures that the accreditation process includes a review of the performance of certification bodies and auditors in the field.</p>	<p>The Scheme Owner specifies that accreditation includes a performance review of certification bodies and auditors.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - accreditation/certification requirements/methodologies, accreditation body audit reports, audit schedule, specified in accreditation body or certification body contracts/agreements. - agreement/contract between the Scheme Owner and certification body to use national accreditation bodies which are IAF members and signatories to the Multilateral Recognition Arrangement for ISO 17065.
<p>FAO REFERENCE</p>	
<p>Not specifically defined in the FAO Guidelines, however this is considered a requirement for good practice in accreditation of seafood certification schemes, in the GSSI Public Consultation and Expert Consultation Workshops. It is considered a necessary level of rigor of the accreditation audit to better assess the operations of the certification bodies.</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

► **CERTIFICATION PROCESS**

B.2 01 ISO-17065 COMPLIANCE

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires that certification bodies operating in the scheme are accredited to ISO/IEC 17065:2012 for the scope of the respective standard of the scheme.</p>	<p>The Scheme Owner has a contract, memorandum of understanding or enforceable arrangement with certification body that require ISO/IEC 17065:2012 for the scope of the respective standard of the scheme.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contracts, memorandums of understanding and/or memorandum of agreements between Scheme and accreditation bodies or certification bodies that specify certification bodies be accredited with ISO 17065:2012; - accreditation manual or certification requirements/methodologies; certification bodies certificate of accreditation.
FAO REFERENCE	
<p>The normative reference for certification in the FAO Guidelines is ISO/IEC Guide 65 (105 [127]). ISO/IEC Guide 65 is replaced by ISO/IEC 17065:2012 as the international standard for conducting certification. FAO paragraphs 107-130,133-134 [128-150, 153-154] are addressed through conformance with ISO/IEC-17065 :2012.</p>	

B.2 02 FEE STRUCTURE

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires certification bodies to maintain a written fee structure that is available on request and is adequate to support accurate and truthful assessments commensurate with the scale, size and complexity of the fishery, fish farm or chain of custody. The fee structure is non-discriminatory and takes into account the special circumstances and requirements of developing countries and countries in transition.</p>	<p>The Scheme Owner defines this requirement in the contract, memorandum of understanding or enforceable agreement with the accreditation body and/or certification body.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - accreditation manual/certification requirements/methodologies. - possibly also review accreditation body audit reports that this requirement is verified, and for compliance of certification bodies on this requirement. - policy or procedure which outlines how fee structures of certification bodies could address special requirements of developing and in transition countries in a non-discriminatory manner; certification body fee structure and policy (online or request).
FAO REFERENCE	
<p>The <i>Essential Component</i> was taken directly from FAO Guidelines paragraph 125 [145] and helps to avoid discrimination against enterprises on the basis of fees charged</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.2 03 CERTIFICATION CYCLE

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner requires that the validity of a certification cycle does not exceed 5 years in the case of fishery or 3 years in the case of aquaculture certification and 3 years in the case of chain of custody certification.	The Scheme Owner defines this requirement in the contract, memorandum of understanding or enforceable agreement with the accreditation body and/or certification body. Examples of evidence for scheme alignment: - accreditation manual/certification requirements/methodologies. - Issued certificates with validity (online database or on request)
FAO REFERENCE	
This <i>Essential Component</i> was taken directly from FAO Guidelines paragraphs 131-132 [151-152] and draws a balance between a certification cycle that is not overly burdensome and one that assures continued compliance with the standard.	

B.2 04 SURVEILLANCE

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner requires that certification bodies carry out periodic surveillance and monitoring at sufficiently close intervals to verify that certified operations continue to comply with the certification requirements. For aquaculture operations, this should be on an annual basis.	The Scheme Owner defines this requirement in the contract, memorandum of understanding or enforceable agreement with accreditation body and/or certification body. Scheme owner risk assessment system should identify " <i>sufficient close intervals</i> ". Examples of evidence for scheme alignment: - accreditation manual/certification requirements/methodologies. - Scheme Owner internal risk assessment system with assessment reports. - Audit reports, schedules and issued certificates.
FAO REFERENCE	
This <i>Essential Component</i> builds on FAO Guidelines paragraph 128 [148] which require periodic surveillances at appropriate intervals.	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.2 05 ASSESSMENT METHODOLOGY

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner ensures that certification bodies apply a consistent methodology to assess compliance with the standard.</p>	<p>The Scheme Owner defines the methodology to assess compliance with the standard. An internal assessment (updated regularly) with clear outcomes, identifies if the methodology is consistent between certification bodies or if the methodology needs revising.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - certification requirements/methodologies, - contracts and agreements with the certification body, - guidance interpretation documents, - Scheme Owner internal assessment system with assessment reports, - training and calibration records.
FAO REFERENCE	
<p>The FAO Guidelines in paragraph 107 [128] require that certification is conducted in a competent, impartial and accurate manner. Such outcomes can only be achieved when the certification processes are conducted according to consistent methodologies. The Scheme Owner is the only body that can ensure this consistency by defining rules and regulations under which a certification body or entity is required to operate as required in paragraph [65]. All of the above is in line with principle 2.7 [17.i] of establishing clear accountability and responsibility for Scheme Owners, certification bodies and accreditation bodies.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>B.2 05 01 See page 84 B.2 05 02 See page 84</p>	

B.2 06 TERMINATION, SUSPENSION, WITHDRAWAL

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner ensures that accredited certification bodies have consistent documented procedure(s) that specify the conditions under which certification may be suspended or withdrawn, partially or in total, for all or part of the scope of certification.</p>	<p>For accurate and consistent implementation of the standard, the Scheme Owner ensures that certification bodies have documented procedures that specify the conditions under which certification may be suspended or withdrawn, partially or in total, for all or part of the scope of certification.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract, memorandum of understanding or enforceable agreement between the Scheme Owner and the certification body; accreditation manual, certification requirements/methodologies, - audit reports, - guidance documents specifying the conditions under which certification may be suspended or withdrawn.
FAO REFERENCE	
<p>This <i>Essential Component</i> builds from FAO Guidelines paragraph 133 [153] which requires certification bodies to specify conditions under which certification may be suspended and withdrawn. Such conditions should be consistent for all certifications under a certification scheme in order to ensure impartial and accurate certification as required in paragraph 107 [128].</p> <p>The Scheme Owner is the only body that can ensure this consistency by defining rules and regulations under which a certification body or entity is required to operate as required in paragraph [65]. All of the above is in line with principle 2.7 [17.i] of establishing clear accountability and responsibility for Scheme Owners, certification bodies and accreditation bodies.</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.2 07 MULTI-SITE CERTIFICATION

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner requires that accredited certification bodies have certification procedures and guidance for multi-site certifications, if allowed under the scheme.	<p>If the Scheme Owner explicitly does not allow multi-site certification (prohibits, not that it is not yet developed or exists) requirement is “<i>Not applicable</i>”. Otherwise, the Scheme Owner requires certification body to have documented certification procedures and guidance for multi-site certification.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - memorandum of understanding or enforceable agreement between the Scheme Owner and the certification body; - certification requirements/methodologies specifying multi-site procedures; - guidance specifying certification procedures for multi-site certifications, in order to support consistency between certification bodies; - audit reports.
FAO REFERENCE	
<p>This <i>Essential Component</i> supports consistency in assessment of multi-site operations, which are not considered explicitly under FAO however is considered important to provide guidance for this in order to be able to ensure an impartial and accurate certification system as required in paragraph 107 [128].</p>	

B.2 08 AUDIT REPORTS

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner requires CBs to ensure consistency in audit report formats and in how the reports are completed.	<p>The Scheme Owner defines this requirement for certification bodies and has some system for quality control.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the certification body, certification requirements/methodologies; - guidance specifying formats for audit reports and reporting, mandatory audit templates; - review online audit reports for consistency of report format and reporting, Scheme Owner quality management system for review of audit reports.
FAO REFERENCE	
<p>This <i>Essential Component</i> builds from FAO Guidelines paragraph 139-140 [159-160] which requires specifications for a written audit report for Chain of Custody, reference to assessment reports for aquaculture and fisheries certification is implied in paragraph 122 [143] but not further specified.</p> <p>Consistent audit reports are however a key component to ensure impartial and accurate certification as required in paragraph 107 [128].</p> <p>The Scheme Owner is the only body that can ensure this consistency by defining rules and regulations under which a certification body or entity is required to operate as required in paragraph [65].</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.2 09 STAKEHOLDER INPUT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires that certification bodies have in place consistent procedures for stakeholders to provide input during the certification process.</p>	<p>The Scheme Owner defines this requirement for certification bodies to have a documented procedure to enable input from all stakeholders during the certification process.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the certification body, certification requirements/methodologies specifying requirements for mechanism for stakeholder input during certification process. - guidance specifying procedures. - review certification body process for input: - publicly available information for stakeholder input, public announcements, audit work plans, requests for input. - audit reports with stakeholder input.
FAO REFERENCE	
<p>FAO Principle 2.4 and 3 [17.e] require transparency and fair participation in all aspects of a certification scheme. This <i>Essential Component</i> provides a mechanism for stakeholders to provide input about an enterprise undergoing certification which strengthens information base on which to make certification decisions.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>B.2 09 01 See page 85</p>	<p>B.2 09 02 See page 86</p>

B.2 10 NON-COMPLIANCES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires that certification bodies use a consistent procedure for determining non-compliances, verifying corrective actions arising from non-compliances and allowing for appeals of non-compliances.</p>	<p>For accurate and consistent implementation of the standard, the Scheme Owner ensures that certification bodies have documented procedures determining all of the following: non-compliances, verifying corrective actions arising from non-compliances, and allowing for appeals of non-compliances.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract, memorandum of understanding or enforceable agreement between the Scheme Owner and the certification body. - accreditation manual, certification requirements/methodologies. - guidance documents, determining non-compliances, verifying corrective actions arising from non-compliances and allowing for appeals of non-compliances, in order to support consistency between certification bodies. - audit reports.
FAO REFERENCE	
<p>Not specifically defined in the FAO Guidelines, however considered key component for impartial and accurate certification as required in paragraph 107 [128]. This is a requirement under ISO-17065:2012 8.7 and 8.8.</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.2 11 SITE AUDIT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires that the scope of the (re-)certification audit includes a visit to locations pertinent to the scope of the certification.</p>	<p>The Scheme Owner requires that the scope of the audit (initial, annual or re-assessment) includes on-site assessment of premises covered by the scope of the standards and which one or more key activities are performed</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract, memorandum of understanding or enforceable agreement between the Scheme Owner and the certification body, - accreditation manual, certification requirements/methodologies, - guidance documents specifying procedures for determining site visits including sampling, - review audit reports.
FAO REFERENCE	
<p>Not specifically defined in the FAO Guidelines, however this is considered a requirement for good practice in seafood certification, in the GSSI Public Consultation and Expert Consultation Workshops. It is considered a necessary level of rigor of the certification audit which enables certification bodies to ground-truth the practices of the enterprise undergoing assessment.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>B.2 11 01 See page 87</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.2 12 TRANSPARENCY ON CERTIFIED ENTITIES

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner requires that a list of certified enterprises is made publicly available.	<p>The Scheme Owner makes publically available a list of certified entities either directly or requires of certification bodies/accreditation bodies.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - system to show the certification status of enterprises is publicly available online (e.g. database or online certificate list). If this system is outsourced to the accreditation bodies or certification bodies, this is required and the system described in the contract/agreement between the Scheme Owner and the accreditation body/certification body, in a separate accreditation manual or certification requirements/methodologies.
FAO REFERENCE	
<p>FAO Principle 2.4, 2.12 and 3 [17.e] require transparency in all aspects of a certification scheme and communication of truthful information. This <i>Essential Component</i> helps achieve these principles as transparency of who is certified, helping to prevent fraudulent claims.</p>	

B.2 13 TRANSPARENCY ON AUDIT REPORTS

GSSI ESSENTIAL COMPONENT	GUIDANCE
For fisheries, the Scheme Owner requires certification bodies to make full audit reports available on request after certification has been granted, while excluding commercially sensitive information.	<p>Applicable only to fisheries, for Aquaculture “<i>Not Applicable</i>”. The Scheme Owner defines this requirement for certification bodies to make full audit reports, after certification has been granted, available online or upon request. Commercially sensitive information is excluded. Contracts with certified entities should clearly give notice of this requirement.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the certification body, contract with certification body and certified entity with this requirement, - certification requirements/methodologies specifying requirement, - guidance specifying that making reports available to stakeholders happens in a timely manner, - review certification body website for posted reports or process for responding to requests.
FAO REFERENCE	
<p>FAO Guidelines Paragraph 122, 124 [142, 144] requires certification bodies to appropriate document available on request, taking into account confidentiality of information.</p> <p>This supports transparency and empowers stakeholders to better understand how certification decisions were made. This is in line with FAO Principle 2.4, 2.12 and 3 [17.e] which require transparency in all aspects of a certification scheme and communication of truthful information.</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.2 14 **TRANSPARENCY ON AUDIT REPORTS**

GSSI ESSENTIAL COMPONENT	GUIDANCE
For aquaculture, the Scheme Owner requires certification bodies to make summary audit reports publicly available (excluding commercially sensitive material) after certification has been granted.	<p>Applicable only to Aquaculture. For Fisheries “<i>Not Applicable</i>”.</p> <p>The Scheme Owner defines this requirement for certification bodies to make summary audit reports, after certification has been granted, publicly available. Commercially sensitive information is excluded. Contracts with certified entities should clearly give notice of this requirement.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the certification body, contract with certification body and certified entity with this requirement. - certification requirements/methodologies specifying requirement. - guidance specifying that making reports available to stakeholders happens in a timely manner. - certification body website for posted reports.
FAO REFERENCE	
<p>FAO Guidelines Paragraph 122, 124 [142, 144] requires certification bodies to appropriate document available on request, taking into account confidentiality of information.</p> <p>A summary of the audit reports is considered appropriate documentation to be made available on request. This supports transparency and empowers stakeholders to better understand how certification decisions were made. This is in line with FAO Principle 2.4, 2.12 and 3 [17.e] which require transparency in all aspects of a certification scheme and communication of truthful information.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>B.2 14 01 See page 88</p>	<p>B.2 14 02 See page 89</p>

B.2 15 **NOTIFICATION OF CHANGES**

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner notifies accreditation bodies, certification bodies and certified enterprises of any change in management procedures which affects scheme rules and procedures for accreditation or certification.	<p>The Scheme Owner has a system to ensure that accreditation bodies, certification bodies and certified entities are notified in a timely manner of any substantive change in management procedures. This is defined as changes which affect scheme rules and procedures for accreditation and/or certification. Where the scheme outsources responsibility of notification to accreditation bodies or certification bodies, there is a requirement for certification bodies to have a procedure for this notification and guidance on how this should take place (timeframe, manner, channel, etc.).</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contracts/agreements with accreditation bodies and certification bodies regarding notification of changes, internal procedure/quality handbook for change management, ring information flow.
FAO REFERENCE	
<p>FAO guidelines paragraphs 93-96 [116-119] require that proper notification and adjustments are made when changes are made to the rules and procedures for accreditation or certification. As paragraph [65] specifies that the Scheme Owner should define the rules and regulations under which a certification body or entity should operate, it is the Scheme Owner who should notify the accreditation bodies and certification bodies on any changes.</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.2 16 TIMELINE FOR CORRECTIVE ACTION

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner clearly defines the criteria relating to the classification of non-conformities. Where the Scheme Owner allows for certification of an entity with non-compliances, the Scheme Owner requires that:</p> <ul style="list-style-type: none"> - only non-conformities on minor, non-critical issues are allowed; - a timeline for closing out corrective actions must be defined; - a system to verify that corrective actions have been closed out is in place. 	<p>The Scheme Owner defines the criteria related to rating the severity of non-conformities for certification bodies. If Scheme allows for certified entities with non-compliances, these can only be (All must be met): minor/non-critical, with a defined timeline for closing out and a mechanism defined to verify resolution.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the certification body, certification requirements/methodologies specifying classifications of non-conformities and conditions for allowing certification with non-compliances. - guidance specifying procedures and process for classifying non-conformities and conditions for issuing certification, audit reports.
FAO REFERENCE	
<p>Not specifically defined in the FAO Guidelines, however considered key component for impartial and accurate certification as required in paragraph 107 [128].</p> <p>This <i>Essential Component</i> ensures that there is a clear path for enterprises to remediate any non-compliances in a timely manner in line with ISO-17065 8.7.</p>	

► **AUDITOR COMPETENCE**

B.2 17 REQUIREMENTS FOR TECHNICAL KNOWLEDGE

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner has defined the qualifications and competence criteria required by auditors and audit teams, employed by certification bodies, and it makes this information publicly available.</p>	<p>The Scheme Owner defines the requirement for certification body auditor and audit teams qualifications and competency and these requirements are publically available. Competencies and qualifications include knowledge in the standard, education, experience and personal attributes.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the accreditation body/certification body, accreditation/certification requirements/methodologies specifying criteria for each function, - auditor assessment and training records, - auditor CVs.
FAO REFERENCE	
<p>Builds from FAO Guidelines paragraph 114 [137] which require that personnel are employed that have the necessary education, training, technical knowledge and experience.</p> <p>Such qualification and competence criteria should be consistent for all certification bodies in order to ensure impartial and accurate certification as required in paragraph 107 [128].</p> <p>The Scheme Owner is the only body that can ensure this consistency by defining rules and regulations under which a certification body or entity is required to operate as required in paragraph [65]. All of the above is in line with principle 2.7 [17.i] of establishing clear accountability and responsibility for Scheme Owners, certification bodies and accreditation bodies.</p> <p>It is considered important to make these qualifications and competence criteria publically available in order to meet Principle 2.4 and 3 [17.e].</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.2 18 TECHNICAL KNOWLEDGE

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires certification body auditors to have successfully completed training in the scheme to the satisfaction of the Scheme Owner.</p>	<p>The Scheme Owner defines the requirement for certification body auditor training in the standard including initial and ongoing development.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the accreditation body/certification body, accreditation/certification requirements/methodologies specifying criteria for each function. - auditor assessment and training records.
FAO REFERENCE	
<p>Builds from FAO Guidelines paragraph 114 [137] which require that personnel are employed that have the necessary education, training, technical knowledge and experience.</p> <p>Such qualifications are very specific for each scheme and therefore can only be achieved through a scheme specific training program. This should therefore be part of the rules and regulations under which a certification body or entity is required to operate to be specified by the Scheme Owner as per paragraph [65].</p> <p>All of the above is in line with principle 2.7 [17.i] of establishing clear accountability and responsibility for Scheme Owners, certification bodies and accreditation bodies</p>	

B.2 19 GENERAL AUDITING SKILLS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires that certification body auditors successfully complete auditor training based on ISO 19011. This does not include technical experts seconded to audit teams.</p>	<p>The Scheme Owner defines the requirement for certification body auditors to have successfully completed (passed) training based on ISO 19011 (Guidelines for auditing management systems) and that the audit team includes at least one auditor. Technical experts supplement auditor expertise, but are not formally auditors and do not count as an auditor.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the accreditation body/certification body, accreditation/certification requirements/methodologies specifying criteria for each function. - auditor assessment and training records. - auditor CVs. - audit Reports.
FAO REFERENCE	
<p>Builds from FAO Guidelines paragraph 107, 114 [129, 137] which require that certification is conducted by a body recognized as being competent and reliable by personnel that have the necessary education, training, technical knowledge and experience.</p> <p>ISO-19011 is the global standard for auditor competence ensuring that lead auditors are competent in basic auditing techniques.</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.2 20 SCHEME SPECIFIC KNOWLEDGE ASSESSMENT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires that certification bodies include the following in their competence assessment of auditors:</p> <ul style="list-style-type: none"> - an assessment of knowledge and skills for each fundamental area the auditor will be expected to be working, - an assessment of knowledge of pertinent fishery and /or aquaculture Programs and the ability to access and be able to apply relevant laws and regulations, - an assessment of the personal attributes of the auditor, to ensure they conduct themselves in a professional manner, - a period of supervision to cover the assessment fishery and/or aquaculture principles, specific audit techniques and specific category knowledge, - a documented sign off by the certification body of the satisfactory completion of assessment requirements. 	<p>The Scheme Owner defines the requirement for certification bodies to include in the management of personnel competence (ISO 17065 clause 6.1.2) all of the elements in the <i>Essential Component</i>.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the certification body, accreditation/certification requirements/ methodologies specifying requirement, - guidance outlining the system and criteria for competencies, training, etc. (see B.2.17-B2.19, 21-22), - auditor assessment and training records, - auditor CVs, - accreditation body reports.
FAO REFERENCE	
<p>Builds from FAO Guidelines paragraph 114 [137] which require that personnel are employed that have the necessary education, training, technical knowledge and experience.</p> <p>Assessment of such qualification and competence criteria should be consistent for all certification bodies in order to ensure impartial and accurate certification as required in paragraph 107 [128].</p> <p>The Scheme Owner is the only body that can ensure this consistency by defining rules and regulations under which a certification body or entity is required to operate as required in paragraph [65]. All of the above is in line with principle 2.7 [17.i] of establishing clear accountability and responsibility for Scheme Owners, certification bodies and accreditation bodies.</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.2 21 SCHEME SPECIFIC KNOWLEDGE MAINTENANCE

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner requires that certification body lead auditors maintain category and scheme knowledge.	<p>The Scheme Owner defines the requirement for certification body lead auditors to have and maintain the necessary training, technical knowledge and experience to ensure consistent and accurate audits.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the certification body, accreditation/certification requirements/methodologies specifying requirement, - guidance outlining the system and criteria for lead auditors, - lead auditor assessment and training records, - lead auditor CVs, - accreditation body reports.
FAO REFERENCE	
Builds from FAO Guidelines paragraph 114 [137] which require that personnel are employed that have the necessary education, training, technical knowledge and experience. This <i>Essential Component</i> ensures that lead auditors maintain a minimum level of familiarity with the standard and scheme and therefore maintain the necessary training, technical knowledge and experience.	

B.2 22 KNOWLEDGE MAINTENANCE

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Scheme Owner requires that certification bodies have a continuing professional development program in place that provides auditors with current best practice for fishery and/or aquaculture.	<p>The Scheme Owner defines the requirement for certification body auditor ongoing professional development to maintain current best practice in sector.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the accreditation body/certification body, accreditation/certification requirements/methodologies specifying criteria for continuous professional development, - auditor training, assessment and training records.
FAO REFERENCE	
Builds from FAO Guidelines paragraph 114 [137] which require that personnel are employed that have the necessary education, training, technical knowledge and experience. This requirement supports continued professional development by auditors to maintain their competence and therefore maintain the necessary training, technical knowledge and experience.	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B3 01 SEGREGATION

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires that all certified products are identified and segregated from non-certified products at all stages of the supply chain.</p>	<p>The Scheme Owner requires clear identification and separation of certified from non-certified product at all stages of the supply chain.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - Chain of Custody standards, audit checklists, certification requirements/methodologies specifying requirement. - Chain of Custody audit reports.
FAO REFERENCE	
<p>FAO Guidelines paragraph 135 [155] requires segregation of certified and non-certified products at all key points of transfer.</p>	

B3 02 ENTERPRISES TO BE AUDITED

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires all enterprises that are physically handling the certified product to undergo a Chain of Custody audit by an accredited certification body if the product can be destined for retail sale as a certified, labelled product.</p> <p>Exceptions: No audit is required for storage and distribution of tamper-proof, packaged products.</p>	<p>The Scheme Owner requires all entities in a supply chain that physically handle the product and where there is the possibility of mixing undergo a Chain of Custody audit if the product will be claimed as certified or carry a label. Entities in the supply chain which do not take physical control or only handle storage and distribution in tamper proof packaging need to be identified, but do not require a Chain of Custody audit.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the accreditation body/certification body, certified entity, certification requirements/methodologies defining types of operations and activities that require auditing according to these requirements, - Chain of Custody reports.
FAO REFERENCE	
<p>FAO Guidelines paragraphs 102, 103 and 135 [126, 127 and 155] require certification of chain of custody and implementation of chain of custody procedures at all key points of transfer.</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B3 **03** RECORDS FOR TRACEABILITY

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires certification bodies to verify that all enterprises within the chain maintain accurate and accessible records that allow any certified product or batch of products to be traceable from the point of sale to the buyer.</p>	<p>The Scheme Owner defines the requirement for certification bodies that all entities within the supply chain, including those which may not undergo a Chain of Custody audit (see B.3.02), maintain up to date, complete and accessible records that allow for full traceability of the product along the entire supply chain.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - Chain of Custody standard. - contract/agreement between the Scheme Owner and the certification body, accreditation/certification requirements/ methodologies specifying criteria for document control and maintenance. - auditor checklists.
FAO REFERENCE	
<p>FAO Guidelines paragraph 136 [156] requires the certification body ensures that pertinent chain of custody records are maintained, including all records relating to shipment, receipt and invoicing. This <i>Essential Component</i> provides a tool to trace products through the supply chain.</p>	

B3 **04** SUB-CONTRACTORS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires that enterprises are able to demonstrate that these Chain of Custody requirements are met by the enterprise's subcontractors.</p>	<p>The Scheme Owner ensures that certified entity takes full responsibility that all subcontractors fully meet Chain of Custody requirements and has a system to demonstrate this.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - sub-contract agreements, internal audits. If the Scheme Owner does not allow sub-contracting then this is aligned (as opposed to Not Applicable)
FAO REFERENCE	
<p>Building from FAO Guidelines 135 and 136 [155 and 156] to extend responsibility for Chain of Custody integrity to include sub-contractors. Ensuring integrity of Chain of Custody.</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B3 05 AUDITING METHODS AND FREQUENCY

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner has or requires certification bodies to have documented procedures for auditing methods and frequency of audits that meet the following requirements:</p> <ul style="list-style-type: none"> - certificate validity does not exceed 3 years; - periodicity depends on risk factors - changes to an enterprise's traceability system that are deemed to affect the integrity of the Chain of Custody result in a re-audit (onsite). 	<p>The Scheme Owner has or ensures certification bodies have documented Chain of Custody audit methodologies including: validity of certificate cannot exceed 3 years, frequency of audits takes into consideration risk factors and an onsite audit is required when substantive changes to the certified entities traceability system take place. These are instances where the integrity of the Chain of Custody could be affected such as company mergers, major new markets.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - requirements in the contract/agreement between the Scheme Owner and the certification body, in a separate accreditation manual or for example in certification requirements/methodologies. - guidance interpretation specifying frequency, auditing methods and risk factors, in order to support consistency between certification bodies.
FAO REFERENCE	
<p>FAO Guidelines 137 [157] requires certification bodies have documented procedures for defining auditing methods and periodicity of audits based on risk. This <i>Essential Component</i> supports continued compliance of Chain of Custody enterprises with the Chain of Custody standard, without being overly burdensome.</p>	

B3 06 NON-CONFORMITY/CORRECTIVE ACTIONS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires the certification body to record all identified breaches of the chain of custody, including:</p> <ul style="list-style-type: none"> - an explanation of the factors that allowed the breach to occur; - an explanation of the corrective actions required to ensure that a similar breach does not re-occur; - the time frames for the corrective actions to be completed; and - the date of closing out of the corrective actions and how the problem was solved. 	<p>The Scheme Owner requires of certification bodies to document all breaches of Chain of Custody with explanation of contextual factors, corrective actions, and timeframes for corrective actions, date of closing and resolution.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - certification requirements/methodologies defining requirements of reports, contract or agreement specifying requirements, mandatory template reports. - Chain of Custody audit report.
FAO REFERENCE	
<p>This <i>Essential Component</i> builds from FAO Guidelines paragraph 138 [158] which requires any breach or apparent breach of chain of custody identified during an inspection/audit is explicitly recorded in the audit report together with an explanation of factors that allowed the breach to occur and explanation of corrective actions required. This <i>Essential Component</i> provides a framework for identifying and remediating non-compliances in chain of custody.</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B3 07 AUDIT REPORT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires that certification body audit reports include:</p> <ul style="list-style-type: none"> - the date of the inspection/audit; - the name(s) of the person(s) responsible for the audit and report; - the names and addresses of the sites inspected/audited; - the scope of the inspection/audit; - the non-conformities identified; - the result of at least one mass balance assessment for each product covered by the Chain of Custody audit; and - a conclusion on the conformity of the client with the Chain of Custody requirements. 	<p>The Scheme Owner requires of certification bodies that all Chain of Custody audit reports include all of the elements in the <i>Essential Component</i>.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - certification requirements/methodologies defining requirements of reports, mandatory template reports. - Chain of Custody audit report.
FAO REFERENCE	
<p>FAO Guidelines paragraph 139 and 140 [159 and 160] describe the minimum contents of a Chain of Custody audit report. This <i>Essential Component</i> ensures consistency of audit reports with sufficient information to determine compliance of an enterprise.</p>	

B3 08 AUDIT REPORT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires certification bodies to file reports at their office and to make these reports available to relevant parties upon request.</p>	<p>Certification bodies are required to maintain files of Chain of Custody audit reports (paper or electronic) and make these available upon request to relevant parties, within contractual arrangements with certified entities.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contracts, agreements, certification requirements specify Chain of Custody reports are filed and process for making them available.
FAO REFERENCE	
<p>Builds from and further specifies FAO Guidelines 136 [156], which requires pertinent chain of custody records are maintained. This <i>Essential Component</i> ensures relevant data exists to enable accurate checking through audit process. FAO Guidelines Paragraph 122, 124 [142, 144] requires certification bodies to appropriate document available on request, taking into account confidentiality of information.</p> <p>This supports transparency and empowers stakeholders to better understand how certification decisions were made. This is in line with FAO Principle 2.4, 2.12 and 3 [17.e] which require transparency in all aspects of a certification scheme and communication of truthful information.</p>	

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B3 09 RECORD KEEPING

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The Scheme Owner requires that an enterprise keeps records that demonstrate conformity with the Chain of Custody requirements for a period that:</p> <ul style="list-style-type: none"> - exceeds the shelf life of the certified product; and - exceeds the periodicity between audits 	<p>Certified entity must keep records documenting compliance with Chain of Custody standard requirements at a minimum time that is longer than a. the shelf life of the product and b. time between audits.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - Chain of Custody standard, guidance interpretation and audit checklist that specify document retention policy.
FAO REFERENCE	
<p>Builds from and further specifies FAO Guidelines 136 [156], which requires pertinent chain of custody records are maintained. This <i>Essential Component</i> ensures relevant data exists to enable accurate checking through audit process.</p>	

B3 10 MULTI-SITE CHAIN OF CUSTODY AUDIT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>Where a scheme allows for Chain of Custody certification of multiple sites managed under the control of a single entity, the Scheme Owner defines specific audit procedures that ensure all sites comply with the Chain of Custody certification requirements.</p> <p>Control can include direct ownership, franchises, or where the entity has a signed agreement or contract with each site.</p>	<p>If the Scheme Owner does not allow Chain of Custody of multi-sites (prohibits not that it is not yet developed or exists)- requirement is “Not applicable”. Otherwise, the Scheme Owner defines audit procedure for multi-sites (under control of one entity) and requirements for internal control management system.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - Chain of Custody standard, guidance or checklist specifying procedure and internal control system.
FAO REFERENCE	
<p>Builds from and further specifies FAO Guidelines 137 [157] to specifically address certification of multiple sites managed under the control of a single entity. This requirement extends applicability of Chain of Custody requirements to groups of enterprises, where applicable.</p>	

B3 11 MULTI-SITE CHAIN OF INTERNAL VERIFICATION

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>Where the Scheme Owner allows for multi-site certification, they require that all sites are assessed as part of the internal audit during the period of validity of the certificate.</p>	<p>The Scheme Owner does not allow Chain of Custody of multi-site- requirement is “Not applicable”. Otherwise, the Chain of custody standard requires all sites are assessed as part of the internal audit during the validity period of the certificate.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - standard, guidance interpretation and audit checklist.
FAO REFERENCE	
<p>Builds from and further specifies FAO Guidelines 137 [157] to specifically address certification of multiple sites managed under the control of a single entity. This <i>Essential Component</i> sets intensity of Chain of Custody requirements for groups, where applicable.</p>	

B

GSSI SUPPLEMENTARY COMPONENTS FOR OPERATIONAL MANAGEMENT OF SEAFOOD CERTIFICATION SCHEMES

GSSI Essential Components for Operational Management of Seafood Certification Schemes

► **CERTIFICATION PROCESS**

B.2 05 01 ASSESSMENT METHODOLOGY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The Scheme Owner has a publicly available methodology for calculating minimum audit duration.	A methodology for calculating minimum audit duration is publicly available. Certification bodies implement this methodology. Examples of evidence for scheme alignment: - online methodology, audit schedules, audit reports defined in certification requirements/ methodologies.
REFERENCE	
Adapted from GFSI Guidance Document Version 6.3 – Part II, 3.5.4 and 3.5.5, and ISEAL Assurance Code 6.4.3. Builds further from the principles of the FAO Certification and Ecolabelling Guidelines. Principle 3 [17.d] stipulates that transparency should apply to all aspects of a certification scheme, specifying in principle 2.4 [17.e] the need to include balanced and fair participation by all interested parties.	
RELATED ESSENTIAL COMPONENT	RATIONALE
B.2.05 The Scheme Owner ensures that certification bodies apply a consistent methodology to assess compliance with the standard.	Provides a tool to avoid poor audit quality by ensuring a level of consistency in how audit duration is calculated.

B.2 05 02 ASSESSMENT METHODOLOGY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The Scheme Owner has defined requirements for sampling methodology and frequency that certification bodies are required to follow during the audit.	The Scheme Owner defines the requirements for certification bodies for sampling methodology and frequency of audits. Examples of evidence for scheme alignment: - contract, memorandum of understanding or enforceable agreement between the Scheme Owner and the certification body. - accreditation manual, certification requirements/ methodologies - audit reports - guidance specifying sampling methodology (including what issues to focus on) and sampling frequency, in order to support consistency between certification bodies.
REFERENCE	
Adapted from GFSI Guidance Document Version 6.3 – Part II, 3.5.1 and 3.5.2 and ISEAL Assurance Code 6.4.4. Builds further from the principles of the FAO Certification and Ecolabelling Guidelines. Principle 2.8 [17.h and 17.i] stipulates the need to incorporate reliable, independent auditing and verification procedures. Clearly defined requirements for sampling methodologies and frequencies increase consistency between audits and strengthen reliability of applied procedures.	
RELATED ESSENTIAL COMPONENT	RATIONALE
B.2.05 The Scheme Owner ensures that certification bodies apply a consistent methodology to assess compliance with the standard.	Provides guidance to certification bodies and auditors about what issues to focus on during the audit and how frequently to carry out audits.

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.2 09 01 STAKEHOLDER INPUT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The Scheme Owner requires that the certification body solicits stakeholder input during the audit process.</p>	<p>The Scheme Owner defines this requirement for certification bodies to solicit input from all stakeholders during the certification process.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the certification body, certification requirements/methodologies specifying requirement for mechanism for stakeholder input during certification process, - guidance specifying procedures, - review certification body process for input: publically available information for stakeholder input, public announcements, audit work plans, requests for input, - audit reports with documented stakeholder input.
REFERENCE	
<p>Based on optional good practice according to ISEAL Assurance Code 6.1.4. Builds further from the principles of the FAO Certification and Ecolabelling Guidelines. Principle 3 [17.d] stipulates that transparency should apply to all aspects of a certification scheme, specifying in principle 2.4 the need to include balanced and fair participation by all interested parties.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>B.2.09 The Scheme Owner requires that certification bodies have in place consistent procedures for stakeholders to provide input during the certification process.</p>	<p>Proactive soliciting of stakeholder input encourages and increases scrutiny and transparency in the certification process, adding to the overall credibility.</p>

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.2 09 02 STAKEHOLDER INPUT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>For fisheries, the Scheme Owner requires certification bodies to make publicly available for comment a draft of the full audit report prior to the certification decision (excluding commercially sensitive information), with sufficient time for interested parties to submit comments. The Scheme Owner requires certification bodies to respond to all comments received.</p>	<p>Applicable only to fisheries. For Aquaculture “Not Applicable”. The Scheme Owner defines this requirement for certification bodies to solicit input before a certification decision is made and to respond to all comments. Format and “sufficient” time should be defined that takes into consideration the risk, scope, size and type of stakeholders.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the certification body, certification requirements/methodologies specifying requirement - guidance specifying procedures for determining channel and time - review certification body process for input: publically available information for stakeholder input, public announcements, audit work plans, requests for input, - audit reports with documented stakeholder input, - system for tracking comments and responses.
REFERENCE	
<p>Builds further from the FAO Ecolabelling Guidelines principles. Principle 3 stipulates that transparency should apply to all aspects of a certification scheme, specifying in principle 2.4 the need to include balanced and fair participation by all interested parties.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>B.2.09 The Scheme Owner requires that certification bodies have in place consistent procedures for stakeholders to provide input during the certification process.</p>	<p>Strengthens audit reports by inviting stakeholder input before they are finalized. Supports accountability by requiring certification bodies to respond to comments.</p>

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.2 11 01 SITE AUDIT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The Scheme Owner requires that CBs conduct unscheduled audits.</p>	<p>'Unscheduled' means without significant advance warning. The Scheme Owner defines this requirement for certification bodies to conduct unscheduled (without significant advance warning) or surprise audits. The Scheme Owner defines process for determining audits and methodologies to ensure consistent implementation.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the certification body, - certification requirements/methodologies specifying requirement and conditions for unscheduled audits (e.g. risk, context, complaints received), - guidance specifying procedures and process to ensure consistency, - audit reports.
REFERENCE	
<p>Adapted from GFSI Guidance Document Version 6.3 – Part II 2.5.6. Builds further from the FAO Ecolabelling Guidelines principles. Principle 2.8 stipulates the need to incorporate reliable, independent auditing and verification procedures. Unscheduled audits can increase the reliability of auditing and verification procedures.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>B.2.11 The Scheme Owner requires that the scope of the (re-)certification audit includes a visit to locations pertinent to the scope of the certification.</p>	<p>Provides a mechanism to assess enterprises without a lot of advance warning, to get a more truthful assessment of practices.</p>

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.2 14 01 TRANSPARENCY ON AUDIT REPORTS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>For aquaculture, the Scheme Owner requires Certification Bodies to make summary audit reports available on request after certification has been granted, that include the following information:</p> <ul style="list-style-type: none"> - the date of the inspection/audit; - the name(s) of the person(s) responsible for the audit and report; - the names and addresses of the sites inspected/audited; - the scope of the inspection/audit; - the non-conformities identified; - the result of at least one mass balance assessment for each product covered by the Chain of Custody audit; and - a conclusion on the conformity of the client with the chain of custody requirements. 	<p>Applicable only to Aquaculture. For Fisheries “Not Applicable”. The Scheme Owner defines this requirement for certification bodies to make summary audit reports, after certification has been granted, available upon request that include all of the information defined in the <i>Supplementary Component</i>. If the scheme does not allow mass balance, then that information requirement is considered aligned. Contracts with certified entities should clearly give notice of this requirement.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the certification body, contract with the certification body and certified entity with this requirement, - certification requirements/ methodologies specifying requirement - guidance specifying the information to be included in summary audit reports - certification body website for posted reports.
REFERENCE	
<p>Builds further from FAO Guidelines Paragraph 122, 124 [142, 144] which requires Certification Bodies to appropriate document available on request, taking into account confidentiality of information.</p> <p>This supports transparency and empowers stakeholders to understand the performance of an enterprise. This is in line with FAO Principle 2.4, 2.12 and 3 [17.e] which require transparency in all aspects of a certification scheme and communication of truthful information.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>B.2.14 For aquaculture, the Scheme Owner requires certification bodies to make summary audit reports publicly available (excluding commercially sensitive material) after certification has been granted.</p>	<p>Supports transparency and empowers stakeholders to understand the performance of an enterprise</p>

GSSI Essential Components for Operational Management of Seafood Certification Schemes

B.2 14 02 TRANSPARENCY ON AUDIT REPORTS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>For aquaculture, the Scheme Owner requires certification bodies to make full audit reports on request after certification has been granted, while excluding commercially sensitive information</p>	<p>Applicable only to Aquaculture. For Fisheries “Not Applicable”. The Scheme Owner defines this requirement for certification bodies to make full audit reports, certification has been granted, publically available or upon request. Commercially sensitive information is excluded. Contracts with certified entities should clearly give notice of this requirement.</p> <p>Examples of evidence for scheme alignment:</p> <ul style="list-style-type: none"> - contract/agreement between the Scheme Owner and the certification body, contract with the certification body and certified entity with this requirement, - certification requirements/ methodologies specifying requirement - guidance specifying that making reports available to stakeholders happens in a timely manner - certification body website for posted reports.
REFERENCE	
<p>Builds further from FAO Guidelines Paragraph 122, 124 [142, 144] which requires Certification Bodies to appropriate document available on request, taking into account confidentiality of information.</p> <p>This supports transparency and empowers stakeholders to understand the performance of an enterprise. This is in line with FAO Principle 2.4, 2.12 and 3 [17.e] which require transparency in all aspects of a certification scheme and communication of truthful information.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>B.2.14 For aquaculture, the Scheme Owner requires certification bodies to make summary audit reports publicly available (excluding commercially sensitive material) after certification has been granted.</p>	<p>Supports transparency and empowers stakeholders to understand the performance of an enterprise</p>

C



C.1

AQUATIC ANIMAL HEALTH MANAGEMENT

ELEMENT / GSSI ESSENTIAL COMPONENT	PAGE	GSSI SUPPLEMENTARY COMPONENT	PAGE
Antimicrobial Usage	C.1.01 94		
	C.1.02 95	C.1.02.01 ●●● 120	
		C.1.02.02 ● 121	
Biosecurity	C.1.03 96		
	C.1.04 96		
	C.1.05 97		
	C.1.06 97		
	C.1.07 98		
	C.1.08 98	C.1.08.01 ● 122	
		C.1.08.02 ● 123	
		C.1.08.03 ● 124	
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		C.1.08.06 ● 127	
		C.1.08.07 ● 127	
		C.1.08.08 ●● 128	
Off-farm disease transmission	C.1.09 99		
	C.1.10 99	C.1.10.01 ● 129	
Record keeping	C.1.11 100		

C.2

CHEMICAL AND VETERINARY DRUG USE

ELEMENT / GSSI ESSENTIAL COMPONENT	PAGE	GSSI SUPPLEMENTARY COMPONENT	PAGE
Chemical Usage	C.2.01 101		
	C.2.02 101	C.2.02.01 ●● 130	
		C.2.02.02 ● 130	
Legal compliance	C.2.03 102		

C.4

FEED USE

ELEMENT / GSSI ESSENTIAL COMPONENT	PAGE	GSSI SUPPLEMENTARY COMPONENT	PAGE
Environmental considerations of feed Ingredients	C.4.01 105		
	C.4.02 105		
	C.4.03 106		
	C.4.04 106	C.4.04.01 ●● 133	
		C.4.04.02 ● 134	
		C.4.04.03 ● 135	
		C.4.04.04 ● 136	
		C.4.04.05 ● 137	
		C.4.04.06 ● 138	
		C.4.04.07 ● 139	
Feed biosecurity	C.4.05 107		
	C.4.06 107		
Feeding efficiency	C.4.07 107		
Legal compliance	C.4.08 108		
Record keeping	C.4.09 108		

C.3

ENVIRONMENTALLY RESPONSIBLE INFRASTRUCTURE CONSTRUCTION, WASTE DISPOSAL AND GENERAL STORAGE

ELEMENT / GSSI ESSENTIAL COMPONENT	PAGE	GSSI SUPPLEMENTARY COMPONENT	PAGE
Maintaining good culture and hygienic conditions	C.3.01 103	C.3.01.01 ● 131	
		C.3.01.02 ● 131	
General environmental management	C.3.02 104	C.3.02.01 ● 132	
		C.3.02.02 ● 132	

C.5

IMPACTS ON HABITAT AND BIODIVERSITY

ELEMENT / GSSI ESSENTIAL COMPONENT	PAGE	GSSI SUPPLEMENTARY COMPONENT	PAGE
Benthic habitats	C.5.01 109		
Predator control	C.5.02 109	C.5.02.01 ● 140	
		C.5.02.02 ● 140	
Preventing habitat impacts	C.5.03 110	C.5.03.01 ● 141	
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		C.5.03.03 ● 142	
Sensitive habitat and biodiversity	C.5.04 110	C.5.04.01 ● 143	
		C.5.04.02 ● 144	
		C.5.04.03 ● 145	

C.6

SEED

ELEMENT / GSSI ESSENTIAL COMPONENT	PAGE	GSSI SUPPLEMENTARY COMPONENT	PAGE
Legal compliance	C.6.01 111		
Record keeping	C.6.02 111	C.6.02.01 ●●● 146	
Wild seed	C.6.03 112	C.6.03.01 ● 147	
Hatchery seed	C.6.04 112		
	C.6.05 113	C.6.05.01 ●●● 148	
		C.6.05.02 ● 149	
		C.6.05.03 ●●● 150	
		C.6.05.04 ● 151	

C.7

IMPACTS ON WATER RESOURCES

ELEMENT / GSSI ESSENTIAL COMPONENT	PAGE	GSSI SUPPLEMENTARY COMPONENT	PAGE
Legal compliance	C.8.01 116		
Salinization	C.8.02 116		
Water use	C.8.03 117	C.8.03.01 ● 155	
		C.8.03.02 ● 156	
Water quality	C.8.04 118	C.8.04.01 ● 157	
		C.8.04.02 ● 158	
		C.8.04.03 ● 159	

C.7

SPECIES SELECTION AND ESCAPES

ELEMENT / GSSI ESSENTIAL COMPONENT	PAGE	GSSI SUPPLEMENTARY COMPONENT	PAGE
Escapes	C.7.01 114	C.7.01.01 ● 152	
		C.7.01.02 ● 152	
		C.7.01.03 ● 153	
Genetically modified organisms	C.7.02 115		
Exotic species	C.7.03 115	C.7.03.01 ● 154	

For Section C the GSSI Supplementary Components outline the status of existing practices in seafood certification and how they relate to internationally agreed technical guidelines developed by FAO members since the Code of Conduct was agreed in 1995 and relevant OIE and WHO documents. They can be built on going forward as technical guidelines evolve. Each GSSI Supplementary Component has a rationale to explain the value that alignment with it offers to both schemes and stakeholders.

SOURCE DOCUMENTS

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- The WHO Recommended Classification of Pesticides by Hazard. 2009. www.who.int/ipcs/publications/pesticides_hazard/en/
- Rotterdam Convention Annex III listed chemicals - 2010, see www.pic.int/TheConvention/Chemicals/AnnexIIIChemicals/tabid/1132/language/en-US/Default.aspx



GSSI ESSENTIAL COMPONENTS FOR
AQUACULTURE CERTIFICATION STANDARDS

GSSI Essential Components for Aquaculture Certification Standards

C.1 01 ANTIMICROBIAL USAGE

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that the decision to treat with antimicrobials is made according to the guidance of the OIE Aquatic Animal Health Code (i.e., by the aquatic animal health professional or other relevant competent authority and in response to a diagnosed disease; see Article 6.2.7 of the 2015 Aquatic Animal Health Code).</p>	<p>The standard is expected to prohibit prophylactic usage for growth promotion and require that all antimicrobials are used in response to a diagnosed disease (i.e., by the aquatic animal health professional or other relevant competent authority) and the audit is expected to include a review of suitable evidence (e.g., records of disease testing etc. prescriptions for treatments).</p>
FAO REFERENCE	
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE in its Aquatic Animal Health Code (2015) should be the normative basis for standards, and that farms implement management programs based on these. The Code, while primarily focused on transboundary movements of aquatic animals, also describes common practice for activities related to aquatic animal health, including the use of veterinary drugs. Article 6.2.7 (AAHC 2015) states that <i>“The responsibilities of veterinarians or other aquatic animal health professionals are to carry out a thorough clinical assessment of the aquatic animal(s), including as appropriate: clinical examination, post-mortem examination, bacteriology with culture and sensitivity, and other laboratory tests to arrive at the most definitive diagnosis possible before initiating a specific course of treatment with an antimicrobial agent. Evaluation of environmental factors and husbandry at the production site (e.g. water quality) should be considered as potential primary factors leading to infection and should be addressed prior to prescribing a course of antimicrobial agent treatment. If therapy with an antimicrobial agent is deemed necessary it should be initiated as soon as possible. The selection of the agent should be based on the knowledge and experience of the veterinarian or other aquatic animal health professional authorized to prescribe veterinary medicines. As soon as possible, susceptibility testing of the target microorganism should be used to confirm the choice of treatment. Results of all susceptibility tests should be retained and should be available to the Competent Authority.”</i> Paragraph 23 of the Technical Guidelines on Aquaculture Certification requires antimicrobials are used legally. Paragraph 30 outlines controls on antimicrobial usage, while 52 requires all chemicals are used responsibly to minimize their adverse impacts on the environment.</p> <p>OIE Aquatic Animal Health Code (AAHC) (2015). Article 6.2.7. www.oie.int/index.php?id=171&L=0&htmfile=chapitre_antibio_resp_prudent_use.htm</p>	

GSSI Essential Components for Aquaculture Certification Standards

C.1 02 ANTIMICROBIAL USAGE

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that the application of antimicrobial agents is consistent with the guidelines outlined in Principles for Responsible and Prudent Use of Antimicrobial Agents in Aquatic Animals of the OIE Aquatic Animal Health Code (Articles 6.2.7 and 6.2.8 of the 2015 Code).</p>	<p>The audit is expected to include a review of evidence (such as written records or through interviews) to ensure consistency with OIE guidelines (2015) Article 6.2.7 “The veterinarian or other aquatic animal health professional authorized to prescribe veterinary medicines should indicate precisely to the aquatic animal producer the treatment regime, including the dose, the treatment intervals, the duration of the treatment, the withdrawal period and the amount of antimicrobial agents to be delivered, depending on the dosage and the number of aquatic animals to be treated. The use of antimicrobial agents extra-label/off-label may be permitted in appropriate circumstances in conformity with the relevant legislation” and Article 6.2.8 “Aquatic animal producers should use antimicrobial agents only on the prescription of a veterinarian or other aquatic animal health professional authorized to prescribe veterinary medicines, and follow directions on the dosage, method of application, and withdrawal period.”</p>
FAO REFERENCE	
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE should be the normative basis for standards, and that farms implement management programs based on these. The Aquatic Animal Health Code, while primarily focused on transboundary movements of aquatic animals, also describes common practice for activities related to aquatic animal health, including the use of veterinary drugs: Article 6.2.7 <i>“The veterinarian or other aquatic animal health professional authorized to prescribe veterinary medicines should indicate precisely to the aquatic animal producer the treatment regime, including the dose, the treatment intervals, the duration of the treatment, the withdrawal period and the amount of antimicrobial agents to be delivered, depending on the dosage and the number of aquatic animals to be treated. The use of antimicrobial agents extra-label/off-label may be permitted in appropriate circumstances in conformity with the relevant legislation”</i> and Article 6.2.8 <i>“Aquatic animal producers should use antimicrobial agents only on the prescription of a veterinarian or other aquatic animal health professional authorized to prescribe veterinary medicines, and follow directions on the dosage, method of application, and withdrawal period.”</i> Paragraphs 23 and 52 of the Technical Guidelines on Aquaculture Certification require responsible use of chemicals.</p> <p>OIE Aquatic Animal Health Code (2015). Articles 6.2.7 and 6.2.8. www.oie.int/index.php?id=171&L=0&htmfile=chapitre_antibio_resp_prudent_use.htm.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>C.1 02 01 See page 120</p>	<p>C.1 02 02 See page 121</p>

GSSI Essential Components for Aquaculture Certification Standards

C.1 03 BIOSECURITY

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires that workers employed in husbandry activities have been adequately trained and are aware of their responsibilities in aquatic animal health management practices.	The audit is expected include a review of evidence that relevant workers have been appropriately trained and aware of their responsibilities. Examples of suitable evidence could include suitable training or appropriate qualifications, and interviews with staff. The training of workers may be a component in a broader management system e.g., a health management plan.
FAO REFERENCE	
<p>Paragraph 19 of the Technical Guidelines on Aquaculture Certification requires that the guidelines and standards set by the OIE should be the normative basis for standards. The Aquatic Animal Health Code (2015), while primarily focused on transboundary movements of aquatic animals, also describes common practice for activities related to aquatic animal health, including the use of veterinary drugs. Paragraph 26 of the Technical Guidelines on Aquaculture Certification specifically requires that workers are trained on good aquatic animal health practices.</p> <p>OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/.</p>	

C.1 04 BIOSECURITY

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires that aquatic animals are kept under farming conditions suitable for the species being raised.	The objective of this requirement is to verify that the species is being farmed in the proper environment to maintain its health. Due to the very broad nature of this Essential Component, specific guidance cannot be provided. Expected evidence could include requirements for farm siting (including permitting for the farm site and species), aquatic health plan maintenance, assurance or monitoring aquatic animal health, on-farm water quality and temperature monitoring, etc.
FAO REFERENCE	
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE should be the normative basis for standards, and that farms implement management programs based on these. The Aquatic Animal Health Code (2015), while primarily focused on transboundary movements of aquatic animals, also describes common practice for activities related to aquatic animal health, including the use of veterinary drugs. Paragraph 26 of the Technical Guidelines on Aquaculture Certification specifically requires that workers are trained on good aquatic animal health practices.</p> <p>OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/.</p>	

GSSI Essential Components for Aquaculture Certification Standards

C.1 05 BIOSECURITY

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires the aquaculture facility to establish, implement and maintain appropriate procedures to respond to disease outbreaks, which includes the ability to quarantine the aquatic animal where feasible.	It is expected that disease response procedures would be a component of the aquatic animal health management system. Feasibility of quarantine depends on a combination of species, culture system and production environment. In cases where quarantine is applicable, a review of suitable evidence is expected to demonstrate and verify the ability to contain diseased aquatic animals.
FAO REFERENCE	
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE should be the normative basis for standards, and that farms implement management programs based on these. The Aquatic Animal Health Code (2015), while primarily focused on transboundary movements of aquatic animals, also describes common practice for activities related to aquatic animal health, including the use of veterinary drugs. Paragraph 22 of the Technical Guidelines on Aquaculture Certification specifically references quarantine.</p> <p>OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/.</p>	

C.1 06 BIOSECURITY

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires the aquaculture facility to establish, implement and maintain appropriate procedures and/or systems for the early detection of aquatic animal health issues, which include routine monitoring of stocks and the environment.	<p>Appropriate procedures are expected to include general health/behavioral inspections or testing for specific diseases with suitable monitoring (e.g., regular and including a suitable range of parameters, and of sufficient sample size to identify or anticipate disease outbreaks expeditiously, as well as increased surveillance when potential issues are identified.) Environmental monitoring is expected to include detection of unfavorable environmental quality factors that could adversely affect the health of the aquatic animal (e.g., water temperature and quality).</p> <p>Verification is expected and could include reviews of written records and monitoring results to ensure procedures and/or systems are operational is also expected. This could also be captured in an aquatic health management plan.</p>
FAO REFERENCE	
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE should be the normative basis for standards, and that farms implement management programs based on these. The Aquatic Animal Health Code (2015), while primarily focused on transboundary movements of aquatic animals, also describes common practice for activities related to aquatic animal health, including the use of veterinary drugs. Paragraph 22 of the Technical Guidelines on Aquaculture Certification specifically references routine monitoring.</p> <p>OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/.</p>	

GSSI Essential Components for Aquaculture Certification Standards

C.1 07 BIOSECURITY

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires that mortalities and moribund aquatic animals are routinely collected, where collection is a feasible practice.	GSSI expects this Essential Component to be applied where collection is a feasible function of good management practice (e.g., finfish grow out). Examples where this is not suitable could include where aquatic animals may be too small to effectively collect (e.g., shrimp farming). Record keeping on the numbers of, and reason for, mortalities is expected.
FAO REFERENCE	
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines defined in the OIE Aquatic Animal Health Code should be the normative basis for standards, and that farms implement management programs based on these. The Code, while primarily focused on transboundary movements of aquatic animals, also describes common practice for activities related to aquatic animal health, including the use of veterinary drugs. Removing mortalities is considered part of the requirement for responsible waste disposal in Paragraph 51 of the Technical Guidelines on Aquaculture Certification.</p> <p>OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/.</p>	

C.1 08 BIOSECURITY

GSSI ESSENTIAL COMPONENT	GUIDANCE	
The standard requires the aquaculture facility has operational fish health management practices, specifically favoring effective biosecurity and available vaccines, including introductions and transfers of farmed animals where relevant, which is overseen by an aquatic animal health professional.	It is expected that the standard will contain sufficient elements and/or audit of culture practices for an operational program relative to the scale, species, and production systems covered by the standard's scope, including a focus on disease prevention (e.g. the use of vaccines). The content of the measures are expected to be overseen (but not necessarily full time employment) of an aquatic animal health professional.	
FAO REFERENCE		
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE in its Aquatic Animal Health Code (2015) should be the normative basis for standards, and that farms implement management programs based on these. The Code, while primarily focused on transboundary movements of aquatic animals, also describes common practice for activities related to aquatic animal health, including the use of veterinary drugs.</p> <p>OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/.</p>		
RELATED SUPPLEMENTARY COMPONENTS		
C.1 08 01 See page 122	C.1 08 02 See page 123	C.1 08 03 See page 124
C.1 08 04 See page 125	C.1 08 05 See page 126	C.1 08 06 See page 127
C.1 08 07 See page 127	C.1 08 08 See page 128	

GSSI Essential Components for Aquaculture Certification Standards

C.1 09 OFF-FARM DISEASE TRANSMISSION

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires the aquaculture facility to establish and implement procedures for the disposal of mortalities using appropriate methods that prevent the spread of disease.	Given the nature of this requirement, the standard may appear as a general requirement; however verification that practices are employed is expected. Relevant examples can be found in Articles 4.7.7 and 4.7.8 of the Aquatic Animal Health Code 2015 (see www.oie.int/index.php?id=171&L=0&htmfile=chapitre_aquatic_animal_waste.htm).
FAO REFERENCE	
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE should be the normative basis for standards, and that farms implement management programs based on these. The Aquatic Animal Health Code (2015), while primarily focused on transboundary movements of aquatic animals, also describes common practice for activities related to aquatic animal health, including the use of veterinary drugs.</p> <p>Articles 4.7.7 and 4.7.8 of the OIE Aquatic Animal Health Code 2015. www.oie.int/index.php?id=171&L=0&htmfile=chapitre_aquatic_animal_waste.htm.</p>	

C.1 10 OFF-FARM DISEASE TRANSMISSION

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires the aquaculture facility to establish, implement and maintain appropriate procedures and/or systems to reduce the likelihood of disease and parasite transmission within and between the aquaculture facility and natural aquatic fauna.	<p>Appropriate procedures or systems are expected to address both on farm disease and parasite transfer (such as the ability to quarantine diseased stocks, separating equipment) as well as between the facility and natural fauna (such as disinfection of effluents for diseased stocks, fallowing). The approach taken would be expected to be relevant to the species, production system, scale of production, and legal requirements. Can be “not applicable” with suitable justification provided by the scheme.</p> <p>Where pathogens or parasites are a known concern (for example, sea lice on farmed salmon); Appropriate procedures or systems are expected to include specific requirements or actions defined in the standard or specified by the aquaculture facility through a suitable risk assessment or other evidence such as local or national regulations. Appropriate management measures in these cases could include treatment trigger levels of parasite numbers on the farm-facility or siting requirements that require that the aquaculture facility is located at suitable distances from wild populations.</p> <p>Verification that the management measures are suitable and employed is expected.</p>
FAO REFERENCE	
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE should be the normative basis for standards, and that farms implement management programs based on these. The Aquatic Animal Health Code (2015), while primarily focused on transboundary movements of aquatic animals, also describes common practice for activities related to aquatic animal health, including the use of veterinary drugs. Paragraph 22 specifically addresses the spread of disease between farms and natural fauna.</p> <p>OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>C.1 10 01 See page 129</p>	

GSSI Essential Components for Aquaculture Certification Standards

C.1 11 RECORD KEEPING

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the aquaculture facility maintain records on veterinary drug and chemical usage and the rationale for their use.</p>	<p>Verification that suitable records are maintained is expected. Suitable records are expected to include type, concentration, and dosage, method of administration and withdrawal times of chemicals and veterinary drugs and the rationale for their use.</p>
FAO REFERENCE	
<p>Paragraph 33 of the Technical Guidelines on Aquaculture Certification defines specific requirements for record keeping.</p>	

GSSI Essential Components for Aquaculture Certification Standards

C.2 01 CHEMICAL USAGE

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires the establishment, implementation and maintenance of an appropriate system for the application of chemicals and veterinary drugs.	An appropriate system could conform to the relevant sections of Article 6.2.7 and 6.2.8 of the Aquatic Animal Health Code (2015) (www.oie.int/index.php?id=171&L=0&htmfile=chapitre_antibio_resp_prudent_use.htm) or other suitable reference. The system is expected to ensure that the application of the product follows the instructions of the manufacturer or other competent authority. Verification that the system is operational is also expected.
FAO REFERENCE	
Paragraph 19 of the Technical Guidelines on Aquaculture Certification requires that the guidelines and standards set by the OIE should be the normative basis for standards. The Aquatic Animal Health Code (2015), while primarily focused on transboundary movements of aquatic animals, also describes common practice for activities related to aquatic animal health, including the use of veterinary drugs. OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/ .	

C.2 02 CHEMICAL USAGE

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires appropriate controls for all chemicals, incl. veterinary drugs, that enter the environment (whether already covered by GSSI Essential Components or not) in order to minimize adverse impacts on environmental quality.	It is expected that the standard will require all chemicals used by the aquaculture facility and that will enter the environment are at least used according to the manufacturer's guidance (such as on label requirements or Safety Data Sheets (SDS) or, in the case of veterinary drugs, the guidance of the aquatic animal health professional. In addition, for chemicals that pose a high risk of adverse impacts to environmental quality -- these could be specifically defined by the standard (e.g., copper-based anti-foulant treatments in marine cage aquaculture) or identified through a risk based self-assessment by the farmer (e.g., an environmental risk assessment)-- it is expected that the standard or the risk-assessment will define any necessary additional requirements to minimize the impacts (e.g., EQS limits for copper residues in the benthic environment).
FAO REFERENCE	
Paragraph 52 states that chemicals should be used responsibly to minimize their adverse impacts on the environment and to promote economic viability. Flexibility is required as a wide variety of chemicals are used in aquaculture.	
RELATED SUPPLEMENTARY COMPONENTS	
C.2 02 01 See page 130	C.2 02 02 See page 130

GSSI Essential Components for Aquaculture Certification Standards

C.2 03 LEGAL COMPLIANCE

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the aquaculture facility operates in compliance with relevant national and local laws with regard to the application of chemicals and veterinary drugs.</p>	<p>Verification is expected to include a review evidence to support compliance with relevant laws.</p>
FAO REFERENCE	
<p>Paragraphs 17a, 17b, and 37 of the Technical Guidelines on Aquaculture Certification require Legal compliance.</p>	

GSSI Essential Components for Aquaculture Certification Standards

C.3 01 MAINTAINING GOOD CULTURE AND HYGIENIC CONDITIONS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that the aquaculture facility and its daily operations ensure that good culture and hygienic conditions are maintained.</p>	<p>This is a general Essential Component that covers a range of potential issues depending on the type of production system, species being cultured, and the local environment, and as such there is a need for flexibility in how consistency is achieved. It is expected that the following issues would be addressed and the systems verified to be operational:</p> <ul style="list-style-type: none"> - Appropriate storage of chemicals and fuel (e.g., stored in a lockable, labeled facility, limited access by personnel, leakage prevention - all based on Safety Data Sheets (SDS) (see figure 4.14 of the A Guide to The Globally Harmonized System of Classification and Labeling of Chemicals (GHS), available at: www.osha.gov/dsg/hazcom/ghsguideoct05.pdf) - Appropriate storage of feed (e.g., stored separately from sources of contamination, accurately labeled, keeping medicated and non-medicated feed separated.) - Appropriate pest control (e.g., prevent contamination of feed, chemicals by rodents or insects etc.) - Domestic sewage control/disposal to avoid local contamination - General farm waste (e.g., empty feed bags, household rubbish, food containers etc.).
FAO REFERENCE	
<p>Paragraph 34 of the Technical Guidelines on Aquaculture Certification states that “aquaculture facilities and operations should maintain good culture and hygienic conditions”. Paragraph 29 states that “<i>Where feed is used, aquaculture operations should include procedures for avoiding feed contamination in compliance with national regulations or as determined by internationally agreed standards. Aquaculture operations should use feeds and feed ingredients which do not contain unsafe levels of pesticides, biological, chemical and physical contaminants and/or other adulterated substances. Feed which is manufactured or prepared on the farm should contain only substances permitted by the national competent authorities.</i>” Paragraph 52 states that “<i>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.</i>”</p>	
<p>OSHA (2005). A Guide to The Globally Harmonized System of Classification and Labeling of Chemicals (GHS). www.osha.gov/dsg/hazcom/ghsguideoct05.pdf</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>C.3 01 01 See page 131</p>	<p>C.3 01 02 See page 131</p>

GSSI Essential Components for Aquaculture Certification Standards

C.3 02 GENERAL ENVIRONMENTAL MANAGEMENT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that aquaculture facility infrastructure is appropriately maintained in order to prevent pollution, whether from construction, operation or decommissioning (e.g., including the following requirement:</p> <ul style="list-style-type: none"> - A requirement for derelict or damaged gear to be collected and disposed of responsibly.) 	<p>Given the wide variety of production systems in aquaculture specific guidance cannot be provided and flexibility by the evaluator is required using a risk-based approach. Examples could include the requirement for derelict or damaged gear in shellfish or cage aquaculture to be collected and disposed of responsibly, or for that waste from pond construction is not placed in mangrove forests in shrimp farming. It is expected that specific requirements or risk-based management systems would be required where appropriate, along with suitable verification. These requirements may also be included in other Standards, such as sensitive habitat protection or escape prevention.</p>
FAO REFERENCE	
<p>Paragraph 51 of the Technical Guidelines on Aquaculture Certification states that <i>“Infrastructure construction and waste disposal should be conducted responsibly”</i>.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>C.3 02 01 See page 132</p>	<p>C.3 02 02 See page 132</p>

GSSI Essential Components for Aquaculture Certification Standards

C.4 01 ENVIRONMENTAL CONSIDERATIONS OF FEED INGREDIENTS

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires the aquaculture facility sources feed from a manufacturer that can trace fish meal and fish oil (>1% inclusion) to the species and, at least, to the country of origin.	Verification is expected to include a review of evidence (e.g., documentation, self-declaration by the feed manufacturer). The standard is expected to apply to other relevant marine feed ingredients (e.g., algae, krill, and squid) and to whole fish and fishery byproducts.
FAO REFERENCE	
Paragraph 52 of the Technical Guidelines on Aquaculture Certification requires the responsible use of feed and Paragraph 17g. states that <i>"Aquaculture schemes should promote responsible aquaculture during production as outlined in the FAO Code of Conduct for Responsible Fisheries, in particular Article 9, Aquaculture Development"</i> . Based on Aquaculture Development 5. Use of Wild Fish as Feed in Aquaculture (FAO, 2011) FAO (2009) Feed Ingredients and Fertilizers for Farmed Aquatic Animals. Technical Paper 540. FAO (2011). Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture.	

C.4 02 ENVIRONMENTAL CONSIDERATIONS OF FEED INGREDIENTS

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires the aquaculture facility sources feed from a manufacture that prohibits fishmeal and fish oil from endangered species.	Verification is expected to include a review of evidence (e.g., documentation, self-declaration by the feed manufacturer). The standard is expected to apply to other relevant marine feed ingredients (e.g., algae, krill, and squid) and to whole fish and fishery byproducts. Endangered species are expected to be defined in the Standard, with reference to relevant national listings (e.g., Vietnam's Red Data Book) and/or global listing organizations such as CITES (Appendix 1), IUCN Red List (Categories Critically Endangered (CR), Endangered (EN), Vulnerable (VU)). See www.iucnredlist.org and www.cities.org for more information.
FAO REFERENCE	
Paragraph 52 of the Technical Guidelines on Aquaculture Certification requires the responsible use of feed and Paragraph 17g. states that <i>"Aquaculture schemes should promote responsible aquaculture during production as outlined in the FAO Code of Conduct for Responsible Fisheries, in particular Article 9, Aquaculture Development"</i> . Based on FAO's Aquaculture Development 5. Use of Wild Fish as Feed in Aquaculture (FAO, 2011). FAO (2009) Feed Ingredients and Fertilizers for Farmed Aquatic Animals. Technical Paper 540. FAO (2011). Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture. International Union for Conservation of Nature (IUCN) (2015). Red List. www.iucnredlist.org Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) (2015). www.cities.org	

GSSI Essential Components for Aquaculture Certification Standards

C.4 03 ENVIRONMENTAL CONSIDERATIONS OF FEED INGREDIENTS

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires the aquaculture facility sources feed from a manufacture that prohibits the use of fishmeal and fish oil from illegal, unreported, and unregulated fishing (I.U.U.).	Verification is expected to include a review of evidence (e.g., documentation, self-declaration by the feed manufacturer). The standard is expected to apply to other relevant marine feed ingredients (e.g., algae, krill, and squid) and to whole fish and fishery byproducts.
FAO REFERENCE	
Paragraph 52 of the Technical Guidelines on Aquaculture Certification requires the responsible use of feed and Paragraph 17g. states that <i>“Aquaculture schemes should promote responsible aquaculture during production as outlined in the FAO Code of Conduct for Responsible Fisheries, in particular Article 9, Aquaculture Development”</i> . Based on FAO’s Aquaculture Development 5. Use of Wild Fish as Feed in Aquaculture (FAO, 2011). FAO (2009) Feed Ingredients and Fertilizers for Farmed Aquatic Animals. Technical Paper 540. FAO (2011) Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture.	

C.4 04 ENVIRONMENTAL CONSIDERATIONS OF FEED INGREDIENTS

GSSI ESSENTIAL COMPONENT	GUIDANCE	
The standard requires that the aquaculture facility sources feed from a manufacturer that has a written policy which includes assessment of source fishery status and identification of improvement needs and work plan to deliver improvements. The policy must include a commitment and timeline to source aquaculture and fishery products from responsible/best practice sources, such as those certified a standard benchmarked at minimum consistent with relevant FAO’s ecolabelling guidelines or by identified independent risk assessment.	Verification is expected to include a review of evidence (e.g., documentation, self-declaration by the feed manufacturer). The standard is expected to apply to other relevant marine feed ingredients (e.g., algae, krill, and squid) and to whole fish and fishery byproducts.	
FAO REFERENCE		
Paragraph 52 of the Technical Guidelines on Aquaculture Certification requires the responsible use of feed and Paragraph 17g. states that <i>“Aquaculture schemes should promote responsible aquaculture during production as outlined in the FAO Code of Conduct for Responsible Fisheries, in particular Article 9, Aquaculture Development”</i> . Based on FAO (2011) Aquaculture Development 5. Use of Wild Fish as Feed in Aquaculture. In 2013, three prominent aquaculture certifications identified common practice between there feed ingredient sourcing policies. ASC, GAA, & GLOBALG.A.P. (2013). Joint Statement on Requirements for the Responsible Sourcing of Fishmeal and Fish Oil. FAO (2009). Feed Ingredients and Fertilizers for Farmed Aquatic Animals. Technical Paper 540. FAO (2011). Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture.		
RELATED SUPPLEMENTARY COMPONENTS		
C.4 04 01 See page 133	C.4 04 02 See page 134	C.4 04 03 See page 135
C.4 04 04 See page 136	C.4 04 05 See page 137	C.4 04 06 See page 138
C.4 04 07 See page 139		

GSSI Essential Components for Aquaculture Certification Standards

C.4 05 FEED BIOSECURITY

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard prohibits the use of whole fish as a direct feed source in grow-out.	Verification is expected to include a suitable review of evidence, such as feed use records, visual observation, and financial records in aquaculture industries where this is common practice.
FAO REFERENCE	
Paragraph 52 of the Technical Guidelines on Aquaculture Certification requires the responsible use of feed. Also based on the guidance in FAO (2011) Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture for a preference to avoid trash fish. Wet fish is a highly inefficient method of feed compared to dry feeds; increasing pollution potential. Secondary, wet fish may transmit diseases to the farmed stocks. This is also supported in Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture, Principle 7, to reduce the use of wet fish in aquaculture feed. FAO (2011). Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture.	

C.4 06 FEED BIOSECURITY

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standards prohibit aquatic feed protein from the same species and genus as the species being farmed.	Verification is expected to include a review of evidence (e.g., documentation, self-declaration by the feed manufacturer).
FAO REFERENCE	
Paragraph 52 of the Technical Guidelines on Aquaculture Certification requires the responsible use of feed. This is also supported by FAO (2011) Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture Principle 9.1 <i>“For biosecurity reasons, intraspecies recycling is an unacceptable practice that should be prohibited”</i> . FAO (2011). Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture.	

C.4 07 FEEDING EFFICIENCY

GSSI ESSENTIAL COMPONENT	GUIDANCE
Where applicable, the standard requires that the aquaculture facility has suitable measures in place to ensure that feed is used efficiently at the individual production unit level.	Suitable measures are expected to be part of a wider feed management system, such as the use of feed trays, cameras, pellet sensors, documented records of visual feed response, staff training. Verification that the measures are operational and fit for purpose is also expected.
FAO REFERENCE	
Paragraph 52 of the Technical Guidelines on Aquaculture Certification requires the responsible use of feed. Record keeping is a specific requirement of Paragraph 33.	

GSSI Essential Components for Aquaculture Certification Standards

C.4 08 LEGAL COMPLIANCE

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires that feed, feed additives, feed ingredients, and fertilizers used are compliant with relevant national and local laws	Verification is expected to include a review of evidence (e.g., documentation, self-declaration by the feed manufacturer).
FAO REFERENCE	
Paragraphs 17a, 17b, and 37 of the Technical Guidelines on Aquaculture Certification require Legal compliance.	

C.4 09 RECORD KEEPING

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires that appropriate records are kept on all feed use.	Appropriate records are expected to include feed source, feed Batch/Lot/ID number, date of purchase, feed conversion ratio (FCR), and, where appropriate, feed inclusion percentages of fishmeal and fish oil or a fish in: fish out ratio. Appropriate records are expected to be kept for each individual production unit. Verification of appropriate record keeping and suitable documentation from feed manufacturers is also expected.
FAO REFERENCE	
Paragraph 52 of the Technical Guidelines on Aquaculture Certification requires the responsible use of feed. Record keeping is a specific requirement of Paragraph 33.	

GSSI Essential Components for Aquaculture Certification Standards

C.5 01 BENTHIC HABITATS

GSSI ESSENTIAL COMPONENT	GUIDANCE
For cage production systems, the standard requires appropriate management measures for preventing excessive impacts of aquaculture facility waste on benthic environments.	<p>Appropriate measures for marine cage production systems are expected to consider biological, chemical and physical impacts and additional chemical residues resulting from culture practices. Where relevant, they should conform to ISO 16665. The use of systems combining suitable allowable zones of effect and environmental quality standards of effect are expected. Verification that the measures are operational and fit for purpose is expected. Evidence of the prevention of adverse impacts could include comparisons with baseline conditions, reference locations, or standardized limits with a suitable justification for their use. Where adverse impacts are detected it is expected that appropriate mitigation measures/ remedial action for the identified adverse impacts on the surrounding natural ecosystem are applied.</p> <p>While generally recognized as a marine cage issue, benthic impacts can also occur in freshwater cage systems. The degree of management measures should reflect the degree of potential impacts relative to the environment, production system, species, and size of production.</p>
FAO REFERENCE	
Paragraph 45 of the Technical Guidelines on Aquaculture Certification state <i>“Regular monitoring of on-farm and off-farm environmental quality should be carried out, combined with good record-keeping and use of appropriate methodologies.”</i> Paragraph 46 states <i>“Evaluation and mitigation of the adverse impacts on surrounding natural ecosystems, including fauna, flora and habitats should be carried out.”</i> These Paragraphs are considered in the cage culture context.	

C.5 02 PREDATOR CONTROL

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard prohibits the use of any lethal predator control techniques on endangered species. Exceptions for worker safety and where euthanization is an act of mercy are acceptable and expected.	<p>Verification of the predator controls used, appropriate record keeping, and details of the endangered species in the region of the aquaculture facility are expected. Examples of supporting evidence of non-use could include interview, appropriate signage, and mortality records. Exceptions for worker safety and where euthanization is an act of mercy are acceptable and expected.</p> <p>Endangered species are expected to be defined in the standard, with reference to relevant national listings (e.g., Vietnam’s Red Data Book) and/or global listing organizations such as CITES (Appendix 1), IUCN Red List (Categories Critically Endangered (CR), Endangered (EN), Vulnerable (VU)). See www.iucnredlist.org and www.cities.org for more information.</p>
FAO REFERENCE	
Paragraph 46 of the Technical Guidelines on Aquaculture Certification states <i>“Evaluation and mitigation of the adverse impacts on surrounding natural ecosystems, including fauna, flora and habitats should be carried out.”</i>	
RELATED SUPPLEMENTARY COMPONENTS	
C.5 02 01 See page 140	C.5 02 02 See page 140

GSSI Essential Components for Aquaculture Certification Standards

C.5 03 PREVENTING HABITAT IMPACTS

GSSI ESSENTIAL COMPONENT		GUIDANCE
<p>The standard requires compliance with national and local laws on habitat and biodiversity, including an Environmental Impact Assessment (EIA) where required.</p>		<p>Verification is expected to include review evidence provided by the aquaculture facility to demonstrate legal compliance.</p>
FAO REFERENCE		
<p>This is a stated requirement Paragraph 44 of the Technical Guidelines on Aquaculture Certification “<i>Environmental impact assessments should be conducted, according to national legislation, prior to approval of establishment of aquaculture operations.</i>” Paragraphs 17a, 17b, and 37 of the Technical Guidelines on Aquaculture Certification require Legal compliance.</p>		
RELATED SUPPLEMENTARY COMPONENTS		
C.5 03 01	See page 141	C.5 03 02 See page 141
C.5 03 03	See page 142	

C.5 04 SENSITIVE HABITAT AND BIODIVERSITY

GSSI ESSENTIAL COMPONENT		GUIDANCE
<p>The standard requires that in areas where damage of sensitive habitats has occurred previously and where restoration is possible and effective; restoration efforts will or have resulted in a meaningful amount of restored habitat; either through direct on-farm restoration or by an off-farm offsetting approach. Grandfathering of historical losses is allowed.</p>		<p>It is expected that the standard will define sensitive habitat in context with its scope and an appropriate date to be used prior to which legal impacts can be “grandfathered in” and provide supporting evidence for the date. Verification at the aquaculture facility is expected to include whether restoration is necessary, to what degree (evidence could include maps, aerial photos, satellite images, government certification etc.) and whether that the active restoration is suitable (i.e., will it be successful and restore a suitable area of sensitive habitat).</p>
FAO REFERENCE		
<p>Paragraph 38 states that “<i>Aquaculture certification schemes should encourage restoration of habitats and sites damaged by previous uses in aquaculture.</i>” Paragraph 45 of the Technical Guidelines on Aquaculture Certification state “<i>Regular monitoring of on-farm and off-farm environmental quality should be carried out, combined with good record-keeping and use of appropriate methodologies.</i>” Restoration of high conservation habitats, such as mangrove forests, has become a common part of aquaculture standards, including national and international schemes. Since some aquaculture operations have been in operation for many decades, often before awareness and protection of certain resources, there is suitable justification to allow grandfathering.</p>		
RELATED SUPPLEMENTARY COMPONENTS		
C.5 04 01	See page 143	C.5 04 02 See page 144
C.5 04 03	See page 145	

GSSI Essential Components for Aquaculture Certification Standards

C.6 01 LEGAL COMPLIANCE

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires that all seed is sourced and used in compliance with relevant national and local legal requirements for both the source and destination law.	Verification is expected to include review evidence provided by the aquaculture facility to support compliance with relevant laws. This could include international laws (e.g., CITES) and laws governing introductions and transfers of live aquatic animals.
FAO REFERENCE	
Paragraphs 17a, 17b, and 37 of the Technical Guidelines on Aquaculture Certification require Legal compliance.	

C.6 02 RECORD KEEPING

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires the establishment, implementation and maintenance of an appropriate record keeping system for all seed that is intentionally stocked.	An appropriate records system may include source of the seed, date of purchase, stocking density, vaccination record of the seed, and stocked seed batch identification. Verification is expected to include a review of evidence that the system is operational and fit for purpose.
FAO REFERENCE	
Paragraph 33 of the Technical Guidelines on Aquaculture Certification requires <i>“traceability and record-keeping of farming activities and inputs which impact food safety should be ensured by documenting, inter alia: the source of inputs such as feed, seed, veterinary drugs and antibacterials, additives, chemicals”</i> . Though FAO’s focus is on food safety, traceability and record keeping is also required to verify environmentally focused practices.	
RELATED SUPPLEMENTARY COMPONENTS	
<p>C.6 02 01 See page 146</p>	

GSSI Essential Components for Aquaculture Certification Standards

C.6 03 WILD SEED

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that where the deliberate use of wild seed is justifiable, it is collected in a manner that:</p> <ul style="list-style-type: none"> - Ensures controls are in place so that the collection of seed is not detrimental to the status of the wild target and non-target populations, nor the wider ecosystem. - Avoids the use of environmentally damaging collection practices - Source fishery is regulated by an appropriate authority 	<p>Expected examples of “justifiable use” include where there is a lack of commercially-available hatchery-raised seed, inability/lack of technology to hatchery-raised the farmed species, or passive collection of mollusks. Justification could be offered at the standard or aquaculture facility level.</p> <p>i) Suitable controls are expected to include aspects such as a fishery management plan that limits take to maintain the wild populations (i.e., there is no measurable impact on recruitment levels or the stocks ability to increases (examples include stocks that are under or fully exploited) with appropriate safeguards against excessive bycatch, and prevention of damaging gear types.</p> <p>ii) Examples of environmentally damaging collection practice are expected to include dynamite or poison fishing, habitat impacts.</p> <p>Verification is expected to include the need to provide suitable evidence by the aquaculture facility (e.g., a summary report written by a credible 3rd party on the source fishery, a self-certification by the appropriate management authority, a 3rd party fishery certification that verifies suitable compliance).</p>
FAO REFERENCE	
<p>Paragraph 48 of the Technical Guidelines of Aquaculture Certification states “Where possible, hatchery produced seed should be used for culture. When wild seeds are used, they should be collected using responsible practices”.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>C.6 03 01 See page 147</p>	

C.6 04 HATCHERY SEED

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that the aquaculture facility intentionally stocks hatchery-raised seed unless justification exists otherwise.</p>	<p>Examples of suitable justifiable exclusions are provided in C.6.03. Standards are expected to encourage the use of hatchery raised seed as they become available (e.g. by including a deadline for use to become required in the standard, or a certain percentage of seed needing to come from hatcheries to be met for certification, etc.). Verification is expected to include a review of evidence of the source of seed stocked at the aquaculture facility. In case of production systems and species where only hatchery seed is used (e.g. Atlantic salmon) this GSSI Essential Component can be not applicable.</p>
FAO REFERENCE	
<p>Paragraph 48 of the Technical Guidelines of Aquaculture Certification states “Where possible, hatchery produced seed should be used for culture. When wild seeds are used, they should be collected using responsible practices”.</p>	

GSSI Essential Components for Aquaculture Certification Standards

C.6 05 HATCHERY SEED

GSSI ESSENTIAL COMPONENT	GUIDANCE	
<p>The standard requires that suitable measures are in place to ensure that hatchery-raised seed are free from relevant/important pathogens before stocking for grow-out.</p>	<p>Relevant/important pathogens are expected to include those identified by the aquatic health professional and sources such as the OIE/ transboundary disease lists (See Chapter 1.3 of the Aquatic Animal Health Code 2015 http://www.oie.int/en/international-standard-setting/aquatic-code/access-online/).</p> <p>Verification of suitable measures is expected to include reviews of disease-testing methods, the disease tested for, and the results (including ISO 23893-1:2007), and the vaccination record of the seed. This could form part of the aquatic animal health management plan.</p>	
FAO REFERENCE		
<p>Paragraphs 19, 21, 22 require a basis on OIE's Aquatic Animal Health Code. Paragraph 48 of the Technical Guidelines of Aquaculture Certification states "<i>Where possible, hatchery produced seed should be used for culture. When wild seeds are used, they should be collected using responsible practices</i>". Also based on FAO (2011) Aquaculture Development. 6. Use of Wild Fishery Resources for Capture Based Aquaculture Section 3.2.3 to ensure the minimal and monitored use of wild brood stock in aquaculture.</p> <p>FAO (2011). Aquaculture Development. 6. Use of Wild Fishery Resources for Capture Based Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 6. Rome, FAO. 2011. 81 pp.</p>		
RELATED SUPPLEMENTARY COMPONENTS		
<p>C.6 05 01 See page 148</p>	<p>C.6 05 02 See page 149</p>	<p>C.6 05 03 See page 150</p>
<p>C.6 05 04 See page 151</p>		

GSSI Essential Components for Aquaculture Certification Standards

C.7 01 ESCAPES

GSSI ESSENTIAL COMPONENT	GUIDANCE	
<p>The standard requires that the aquaculture facility establishes, implements, and maintains an appropriate system to minimize the unintentional release or escape of cultured species.</p>	<p>An appropriate system is expected to be based on an evaluation of the likelihood of events and the magnitude of impacts on surrounding environment (where risk assessments are used they met use a suitable scientific method and taking into consideration, siting, culture practices, local environmental conditions, including extreme events, and other relevant uncertainties) according to the precautionary approach and possible impacts on surrounding natural ecosystems, including fauna, flora, and habitat. Specific requirements stated in the standard are acceptable.</p> <p>Verification is expected to include a review of evidence of an operational and fit for purpose system.</p> <p>The system is expected to address the following; relative to the species being farmed and the production system (individual elements can be “Not Applicable” with these considerations).</p> <ul style="list-style-type: none"> i) Measures for escape detection ii) Monitoring for and record keeping of escapes events iii) Suitable training of employees iv) Incident management and infrastructure, including response or recapture measures. v) Regular monitoring and maintenance of the culture system vi) Regular review and failure analysis vii) containment infrastructure 	
FAO REFERENCE		
<p>Supplementary Components on escape prevention are based on Paragraphs 39 and 46 of the Technical Guidelines on Aquaculture Certification which reference the minimizing unintentional release and escape of aquatic animals and that potential impacts and mitigation measures for impacts on biodiversity respectively.</p>		
RELATED SUPPLEMENTARY COMPONENTS		
<p>C.7 01 01 See page 152</p>	<p>C.7 01 02 See page 152</p>	<p>C.7 01 03 See page 153</p>

GSSI Essential Components for Aquaculture Certification Standards

C.7 02 GENETICALLY MODIFIED ORGANISMS

GSSI ESSENTIAL COMPONENT	GUIDANCE
In the case where the culture of GMO organisms is permitted, the standard requires a suitable evaluation of the risk of environmental impacts.	A suitable evaluation is expected to have been performed using an appropriate scientific method that assesses the likelihood of events and the magnitude of impacts, and take into account relevant uncertainties according to the precautionary approach. The evaluation should consider the possible impacts on genetic diversity, aquatic communities and ecosystems. Where ICES Code of Practice on the Introductions and Transfers of Marine Organisms 2005 is relevant, consistency with these requirements on genetically modified organisms (GMO) is also expected. Verification is expected to include a review of supporting evidence.
FAO REFERENCE	
<p>Paragraph 50 of the Technical Guidelines on Aquaculture Certification states <i>“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.”</i> Paragraph 9.3.1, referenced above, states that <i>“States should conserve genetic diversity and maintain integrity of aquatic communities and ecosystems by appropriate management. In particular, efforts should be undertaken to minimize the harmful effects of introducing non-native species or genetically altered stocks used for aquaculture including culture-based fisheries into waters, especially where there is a significant potential for the spread of such non-native species or genetically altered stocks into waters under the jurisdiction of other States as well as waters under the jurisdiction of the State of origin. States should, whenever possible, promote steps to minimize adverse genetic, disease and other effects of escaped farmed fish on wild stocks.”</i> This Essential Component follows FAO’s specific guidance on this issue.</p> <p>FAO (1995). Code of Conduct for Responsible Fisheries.</p> <p>International Council for the Exploration of the Sea (ICES) (2005) ICES Code of Practice on the Introductions and Transfers of Marine Organisms. www.ices.dk/publications/Documents/Miscellaneous%20pubs/ICES%20Code%20of%20Practice.pdf</p>	

C.7 03 EXOTIC SPECIES

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires that all species are farmed in compliance with relevant laws and regulations.	Verification is expected to include review evidence provided by the aquaculture facility to support compliance with relevant laws.
FAO REFERENCE	
<p>Paragraphs 17a, 17b, and 37 of the Technical Guidelines on Aquaculture Certification require Legal compliance.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>C.7 03 01 See page 154</p>	

GSSI Essential Components for Aquaculture Certification Standards

C.8 01 LEGAL COMPLIANCE

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires compliance with all relevant laws regarding water use, water quality, and waste discharge.	Verification is expected to include review evidence provided by the aquaculture facility to support compliance with relevant laws.
FAO REFERENCE	
Paragraphs 17a, 17b, and 37 of the Technical Guidelines on Aquaculture Certification require Legal compliance.	

C.8 02 SALINIZATION

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires that the aquaculture facility establishes, implements, and maintains an appropriate system that addresses the impact of salinization of freshwater resources and the surrounding environment by the aquaculture facility.	An exemption for standards that do not cover land-based saline water systems is expected. Appropriate measures are expected to be based on risk assessments or standardized requirements. Controls could include relevant monitoring of freshwater resources (e.g., groundwater resources, local water bodies, local soils) for salinity changes and measures such as pond-linings, limiting groundwater use and other control techniques. The standard is expected to prohibit the aquaculture facility to contributing to changing freshwater resources and the surrounding environment to saline conditions. Verification is expected to include a review of evidence that the system is operational and fit for purpose, such as a visual inspection of the site.
FAO REFERENCE	
Paragraph 47 of the Technical Guidelines on Aquaculture Certification state <i>“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.”</i>	

GSSI Essential Components for Aquaculture Certification Standards

C.8 03 WATER USE

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>Where appropriate (e.g. land-based freshwater ponds supplied with groundwater and all culture systems where water resources are limiting) the standard requires that the aquaculture facility has appropriate management measures for efficient water use.</p>	<p>This requirement is based on Paragraph 47 of the Technical Guidelines on Aquaculture Certification state <i>“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.”</i> GSSI recognizes that standards for efficient water management and use are not common in many current aquaculture standards. Generally it is expected that this Essential Component will only apply to aquaculture facilities that use land-based freshwater ponds supplied with groundwater and all culture systems where water resources are limiting. An exemption for all other production systems is expected. This can also be “not applicable” for standards that do not cover relevant production systems.</p> <p>Management measures may include a general promotion or awareness of efficient water use or actions that may lead to more efficient use. Where groundwater is used the standard is expected to require that the aquaculture facility establish, implement and maintain an appropriate system to prevent aquifer drawdown and negative impacts on freshwater resources and the surrounding environment caused by the facilities operations. Verification that the system is operational and fit for purpose is expected.</p>
<p>FAO REFERENCE</p>	
<p>Paragraph 47 of the Technical Guidelines on Aquaculture Certification state <i>“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.”</i></p>	
<p>RELATED SUPPLEMENTARY COMPONENTS</p>	
<p>C.8 03 01 See page 155</p>	<p>C.8 03 02 See page 156</p>

GSSI Essential Components for Aquaculture Certification Standards

C.8 04 WATER QUALITY

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires, where appropriate, management measures for effluents to reduce adverse impacts on water quality of water bodies receiving effluents.</p>	<p>Appropriate measures are expected to include.</p> <ol style="list-style-type: none"> 1. Monitoring and recording of effluent or receiving water quality, and which may including key parameters that need to be addressed include, where applicable: <ol style="list-style-type: none"> i) Nutrients – Nitrate/Nitrogen (impacts on seawater) ii) Nutrients – Phosphate/Phosphorous (impacts on freshwater) iii) Dissolved oxygen iv) Salinity v) Suspended Solids vi) pH 2. Defined, aquaculture appropriate, maximum reference points (e.g., general concentration limits or aquaculture facility-specific limits) or mandatory systems (e.g., presence of a suitable filter) are defined to prevent pollution 3. Where reference points are exceeded, the scheme either refuses certification or that mitigation methods are employed and monitored to meet a time bound goal to come into compliance. <p>Verification is expected to include a review of evidence that the system is operational and fit for purpose, including visual inspection of the site. Where effluent concentration limits are used for compliance, independent verification of conformance is also expected.</p> <p>“Where appropriate” is expected to include standards that cover production systems that release effluent that has the potential to impact water quality, e.g., fed/intensive aquaculture in ponds and raceways. An exception for marine cage aquaculture and on or off-bottom shellfish culture is expected.</p>
FAO REFERENCE	
<p>Paragraph 47 of the Technical Guidelines on Aquaculture Certification state <i>“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.”</i> Measures are required to reduce aquaculture facility effluent impacts on surrounding land and water resources. Key criteria are based on common practice in aquaculture standards.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>C.8 04 01 See page 157</p>	<p>C.8 04 02 See page 158</p>
<p>C.8 04 03 See page 159</p>	



GSSI SUPPLEMENTARY COMPONENTS
FOR AQUACULTURE CERTIFICATION STANDARDS

GSSI Supplementary Components for Aquaculture Certification Standards

C.1 02 01 ANTIMICROBIAL USAGE

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard prohibits the use of antimicrobials listed by the World Health Organization (WHO) as highly and critically important to human health.</p>	<p>The audit is expected to include a review of evidence that supports a claim of no listed antimicrobial usage, this could include independent laboratory testing results, reviews of financial records, inspections of offices and chemical storage facilities.</p> <p>The most recent version of the WHO list is the 3rd edition, which can be found at www.who.int/foodsafety/publications/antimicrobials-third/en/.</p>
REFERENCE	
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE should be the normative basis for standards, and that farms implement management programs based on these. The Aquatic Animal Health Code (2015), while primarily focused on transboundary movements of aquatic animals, also describes common practice for activities related to aquatic animal health, including the use of veterinary drugs. Serrano (2005) also highlights the challenges for to antimicrobial usage in aquaculture. This Supplementary Component enhances the controls on antimicrobials by preventing the use of antimicrobials that meet one or both of the following statements “A) <i>An antimicrobial agent which is the sole, or one of limited available therapy, to treat serious human disease or B) Antimicrobial agent is used to treat diseases caused by either: (1) organisms that may be transmitted to humans from non-human sources or, (2) human diseases causes by organisms that may acquire resistance genes from nonhuman sources</i>” (WHO, 2011).</p> <p>World Health Organization (WHO) (2012). Critically important antimicrobials for human medicine – 3rd Rev. www.who.int/food_safety/publications/antimicrobials-third/en/.</p> <p>Serrano (2005). Responsible use of antibiotics in aquaculture. FAO Fisheries Technical Paper 469.</p> <p>OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.1.02 The standard requires that the application of antimicrobial agents is consistent with the guidelines outlined in Principles for Responsible and Prudent Use of Antimicrobial Agents in Aquatic Animals of the OIE Aquatic Animal Health Code (Articles 6.2.7 and 6.2.8 of the 2015 Code).</p>	<p>The development of antimicrobial resistance is a serious problem in human medicine. Using antimicrobials that are important to treat human diseases in aquaculture potentially promotes the spread of resistance to these antimicrobials between bacteria, including those that would affect humans. By prohibiting their use, this risk is reduced.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.1 02 02 ANTIMICROBIAL USAGE

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard prohibits aquatic animals treated with antimicrobials from being labeled with its standard; however, antimicrobial application deemed necessary by an aquatic health professional cannot be withheld from aquatic animals solely to preserve the certification status of the production.</p>	<p>The audit is expected to include a review of evidence that supports a claim of no antimicrobial usage, this could include independent laboratory testing results, reviews of financial records, inspections of offices and chemical storage facilities. The standard is expected to ensure the need to treat aquatic animals is prioritized above the certification status.</p> <p>Where a standard complies with the prohibition on all antimicrobial then it will also be considered in alignment with C.1.01 and C1.02 (and the corresponding inclusion of these in Supplementary Component C.1.08.2). Unlabeled products produced by the certified aquaculture facility are still expected to meet the Essential Components C.1.01 and C1.02 (and the corresponding need for compliance with them in in Supplementary Component C.1.08.3).</p>
REFERENCE	
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE should be the normative basis for standards, and that farms implement management programs based on these. The Aquatic Animal Health Code (2015), while primarily focused on transboundary movements of aquatic animals, also describes common practice for activities related to aquatic animal health, including the use of veterinary drugs. Paragraphs 23 and 52 of the Technical Guidelines on Aquaculture Certification require responsible use of chemicals. Serrano (2005) also highlights the challenges for to antimicrobial usage in aquaculture. OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.1.02 The standard requires that the application of antimicrobial agents is consistent with the guidelines outlined in Principles for Responsible and Prudent Use of Antimicrobial Agents in Aquatic Animals of the OIE Aquatic Animal Health Code (Articles 6.2.7 and 6.2.8 of the 2015 Code).</p>	<p>The development of antimicrobial resistance is a serious problem for both human treatment and aquaculture. Using antimicrobials in aquaculture potentially promotes the spread of resistance to these antimicrobials between bacteria. By prohibiting their use, this risk is addressed. However, aquatic animal health professionals are obligated to act where animals are sick and therefore this indicator should only be applied for species where antimicrobial free production can be performed without a welfare risk or where chain of custody allows for the segregation treated and untreated aquatic animals within the scheme.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.1 08 01 BIOSECURITY

GSSI SUPPLEMENTARY COMPONENT		GUIDANCE
The standard requires the aquaculture facility to appropriately review the Aquatic Health Management Plan.		Verification is expected. Appropriate timing for reviews are expected and could include annual reviews, reviews following specific disease outbreaks or at the end of a production cycle.
REFERENCE		
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE in its Aquatic Animal Health Code should be the normative basis for standards, and that farms implement management programs based on these. Paragraph 22 of the Technical Guidelines on Aquaculture Certification requires that the culture environment is maintained as a means to prevent the spread of disease.</p> <p>OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/.</p>		
RELATED ESSENTIAL COMPONENT		RATIONALE
C.1.08 The standard requires the aquaculture facility has operational fish health management practices, specifically favoring effective biosecurity and available vaccines, including introductions and transfers of farmed animals where relevant, which is overseen by an aquatic animal health professional.		By requiring regular reviews the plan can be kept up to date with any new techniques and the effectiveness of the plan can be reviewed following a disease outbreak. This Supplementary Component leads the farm to improve its plan, and provide better disease management, as time goes on.

GSSI Supplementary Components for Aquaculture Certification Standards

C.1 08 02 BIOSECURITY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires the aquaculture facility to determine the cause of death when losses are significantly greater than expected and the cause is unclear, use laboratory analysis where feasible.</p>	<p>Verification that policies or other systems are in place to respond to these situations is expected.</p>
REFERENCE	
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE should be the normative basis for standards, and that farms implement management programs based on these. The aquatic animal health actions defined in the GSSI Essential Components for this element may be undocumented or fragmented; at the GSSI Supplementary Component level all of the elements of must now be formalized and viewed as one defined and operational plan. Each additional GSSI Supplementary Component reflects enhanced practices designed to enable the prevention, early detection, and management of disease at the individual aquaculture facility level. The increased surveillance and confidence in detection should allow for greater understanding of the spread of disease around the aquaculture facility and possibly aid in identifying novel disease outbreaks and decrease the use of veterinary drugs, which could reduce the frequency and impact of disease outbreaks.</p> <p>OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.1.08 The standard requires the aquaculture facility has operational fish health management practices, specifically favoring effective biosecurity and available vaccines, including introductions and transfers of farmed animals where relevant, which is overseen by an aquatic animal health professional.</p>	<p>Early disease detection and identification, particularly in the event of an exotic disease, is critical to reducing the spread and severity of a disease outbreak. When losses are unclear, laboratory testing may be the only way to appropriately diagnose the cause of losses and the actions necessary to mitigate its impacts. The increased surveillance and confidence in detection should allow for greater understanding of the spread of disease around the aquaculture facility and possibly aid in identifying novel disease outbreaks and decrease the use of veterinary drugs, which could reduce the frequency and impact of disease outbreaks.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.1 08 03 BIOSECURITY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires the aquaculture facility establishes, implements, and maintains a written Aquatic Animal Health Management Plan (AAHMP) which is overseen by an aquatic animal health professional, at a minimum, compliant with the following GSSI-requirements; C.1.01, C.1.02, C.1.03, C.1.04, C.1.05, C.1.06, C.1.07, C.1.08, C.1.09, C.1.10, C.1.11.</p>	<p>Verification that the farm has a written AAHMP, and that the content covers the necessary content and that it is fully in operation and frequently reviewed is expected. Evidence of oversight could include an interview with the health professional or a signature on the documents.</p> <p>Aligned standards will also be considered in alignment with C.1.01, C.1.02, C.1.03, C.1.04, C.1.05, C.1.06, C.1.07, C.1.08, C.1.09, and C.1.10.</p>
REFERENCE	
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE should be the normative basis for standards, and that farms implement management programs based on these. The aquatic animal health actions defined in the Essential Component for this element may be undocumented or fragmented; at the Supplementary Component level all of the elements of must now be formalized and viewed as one defined and operational plan.</p> <p>OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.1.08 The standard requires the aquaculture facility has operational fish health management practices, specifically favoring effective biosecurity and available vaccines, including introductions and transfers of farmed animals where relevant, which is overseen by an aquatic animal health professional.</p>	<p>The aquatic animal health actions defined in the Essential Components for this element may be undocumented or fragmented; at the Supplementary Component level all of the elements of must now be formalized and viewed as one defined and operational plan. By formalizing the plan, the effectiveness of the plan can be determined and the benefits for reducing the severity and frequency of disease outbreaks are likely to be increased.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.1 08 04 BIOSECURITY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>In addition to the written health plan from GSSI Supplementary Component C.1.08.2, the standard also requires the plan to include:</p> <ul style="list-style-type: none"> - An emergency response protocol in the event of an invasive disease, which includes depopulation where appropriate. - A written list of all diseases that the aquatic animals are likely to face during production. - Annual/end of production review and failure analysis. - Where multiple effective chemical treatments are available, while maintaining the compliance with the OIE Prudent Use guidance, there is a rotation to reduce the risk of resistance. 	<p>Verification that the farm has these elements in its written AAHMP is expected.</p>
REFERENCE	
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE should be the normative basis for standards, and that farms implement management programs based on these. The aquatic animal health actions defined in the Essential Component for this element may be undocumented or fragmented; at the Supplementary Component level all of the elements of must now be formalized and viewed as one defined and operational plan.</p> <p>OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.1.08 The standard requires the aquaculture facility has operational fish health management practices, specifically favoring effective biosecurity and available vaccines, including introductions and transfers of farmed animals where relevant, which is overseen by an aquatic animal health professional.</p>	<p>The additional requirements of the Aquatic Health Management Plan should verify that its effectiveness is being reviewed and the plan is updated accordingly. Additional controls are introduced that would verify that the farm has a contingency plan in the event of a novel disease outbreak, this should expedite the responses and potentially could reduce or even eradicate an outbreak of a novel disease. Rotating effective treatments is generally recognized as a technique to reduce resistance of pathogens.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.1 08 05 BIOSECURITY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that the aquatic animals are vaccinated against relevant/important diseases for which vaccines are available and effective against.</p>	<p>Relevant/important pathogens could include those identified by the aquatic animal health professional and sources such as the OIE/ transboundary disease lists. Verification, such as a review of justification by the aquatic animal health professional as to which vaccines could be used and records/receipts for vaccinations is expected.</p>
REFERENCE	
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE should be the normative basis for standards, and that farms implement management programs based on these.</p> <p>OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.1.08 The standard requires the aquaculture facility has operational fish health management practices, specifically favoring effective biosecurity and available vaccines, including introductions and transfers of farmed animals where relevant, which is overseen by an aquatic animal health professional.</p>	<p>Vaccination is an important tool for reducing the severity of disease outbreaks and the spread of disease. Vaccines are increasingly becoming available in aquaculture though their uptake may be limited by access, application, cost, risk, and perceived effectiveness. The standard verifies that effective vaccinations are used.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.1 08 06 BIOSECURITY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires the aquaculture facility to establish, implement, and maintain a written plan for improving survival rate (or similar system that incorporates survival rates (e.g., recovery rate)), including defined annual targets.	Verification that a written plan exists and that includes actions directed at increasing the survival rate (such as increasing vaccination, biosecurity, water quality etc.) and that suitable records are kept on survival rate and the factors being considered in the plan, and that the plan is operational (e.g. by interview) is expected. Aligned standards will also be considered in alignment with C.1.08.01.
REFERENCE	
Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE should be the normative basis for standards, and that farms implement management programs based on these. OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/ .	
RELATED ESSENTIAL COMPONENT	RATIONALE
C.1.08 The standard requires the aquaculture facility has operational fish health management practices, specifically favoring effective biosecurity and available vaccines, including introductions and transfers of farmed animals where relevant, which is overseen by an aquatic animal health professional.	Survival rates can be used as performance based metrics to reflect the effectiveness of the disease management systems. This GSSI Supplementary Component shows that the farm understands its current performance and is committed to improving it, this will have additional environmental benefits including reduced the severity of disease outbreaks and improving feed efficiencies.

C.1 08 07 BIOSECURITY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires suitable performance based metric limits on survival rate (or similar system that incorporates survival rates (e.g. recovery rate)) or similar criteria that demonstrate that the aquatic health management practices are effective.	A suitable performance based metric limit could include those set on a species specific basis using industry average data (e.g., a minimal % relative to say industry average data) or based on farm monitoring records. Other possible criteria may include metric limits on veterinary drug usage. Verification that the metric limits have been met and set based on a suitable monitoring and record keeping system is expected. Aligned standards will also be considered in alignment with C.1.08.02 and C.1.08.6.
REFERENCE	
Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE should be the normative basis for standards and, that farms implement management programs based on these. OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/ .	
RELATED ESSENTIAL COMPONENT	RATIONALE
C.1.08 The standard requires the aquaculture facility has operational fish health management practices, specifically favoring effective biosecurity and available vaccines, including introductions and transfers of farmed animals where relevant, which is overseen by an aquatic animal health professional.	By meeting a performance based metric for survival rate the standard verifies that the farm has an effective biosecurity system.

GSSI Supplementary Components for Aquaculture Certification Standards

C.1 08 08 BIOSECURITY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires a legally binding, appropriately defined, and operational area management system is in place that ensures that all participant aquaculture facilities use common and, where applicable, coordinated practices for the shared management of aquatic animal disease risk.</p>	<p>Not applicable where the aquaculture facility is physically or sufficiently isolated that disease transfer is highly unlikely.</p> <p>Common practices for the shared management of aquatic animal disease risk are expected to include suitable requirements to prevent disease outbreaks, share disease status information, and, where appropriate, coordinate response actions in the presence of a disease, such as the use of veterinary drugs. Requirements are expected to be enforced through an agreement with the regulator or legally binding agreement of the producers in the area (e.g. an MOU or similar document).</p> <p>An appropriately defined area is expected to have boundaries that are defined according to the ability to realistically manage aquatic disease risk within it.</p> <p>Verification is expected to include a review evidence of the presence of the system and the common and coordinated practices applied (e.g., such as written records, meeting notes, contractual agreements and/or interviews).</p>
REFERENCE	
<p>Paragraph 17j of the Technical Guidelines on Aquaculture Certification requires the promotion of cooperation between farmers. Formal area management systems (AMS) should incorporate the guidance outlined in paragraphs 19, 21, 23, and 52 to ensure the aquatic animal health system within the AMS is based on OIE guidance and on Principle 1 of the Technical Guidelines on the Ecosystem Approach to Aquaculture. The formal AMS system aims at greatly reducing disease outbreaks and impacts by the collaborative management across all farms within the AMS.</p> <p>Aquaculture Development. 4. Ecosystem Approach to Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 4. Rome, FAO. 2010. 53p.</p> <p>OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.1.08 The standard requires the aquaculture facility has operational fish health management practices, specifically favoring effective biosecurity and available vaccines, including introductions and transfers of farmed animals where relevant, which is overseen by an aquatic animal health professional.</p>	<p>Disease outbreaks are a limiting factor to the further growth of aquaculture. While maintaining farm level biosecurity practices reduces the chance of disease appearing on an individual farm, that farm system may still be reliant on shared resources such as water bodies. By working together to address the cumulative risk and spread of disease farms within the AMS boundary have the potential to great reducing the severity of disease outbreaks.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.1 10 01 OFF-FARM DISEASE TRANSMISSION

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>Where the production system allows the discharge of parasites that are a known concern to local wildlife, the standard requires monitoring and adapting farming practices based on trigger limits of relevant parasite numbers on wild fish where this is feasible.</p>	<p>Examples of pathogens or parasites that are a known concern include sea lice on farmed salmon; appropriate practices could be specified in the standard or a suitable risk assessment or other justification could be given to determine whether or not this Supplementary Component is applicable.</p> <p>The certification scheme or standard is expected to address the monitoring of pathogen or parasite numbers on wild fish or a similar system that is likely to be effective at finding evidence of impact if it's occurring (possibly performed by third parties or government), and that appropriate trigger limits (e.g., expert opinions, scientific literature) and adaptive management plans exist and are employed to reduce the pressure on wild populations (such as by treating fish, fallowing, etc.).</p> <p>Verification that the system is operational is also expected.</p> <p>Aligned standards will also be considered in alignment with C.1.10</p>
REFERENCE	
<p>Paragraphs 19, 20, & 22 of the Technical Guidelines on Aquaculture Certification require that the guidelines and standards set by the OIE should be the normative basis for standards, and that farms implement management programs based on these. The Aquatic Animal Health Code, while primarily focused on transboundary movements of aquatic animals, also describes common practice for activities related to aquatic animal health, including the use of veterinary drugs. Paragraph 22 specifically addresses the spread of disease between farms and natural fauna. Aquaculture facilities have the potential to introduce and locally amplify parasites numbers above those generally found in the wild. With a few exceptions, these issues remain poorly understood or studied. However, where these issues are known, these Supplementary Components verify that the issue is managed based on indicators of impacts on wild populations.</p> <p>OIE Aquatic Animal Health Code (2015). www.oie.int/international-standard-setting/aquatic-code/.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.1.10 The standard requires the aquaculture facility to establish, implement and maintain appropriate procedures and/or systems to reduce the likelihood of disease and parasite transmission within and between the aquaculture facility and natural aquatic fauna.</p>	<p>Aquaculture facilities have the potential to introduce and locally amplify parasite numbers above those generally found in the wild. With a few exceptions, these issues remain poorly understood or studied. However, where these issues are known, these indicators verify that the degree of impact on wild populations is being managed.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.2 02 01 CHEMICAL USAGE

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard prohibits chemicals used on the aquaculture facility and that may enter the local environment due to farming practices that are listed as highly polluting by relevant organizations or other justification.	<p>Relevant organizations could include the World Health Organization listed 1a and 1b pesticides (see www.who.int/ipcs/publications/pesticides_hazard_2009.pdf?ua=1) and the Rotterdam Convention Annex III listed chemicals (see www.pic.int/TheConvention/Chemicals/AnnexIIIChemicals/tabid/1132/language/en-US/Default.aspx).</p> <p>Verification is expected to include a review of evidence supporting the claim of no use, such as inspection of the chemical storage, interviews etc.</p>
REFERENCE	
<p>Paragraph 52 of the Technical Guidelines on Aquaculture Certification states that chemicals should be used responsibly to minimize their adverse impacts on the environment and to promote economic viability. Chemicals available to aquaculture vary from one country to another. Several organizations exist, including international organizations, to dissuade the use of certain particularly polluting chemicals. These Supplementary Components enhance the Essential Components by further limiting the type of chemicals that can be used on the aquaculture facility, irrespective if its use is permitted under national regulations.</p> <p>The WHO Recommended Classification of Pesticides by Hazard. 2009.</p> <p>Rotterdam Convention Annex III Listed Chemicals (see www.pic.int/TheConvention/Chemicals/AnnexIIIChemicals/tabid/1132/language/en-US/Default.aspx).</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
C.2.02 The standard requires appropriate controls for all chemicals, incl. veterinary drugs, that enter the environment (whether already covered by <i>Essential Components</i> or not) in order to minimize adverse impacts on environmental quality.	Chemicals available to aquaculture vary from one country to another. Several organizations exist, including international organizations, to dissuade the use of certain particularly polluting chemicals. These Supplementary Components enhance the Essential Components by further limiting the type of chemicals that can be used on the aquaculture facility, irrespective if its use is permitted under national regulations.

C.2 02 02 CHEMICAL USAGE

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires that chemicals used on the aquaculture facility, and that may enter the local environment, are restricted to identified environmentally benign products (e.g., rapidly denaturing chemicals), with a suitable justification for their listing as benign.	<p>Suitable justification is expected to include scientific literature or product description. Verification, including a review of evidence supporting the claim, such as inspection of the chemical storage, interviews is also expected.</p> <p>Aligned standards will also be considered in alignment with C.2.02.1</p>
REFERENCE	
<p>Paragraph 52 of the Technical Guidelines on Aquaculture Certification states that chemicals should be used responsibly to minimize their adverse impacts on the environment and to promote economic viability. Chemicals available to aquaculture vary from one country to another. Several organizations exist, including international organizations, to encourage the use of certain chemicals with minimal potential for environmental damage.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
C.2.02 The standard requires appropriate controls for all chemicals, incl. veterinary drugs, that enter the environment (whether already covered by <i>GSSI Essential Components</i> or not) in order to minimize adverse impacts on environmental quality.	Chemicals available to aquaculture vary from one country to another. Several organizations exist, including international organizations, to encourage the use of certain chemicals with minimal potential for environmental damage.

GSSI Supplementary Components for Aquaculture Certification Standards

C.3 01 01 MAINTAINING GOOD CULTURE AND HYGIENIC CONDITIONS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires the presence of an active and documented recycling program.	The system is expected to ensure the farm recycles to the maximum extent practicable.
REFERENCE	
Paragraph 51 of the Technical Guidelines on Aquaculture Certification states that <i>“Infrastructure construction and waste disposal should be conducted responsibly”</i> .	
RELATED ESSENTIAL COMPONENT	RATIONALE
C.3.01 The standard requires that the aquaculture facility and its daily operations ensure that good culture and hygienic conditions are maintained.	The benefits of recycling are well known but may not be seen as a high priority on aquaculture farms. The standard verifies that all recyclable waste is recycled.

C.3 01 02 MAINTAINING GOOD CULTURE AND HYGIENIC CONDITIONS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires the aquaculture facility to establish, implement and maintain a general waste management system.	An appropriate system is expected to include a baseline of waste generation and actions aimed at reductions, and suitable monitoring. Verification is expected to include a review of evidence that the system is operational and fit for the purpose.
REFERENCE	
Paragraph 51 of the Technical Guidelines on Aquaculture Certification states that <i>“Infrastructure construction and waste disposal should be conducted responsibly”</i> .	
RELATED ESSENTIAL COMPONENT	RATIONALE
C.3.01 The standard requires that the aquaculture facility and its daily operations ensure that good culture and hygienic conditions are maintained.	Controlling waste results a more efficient, cleaner, and more hygienic farming system.

GSSI Supplementary Components for Aquaculture Certification Standards

C.3 02 01 GENERAL ENVIRONMENTAL MANAGEMENT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires energy use to be monitored and recorded (e.g. total fuels or energy).	Verification is expected to include a review of evidence that energy use is being appropriately monitored and recorded using appropriate methods.
REFERENCE	
Paragraphs 39 and 40 of the Technical Guidelines on Aquaculture Certification look holistically at aquaculture impacts and the need to encourage improvement and innovation in the environmental performance of aquaculture.	
RELATED ESSENTIAL COMPONENT	RATIONALE
C.3.02 The standard requires that aquaculture facility infrastructure is appropriately maintained in order to prevent pollution, whether from construction, operation or decommissioning (e.g. including the following requirements: - A requirement for derelict or damaged gear to be collected and disposed of responsibly.	The environmental impacts associated with energy use, such as greenhouse gas emissions, are well known but have rarely been considered in aquaculture. The aquaculture facility is required to pay attention to its energy use through monitoring.

C.3 02 02 GENERAL ENVIRONMENTAL MANAGEMENT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires the aquaculture facility to establish, implement and maintain an appropriate system to improve energy efficiency.	An appropriate system is expected to include a baseline of energy use per unit of production, and actions aimed at increasing efficiency, and suitable monitoring and revision of the system. Verification that the system is operation and fit for purpose is also expected. Aligned standards will also be considered in alignment with C3.02.1
REFERENCE	
Paragraphs 39 and 40 of the Technical Guidelines on Aquaculture Certification look holistically at aquaculture impacts and the need to encourage improvement and innovation in the environmental performance of aquaculture.	
RELATED ESSENTIAL COMPONENT	RATIONALE
C.3.02 The standard requires that aquaculture facility infrastructure is appropriately maintained in order to prevent pollution, whether from construction, operation or decommissioning (e.g., including the following requirements: - A requirement for derelict or damaged gear to be collected and disposed of responsibly. - A requirement for derelict or damaged gear to be collected and disposed of responsibly.	The aquaculture facility is required to actively reduce its energy consumption and the environmental issues, such as greenhouse gas emissions, associated with it.

GSSI Supplementary Components for Aquaculture Certification Standards

C.4 04 01 ENVIRONMENTAL CONSIDERATIONS OF FEED INGREDIENTS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires independent verification that the feed manufacturer that sources, for whole fish ingredients greater than 1% content;</p> <ul style="list-style-type: none"> - fishmeal and fish oil that are traceable back to the species, fishery and country of origin, and - fishmeal and fish oil with less risk of detrimental environmental impacts, such as those certified a standard benchmarked at minimum consistent with relevant FAO's ecolabelling guidelines and that uncertified sources must be identified as low risk by independent risk assessment or must come from sources that are part of an effective Fishery Improvement Project (FIP) towards a suitable certification or that have been assessed to show limited impacts on stock status and ecosystem impacts as defined in Principle 3 of the FAO (2011). Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture. 	<p>Verification is expected to include a 3rd party certification or audit of the feed manufacturer. The standard is expected to apply to other relevant marine feed ingredients (e.g., algae, krill, and squid) and to whole fish.</p> <p>Effective FIPs could be those consistent with the Conservation Alliance for Seafood Solutions (2015). Guidelines for Supporting Fishery Improvement Projects. www.solutionsforseafood.org/wp-content/uploads/2015/03/Alliance-FIP-Guidelines-3.7.15.pdf</p> <p>Aligned standards will also be considered in alignment with C.4.01, C.4.02, C.4.03, and C.4.04</p>
REFERENCE	
<p>Paragraph 52 of the Technical Guidelines on Aquaculture Certification requires the responsible use of feed. Also based on the environmentally relevant criteria in Aquaculture Development 5. Use of Wild Fish as Feed in Aquaculture (FAO, 2011) Principles 1-3 which specifically details the promotion of fish from certified fisheries and Principle 7.5 which details that <i>"Feed manufacturers and suppliers should be held responsible to declare the source and type of all raw materials used in feed manufacture and the final nutritional composition."</i></p> <p>FAO (2011). Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture.</p> <p>Conservation Alliance for Seafood Solutions (2015). Guidelines for Supporting Fishery Improvement Projects. www.solutionsforseafood.org/wp-content/uploads/2015/03/Alliance-FIP-Guidelines-3.7.15.pdf</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.4.04 The standard requires that the aquaculture facility sources feed from a manufacturer that has a written policy which includes assessment of source fishery status and identification of improvement needs and work plan to deliver improvements. The policy must include a commitment and timeline to source aquaculture and fishery products from responsible/best practice sources, such as those certified a standard benchmarked at minimum consistent with relevant FAO's ecolabelling guidelines or by identified independent risk assessment.</p>	<p>Third party audits of feed mill ingredient sourcing practices provide additional assurance that stated goals are being met. The Supplementary Components on sourcing marine feed ingredients are now focused towards more responsible sourcing and builds on the Essential Components which require the avoidance of environmentally damaging sources.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.4 04 02 ENVIRONMENTAL CONSIDERATIONS OF FEED INGREDIENTS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires independent verification that the feed manufacturer only sources fishmeal and fish oil (greater than 1% content) from whole fish certified a standard benchmarked to be, at minimum, consistent with relevant FAO's ecolabelling guidelines.</p>	<p>Verification is expected to include a 3rd party certification or audit of the feed manufacturer. The standard is expected to apply to other relevant marine feed ingredients (e.g., algae, krill, and squid) and to whole fish.</p> <p>Aligned standards will also be considered in alignment with C.4.01, C.4.02, C.4.03, C.4.04, and C.4.04.1</p>
REFERENCE	
<p>Paragraph 52 of the Technical Guidelines on Aquaculture Certification requires the responsible use of feeds. Based on the eventual goal of FAO (2011). Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture, Principle 1: Aquaculture should utilize resources from sustainably managed fisheries as defined by the FAO. This Supplementary Component builds on the Essential Components by verifying feed mill sourcing practices and assurance that aquatic ingredients are conforming to FAO's Code of Conduct for Responsible Fisheries.</p> <p>FAO (2011). Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.4.04 The standard requires that the aquaculture facility sources feed from a manufacturer that has a written policy which includes assessment of source fishery status and identification of improvement needs and work plan to deliver improvements. The policy must include a commitment and timeline to source aquaculture and fishery products from responsible/best practice sources, such as those certified a standard benchmarked at minimum consistent with relevant FAO's ecolabelling guidelines or by identified independent risk assessment.</p>	<p>Third party audits of feed mill ingredient sourcing practices provide additional assurance that stated goals are being met.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.4 04 03 ENVIRONMENTAL CONSIDERATIONS OF FEED INGREDIENTS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires independent verification that the feed manufacturer only sources terrestrial feed ingredients (greater than 1% content) that are certified to an ecolabel or risk assessed not to present significant environmental impacts.</p>	<p>Verification is expected to include a 3rd party certification or audit of the feed manufacturer.</p> <p>Examples of ecolabels in terrestrial feed ingredients include the Roundtable for sustainable soy and the Roundtable for sustainable palm oil. Accepted ecolabels are expected to have met credibility thresholds for content and process requirements relevant to the industry they represent (examples could include full ISEAL members, ISO Guidelines or other FAO Guidelines).</p> <p>Risk assessment may include, but is not limited to: (For plants) sensitive habitat protection, run-off (nutrients), chemicals, water use, predator/ pest controls, and legal compliance. (For Animals): Antimicrobials, disease prevention, feed efficiency and ingredients, waste.</p>
REFERENCE	
<p>Paragraph 52 of the Technical Guidelines on Aquaculture Certification requires the responsible use of feeds. Also based on the intent outlined in Hasan and Halwart (2009) that encourage sustainably sourced terrestrial feed ingredients.</p> <p>Hasan and Halwart (2009). Fish as Feed Inputs for Aquaculture: Practices, Sustainability and Implications. FAO Fisheries and Aquaculture Technical Paper. No. 518. Rome, FAO. 2009. 407p.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.4.04 The standard requires that the aquaculture facility sources feed from a manufacturer that has a written policy which includes assessment of source fishery status and identification of improvement needs and work plan to deliver improvements. The policy must include a commitment and timeline to source aquaculture and fishery products from responsible/best practice sources, such as those certified a standard benchmarked at minimum consistent with relevant FAO's ecolabelling guidelines or by identified independent risk assessment.</p>	<p>Like aquatic feed ingredients, the production of terrestrial feed ingredients may have serious environmental impacts, such as the use of chemicals or removal of sensitive habitats. This indicator shows the feed mill's responsible sourcing practices also cover terrestrial ingredients further addressing the environmental impact of feed.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.4 04 04 ENVIRONMENTAL CONSIDERATIONS OF FEED INGREDIENTS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires the efficient use of fishmeal and fish oil relative to the production system and the species being farmed.</p>	<p>Suitable approaches are expected to include setting a suitable maximum Fish in: Fish Out Ratios, FFDRm (Forage Fish Dependency Ratio for Fish Meal) and FFDRo (Forage Fish Dependency Ratio for Fish Oil), or other calculations which reflect the importance of limited wild-harvested aquatic resources, this could include be species specific performance based metric limits. Consideration for extreme events (such as disease or escapes) is permissible. The standard is expected to apply to other relevant marine feed ingredients, such as from squid and krill. Verification is expected to include compliance at the aquaculture facility level.</p> <p>Where fishmeal and fish oil are used in feed, aligned standards will also be considered in alignment C.4.07</p>
REFERENCE	
<p>Paragraph 52 of the Technical Guidelines on Aquaculture Certification requires the responsible use of feed. Also based on FAO (2011). Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture, Principle 2.4 which states that <i>“where aquaculture operations are dependent upon fish for feed, research and development programs that aim to reduce this dependence should be promoted.”</i> The Supplementary Components build on the Essential Components by limiting the total amounts of aquatic resources used in certified aquaculture facilities.</p> <p>FAO (2011). Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.4.04 The standard requires that the aquaculture facility sources feed from a manufacturer that has a written policy which includes assessment of source fishery status and identification of improvement needs and work plan to deliver improvements. The policy must include a commitment and timeline to source aquaculture and fishery products from responsible/best practice sources, such as those certified a standard benchmarked at minimum consistent with relevant FAO’s ecolabelling guidelines or by identified independent risk assessment.</p>	<p>Aquatic resources are limited resources and have, for the most part, been fully exploited meaning that there is a finite limit of these for the aquaculture industry. Using these valuable resources efficiently is therefore an important environmental goal, by setting stringent metric limits to the amount of aquatic resources being used to produce the aquaculture product, the scheme promotes efficiency and thereby potentially increasing the amount of seafood that could be produced using aquatic resources.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.4 04 05 ENVIRONMENTAL CONSIDERATIONS OF FEED INGREDIENTS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that the aquaculture facility sources feed from a manufacturer that assures the fish meal and fish oil used in the production of from aquaculture trimmings (if greater than 1% inclusion) can also be traceable back to the origin fishery and does not come from illegal, unreported, and unregulated fishing (I.U.U.) and does not contain species on the IUCN red list. The standard is expected to apply to other relevant marine feed ingredients, such as from squid and krill.</p>	<p>Verification is expected to include a 3rd party certification or audit of the feed manufacturer. The standard is expected to apply to other relevant marine feed ingredients, such as from squid and krill.</p> <p>Verification of the use of compliant feed by the aquaculture facility is expected. Suitable evidence of compliance could include document evidence of sources supplying the feed mill, 3rd party certifications of source aquaculture facilities and/or rendering plants, legal permits or declarations etc.</p>
REFERENCE	
<p>Paragraph 52 of the Technical Guidelines on Aquaculture Certification requires the responsible use of feeds. This Supplementary Component builds on the Essential Components by verifying that the standards add environmental sourcing criteria for fishery byproducts in feeds.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.4.04 The standard requires that the aquaculture facility sources feed from a manufacturer that has a written policy which includes assessment of source fishery status and identification of improvement needs and work plan to deliver improvements. The policy must include a commitment and timeline to source aquaculture and fishery products from responsible/best practice sources, such as those certified a standard benchmarked at minimum consistent with relevant FAO's ecolabelling guidelines or by identified independent risk assessment.</p>	<p>The trimmings from the processing of fishery and aquaculture products are sometimes used in aquaculture feeds. This Supplementary Component avoids the use of egregious fishing activity in feed ingredients used to produce the initial product and further dissuades fisheries from these practices.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.4 04 06 ENVIRONMENTAL CONSIDERATIONS OF FEED INGREDIENTS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that the aquaculture facility sources feed from a manufacturer that assures the fishmeal and fish oil used from byproducts (if greater than 1% inclusion) come from fishery and aquaculture sources that were certified a standard benchmarked to be, at minimum, consistent with relevant FAO's ecolabelling guidelines.</p>	<p>Verification is expected to include a 3rd party certification or audit of the feed manufacturer. The standard is expected to apply to other relevant marine feed ingredients, such as from squid and krill.</p> <p>Verification of the use of compliant feed by the aquaculture facility is expected. Suitable evidence is expected to include document evidence of sources 3rd party certification and the independent verification that these certifications are compliant with FAO Guidelines.</p> <p>Aligned standards will also be considered in alignment with C.4.04.05</p>
REFERENCE	
<p>Paragraph 52 of the Technical Guidelines on Aquaculture Certification requires the responsible use of feeds. This Supplementary Component builds on the Essential Components by verifying that the standards add environmental sourcing criteria for aquaculture byproducts in feeds.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.4.04 The standard requires that the aquaculture facility sources feed from a manufacturer that has a written policy which includes assessment of source fishery status and identification of improvement needs and work plan to deliver improvements. The policy must include a commitment and timeline to source aquaculture and fishery products from responsible/best practice sources, such as those certified a standard benchmarked at minimum consistent with relevant FAO's ecolabelling guidelines or by identified independent risk assessment.</p>	<p>The trimmings from the processing of fishery and aquaculture products are sometimes used in aquaculture feeds. This Supplementary Component ensures the sources of the trimmings came from sources that are appropriately certified to further reduce environmental impacts.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.4 04 07 ENVIRONMENTAL CONSIDERATIONS OF FEED INGREDIENTS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires a legally binding, appropriately defined, and operational area management system is in place that ensures that all relevant participant aquaculture facilities are required to, at least, meet appropriate requirements for feed.</p>	<p>Not applicable where the aquaculture facility is physically or sufficiently isolated that disease transfer is highly unlikely.</p> <p>Appropriate requirements must, at least, meet <i>GSSI Essential Components</i> in the Feed Use Performance Area. It is expected that the standard will define the minimum standards on feed or require participating facilities to have been certified to a standard that appropriate addresses feed.</p> <p>Verification is expected to include a review evidence of the presence of the system and that the assurance system that the requirements are being met (e.g., such as written records, meeting notes, contractual agreements and/or interviews).</p>
REFERENCE	
<p>Paragraph 52 requires the responsible use of feeds and FAO (2010) Aquaculture Development. 4. Technical Guidelines on the Ecosystem Approach to Aquaculture which highlights the need to improve the sustainability of aquaculture feeds. This Component builds on all the individual aquaculture facility Essential and Supplementary Components by assuring that all operations within the AMS agree to use feeds and fertilizers efficiently and use feeds with environmentally preferable ingredients.</p> <p>FAO (2010). Aquaculture Development. 4. Ecosystem Approach to Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 4. Rome, FAO. 2010. 53p.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.4.04 The standard requires that the aquaculture facility sources feed from a manufacturer that has a written policy which includes assessment of source fishery status and identification of improvement needs and work plan to deliver improvements. The policy must include a commitment and timeline to source aquaculture and fishery products from responsible/best practice sources, such as those certified a standard benchmarked at minimum consistent with relevant FAO's ecolabelling guidelines or by identified independent risk assessment.</p>	<p>Feed is a key sustainability parameter for aquaculture, this Supplementary Component verifies that all the aquaculture facilities in a given area management system conform to using more environmentally responsible feeds.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.5 02 01 PREDATOR CONTROL

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires that aquaculture facility uses non-lethal predator control measures on birds, mammals, and where relevant, reptiles.	Verification of the predator controls used is expected. Examples of supporting evidence could include interview, visual inspection, and appropriate signage. Exceptions for human health and welfare and where euthanization is an act of mercy are acceptable and expected. Exclusions for accidental mortalities are also acceptable. This does not apply to pests (e.g., rats). Aligned standards will also be considered in alignment with C.5.02
REFERENCE	
Paragraph 45 of the Technical Guidelines on Aquaculture Certification state <i>“Regular monitoring of on-farm and off-farm environmental quality should be carried out, combined with good record-keeping and use of appropriate methodologies.”</i> Paragraph 46 states <i>“Evaluation and mitigation of the adverse impacts on surrounding natural ecosystems, including fauna, flora and habitats should be carried out.”</i> These paragraphs are considered in the predator control context.	
RELATED ESSENTIAL COMPONENT	RATIONALE
C.5.02 The standard prohibits the use of any lethal predator control techniques on endangered species. Exceptions for worker safety and where euthanization is an act of mercy are acceptable and expected.	This Supplementary Component verifies that lethal predator control is avoided on all species.

C.5 02 02 PREDATOR CONTROL

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard excludes aquaculture facilities with a history of repeated accidental or deliberate mortality of endangered species has occurred.	Accidental mortality can include those as a result of entanglement etc. Repeated mortality means on more than one occasion over a suitable period of time (expected to be over one production cycle). Verification is expected and examples of supporting evidence include employee and local community interviews, appropriate signage, and interaction records. Endangered species are expected to be defined in the standard, with reference to relevant national listings (e.g., Vietnam’s Red Data Book) and/or global listing organizations such as CITES (Appendix 1), IUCN Red List (Categories Critically Endangered (CR), Endangered (EN), Vulnerable (VU)). See www.iucnredlist.org and www.cities.org for more information. Aligned standards will also be considered in alignment with C.5.02 and C.5.02.1
REFERENCE	
Paragraph 45 of the Technical Guidelines on Aquaculture Certification state <i>“Regular monitoring of on-farm and off-farm environmental quality should be carried out, combined with good record-keeping and use of appropriate methodologies.”</i> Paragraph 46 states <i>“Evaluation and mitigation of the adverse impacts on surrounding natural ecosystems, including fauna, flora and habitats should be carried out.”</i> These paragraphs are considered in the predator control context	
RELATED ESSENTIAL COMPONENT	RATIONALE
C.5.02 The standard prohibits the use of any lethal predator control techniques on endangered species. Exceptions for worker safety and where euthanization is an act of mercy are acceptable and expected.	This Supplementary Component verifies the effectiveness of the non-lethal predator control measures by reviewing evidence that there have been no losses of Endangered, Threatened, and Protected Species.

GSSI Supplementary Components for Aquaculture Certification Standards

C.5 03 01 PREVENTING HABITAT IMPACTS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires a suitable process was put in place to protect sensitive habitat and endangered species prior to expansions to the aquaculture facility that occur post-initial certification.	A suitable process could include an EIA that be required to show evidence of negligible impacts to sensitive habitats Endangered species are expected to be defined in the Standard, with reference to relevant national listings (e.g., Vietnam's Red Data Book) and/or global listing organizations such as CITES (Appendix 1), IUCN Red List (Categories Critically Endangered (CR), Endangered (EN), Vulnerable (VU)). See www.iucnredlist.org and www.cities.org for more information. Verification is also expected.
REFERENCE	
Paragraph 44 of the Technical Guidelines for Aquaculture Certification states <i>“Environmental impact assessments should be conducted, according to national legislation, prior to approval of establishment of aquaculture operations.”</i> This Supplementary Component builds on the Essential Components by verifying that Environmental Impact Assessments are used even in regions where they are not required by law.	
RELATED ESSENTIAL COMPONENT	RATIONALE
C.5.03 The standard requires compliance with national and local laws on habitat and biodiversity, including an Environmental Impact Assessment (EIA) where required.	Environmental Impact Assessment (EIA) is a management tool designed to understand the impact of an activity on the environment and steps required to limit those impact. Globally EIA's are not always required for aquaculture facilities. This Supplementary Component verifies an EIA is used even if it is not required by law.

C.5 03 02 PREVENTING HABITAT IMPACTS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires that environmental monitoring records are made available upon request because of the aquaculture facilities use of a public resource (e.g., water).	Relevant records could include water quality, veterinary drug and chemical use, diseases, escapees, predator incidents. Verification is expected.
REFERENCE	
Paragraph 45 of the Technical Guidelines on Aquaculture Certification state <i>“Regular monitoring of on-farm and off-farm environmental quality should be carried out, combined with good record-keeping and use of appropriate methodologies.”</i> Paragraph 46 states <i>“Evaluation and mitigation of the adverse impacts on surrounding natural ecosystems, including fauna, flora and habitats should be carried out.”</i> Paragraph 38 states that <i>“Aquaculture certification schemes should encourage restoration of habitats and sites damaged by previous uses in aquaculture.”</i> These Paragraphs are considered jointly in the context of habitat and biodiversity management. Also based on FAO (2010) Aquaculture Development. 4. Ecosystem Approach to Aquaculture section 3.2.1.2 Management measures at the watershed scale to <i>“Maintaining an “agreed” biodiversity”</i> and <i>“Providing and enhancing green infrastructure”</i> . They build on the Essential Components by verifying increasing the transparency of the impacts and mitigation measures. These Supplementary Components aim to increase the benefit and confidence in restoration activities through community engagement. FAO (2010). Aquaculture Development. 4. Ecosystem Approach to Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 4. Rome, FAO. 2010. 53p.	
RELATED ESSENTIAL COMPONENT	RATIONALE
C.5.03 The standard requires compliance with national and local laws on habitat and biodiversity, including an Environmental Impact Assessment (EIA) where required.	Requiring aquaculture facilities to provide relevant records to scientific or governmental institutions allows the institutions to evaluate the environmental impacts and any mitigation efforts of the facilities, and to help ensure that the facilities are in compliance with regulatory requirements. It also provides an incentive for facilities to minimize environmental impacts, and fosters trust and a collaborative relationship between the facility and the institutions.

GSSI Supplementary Components for Aquaculture Certification Standards

C.5 03 03 PREVENTING HABITAT IMPACTS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that ecologically relevant data that maybe useful to other stakeholders or policy makers to better manage shared resources are made public by the aquaculture facility.</p>	<p>Ecologically relevant data is expected to include data that maybe useful to other stakeholders or policy makers to better manage shared resources; for example EIA, escapes, veterinary drug use, water or benthic quality data etc.</p> <p>Aligned standards will also be considered in alignment with C.5.03.2</p>
REFERENCE	
<p>Paragraph 45 of the Technical Guidelines on Aquaculture Certification state <i>“Regular monitoring of on-farm and off-farm environmental quality should be carried out, combined with good record-keeping and use of appropriate methodologies.”</i> Paragraph 46 states <i>“Evaluation and mitigation of the adverse impacts on surrounding natural ecosystems, including fauna, flora and habitats should be carried out.”</i> Paragraph 38 states that <i>“Aquaculture certification schemes should encourage restoration of habitats and sites damaged by previous uses in aquaculture.”</i> These paragraphs are considered jointly in the context of habitat and biodiversity management. Also based on FAO (2010) Aquaculture Development. 4. Ecosystem Approach to Aquaculture section 3.2.1.2 Management measures at the watershed scale to <i>“Maintaining an “agreed” biodiversity”</i> and <i>“Providing and enhancing green infrastructure”</i>. They build on the Essential Components by verifying increasing the transparency of the impacts and mitigation measures. These Supplementary Components aim to increase the benefit and confidence in restoration activities through community engagement.</p> <p>FAO (2010). Aquaculture Development. 4. Ecosystem Approach to Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 4. Rome, FAO. 2010. 53p.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.5.03 The standard requires compliance with national and local laws on habitat and biodiversity, including an Environmental Impact Assessment (EIA) where required.</p>	<p>Making monitoring records publicly available allows stakeholders to evaluate the environmental impacts of aquaculture facilities and to help ensure that establishments are in compliance with regulatory and any certification requirements. It also provides an incentive for aquaculture facilities to minimize their environmental impacts, and potentially fosters trust and a collaborative relationship between the facility and the local community and other stakeholders.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.5 04 01 SENSITIVE HABITAT AND BIODIVERSITY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard ensures no net loss of sensitive habitats on an area basis as a result of aquaculture facility construction and conversion and culture practices.</p>	<p>It is expected that the Standard will define (with supporting evidence) sensitive habitat in context with its scope, the basis for a “no net loss” claim, and an appropriate date to be used prior to which legal impacts can be “grandfathered in” (the date must be before major period of significant historical habitat loss for the production system that the certification covers). Verification at the aquaculture facility is expected to include whether restoration is necessary, to what degree (evidence could include maps, aerial photos, satellite images, government certification etc.) and whether the active restoration is or is likely to be successful at restoring the sensitive habitat. Offsetting is allowed.</p> <p>Aligned standards will also be considered in alignment with C.5.04</p>
REFERENCE	
<p>Paragraph 45 of the Technical Guidelines on Aquaculture Certification state <i>“Regular monitoring of on-farm and off-farm environmental quality should be carried out, combined with good record-keeping and use of appropriate methodologies.”</i> Paragraph 46 states <i>“Evaluation and mitigation of the adverse impacts on surrounding natural ecosystems, including fauna, flora and habitats should be carried out.”</i> Paragraph 38 states that <i>“Aquaculture certification schemes should encourage restoration of habitats and sites damaged by previous uses in aquaculture.”</i> These paragraphs are considered jointly in the context of habitat and biodiversity management. Also based on FAO (2010) Aquaculture Development. 4. Ecosystem Approach to Aquaculture section 3.2.1.2 Management measures at the watershed scale to <i>“Maintaining an “agreed” biodiversity”</i> and <i>“Providing and enhancing green infrastructure”</i>. They build on the Essential Components by verifying increasing the transparency of the impacts and mitigation measures. These Supplementary Components aim to increase the benefit and confidence in restoration activities through community engagement.</p> <p>FAO (2010). Aquaculture Development. 4. Ecosystem Approach to Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 4. Rome, FAO. 2010. 53p.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.5.04 The standard requires that in areas where damage of sensitive habitats has occurred previously and where restoration is possible and effective; restoration efforts will or have resulted in a meaningful amount of restored habitat; either through direct on-farm restoration or by an off-farm offsetting approach. Grandfathering of historical losses is allowed.</p>	<p>This Supplementary Component helps reduce aquaculture-related loss of sensitive habitats by requiring no net loss of sensitive habitat within a particular area, while allowing for grandfathering within proscribed time periods and off-setting restoration projects (restoration outside of the area); and by requiring that any required restoration projects (to ensure no net less) be monitored and demonstrate progress.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.5 04 02 SENSITIVE HABITAT AND BIODIVERSITY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard ensures no loss of sensitive habitats as a result of aquaculture facility construction, conversion, expansion, and culture practices at the site. No grandfathering or offsetting is allowed.</p>	<p>It is expected that the Standard will define (with supporting evidence) sensitive habitat in context with its scope, the basis for a “no loss” claim. Verification at the aquaculture facility is expected (evidence could include maps, aerial photos, satellite images, government certification etc.)</p> <p>Aligned standards will also be considered in alignment with C.5.04 and C.5.04.1</p>
REFERENCE	
<p>Paragraph 45 of the Technical Guidelines on Aquaculture Certification state <i>“Regular monitoring of on-farm and off-farm environmental quality should be carried out, combined with good record-keeping and use of appropriate methodologies.”</i> Paragraph 46 states <i>“Evaluation and mitigation of the adverse impacts on surrounding natural ecosystems, including fauna, flora and habitats should be carried out.”</i> Paragraph 38 states that <i>“Aquaculture certification schemes should encourage restoration of habitats and sites damaged by previous uses in aquaculture.”</i> These paragraphs are considered jointly in the context of habitat and biodiversity management. Also based on FAO (2010) Aquaculture Development. 4. Ecosystem Approach to Aquaculture section 3.2.1.2 Management measures at the watershed scale to <i>“Maintaining an “agreed” biodiversity”</i> and <i>“Providing and enhancing green infrastructure”</i>. They build on the Essential Components by verifying increasing the transparency of the impacts and mitigation measures. These Supplementary Components aim to increase the benefit and confidence in restoration activities through community engagement.</p> <p>FAO (2010). Aquaculture Development. 4. Ecosystem Approach to Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 4. Rome, FAO. 2010. 53p.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.5.04 The standard requires that in areas where damage of sensitive habitats has occurred previously and where restoration is possible and effective; restoration efforts will or have resulted in a meaningful amount of restored habitat; either through direct on-farm restoration or by an off-farm offsetting approach. Grandfathering of historical losses is allowed.</p>	<p>This Supplementary Component helps reduce aquaculture-related loss of sensitive habitats by unconditionally not allowing the aquaculture facility to have caused any loss of sensitive habitat; no grandfathering or offsetting exemptions are allowed.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.5 04 03 SENSITIVE HABITAT AND BIODIVERSITY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires a legally binding, appropriately defined, and operational area management system is in place that ensures that all participant aquaculture facilities use common and, where applicable, coordinated practices for the shared protection of sensitive habitats and biodiversity.</p>	<p>Not applicable where the aquaculture facility is physically or sufficiently isolated that cumulative impact is highly unlikely.</p> <p>Common practices for shared protection include the examples in C.5.01, and C.5.02, and C.5.05. Coordinated practices could include the development of buffer zones and the restoration of impacted habitat within the area where necessary.</p> <p>An appropriately defined area is expected to have boundaries that are defined according to the ability to realistically manage aquatic disease risk within it.</p> <p>Verification is expected to include a review of evidence including the area management agreement, and other exemplary evidence such as written records and monitoring results, meeting notes, financial records, and visual inspection.</p>
REFERENCE	
<p>Paragraph 45 of the Technical Guidelines on Aquaculture Certification state <i>“Regular monitoring of on-farm and off-farm environmental quality should be carried out, combined with good record-keeping and use of appropriate methodologies.”</i> Paragraph 46 states <i>“Evaluation and mitigation of the adverse impacts on surrounding natural ecosystems, including fauna, flora and habitats should be carried out.”</i> Paragraph 38 states that <i>“Aquaculture certification schemes should encourage restoration of habitats and sites damaged by previous uses in aquaculture.”</i> These paragraphs are considered jointly in the context of habitat and biodiversity management. Also based on FAO (2010) Aquaculture Development. 4. Ecosystem Approach to Aquaculture section 3.2.1.2 Management measures at the watershed scale to <i>“Maintaining an “agreed” biodiversity”</i> and <i>“Providing and enhancing green infrastructure”</i>. The Supplementary Component builds on the Essential Components by ensuring that cumulative habitat impacts within the AMS are addressed.</p> <p>FAO (2010). Aquaculture Development. 4. Ecosystem Approach to Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 4. Rome, FAO. 2010. 53p.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.5.04 The standard requires that in areas where damage of sensitive habitats has occurred previously and where restoration is possible and effective; restoration efforts will or have resulted in a meaningful amount of restored habitat; either through direct on-farm restoration or by an off-farm offsetting approach. Grandfathering of historical losses is allowed.</p>	<p>This Supplementary Component helps reduce aquaculture-related loss of sensitive habitats by unconditionally not allowing the aquaculture facility to have caused any loss of sensitive habitat; no grandfathering or offsetting exemptions are allowed.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.6 02 01 RECORD KEEPING

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that all intentionally stocked seed come from a source hatchery that has been independently-verified to be legally compliant and has an Aquatic Animal Health Management Plan (AAHMP) which is overseen by an aquatic animal health professional and is, at a minimum, consistent with the following <i>GSSI Essential Components</i>; C.1.01, C.1.02, C.1.06, C.1.08. Verification that an established, implemented and maintained appropriate system for recording the source, stocking and health status of broodstock (either by the hatchery or through a traceability system back to the broodstock facility).</p>	<p>Legal alignment is expected to include applicable local/international/national laws/CITES laws and cover species introductions and transfers of live aquatic animals requirements (where relevant), including legal brood stock sourcing. Verification is expected to include a review of evidence of the independence and suitability of the hatchery source (e.g., audit report, certificate, benchmarking result). An appropriate records system is expected to include source of the seed, date of purchase, results of disease/health status tests, vaccination record of the seed, stocking density, and stocked brood stock batch identification. Verification that the system is operational and fit for purpose is expected.</p> <p>Aligned standards will also be considered in alignment with C.6.04, while C.6.03 will not be applicable.</p>
REFERENCE	
<p>Paragraph 48 of the Technical Guidelines of Aquaculture Certification states <i>“Where possible, hatchery produced seed should be used for culture. When wild seeds are used, they should be collected using responsible practices”</i>. The Supplementary Component expands its scope to include hatcheries and builds on the Essential Components by requiring the 3rd party verification of practices at the hatchery.</p> <p>FAO (2011). Aquaculture Development. 6. Use of Wild Fishery Resources for Capture Based Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 6. Rome, FAO. 2011. 81 pp.</p> <p>FAO (2008). Aquaculture Development. 3. Genetic Resource Management. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 3. Rome, FAO. 2008. 125p</p> <p>FAO (2011). Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture. FAO Technical Guidelines for Responsible Fisheries. Rome, FAO. 2011. 79p.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.6.02 The standard requires the establishment, implementation and maintenance of an appropriate record keeping system for all seed that is intentionally stocked.</p>	<p>Many hatchery practices stipulated by national and international law and CITES are essential for reducing the risk of adverse environmental impacts related to fish health, escapes, chemical use, feed, and water quality. Third-party verification of hatchery practices provides an additional layer of certainty that these practices are complied with. It is especially important given that enforcement by national authorities may not be sufficient and may not address relevant international laws and provisions of CITES. Record keeping is critical to verifying practices at the broodstock facility and for tracking the performance of the produced broodstock.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.6 03 01 WILD SEED

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that wild-caught seed are prohibited. 100% of intentionally stocked seed must be from a hatchery.</p>	<p>Verification is expected to include a review of evidence to support the claim (e.g., receipts from seed purchases). An exemption for accidentally stocked seed (such as seed unintentionally trapped when a pond is being filled) is acceptable. Verification is expected to include a review of evidence of the source of seed stocked at the aquaculture facility.</p> <p>Aligned standards will also be considered in alignment with C.6.04, while C.6.03 will not be applicable.</p>
REFERENCE	
<p>Paragraph 48 of the Technical Guidelines of Aquaculture Certification states <i>“Where possible, hatchery produced seed should be used for culture. When wild seeds are used, they should be collected using responsible practices”</i>. FAO’s end goal is used to define the Supplementary Component.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.6.03 The standard requires that where the deliberate use of wild seed is justifiable, it is collected in a manner that:</p> <ul style="list-style-type: none"> - Ensures controls are in place so that the collection of seed is not detrimental to the status of the wild target and non-target populations, nor the wider ecosystem. - Avoids the use of environmentally damaging collection practices - Source fishery is regulated by an appropriate authority 	<p>The collection of wild seed for aquaculture can negatively impact the target species by reducing recruitment, non-target species from bycatch, and ecosystems from environmentally damaging harvest methods. Prohibiting the use of wild seed precludes any such adverse impacts; helps ensure that the many benefits of hatchery production are utilized to the fullest extent; and provides additional incentives for the development of technologies to produce commercially-viable hatchery seed, where these do not presently exist.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.6 05 01 HATCHERY SEED

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that all manually stocked seed are principally from hatchery-reared (domesticated) broodstock.</p>	<p>Verification is expected to include a review evidence of the source of the broodstock (e.g., hatchery certification, inspection of written/ financial records, marking techniques, legal compliance/permits). An exception for small numbers of wild broodstock is allowable if needed to avoid inbreeding depression and genetic drift.</p> <p>C.6.03 will not be applicable to aligned standards.</p>
REFERENCE	
<p>Paragraph 48 of the Technical Guidelines of Aquaculture Certification states “<i>Where possible, hatchery produced seed should be used for culture. When wild seeds are used, they should be collected using responsible practices</i>”. Also based on FAO (2011) Aquaculture Development. 6. Use of Wild Fishery Resources for Capture Based Aquaculture Section 3.2.3 to ensure the minimal and monitored use of wild brood stock in aquaculture, and FAO (2008) Aquaculture Development. 3. Genetic Resource Management which outlines the need to address genetic drift and inbreeding in hatcheries. The use of brood stock selection to reduce feed resource demands also features in FAO (2011). Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture.</p> <p>The Supplementary Components build on the Essential Components by verifying that the environmental implications of brood stock sourcing are covered by the scope of the standard, and eventually that brood stock are selected for parameters that should enhance the efficiency and productivity of farming which correspond to reducing some environmental impacts such as feed use.</p> <p>FAO (2011). Aquaculture Development. 6. Use of Wild Fishery Resources for Capture Based Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 6. Rome, FAO. 2011. 81 pp.</p> <p>FAO (2008). Aquaculture Development. 3. Genetic Resource Management. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 3. Rome, FAO. 2008. 125p</p> <p>FAO (2011). Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture. FAO Technical Guidelines for Responsible Fisheries. Rome, FAO. 2011. 79p.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.6.05 The standard requires that suitable measures are in place to ensure that hatchery-raised seed are free from relevant/important pathogens before stocking for grow-out.</p>	<p>The collection of wild broodstock can negatively impact the target species by reducing recruitment, non-target species (e.g., from bycatch), and the wider ecosystem from environmentally-harmful collection methods. Using hatchery-reared broodstock also confers other advantages over wild collection, such as greater control of disease. Requiring justification for the use of wild broodstock helps reduce this practice and hence the environmental risks associated with it.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.6 05 02 HATCHERY SEED

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that all manually stocked seed that are hatchery-reared from wild broodstock, the broodstock is collected in a manner that:</p> <ul style="list-style-type: none"> - Ensures controls are in place so that the collection of broodstock is not detrimental to the status of the wild target and non-target populations, nor the wider ecosystem. - Avoids the use of environmentally damaging collection practices - Source fishery is regulated by an appropriate authority 	<ul style="list-style-type: none"> i) Suitable controls are expected to include aspects such as a fishery management plan that limits take to maintain the wild populations (i.e., there is no measurable impact on recruitment levels or the stocks ability to increases (examples include stocks that are under or fully exploited) with appropriate safeguards against excessive bycatch, and prevention of damaging gear types. ii) Examples of environmentally damaging collection practice are expected to include dynamite or poison fishing, habitat impacts. <p>Verification is expected to include the need to provide suitable evidence by the aquaculture facility (e.g., a summary report written by a credible 3rd party on the source fishery, a self-certification by the appropriate management authority, a 3rd party fishery certification that verifies suitable compliance).</p> <p>Consistency with this Supplementary Component results in C.6.03 being “not applicable”.</p>
REFERENCE	
<p>Paragraph 48 of the Technical Guidelines of Aquaculture Certification states “<i>Where possible, hatchery produced seed should be used for culture. When wild seeds are used, they should be collected using responsible practices</i>”. Also based on FAO (2011). Aquaculture Development. 6. Use of Wild Fishery Resources for Capture Based Aquaculture to ensure the minimal and monitored use of wild brood stock in aquaculture.</p> <p>FAO (2011). Aquaculture Development. 6. Use of Wild Fishery Resources for Capture Based Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 6. Rome, FAO. 2011. 81 pp.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.6.05 The standard requires that suitable measures are in place to ensure that hatchery-raised seed are free from relevant/important pathogens before stocking for grow-out.</p>	<p>This Supplementary Component further reduces the environmental risks of collecting wild brood stock by explicitly requiring collection controls (e.g., a fishery management plan) and prohibiting the use harmful collection methods.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.6 05 03 HATCHERY SEED

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that, all manually stocked hatchery-reared seed is from a hatchery, or via broodstock facility, that has established, implemented, and maintained a broodstock management plan to avoid genetic drift and inbreeding depression.</p>	<p>Verification is expected to include a review of evidence of the broodstock facility having an operational and fit for purpose plan. This could include self-certification, copies of the plan itself, suitable records etc.</p> <p>Aligned standards will also be considered in alignment with C.6.05.1</p>
REFERENCE	
<p>Paragraph 48 of the Technical Guidelines of Aquaculture Certification states “Where possible, hatchery produced seed should be used for culture. When wild seeds are used, they should be collected using responsible practices”. Also based on FAO (2011). Aquaculture Development. 6. Use of Wild Fishery Resources for Capture Based Aquaculture to ensure the minimal and monitored use of wild brood stock in aquaculture and FAO (2008) Aquaculture Development. 3. Genetic Resource Management which outlines the need to address genetic drift and inbreeding in hatcheries. The use of brood stock selection to reduce feed resource demands also features in FAO (2011). Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture. The Supplementary Components build on the Essential Components by verifying that the environmental implications of brood stock sourcing are covered by the scope of the standard, and eventually that brood stock are selected for parameters that should enhance the efficiency and productivity of farming which correspond to reducing some environmental impacts such as feed use.</p> <p>FAO (2011). Aquaculture Development. 6. Use of Wild Fishery Resources for Capture Based Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 6. Rome, FAO. 2011. 81 pp.</p> <p>FAO (2008). Aquaculture Development. 3. Genetic Resource Management. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 3. Rome, FAO. 2008. 125p</p> <p>FAO (2011). Aquaculture Development. 5. Use of Wild Fish as Feed in Aquaculture. FAO Technical Guidelines for Responsible Fisheries. Rome, FAO. 2011. 79p.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.6.05 The standard requires that suitable measures are in place to ensure that hatchery-raised seed are free from relevant/important pathogens before stocking for grow-out.</p>	<p>An inadequate brood stock selection program can result in progeny with decreased growth rate, fecundity, and survival, due to loss of genetic variability and genetic drift. This may result not only in production losses for the hatchery, but also genetic risks to wild populations if escaped fish were to breed with wild populations. Requiring the hatchery to procure brood stock from a facility with a multi-factor selection program helps reduce these risks.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.6 05 04 HATCHERY SEED

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires a legally binding, appropriately defined, and operational area management system is in place that ensures that all participant aquaculture facilities use appropriate common and, where applicable, coordinated practices for sourcing seed in order to maintain biosecurity within the AMS.</p>	<p>Not applicable where the aquaculture facility is physically or sufficiently isolated that disease transfer is highly unlikely.</p> <p>An appropriately defined area is expected to have boundaries that are defined according to the ability to realistically manage aquatic disease risk within it.</p> <p>Common practices for sourcing seed are expected to include (where applicable) GSSI-Essential Components C.6.03, C.6.04, C.6.05. Where appropriate, coordinate response actions could include harmonized stocking. Verification is expected to include a review evidence of the presence of the system and the common and coordinated practices applied (e.g., such as written records, meeting notes, contractual agreements and/or interviews).</p>
REFERENCE	
<p>Paragraph 48 of the Technical Guidelines of Aquaculture Certification states “Where possible, hatchery produced seed should be used for culture. When wild seeds are used, they should be collected using responsible practices”. Also based on “discouraging unsustainable use of wild seed, juveniles and brood stock” in Section 3.2.1.2 Management measures at the watershed scale of FAO (2010). Aquaculture Development. 4. Ecosystem Approach to Aquaculture. FAO (2010). Aquaculture Development. 4. Ecosystem Approach to Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 4. Rome, FAO. 2010. 53p.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.6.05 The standard requires that suitable measures are in place to ensure that hatchery-raised seed are free from relevant/important pathogens before stocking for grow-out.</p>	<p>The risk of disease is amplified when aquaculture facilities are located in close proximity to each other, principally due to the potential for the water-born transmission of disease between aquaculture facilities. The efforts of an aquaculture facility with robust fish health management practices can be for naught if disease breaks out at a neighboring, less vigilant farm. Requiring an aquaculture facility to belong to an AMS in which all farms source seed according to GSSI Essential Components helps reduce the disease risk for all aquaculture facilities in the area.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.7 01 01 ESCAPES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard excludes (or decertifies) aquaculture facilities from certification that have repeated escape events over a representative number of production cycles.	Repeated escape events is expected to be considered in terms of the numbers of aquatic animals stocked and the length of the production cycle. Escapes due to factors outside of the aquaculture facility's control can be exempt. Examples of representative number of production cycles include 3 or more for production cycles less than 1.5 years, 2 for production cycles over 1.5 years, 1 for production cycles over 3 years. Verification is expected to include a review of evidence, such as monitoring records, interviews with employees and the local community.
REFERENCE	
Supplementary Components on escape prevention are based on Paragraphs 39 and 46 of the Technical Guidelines on Aquaculture Certification which reference the minimizing unintentional release and escape of aquatic animals and that potential impacts and mitigation measures for impacts on biodiversity respectively.	
RELATED ESSENTIAL COMPONENT	RATIONALE
C.7.01 The standard requires that the aquaculture facility establishes, implements, and maintains an appropriate system to minimize the unintentional release or escape of cultured species.	An aquaculture facility that has repeated escape events over a number of production cycles and/or a single significant escape event often indicates that the establishment has not taken sufficient precautionary measures to prevent escapes, such as proper siting, "robust" infrastructure materials and installation design, regular infrastructure inspections, and escape prevention planning and training. Not allowing such facility's to become certified provides an incentive for them to implement policies and procedures to reduce escapes.

C.7 01 02 ESCAPES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
Within detection limitations, the standard requires a stringent maximum cap on the total number of escaped fish that would lead to the loss of certification.	Escapes due to factors outside of the aquaculture facility's control can be exempt. Stringent escape limits are expected to be pragmatic and set to account for the detection limits of the counting system and relevant for the production system and species (e.g., if counting accuracy is +/- 3%, then a stringent limit could be interpreted as 4-6% of the stocked population). Verification is expected to include a review of evidence, such as monitoring records, interviews with employees and the local community.
REFERENCE	
Supplementary Components on escape prevention are based on Paragraphs 39 and 46 of the Technical Guidelines on Aquaculture Certification which reference the minimizing unintentional release and escape of aquatic animals and that potential impacts and mitigation measures for impacts on biodiversity respectively.	
RELATED ESSENTIAL COMPONENT	RATIONALE
C.7.01 The standard requires that the aquaculture facility establishes, implements and maintains an appropriate system to minimize the unintentional release or escape of cultured species.	A certified aquaculture facility that has a significant number of escapes may indicate that the establishment's escape prevention measures are inadequate. Loss of certification when a specified number of escapes is exceeded provides a strong and clear incentive for facilities to develop and maintain robust escape prevention measures, and thereby reduce the number of escapes.

GSSI Supplementary Components for Aquaculture Certification Standards

C.7 01 03 ESCAPES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires a legally binding, appropriately defined, and operational area management system is in place that ensures that all participant aquaculture facilities use common and, where applicable, coordinated practices for the shared management of aquatic animal escape risk.</p>	<p>Not applicable where the aquaculture facility is physically or sufficiently isolated that disease transfer is highly unlikely.</p> <p>Common practices for the shared management of aquatic animal escape risks are expected to include a system consistent with Essential Component C.7.01. Where appropriate, coordinate response actions could include recapture efforts. Where relevant, the AMS is expected to include monitoring impact of cumulative escapes on native wild fish population feeding back into appropriate management systems to prevent and mitigate irreversible or very slowly reversible impact on the native population. Requirements are expected to be enforced through an agreement with the regulator or legally binding agreement of the producers in the area (e.g., an MOU or similar document).</p> <p>An appropriately defined area is expected to have boundaries that are defined according to the ability to realistically manage aquatic disease risk within it.</p> <p>Verification is expected to include a review evidence of the presence of the system and the common and coordinated practices applied (e.g., such as written records, meeting notes, contractual agreements and/or interviews).</p>
REFERENCE	
<p>Supplementary Components on escape prevention are based on Paragraphs 39 and 46 of the Technical Guidelines on Aquaculture Certification which reference the minimizing unintentional release and escape of aquatic animals and that potential impacts and mitigation measures for impacts on biodiversity respectively. It also reflects the intent of FAO (2010) Aquaculture Development 4. on the Ecosystem Approach to Aquaculture that highlights that control of escapes usually occurs at the farm level, but that the impacts are at the area level - thus coordinated management is important and is the basis for this collective interpretation. The Supplementary Components builds on the Essential Components by ensuring the cumulative impacts of fish escapements are reduced by verifying that all aquaculture facilities within the area use appropriate prevention measures.</p> <p>FAO (2010). Aquaculture Development. 4. Ecosystem Approach to Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 4. Rome, FAO. 2010. 53p.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.7.01 The standard requires that the aquaculture facility establishes, implements and maintains an appropriate system to minimize the unintentional release or escape of cultured species.</p>	<p>Escape impacts (adverse impacts from predation, competition for resources, disease transmission, inbreeding, and habitat damage) occur at the area level and can generally be considered proportional to the total number of escapes in a given area; their risk is increased when multiple aquaculture facilities operate in close proximity to one another. Requiring an aquaculture facility to participate in an AMS in which all facilities in the AMS must use escape prevention measures reduces the risk of escapes throughout the area and hence cumulative escape impacts.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.7 03 01 EXOTIC SPECIES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>Where a non-established, non-native species has been shown to be or has potential to be a successful invasive species, the standard requires that they are controlled by strict effective escape impact prevention and mitigation measures.</p>	<p>Effective measures are expected to include sourcing only sterile, polyploidy, or mono-sex seed or physical isolation. Verification is expected to include a review of evidence of operational and fit for purpose measures (e.g., hatchery records, visual inspection (aquaculture facility and/or aquatic animal)).</p>
REFERENCE	
<p>Supplementary Components on escape prevention are based on Paragraphs 39 and 46 of the Technical Guidelines on Aquaculture Certification which reference the minimizing unintentional release and escape of aquatic animals and that potential impacts and mitigation measures for impacts on biodiversity respectively. The Supplementary Component builds on the Essential Components by verifying that certified operations take active measures to reduce the risk of introductions if an escape were to occur.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.7.03 The standard requires that all species are farmed in compliance with relevant laws and regulations.</p>	<p>The risk of adverse impacts from escapes (impacts from predation, competition, disease transmission, hybridization, and habitat damage) are generally greater when the escaped species are non-native and becomes established. Requiring strict escape prevention and mitigation measures for non-native species with the potential for establishment -- such as requiring sterile, polyploidy, or mono-sex seed polyploidy to help prevent establishment -- reduces the risk of such impacts.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.8 03 01 WATER USE

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>Where appropriate (e.g., land-based pond and flow-through systems, particularly in water resource limited region), the standard requires metric limits are placed on the fresh water consumption and prevention of aquifer drawdown.</p>	<p>Metric limits are expected to be defined (by the facility or by the standard) and intended to prevent aquifer drawdown and minimize negative impacts on freshwater resources and the surrounding environment. Verification that these limits are not exceeded by the aquaculture facility is expected.</p> <p>Aligned standards will also be considered in alignment with C.8.03</p>
REFERENCE	
<p>Paragraph 47 of the Technical Guidelines on Aquaculture Certification state <i>“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.”</i> The Supplementary Component builds on the Essential Components by verifying that water draw limits are set, limiting the magnitude of this impact at the individual operation level.</p> <p>Paragraph 47 of the Technical Guidelines on Aquaculture Certification state <i>“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.”</i> The Supplementary Component builds on the Essential Components by verifying that water draw limits are set, limiting the magnitude of this impact at the individual operation level.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.8.03 Where appropriate (e.g. land-based freshwater ponds supplied with groundwater and all culture systems where water resources are limiting) the standard requires that the aquaculture facility has appropriate management measures for efficient water use.</p>	<p>Impacts on local and regional water resources resulting from fresh water consumption by an aquaculture facility are typically increased by the cumulative consumption of multiple facilities located within the same watershed and/or drawing water from the same aquifer.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.8 03 02 WATER USE

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires a legally binding, appropriately defined, and operational area management system is in place that ensures that all participant aquaculture facilities adapt their practices using a planned approach to limit cumulative freshwater abstraction.</p>	<p>Not applicable where the aquaculture facility is physically or sufficiently isolated that disease transfer is highly unlikely.</p> <p>Practices could include setting water abstraction limits for each aquaculture facility based on an assessment of regional abstraction capacity and/or requiring common practices that limit abstraction (e.g., requiring pond linings). Requirements are expected to be enforced through an agreement with the regulator or legally binding agreement of the producers in the area (e.g., an MOU or similar document).</p> <p>An appropriately defined area is expected to have boundaries that are defined according to the ability to realistically manage aquatic disease risk within it.</p> <p>Verification is expected to include a review of evidence, such as regional water resources monitoring data and local planning and licensing policies. Please also review guidance for the Essential Components on Water Use.</p> <p>Aligned standards will also be considered in alignment with C.8.03 and C.8.03.1</p>
REFERENCE	
<p>Paragraph 47 of the Technical Guidelines on Aquaculture Certification state <i>“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.”</i> The Supplementary Components progressively build on the Essential Components first at the individual aquaculture facility level then at the area level through an AMS. Also based on FAO (2010) Aquaculture Development 4. The Ecosystem Approach to Aquaculture, Section 3.2.1.2 Management measures at the watershed scale.</p> <p>FAO (2010) Aquaculture Development. 4. Ecosystem Approach to Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 4. Rome, FAO. 2010. 53p.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.8.03 Where appropriate (e.g. land-based freshwater ponds supplied with groundwater and all culture systems where water resources are limiting) the standard requires that the aquaculture facility has appropriate management measures for efficient water use.</p>	<p>Impacts on local and regional water resources resulting from fresh water consumption by an aquaculture facility are typically increased by the cumulative consumption of multiple facilities located within the same watershed and/or drawing water from the same aquifer. Implementing a total water consumption limit for an AMS provides a direct and relatively certain means to reduce the risk of such impacts.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.8 04 01 WATER QUALITY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires suitable specific limits on nutrient load released to the environment.</p>	<p>Suitable specific limits are expected to be specific to the culture practices, and designed to ensure minimal pollution. Verification is expected to include a review of evidence that the specific limits are met.</p> <p>Aligned standards will also be considered in alignment with C.8.04</p>
REFERENCE	
<p>Paragraph 47 of the Technical Guidelines on Aquaculture Certification state <i>“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.”</i> The Supplementary Components progressively build on the Essential Components at the individual establishment level by first verifying that specific limits are met based on the total amount of waste released from the aquaculture facility through a loading approach, then that awareness is drawn to cumulative water quality issues and prevent pollution.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.8.04 The standard requires, where appropriate, management measures for effluents to reduce adverse impacts on water quality of water bodies receiving effluents.</p>	<p>Nutrients released in aquaculture facility effluent can have significant adverse impacts on water quality and benthic environments. Limiting the total amount of nutrients released from an aquaculture facility provides a direct and relatively certain means of reducing the risk of significant impacts on water quality.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.8 04 02 WATER QUALITY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires a legally binding, appropriately defined, and operational area management system is in place that ensures that all participant aquaculture facilities adapt their practices using a planned approach to limit regional water quality impacts to avoid regional eutrophication and self-pollution.</p>	<p>Not applicable where the aquaculture facility is physically or sufficiently isolated that disease transfer is highly unlikely.</p> <p>Practices could include developing regional environmental quality standards based on regional water quality monitoring and feeding back to the farms when the limits are approached or exceed to reduce their impact (e.g., by improving water treatments systems or reducing production). Another possible approach would be to set regional production limits based on carrying capacity planning.</p> <p>An appropriately defined area is expected to have boundaries that are defined according to the ability to realistically manage aquatic disease risk within it.</p> <p>Verification is expected to include a review evidence of the presence of the system and the practices applied (e.g., such as written records, meeting notes, contractual agreements and/or interviews).</p> <p>Aligned standards will also be considered in alignment with C.8.04 and C.8.04.01</p>
REFERENCE	
<p>Paragraph 47 of the Technical Guidelines on Aquaculture Certification state “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.” The Supplementary Components progressively build on the Essential Components at the individual establishment level by first verifying that specific limits are met based on the total amount of waste released from the aquaculture facility through a loading approach, then that awareness is drawn to cumulative water quality issues and prevent pollution. Also based on FAO (2010) Aquaculture Development 4. The Ecosystem Approach to Aquaculture, Section 3.2.1.2 Management measures at the watershed scale.</p> <p>FAO (2010) Aquaculture Development. 4. Ecosystem Approach to Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 4. Rome, FAO. 2010. 53p.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.8.04 The standard requires, where appropriate, management measures for effluents to reduce adverse impacts on water quality of water bodies receiving effluents.</p>	<p>Impacts on local and regional water quality from an aquaculture facility's effluent and water consumption are typically increased by the cumulative effects of multiple facilities located within the same embayment, watershed, or region. Requiring an aquaculture facility to participate in an AMS that sets a maximum limit for cumulative water quality impacts provides a direct and relatively certain means to help ensure that unacceptable cumulative impacts are avoided and that remedial actions are taken when threshold limits are neared or exceeded. The requirement also provides a strong, general incentive for aquaculture facilities to minimize and/or treat effluent.</p>

GSSI Supplementary Components for Aquaculture Certification Standards

C.8 04 03 WATER QUALITY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires a legally binding, appropriately defined, and operational area management system is in place that ensures that all participant aquaculture facilities cooperate to ensure a carrying capacity based planning system is used to minimize impact on local water quality</p>	<p>Verification is expected to include a review of carrying capacity modeling, regional water quality monitoring results, local planning and licensing policies.</p> <p>Aligned standards will also be considered in alignment with C.8.04, C.8.04.1, C.8.04.2, and C.8.04.3.</p>
REFERENCE	
<p>Paragraph 47 of the Technical Guidelines on Aquaculture Certification state <i>“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.”</i> The Supplementary Components progressively build on the Essential Components at the individual establishment level by first verifying that specific limits are met based on the total amount of waste released from the aquaculture facility through a loading approach, then that awareness is drawn to cumulative water quality issues and prevent pollution. Also based on FAO (2010) Aquaculture Development 4. The Ecosystem Approach to Aquaculture, Section 3.2.1.2 Management measures at the watershed scale.</p> <p>FAO (2010) Aquaculture Development. 4. Ecosystem Approach to Aquaculture. FAO Technical Guidelines for Responsible Fisheries. No. 5, Suppl. 4. Rome, FAO. 2010. 53p.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>C.8.04 The standard requires, where appropriate, management measures for effluents to reduce adverse impacts on water quality of water bodies receiving effluents.</p>	<p>Impacts on local and regional water quality from an aquaculture facility’s effluent and water consumption are typically increased by the cumulative effects of multiple facilities located within the same embayment, watershed, or region. Requiring an aquaculture facility to participate in an AMS that sets a maximum limit for cumulative water quality impacts provides a direct and relatively certain means to help ensure that unacceptable cumulative impacts are avoided and that remedial actions are taken when threshold limits are neared or exceeded. The requirement also provides a strong, general incentive for aquaculture facilities to minimize and/or treat effluent.</p>

D

D.1 GOVERNANCE AND FISHERY MANAGEMENT

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Adaptive management	D.1.02 165	D.1.02.01	228
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Small scale and/or data limited fisheries	D.1.06 169	D.1.06.01	234
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Compliance of the fishery	D.1.08 171	D.1.08.01	237
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D.2 MANAGEMENT APPROACHES, STRATEGIES AND PLANS

ELEMENT / GSSI ESSENTIAL COMPONENT	PAGE	GSSI SUPPLEMENTARY COMPONENT	PAGE
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Documented management approach	D.3.01 184	D.3.01.01	249
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Best scientific evidence available	D.3.02 185		
Stock under consideration			
Fishing mortality	D.3.03 186		
Decision rules	D.3.04 187	D.3.04.01	252
Enhanced fisheries	D.3.05 188		
Ecosystem effects of fishing			
Non-target catches	D.3.06 189	D.3.06.01	253
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Ecosystem structure, processes and function	D.3.11 194	D.3.11.01	265
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Management under uncertainty			
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D.2 MANAGEMENT OBJECTIVES

ELEMENT / GSSI ESSENTIAL COMPONENT	PAGE	GSSI SUPPLEMENTARY COMPONENT	PAGE
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Management objectives	D.2.01 175		
Management system			
Best scientific evidence available	D.2.02 176		
Stock under consideration			
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D.4 DATA AND INFORMATION

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Target stock status	D.4.01 199	D.4.01.01	270
Ecosystem effects of fishing			
Ecosystem structure, processes and function	D.4.02 200	D.4.02.01	271
		D.4.02.02	272
Non-target catches	D.4.03 201	D.4.03.01	273
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Endangered species	D.4.04 202		
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D.5 ASSESSMENT METHODOLOGIES

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	D.5.03 207		
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Ecosystem effects of fishing			
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Ecosystem structure, processes and function	D.5.07 211		
Habitat	D.5.08 212		
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D.6 STOCK AND ECOSYSTEM STATUS AND OUTCOMES

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Enhanced fisheries	D.6.03 216		
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Ecosystem effects of fishing			
Non-target catches	D.6.05 218		
Endangered species	D.6.06 219		
Habitat	D.6.07 220	D.6.07.01	282
Dependent predators	D.6.08 221		
Ecosystem structure, processes and function	D.6.09 222	D.6.09.01	284

For Section D the GSSI Supplementary Components outline the status of existing practices in seafood certification and how they relate to internationally agreed technical guidelines developed by FAO members since the Code of Conduct was agreed in 1995. They can be built on going forward as technical guidelines evolve. Each GSSI Supplementary Component has a rationale to explain the value that alignment with it offers to both schemes and stakeholders.

SOURCE DOCUMENTS

- *FAO Technical Guidelines for Responsible Fisheries*. 4. Fisheries management. 4.2. The ecosystem approach to fisheries (2003).
- *FAO Technical Guidelines for Responsible Fisheries*. No. 4. Fisheries management. Rome, FAO. 1997.
- *FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication* (2014)
- *FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas* (adopted 2008)
- *FAO International Guidelines on Bycatch Management and Reduction of Discards* (adopted in 2010)
- *FAO Technical Guidelines for Responsible Fisheries Responsible fish trade*. No. 11. Rome, FAO. 2009.009.



GSSI ESSENTIAL COMPONENTS
FOR FISHERIES CERTIFICATION STANDARDS

GSSI Essential Components for Fisheries Certification Standards

► FISHERY MANAGEMENT

D.1 01 MANAGEMENT ORGANIZATION

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of a fishery management organization or arrangement that manages the fishery of which the Unit of Certification is a part.</p>	<p>A “fisheries management organization or arrangement” is defined by FAO (see Glossary). This term is used throughout the benchmarking framework and is intended to represent the “designated authority” mentioned in paragraphs 29.2 (36.2) and 29.4 (36.5) of the FAO Ecolabelling Guidelines. In this context it is essentially an entity holding the legal and generally recognised mandate for establishing fisheries management measures and taking management decisions such that those measures and decisions are legally enforceable. Where the stock under consideration is a transboundary fish stock, straddling fish stock, highly migratory fish stock or high seas fish stock it might also encompass a Regional Fisheries Management Organization (RFMO) - see Essential Component D.1.04. The fisheries management organization or arrangement may also be part of relevant traditional, fisher or community approaches to the management of the stock under consideration, provided their performance can be objectively verified (i.e. the knowledge has been collected and analysed through a systematic, objective and well-designed process, and is not just hearsay).</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 29.2 (36.2), 29.4 (36.5); 29.5 (36.6)</p> <p>The “fisheries management organization or arrangement” is intended to represent the “designated authority” mentioned in paragraphs 29.2 (36.2) and 29.4 (36.5) of the FAO Guidelines. Paragraph 29.5 (36.6) requires “An effective legal and administrative framework at the local, national or regional level, as appropriate”. This requirement is served in part by the existence of a “fisheries management organization or arrangement”.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.1 01 01 See page 224</p>	<p>D.1 01 02 See page 225</p>
<p>D.1 01 04 See page 227</p>	<p>D.1 01 03 See page 226</p>

GSSI Essential Components for Fisheries Certification Standards

D.1 02 ADAPTIVE MANAGEMENT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that the fishery management organization or arrangement receives and responds to in a timely manner the best scientific evidence available regarding the status of the stock under consideration and the likelihood and magnitude of adverse impacts of the unit of certification on the stock under consideration and the ecosystem.</p>	<p>Best scientific evidence available is described in the Glossary. For the stock under consideration it can derive from assessments of stock status outside of what is regarded as a traditional “stock assessment”, accommodating techniques for data limited fisheries and including traditional knowledge, providing its validity can be objectively verified. The actions of the fishery management organization or arrangement in both receiving and responding to the best scientific evidence available must be in accordance with the Precautionary Approach (D.3.12). This Essential Component is also linked to those in D.4 that cover the collection and handling of data and information.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28 (35); 29.1 (36.1); 29.2 (36.2); 29.3 (36.4)</p> <p>Paragraph 29.1 (36.1) requires adequate and reliable data and/or information are collected, maintained and assessed for evaluation of the current state and trends of the stocks. These data and information are part of what is needed to develop the best scientific evidence available. Paragraph 29.2 (36.2) requires that in determining suitable conservation and management measures, the best scientific evidence available is taken into account by the designated authority. Paragraph 29.3 (36.4) requires that data and information are used to identify adverse impacts of the fishery on the ecosystem, and timely scientific advice is provided on the likelihood and magnitude of identified impacts. Both of these requirements are consistent with the fishery management organization or arrangement receiving the best scientific evidence available. Responding to this information in a timely manner is consistent with Paragraph 28, which requires that the fishery is conducted under a management system which is based upon good practice and that ensures the satisfaction of the requirements and criteria described in Paragraph 29.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.1 02 01 See page 228</p>	<p>D.1 02 02 See page 229</p>

GSSI Essential Components for Fisheries Certification Standards

D.1 03 ADAPTIVE MANAGEMENT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that in order for the fishery management organization or arrangement to receive and respond to in a timely manner the best scientific evidence available (D.1.02) the fishery management organization or arrangement convenes regularly, as needed, to manage the integrated process of information collection, stock assessment, planning, formulation of the management objectives and targets, establishing management measures and enforcement of fishery rules and regulations.</p>	<p>The FAO Ecolabelling Guidelines do not specify a requirement for any specific frequency of meetings of the fishery management organisation or arrangement. Paragraph 29.3 refers to the requirement for timely scientific advice on the likelihood and magnitude of identified impacts of the fishery on the ecosystem. Principle 2.10 of the Guidelines requires that schemes be based on the best scientific evidence available. Best scientific evidence available is defined in the Glossary as a process by which scientific advice is commissioned and solicited by the management system. The wording of this Essential Component is intended to ensure that the Standard requires that this is done in a timely and organised way that is properly documented.</p> <p>The CCRF also uses the word “timely” in many places in describing requirements for responsible fisheries management, e.g. Article 6.13 “timely solutions to urgent matters”; Article 7.4.4: “timely, complete and reliable statistics on catch and fishing effort are collected and maintained in accordance with applicable international standards and practices and in sufficient detail to allow sound statistical analysis. Such data should be updated regularly and verified through an appropriate system.”; Article 6.15 refers to the need for disputes relating to fishing activities and practices to be resolved in a timely, peaceful and cooperative manner; and Article 12.3 requires that States should ensure that data generated by research are analysed, that the results of such analyses are published, respecting confidentiality where appropriate, and distributed in a timely and readily understood fashion, in order that the best scientific evidence is made available as a contribution to fisheries conservation, management and development.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 29.3; CCRF 6.13, 7.4.4; 6.15, 12.3</p> <p>The FAO Guidelines do not specify a requirement for any specific frequency of meetings of the fishery management organisation or arrangement. Paragraph 29.3 refers to the requirement for timely scientific advice on the likelihood and magnitude of identified impacts of the fishery on the ecosystem. Principle 2.10 of the Guidelines requires that schemes be based on the best scientific evidence available. Best scientific evidence available is defined in the Terms and Definitions as a process by which scientific advice is commissioned and solicited by the management system. This Essential Component requires that this is done in a timely and organised way that is properly documented.</p> <p>The CCRF, in many places, uses the word timely in describing requirements for responsible fisheries management, e.g. Article 6.13 “timely solutions to urgent matters”; Article 7.4.4: “timely scientific advice is provided on the likelihood and magnitude of identified impacts”; Article 6.15 refers to the need for disputes relating to fishing activities and practices to be resolved in a timely, peaceful and cooperative manner; and Article 12.3 requires that States should ensure that data generated by research are analysed, that the results of such analyses are published, respecting confidentiality where appropriate, and distributed in a timely and readily understood fashion, in order that the best scientific evidence is made available as a contribution to fisheries conservation, management and development.</p>	

GSSI Essential Components for Fisheries Certification Standards

D.1 04 TRANSBOUNDARY STOCKS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>Where the stock under consideration is a transboundary fish stock, straddling fish stock, highly migratory fish stock or high seas fish stock, the standard requires the existence of a bilateral, subregional or regional fisheries organization or arrangement, as appropriate that is concerned with the management of the whole stock unit over its entire area of distribution.</p>	<p>This Essential Component is intended to build on D.1.01 to provide greater specificity in the event that the stock under consideration is a transboundary fish stock, straddling fish stock, highly migratory fish stock or high seas fish stock. In this case, as well as the national authority with the legal and generally recognised mandate for establishing fisheries management measures and taking management decisions, there is expected to be an international institution or arrangement established (usually between two or more States) to be responsible for coordination of activities related to fisheries management over the entire area of distribution of the stock. This is to make sure that management of these stocks and fleets that fish on them is coordinated at the international level. Activities of the international institution or arrangement may include consultation between parties to the agreement or arrangement, formulation of fishery regulations and their implementation, allocation of resources, collection of information, stock assessment, as well as monitoring, control and surveillance (MCS). (e. g. a Regional Fisheries Management Organization – RFMO). See also CCRF Article 7.1.3 et seq. See also D.1.08, D.1.09 and D.1.10.</p>
<h4>FAO REFERENCE</h4>	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 29.5 (36.6); FAO CCRF 7.1.3 and 7.3.1</p> <p>Paragraph 29.5 (36.6) requires the establishment of an effective legal and administrative framework for the fishery at the local, national or regional level, as appropriate. In the case of transboundary fish stocks, straddling fish stocks, highly migratory fish stocks and high seas fish stocks exploited by two or more States, paragraph 7.1.3 of the CCRF requires, where appropriate, the establishment of a bilateral, subregional or regional fisheries organization or arrangement. Paragraph 7.3.1 of the CCRF states that to be effective, fisheries management should be concerned with the whole stock unit over its entire area of distribution and take into account, inter alia, previously agreed management measures established and applied in the same region.</p>	
<h4>RELATED SUPPLEMENTARY COMPONENTS</h4>	
<p>D.1 04 01 See page 230</p>	

GSSI Essential Components for Fisheries Certification Standards

► MANAGEMENT SYSTEM

D.1 05 PARTICIPATORY MANAGEMENT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the governance and fisheries management system under which the unit of certification is managed to be both participatory and transparent, to the extent permitted by national laws and regulations.</p>	<p>Participatory is described in the Glossary. Principle 2.4 (2.5) of the FAO Guidelines requires ecolabelling schemes to be transparent, including balanced and fair participation by all interested parties. Requiring the standard also to require that the governance and management system being assessed is participatory and transparent (i.e. not just the scheme/ standard itself) is consistent with paragraph 6.13 of the CCRF, which states that: States should, to the extent permitted by national laws and regulations, ensure that decision making processes are transparent and achieve timely solutions to urgent matters. States, in accordance with appropriate procedures, should facilitate consultation and the effective participation of industry, fish workers, environmental and other interested organizations in decision-making with respect to the development of laws and policies related to fisheries management, development, international lending and aid.</p> <p>To meet this Essential Component, the standard must require the fisheries management organization or arrangement to make information and advice used in its decision-making publicly available, to the extent allowed by national laws and regulations. While it is possible for an organization to be separately participatory or transparent, being one without the other is regarded as of much less value, hence both are needed to meet this Essential Component. A participatory approach to fisheries management requires there to be an opportunity for all interested and affected parties to be involved in the management process. This does not mean that stakeholders are necessarily required to have specific decision rights in the fishery, or that participatory mechanisms must be included in National laws, but there should be a consultation process that regularly seeks and accepts relevant information, including traditional, fisher or community knowledge and there should be a transparent mechanism by which the management system demonstrates consideration of the information obtained.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 2.4 (2.5); 46-56</p> <p>Article 6.13 of the CCRF states that: States should, to the extent permitted by national laws and regulations, ensure that decision making processes are transparent and achieve timely solutions to urgent matters. States, in accordance with appropriate procedures, should facilitate consultation and the effective participation of industry, fish workers, environmental and other interested organizations in decision-making with respect to the development of laws and policies related to fisheries management, development, international lending and aid.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.1 05 01 See page 230</p>	<p>D.1 05 02 See page 231</p>
<p>D.1 05 04 See page 232</p>	<p>D.1 05 03 See page 231</p> <p>D.1 05 05 See page 233</p>

Paragraph references to FAO Guidelines for Ecolabelling Fish and Fishery Products from Marine/Inland Fisheries (paragraph references to the inland guidelines are in parenthesis), and where listed FAO Code of Conduct for Responsible Fisheries (CCRF).

GSSI Essential Components for Fisheries Certification Standards

D.1 06 SMALL SCALE AND/OR DATA LIMITED FISHERIES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard is applicable to governance and management systems for small scale and/or data limited fisheries, with due consideration to the availability of data and the fact that management systems can differ substantially for different types and scales of fisheries.</p>	<p>Being data limited is not necessarily synonymous with being small scale (hence the and/or in the Essential Component text), but the issues for fishery management may be similar.</p> <p>The scheme and standard should be applicable to any fishery that falls within the scheme's geographic scope, i.e. different types and scales of fisheries, including potentially small scale and/or data limited fisheries. If a scheme has a part of its standard that applies only to a subset of fisheries, such as small scale and/or data limited fisheries, then it needs to explain under what circumstances that part of the standard would be invoked. This same logic would apply to other potential subsets of fisheries such as deep sea, low trophic level, salmon etc. This should not mean, however, the standard for these subsets of fisheries is fundamentally different (e.g. lowered) compared to the standard applicable to other fisheries. Being applicable to small scale and/or data limited fisheries relates to being able to take into consideration different kinds of information and utilize different fishery management approaches in a risk management context. In order to be applicable to governance and management systems for small scale and data limited fisheries, the standard should also be applicable to relevant traditional, fisher or community approaches used by the fisheries management organization or arrangement to manage the unit of certification, provided their performance can be objectively verified. Evidence to verify the performance of the relevant traditional, fisher or community approaches would need to be established by the certification body implementing the standard and could be derived, for example, from the assessment of conformance with other GSSI Essential Components, in particular those covering the Stock and Ecosystem Status and Outcomes (D.6).</p> <p>If the scheme is generally applicable to all types of fisheries, (i.e. including small scale and/or data limited fisheries), then there is no need to explain the specific applicability, but in this case it may be harder for the scheme to demonstrate that the standard is indeed applicable to governance and management systems for small scale and/or data limited fisheries. In this context, it is important to recognize the great diversity of small-scale and/or data limited fisheries, as well as the fact that there is no single, agreed definition of these terms (see the Glossary). Small-scale fisheries represent a diverse and dynamic subsector, often characterized by seasonal migration. The precise characteristics of the subsector vary depending on the location. Accordingly, GSSI does not prescribe a specific definition of small-scale fisheries or data limited fisheries.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 29 (26)</p> <p>Paragraph 29 requires special consideration to be given to small-scale fisheries with respect to the availability of data and with respect to the fact that management systems can differ substantially for different types and scales of fisheries (e.g. small scale through to large scale commercial fisheries).</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.1 06 01 See page 234</p>	

Paragraph references to FAO Guidelines for Ecolabelling Fish and Fishery Products from Marine/Inland Fisheries (paragraph references to the inland guidelines are in parenthesis), and where listed FAO Code of Conduct for Responsible Fisheries (CCRF).

GSSI Essential Components for Fisheries Certification Standards

D.1 07 COMPLIANCE OF THE MANAGEMENT SYSTEM

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that the fisheries management system under which the unit of certification is managed operates in compliance with local, national and international laws and regulations, including the requirements of any regional fisheries management organisation that exercises internationally recognised management jurisdiction over the fisheries on the stock under consideration.</p>	<p>Under this Essential Component the standard requires that the fisheries management system must operate legally (locally, nationally and internationally); the legality of the fishery (i.e. compliance with applicable fishing regulations) is covered under other requirements in this Performance Area. For the purposes of clarity, this includes compliance with the rules and regulations of any RFMO/A that exercises internationally recognized management jurisdiction over fisheries on the stock under consideration in the high seas and implementation of the United Nations General Assembly (UNGA) Resolution 61/105, paragraphs 76-95 concerning responsible fisheries in the marine ecosystem.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28. (35) Paragraph 28 (35) requires that the management system and the fishery operate in compliance with the requirements of local, national and international law and regulations.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.1 07 01 See page 235</p>	<p>D.1 07 02 See page 236</p>

GSSI Essential Components for Fisheries Certification Standards

► LEGAL FRAMEWORK

D.1 **08** COMPLIANCE OF THE FISHERY

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that the fishery of which the Unit of Certification is a part is managed under an effective legal framework at the local, national or regional (international) level as appropriate.</p>	<p>Legal framework is described in the Glossary. An effective legal framework is one that is shown to be fit for purpose, such that the fishery seeking certification proceeds in an orderly and well controlled manner. An effective legal framework should enable the fisheries management organization or arrangement to perform its functions without hindrance from systemic and repeated illegal activity. An effective legal framework can be one that incorporates traditional, fisher or community approaches (e.g. co-management under community approaches) provided their performance can be objectively verified. With respect to fisheries in the high seas, the legal obligations of UNCLOS and UNFSA have particular relevance. See also Essential Component D.1.09 regarding the need for effective and suitable monitoring, surveillance, control and enforcement of the fishery of which the unit of certification is a part. Evidence of the performance of the legal framework can be derived from the assessment of conformance with other Essential Components, in particular D.1.09 and D.1.10 covering compliance and enforcement.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 29.5 (36.6); 6 Paragraph 29.5 requires the establishment of an effective legal and administrative framework at the local, national or regional level, as appropriate, is established for the fishery (CCRF Article 7.7.1).</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.1 08 01 See page 237</p>	

GSSI Essential Components for Fisheries Certification Standards

D.1 09 COMPLIANCE OF THE FISHERY

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires effective and suitable monitoring, surveillance, control and enforcement of the fishery of which the unit of certification is a part.</p>	<p>Effective and suitable monitoring, surveillance, control and enforcement is described in the Glossary. Evidence of high levels of compliance in the fishery of which the Unit of Certification is a part with all applicable local, national and international laws and regulations (as appropriate, per Essential Component D.1.10) would be indicative of effective monitoring, surveillance, control and enforcement. The suitability of monitoring, surveillance, control and enforcement for the fishery of which the Unit of Certification is a part should be assessed by the technical team undertaking the assessment for certification relative to the standard.</p> <p>Both this Essential Component and Essential Component D.1.08 (effective legal framework) derive from Paragraph 29.5 (36.6) of the Ecolabelling Guidelines which refers to “the fishery”. It is, therefore, the effective and suitable monitoring, surveillance, control and enforcement of the “fishery” (see Glossary) that is the subject of this Essential Component, and this may extend beyond the unit of certification (as per paragraph 25 of the Guidelines, the unit of certification could encompass: the whole fishery, where a fishery refers to the activity of one particular gear-type or method leading to the harvest of one or more species; a sub-component of a fishery, for example a national fleet fishing a shared stock; or several fisheries operating on the same resources). If the stock under consideration is not transboundary, then the Standard need only be concerned with the effectiveness and suitability of the monitoring, surveillance, control and enforcement activities at the national level for the fishery of which the Unit of Certification is a part. For transboundary stocks, however, there are several Essential Components that apply such that the Standard must be concerned with fishery management and compliance at the international level and the status of the whole stock across its entire range. Essential Component D.1.08 covers the need for an effective legal framework at the local, national or regional (international) level as appropriate and Essential Component D.1.10 covers the need for the Unit of Certification to be operating in compliance with the requirements of local, national and international law and regulations. Under Essential Component D.1.04, where the stock under consideration is a transboundary fish stock, straddling fish stock, highly migratory fish stock or high seas fish stock, the standard must require the existence of a bilateral, subregional or regional fisheries organization or arrangement (e.g. an RFMO), as appropriate, covering the stock under consideration over its entire area of distribution. This is to make sure that management of these stocks and fleets that fish on them is coordinated at the international level. RFMOs are not generally responsible directly for monitoring, surveillance, control and enforcement; this is done by national authorities (i.e. of vessels operating within their waters of national jurisdiction and also of vessels flying their flag when they are fishing outside of those waters). If the Unit of Certification is part of a national fleet fishing on a transboundary stock, then it is still likely to be the effectiveness and suitability of the monitoring, surveillance, control and enforcement activities at the national level which is of prime</p>

Paragraph references to FAO Guidelines for Ecolabelling Fish and Fishery Products from Marine/Inland Fisheries (paragraph references to the inland guidelines are in parenthesis), and where listed FAO Code of Conduct for Responsible Fisheries (CCRF).

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	<p>importance for certification. If the Unit of Certification covers all the fishing on the stock under consideration, then the monitoring, surveillance, control and enforcement all of the national fleets is of concern. Note also that under Essential Component D.5.02 (assessment of the stock under consideration), the Standard must require assessment of the current status and trends of the stock under consideration to consider total fishing mortality on that stock from all sources, and under Essential Component D.6.01, the stock under consideration must not be overfished. Hence any deficiencies in the monitoring, surveillance, control and enforcement of fleets fishing on a stock under consideration that is a transboundary fish stock, straddling fish stock, highly migratory fish stock or high seas fish stock that compromise the effective assessment of the status of that stock would need to be of concern for certification.</p> <p>Article 7.7.2 of the CCRF requires states to ensure that laws and regulations provide for sanctions applicable in respect of violations which are adequate in severity to be effective.</p> <p>Article 7.7.3 of the CCRF requires states, in conformity with their national laws, to implement effective fisheries monitoring, control, surveillance and law enforcement measures including, where appropriate, observer programmes, inspection schemes and vessel monitoring systems. Standards may refer to these mechanisms as appropriate.</p>
<p>FAO REFERENCE</p>	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 29.5 (36.6)</p> <p>Paragraph 29.5 of the Marine Guidelines includes the requirement for effective mechanisms for monitoring, surveillance, control and enforcement applicable to the unit of certification. The equivalent paragraph in the Inland Guidelines (36.6) requires suitable mechanisms for monitoring, surveillance, control, and enforcement. Hence the GSSI Essential Component refers to both effective and suitable.</p>	
<p>RELATED SUPPLEMENTARY COMPONENTS</p>	
<p>D.1 09 01 See page 238</p>	<p>D.1 09 02 See page 239</p>

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D.1 10 COMPLIANCE OF THE FISHERY

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that the Unit of Certification operates in compliance with the requirements of local, national and international law and regulations.</p>	<p>This requirement covers the compliance of the Unit of Certification with all applicable laws and regulations. Paragraph 28 (35) of the Ecolabelling Guidelines requires compliance both by the fishery and the management system. The requirement for the management system to be in compliance with applicable laws and regulations is addressed in Essential Component D.1.07.</p> <p>Conformance with this Essential Component should be considered alongside Essential Component D.1.09 - the requirement for effective and suitable monitoring, surveillance, control and enforcement. Conformance with this Essential Component requires there to be no evidence of systematic (methodical, regular, organized) or systemic (universal, throughout the system) non-compliance by fishers in the unit of certification with the requirements of local, national and international law and regulations. However, a lack of evidence of non-compliance by itself may not be sufficient if the monitoring, surveillance, control and enforcement is not effective and suitable for the fishery. Evidence of non-compliance may come from a variety of sources, including local and national monitoring, surveillance, control and enforcement programs, regional fisheries management organisations (RFMOs), and third party bodies such as industry organisations and non-governmental organisations. The Standard should require all of these sources to be consulted and taken into consideration.</p> <p>Article 7.7.2 of the CCRF requires states to ensure that laws and regulations provide for sanctions applicable in respect of violations which are adequate in severity to be effective.</p> <p>Article 7.7.3 of the CCRF requires states, in conformity with their national laws, to implement effective fisheries monitoring, control, surveillance and law enforcement measures including, where appropriate, observer programmes, inspection schemes and vessel monitoring systems. Standards may refer to these mechanisms as appropriate.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28. (35); 29.5 (36.6)</p> <p>Paragraph 28 (35) requires that the management system and the fishery operate in compliance with the requirements of local, national and international law and regulations. The “fishery” referred to in paragraph 28 in this context is regarded to be the Unit of Certification.</p>	

GSSI Essential Components for Fisheries Certification Standards

► STOCK UNDER CONSIDERATION

D.2 **01** MANAGEMENT OBJECTIVES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of management objectives that are applicable to the unit of certification and the stock under consideration and seek outcomes consistent with the long term sustainable use of the fisheries resources under management.</p>	<p>The Standard must show evidence of requiring the existence of clearly stated management objectives that meet the description in the Glossary The appropriateness of those objectives is tested through the assessment of conformance with Essential Components in other Performance Areas, including, the actions (management measures, monitoring etc.) taken to meet them and the outcomes for the stock under consideration and the ecosystem.</p> <p>The “fishery” referred to in Paragraph 28 of the Guidelines encompasses both the unit of certification and the stock under consideration (as per paragraph 28.1), as do the management objectives referred to in this Essential Component.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 40 (51); 28 (35); 29(36)</p> <p>Paragraph 40 (51) of the Guidelines states that the setting of standards is among the most critical tasks of any ecolabelling scheme of products from sustainable marine (and inland) capture fisheries (including enhanced fisheries) and that the standards reflect the objectives for sustainable capture fisheries that are being pursued through the scheme. .</p> <p>The CCRF addresses Management Objectives in Article 7.2. “Recognizing that long-term sustainable use of fisheries resources is the overriding objective of conservation and management, States and subregional or regional fisheries management organizations and arrangements should, inter alia, adopt appropriate measures, based on the best scientific evidence available, which are designed to maintain or restore stocks at levels capable of producing maximum sustainable yield, as qualified by relevant environmental and economic factors, including the special requirements of developing countries.”</p> <p>Paragraph 28 of the Guidelines requires that the fishery is conducted under a management system which is based upon good practice and that ensures the satisfaction of the requirements and criteria described in Paragraph 29. Paragraphs 28 and 29 are therefore very closely linked. Paragraph 29.2bis requires that the determination of suitable conservation and management measures should include or take account of (inter alia) the following:</p> <ul style="list-style-type: none"> - Management targets are consistent with achieving maximum sustainable yield (MSY) (or a suitable proxy) on average, or a lesser fishing mortality if that is optimal in the circumstances of the fishery (e.g. multispecies fisheries) or to avoid severe adverse impacts on dependent predators. - The management system should specify limits or directions in key performance indicators consistent with avoiding recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible, and specify the actions to be taken if the limits are approached or the desired directions are not achieved. <p>Paragraph 28.1 of the Guidelines requires documented management approaches for the “stock under consideration” with a well based expectation that management will be successful taking into account uncertainty and imprecision. This requires the specification of management objectives for the stock under consideration.</p>	

GSSI Essential Components for Fisheries Certification Standards

► MANAGEMENT SYSTEM

D.2 **02** BEST SCIENTIFIC EVIDENCE AVAILABLE

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that management objectives take into account the best scientific evidence available.</p>	<p>This Essential Component applies to all management objectives referred to in Essential Components under Performance Area D.2. Best scientific evidence available is described in the Glossary. It can come from assessments of stock status outside of the typical “stock assessment”, accommodating techniques for data limited fisheries and including traditional knowledge, providing its validity can be objectively verified (i.e. the knowledge has been collected and analysed through a systematic process, and is not simply hearsay).</p> <p>Note that the requirement for the management system to take into account the best scientific evidence available is not inconsistent with the Precautionary Approach (see Essential Component D.3.12), which requires inter alia that the absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures. Both of these requirements apply.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 2.10 (2.11); 29.2 (36.2)</p> <p>Principle 2 of the Guidelines: The following principles should apply to ecolabelling schemes for marine [inland] capture fisheries: 2.10: Be based on the best scientific evidence available, also taking into account traditional knowledge of the resources provided that its validity can be objectively verified.</p> <p>Paragraph 29.2 of the Guidelines requires that the best scientific evidence available is taken into account by the designated authority in determining suitable conservation and management measures. This reflects Paragraph 6.4 in the CCRF which states that conservation and management decisions for fisheries should be based on the best scientific evidence available. In addition, Article 7.5.3 of the CCRF requires that stock specific target and limit reference points be determined by States and subregional or regional fisheries management organizations and arrangements on the basis of the best scientific evidence available.</p>	

GSSI Essential Components for Fisheries Certification Standards

► STOCK UNDER CONSIDERATION

D.2 **03** REFERENCE POINTS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that the management objectives clearly define target and limit reference points, or proxies for the stock under consideration on the basis of the best scientific evidence available and in accordance with the Precautionary Approach. Target reference points must be consistent with achieving Maximum Sustainable Yield, MSY (or a suitable proxy) on average and limit reference points (or proxies) must be consistent with avoiding recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>The Glossary provides descriptions of target and limit reference points. Reference points must be set at levels consistent with achieving maximum sustainable yield (MSY) (or a suitable proxy) on average, or a lesser fishing mortality if that is optimal in the circumstances of the fishery (e.g. multispecies fisheries) or to avoid severe adverse impacts on dependent predators. To be effective, reference points must be incorporated within a framework of decision rules (See D.3.04) to ensure that the stock does not fall below a limit, Blim, at which recruitment could be significantly impaired, or lead to average recruitment that is significantly lower than it would be with a higher stock biomass. The level of Blim should be set on the basis of historical information, applying an appropriate level of precaution according to the reliability of that information. In addition, an upper limit should be set on fishing mortality, Flim, which is the fishing mortality rate that, if sustained, would drive biomass down to the Blim level.</p> <p>A proxy is a surrogate or substitute approach that results in acceptable outcomes consistent with the primary approach. In the context of reference points, when data are insufficient to estimate reference points directly other measures of productive capacity can serve as reasonable substitutes or “proxies”. Suitable proxies may be, for example, standardized cpue as a proxy for biomass or specific levels of fishing mortality and biomass which have proven useful in other fisheries and can be used with a reasonable degree of confidence in the absence of better defined levels. It is important to note that the use of a proxy may involve additional uncertainty, and if so, should trigger the use of extra precaution in the setting of biological reference points. The words “or proxies” are a consideration for small scale and/or data limited fisheries, This should not be interpreted to mean that small scale and/or data limited fisheries do not require target and limit reference points, but that the methods used to develop them and monitor the stock status in relation to them may be less data intensive than for large scale fisheries. See also Essential Components D.1.04 and D.5.04.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 29.2 (36.2); 29.6 (36.7)</p> <p>Paragraph 29.2 refers to the use of the best scientific evidence available to evaluate the current state of the stock under consideration in relation to, where appropriate, stock specific target and limit reference points. Stock specific target and limit reference points are also required under Article 7.5.3 of the CCRF.</p> <p>Paragraph 29.6 requires that the precautionary approach is being implemented to protect the stock under consideration and the preserve the aquatic environment (in accordance with the CCRF, Article 7.5). This requires the target and limit reference points, or proxies for the stock under consideration to be defined in accordance with the Precautionary Approach.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.2 03 01 See page 240</p>	<p>D.2 03 02 See page 241</p>

Paragraph references to FAO Guidelines for Ecolabelling Fish and Fishery Products from Marine/Inland Fisheries (paragraph references to the inland guidelines are in parenthesis), and where listed FAO Code of Conduct for Responsible Fisheries (CCRF).

GSSI Essential Components for Fisheries Certification Standards

D.2 04 ENHANCED FISHERIES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires, in the case of enhanced fisheries, the existence of management objectives consistent with avoiding significant negative impacts of enhancement activities on the natural reproductive stock component of the stock under consideration and any other wild stocks from which the organisms for stocking are being removed.</p>	<p>All Essential Components that address Enhanced Fisheries can be “not applicable” to schemes that do not cover these fisheries. However, it is incumbent on the scheme to explicitly exclude enhanced fisheries (rather than explicitly include them) in order for these requirements to be not applicable. If the scheme remains silent on the issue of enhanced fisheries, then the standard could potentially be applied to fisheries that include enhanced components, but if these are not properly dealt with by the standard (i.e. as per GSSI Essential Components) then the scheme would be deficient when being used to certify such fisheries. In essence, the default position is that a scheme/standard can be applied to enhanced fisheries unless it excludes them explicitly.</p> <p>The term “significant negative impacts” is used in the FAO Inland Guidelines. This was not intended to be equivalent to “severe adverse impacts” (on dependent predators). The FAO consultation that resulted in the drafting of the Inland Guidelines considered that avoidance of “severe adverse impacts” only would not be consistent with a management obligation to manage enhancement in ways that would not impact the productivity and abundance of the natural reproductive stock component of the stock under consideration.</p> <p>Any displacement of the naturally reproductive stock components of enhanced stocks must not reduce the natural reproductive stock components below abundance-based Target Reference Points or their proxies. Note that the Target Reference Points are for the natural reproductive stock component. For example, in the case of salmon fisheries, if the spawning stock is comprised of fish both from enhanced and natural origins, the escapement goal considers only the natural origin component. An example Target Reference Point would be an escapement target based on the natural reproductive stock component.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) (39); (40)</p> <p>Paragraph 39 states that the overall enhanced fishery should be managed in such a way that the naturally reproductive components are managed in accordance with the provisions of Article 7 of the CCRF and with paragraph 37 (this is the equivalent of paragraph 30 in the marine capture fisheries guidelines). The following criteria are to be interpreted in the context of avoiding significant negative impacts of enhancement activities on the natural reproductive components of “stock under consideration”:</p> <ul style="list-style-type: none"> - naturally reproductive components of enhanced stocks are not overfished; - naturally reproductive components of enhanced stocks are not substantially displaced by stocked components. In particular, displacement must not result in a reduction of the natural reproductive stock component below abundance-based target reference points (or their proxies) defined for the regulation of harvest in accordance with paragraph 37. <p>Paragraph 40 states that enhanced fisheries may be supported in part by stocking of organisms produced in aquaculture facilities or removed from wild stocks other than the “stock under consideration”. Removal of organisms from wild stocks other than the stock of consideration should be managed according to the provisions of Article 7 of the CCRF with respect to the stock from which organisms are being removed.</p>	

GSSI Essential Components for Fisheries Certification Standards

► ECOSYSTEM EFFECTS OF FISHING

D.2 **05** NON-TARGET CATCHES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of management objectives that seek to ensure that non-target catches and discards by the unit of certification of stocks other than the stock under consideration and any associated culture and enhancement activity do not threaten those non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>The term “target” in this Essential Component is used only in the context of “target stock status” in the Elements. This refers to the status of the stock under consideration only. “Non-target catches” refers to everything other than the stock under consideration.</p> <p>This Essential Component is explicitly and deliberately confined to the effects of non-target catches and discards by the unit of certification on those non-target species/stocks. Cumulative effects on non-target species/stocks are not included in the Ecolabelling Guidelines. They are not part of the Essential Components, but they are covered in the Supplemental Components. The component relating to enhancement activity may be “not applicable” to schemes that explicitly do not cover enhanced fisheries.</p> <p>Examples of irreversible or very slowly reversible effects on bycatch species include excessive depletion of very long-lived organisms (see Glossary). To mitigate effects that are likely to be irreversible or very slowly reversible requires those effects to be made less severe such that they are no longer likely to be irreversible or very slowly reversible.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28.2 (35.2); 31.1 (41.1)</p> <p>Paragraph 28.2 requires objectives, and as necessary, management measures to address pertinent aspects of the ecosystem effects of fishing as per paragraph 31.</p> <p>Paragraph 31 requires those [ecosystem] impacts that are likely to have serious consequences should be addressed. This may take the form of an immediate management response or further analysis of the identified risk.</p> <p>Paragraph 41.1 of the Inland guidelines (a re-write of paragraph 31.1 from the marine guidelines) states: “Non-target catches, including discards, of stocks other than the “stock under consideration” are monitored and should not threaten these non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible. If such impacts arise, effective remedial action should be taken.”</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.2 05 01 See page 242</p>	<p>D.2 05 02 See page 243</p>

GSSI Essential Components for Fisheries Certification Standards

D.2 06 ENDANGERED SPECIES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of management objectives that seek to ensure that endangered species are protected from adverse impacts resulting from interactions with the unit of certification and any associated culture or enhancement activity, including recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible</p>	<p>The context of this Essential Component is Endangered Species. Endangered species are defined in the Glossary. These species are already adversely impacted at the population level, by definition, and are susceptible to further adverse impacts at this level from which they need to be protected. Where “adverse impacts” is used in the FAO Guidelines (“adverse impacts of the fishery on the ecosystem”) there is no further qualification provided (i.e. no “significant” or “severe”). Elsewhere in the Guidelines, the term “adverse impacts” is qualified, but in each case this is in a very specific context. For example, the term “significant negative impacts” is used in the FAO Ecolabelling Guidelines only in relation to enhanced fisheries and “severe adverse impacts” is used only in relation to dependent predators. The term “significant adverse impacts” occurs only in the Deep Sea Guidelines with respect to VMEs.</p> <p>The FAO Guidelines acknowledge that much greater scientific uncertainty is to be expected in assessing possible adverse ecosystem impacts of fisheries than in assessing the state of target stocks (paragraph 31 (41)), hence the management objectives to protect endangered species should take into account risk and uncertainty.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28.2 (35.2); 31 (41); 31.1 (41.1); CCRF 7.2.2, 7.6.9 and 7.2.2.</p> <p>The CCRF mentions endangered species in Articles 7.2.2 (objectives) and 7.6.9 (minimizing catch). CCRF Article 7.2.2(d) requires that endangered species are protected through the adoption of appropriate measures, based on the best scientific evidence available. Endangered species are not specifically mentioned in the Marine Guidelines (see below for the Inland Guidelines). Paragraph 31.1 (41.1) requires that non-target catches (implicitly including endangered species that are caught by the unit of certification) are monitored and should not threaten those non-target stocks with serious risk of extinction. Paragraph 41.1 of the Inland Guidelines (a re-write of paragraph 31.1 from the marine fisheries guidelines) states: “Non-target catches, including discards, of stocks other than the “stock under consideration” are monitored and should not threaten these non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible. If such impacts arise, effective remedial action should be taken.”</p> <p>Paragraph 31 of the Guidelines requires that adverse impacts of the fishery on the ecosystem should be appropriately assessed and effectively addressed. Paragraph 41 of the Inland Guidelines (the equivalent of Paragraph 31 of the Marine Guidelines) goes on to say that enhanced fisheries will be managed to ensure biodiversity of aquatic habitats and ecosystems are conserved and endangered species protected. Paragraph 28.2 (35.2) requires objectives, and as necessary, management measures to address pertinent aspects of the ecosystem effects of fishing as per paragraph 31 (41).</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.2 06 01 See page 244</p>	

GSSI Essential Components for Fisheries Certification Standards

D.2 07 HABITAT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of management objectives seeking to avoid, minimize or mitigate impacts of the unit of certification on essential habitats for the stock under consideration and on habitats that are highly vulnerable to damage by the fishing gear of the unit of certification.</p>	<p>Essential habitats are described in the Glossary. The CCRF (Article 6.8) refers to “critical fisheries habitats in marine and fresh water ecosystems” which can be regarded as substantively the same as essential habitats for the purposes of the practical application of this Essential Component. Critical fisheries habitats in marine and fresh water ecosystems include wetlands, mangroves, reefs, lagoons, nursery and spawning areas. Examples of impacts on habitat that should be avoided include those listed in the CCRF: destruction, degradation, pollution and other significant impacts. In accordance with Paragraph 28.2 of the Ecolabelling Guidelines, in assessing fishery impacts, the full spatial range of the relevant habitat should be considered, not just that part of the spatial range that is potentially affected by fishing. The purpose of this is to consider both the degree to which the habitat is rare, or common, and also that there may be impacts on the same habitat in other parts of its spatial range.</p>
<p>FAO REFERENCE</p>	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28.2 (35.2); 31.3 (41.3)</p> <p>Paragraph 28.2 of the Guidelines requires objectives, and as necessary, management measures to address pertinent aspects of the ecosystem effects of fishing as per paragraph 31. Paragraph 31.3 requires that impacts on essential habitats [for the stock under consideration] and on habitats that are highly vulnerable to damage by the fishing gear involved are avoided, minimized or mitigated. In assessing fishery impacts, the full spatial range of the relevant habitat should be considered, not just that part of the spatial range that is potentially affected by fishing.</p> <p>Article 6.8 of the CCRF states that all critical fisheries habitats in marine and fresh water ecosystems, such as wetlands, mangroves, reefs, lagoons, nursery and spawning areas, should be protected and rehabilitated as far as possible and where necessary. Particular effort should be made to protect such habitats from destruction, degradation, pollution and other significant impacts resulting from human activities that threaten the health and viability of the fishery resources.</p>	
<p>RELATED SUPPLEMENTARY COMPONENTS</p>	
<p>D.2 07 01 See page 245</p>	

GSSI Essential Components for Fisheries Certification Standards

D.2 08 DEPENDENT PREDATORS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of management objectives that seek to avoid severe adverse impacts on dependent predators resulting from fishing on a stock under consideration that is a key prey species.</p>	<p>This Essential Component is about objectives for fishing mortality on stocks under consideration that are key prey species, not about fishing mortality on Dependent Predators themselves. Where the stock under consideration is a key prey species, the standard must require that fishing mortality on that species/stock is managed so as not to result in severe adverse impacts on Dependent Predators. The FAO Guidelines require that all sources of fishing mortality on the stock under consideration are taken into account (whether or not it is a prey species) in assessing the state of the stock under consideration, including discards, unobserved mortality, incidental mortality, unreported catches and catches in other fisheries. Management measures to meet these objectives are required under D.3.10. Severe adverse impacts are mentioned in the Essential Components only in relation to dependent predators. This is in line with the Ecolabelling Guidelines. The severity of adverse impacts is related to their potential reversibility. Severe adverse impacts can be regarded as those that are likely to be irreversible or very slowly reversible, which is described in the Glossary.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28.2 (35.2); 31.2 (41.2);</p> <p>Paragraph 28.2 of the Guidelines requires objectives, and as necessary, management measures to address pertinent aspects of the ecosystem effects of fishing as per paragraph 31.</p> <p>Paragraph 31.2 of the Guidelines requires that if the stock under consideration is a key prey species in the ecosystem, management measures are in place to avoid severe adverse impacts on dependent predators.</p>	

GSSI Essential Components for Fisheries Certification Standards

D.2 09 ECOSYSTEM STRUCTURE, PROCESSES AND FUNCTION

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of management objectives that seek to minimize adverse impacts of the unit of certification, including any associated enhancement activities if applicable, on the structure, processes and function of aquatic ecosystems that are likely to be irreversible or very slowly reversible.</p>	<p>This Essential Component covers adverse impacts on the structure, processes and function of aquatic ecosystems. Ecosystem structure, processes and function are described in the Glossary. The Guidelines do not extend consideration of these impacts to all fisheries operating in the ecosystem where the unit of certification is operating and therefore this is not included in this Essential Component. This language is in accordance with Section 4.1.4.1 of the FAO Ecosystem Approach to Fisheries, which suggests one of the broad management objectives for fisheries could be to keep impact on the structure, processes and functions of the ecosystem at an acceptable level.</p> <p>An earlier version of the requirements included an Essential Component on the conservation of biodiversity. Conservation of biodiversity is not mentioned separately in the Guidelines, but it is included in the CCRF Article 7.2.2 (d), which requires that States and sub-regional or regional fisheries management organizations and arrangements should adopt appropriate measures, based on the best scientific evidence available to provide that inter alia biodiversity of aquatic habitats and ecosystems is conserved. The structure processes and function of aquatic ecosystems includes biodiversity, hence this is considered to be included in this Essential Component.</p> <p>Examples of irreversible or very slowly reversible indirect effects on the ecosystem include genetic modification and changed ecological role.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28.2 (35.2); 31.2 (41.2);</p> <p>Paragraph 28.2 of the Guidelines requires objectives, and as necessary, management measures to address pertinent aspects of the ecosystem effects of fishing as per paragraph 31.</p> <p>Paragraph 31.2 of the Guidelines requires that if the stock under consideration is a key prey species in the ecosystem, management measures are in place to avoid severe adverse impacts on dependent predators.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.2 09 01 See page 246</p>	<p>D.2 09 02 See page 247</p>
<p>D.2 09 03 See page 248</p>	

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► MANAGEMENT SYSTEM

D.3 **01** DOCUMENTED MANAGEMENT APPROACH

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of documented management approaches or other management framework covering the unit of certification and the stock under consideration, including management measures consistent with achieving management objectives for the stock under consideration.</p>	<p>A documented management approach or other management framework is an important component of the Management System. It provides clarity and transparency with respect to how the system is intended to function. The establishment of management approaches for the stock under consideration may not be entirely within the purview of the fishery management organization or arrangement that manages the fishery of which the Unit of Certification is a part. The stock's distribution may extend beyond its area of jurisdiction and there may be other fisheries targeting the stock under consideration that fall under a separate administrative jurisdiction (potentially in another country). Nevertheless the management measures that apply to the unit of certification should be consistent with achieving management objectives for the stock under consideration.</p> <p>There is no uniform way that management approaches need to be documented (for example they do not have to be all within one overarching Fishery Management Plan), but the standard must require the various elements of the management system to be present and identifiable and in use by the fishery management organization or arrangement (D.1.01) , including the constitution and rules and procedures of the Fisheries Management Organization or Arrangement and the compliance regime (D.1.01-D.1.07); the legal framework (D.1.08); the management objectives (D.2); methodologies (D.5) although not necessarily all within one overarching Fishery Management Plan. It should be expected that the documentation would be current. The frequency of updates should be consistent with the requirements of meeting the management objectives and implementing management measures.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28.1 (35.1). CCRF Article 7.3.3</p> <p>Paragraph 28.1 of the Guidelines requires documented management approaches for the stock under consideration with a well based expectation that management will be successful, taking into account uncertainty and imprecision.</p> <p>Article 7.3.3 of the CCRF requires that long-term management objectives be translated into management actions, formulated as a fishery management plan or other management framework.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.3 01 01 See page 249</p>	<p>D.3 01 02 See page 250</p>
<p>D.3 01 03 See page 251</p>	

GSSI Essential Components for Fisheries Certification Standards

D.3 02 BEST SCIENTIFIC EVIDENCE AVAILABLE

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that management measures implemented through the management system to achieve the management objectives are based on the best scientific evidence available.</p>	<p>This Essential Component applies to all management measures referred to in Essential Components under Performance Area D.3.</p> <p>Best scientific evidence available is described in the Glossary. Note that it includes traditional knowledge and can come from assessments of stock status outside of a typical stock assessment, accommodating techniques for data limited fisheries, providing their validity can be objectively verified (i.e. the knowledge has been collected and analysed through a systematic process, and is not simply hearsay).</p> <p>Note also that the requirement for the management system to take into account the best scientific evidence available is not inconsistent with the Precautionary Approach (see Essential Component D.3.12), which requires inter alia that the absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures. Both of these requirements apply.</p>
FAO REFERENCE	
<p>2.10 [2.11]; 29.2 [36.2] FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 2.10 (2.11); 29.2 (36.2)</p> <p>Principle 2 of the Guidelines: The following principles should apply to ecolabelling schemes for marine [inland] capture fisheries: 2.10: Be based on the best scientific evidence available, also taking into account traditional knowledge of the resources provided that its validity can be objectively verified.</p> <p>Paragraph 29.2 of the Guidelines requires that the best scientific evidence available is taken into account by the designated authority in determining suitable conservation and management measures. This reflects Article 6.4 in the CCRF which states that conservation and management decisions for fisheries should be based on the best scientific evidence available. In addition, Article 7.5.3 of the CCRF requires that stock specific target and limit reference points be determined by States and subregional or regional fisheries management organizations and arrangements on the basis of the best scientific evidence available.</p>	

GSSI Essential Components for Fisheries Certification Standards

► STOCK UNDER CONSIDERATION

D.3 **03** FISHING MORTALITY

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that management measures for the stock under consideration consider the impacts on the stock under consideration of all the fisheries utilizing that stock under consideration over its entire area of distribution.</p>	<p>This Essential Component addresses cumulative impacts of fishing from all sources on the stock under consideration as specified in the Ecolabelling Guidelines. Management measures for the stock under consideration must be based on an assessment of that stock which takes account of all removals from the stock over its entire area of distribution, i.e. not just by the unit of certification but by all fisheries that utilize that stock, including bycatch, discards, unobserved mortality, incidental mortality, unreported catches, and catches taken outside of the unit of certification. These terms are not defined here, or in the Glossary. They are used collectively in this context to cover all possible descriptions of fishery removals of the stock under consideration.</p> <p>Area of Distribution is described in the Glossary based on a CITES reference for species, but this can apply to stocks in a fisheries context.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 25 (32); 29.2bis (36.3);</p> <p>Principle 2 of the Guidelines: The following principles should apply to ecolabelling schemes for marine [inland] capture fisheries: 2.10: Be based on the best scientific evidence available, also taking into account traditional knowledge of the resources provided that its validity can be objectively verified.</p> <p>Paragraph 29.2 of the Guidelines requires that the best scientific evidence available is taken into account by the designated authority in determining suitable conservation and management measures. This reflects Article 6.4 in the CCRF which states that conservation and management decisions for fisheries should be based on the best scientific evidence available. In addition, Article 7.5.3 of the CCRF requires that stock specific target and limit reference points be determined by States and subregional or regional fisheries management organizations and arrangements on the basis of the best scientific evidence available.</p>	

GSSI Essential Components for Fisheries Certification Standards

D.3 04 DECISION RULES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that management measures specify the actions to be taken in the event that the status of the stock under consideration drops below levels consistent with achieving management objectives that allow for the restoration of the stock to such levels within a reasonable time frame. This requirement also pertains to species introductions or translocations that have occurred historically and which have become established as part of the natural ecosystem.</p>	<p>This requires the specification in advance of decision rules that mandate remedial management actions to be taken if target reference points are exceeded and/or limit reference points are approached or exceeded or the desired directions in key indicators of stock status are not achieved. For example, decreasing fishing mortality (or its proxy) if the stock size approaches its limit reference point. This is a central component of the Precautionary Approach (see D.3.12).</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 29.2bis (36.3); 30. (37);</p> <p>Paragraph 29.2bis of the Guidelines requires that the management system specifies limits or directions in key performance indicators, consistent with avoiding recruitment overfishing or other impacts on the stock(s) under consideration that are likely to be irreversible or very slowly reversible, and specify the actions to be taken if the limits are approached or the desired directions are not achieved. In the event that biomass of the stock(s) under consideration drops well below target levels, Paragraph 30 requires that management measures should allow for restoration of the stocks to such levels within reasonable time frames. Paragraph 37 of the Inland Guidelines (the equivalent to paragraph 30 in the Marine Guidelines) states that this requirement also pertains to species introductions or translocations that have occurred historically and which become established as part of the natural ecosystem. Although the latter is more applicable to Inland ecosystems, it can also be relevant to marine ecosystems and is therefore added here.</p> <p>Article 7.5.3 of the CCRF requires the determination of stock specific target and limit reference points and the action to be taken if they are exceeded, and in the case of limit reference points, if it they are approached, to ensure that they are not exceeded.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.3 04 01 See page 252</p>	

GSSI Essential Components for Fisheries Certification Standards

D.3 05 ENHANCED FISHERIES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires, in the case of enhanced fisheries, management measures designed to achieve management objectives (see D.2.06) seeking to avoid significant negative impacts of enhancement activities on the natural reproductive stock components of the stock under consideration and any other wild stocks from which the organisms for stocking are being removed.</p>	<p>This Essential Component addresses the need for standards to require management measures to achieve the management objectives in Essential Component D.2.06. It refers to Enhanced Fisheries, hence it may be regarded as not applicable if the Scheme/Standard explicitly excludes enhanced fisheries (see also Guidance for D.2.06) The term natural reproductive stock components is explained in the Glossary. The term “significant negative impacts” is used in the Inland Guidelines. This was not intended to be equivalent to severe adverse impacts (on dependent predators). The consultation that resulted in the drafting of the Inland Guidelines considered that avoidance of “severe adverse impacts” only would not be consistent with a management obligation to manage enhancement in ways that would not impact the productivity and abundance of the natural reproductive stock component of the stock under consideration.</p> <p>In the case where organisms for stocking originate from wild stocks other than the stock under consideration, those stocks should be managed according to the provisions of Article 7 of the CCRF. In particular, those stocks should be within biologically based limits, or if outside those limits, the removal of organisms for stocking purposes does not hinder recovery and rebuilding of those stocks</p> <p>Standards that apply to enhanced components of the stock under consideration require that stocking of enhanced fisheries, whether sourced from aquaculture facilities or wild stocks, is undertaken in such a way as to maintain inter alia:</p> <ul style="list-style-type: none"> i) The integrity of the environment; ii) The conservation of genetic diversity; iii) Disease control; and iv) Quality of stocking material v) The donor wild stocks
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) (39); (40)</p> <p>Paragraph 39 of the Inland Guidelines require that the overall enhanced fishery should be managed in such a way that the naturally reproductive components are managed in accordance with the provisions of Article 7 of the CCRF and with paragraph 37 of the Guidelines in the context of avoiding significant negative impacts of enhancement activities on the natural reproductive components of “stock under consideration”. Paragraph 37 requires that the “stock under consideration” is not overfished, and is maintained at a level which promotes the objective of optimal utilization and maintains its availability for present and future generations.</p> <p>Paragraph 40 of the Inland Guidelines states that Removal of organisms from wild stocks other than the stock of consideration should be managed according to the provisions of Article 7 of the Code of Conduct for Responsible Fisheries with respect to the stock from which organisms are being removed.</p>	

GSSI Essential Components for Fisheries Certification Standards

► ECOSYSTEM EFFECTS OF FISHING

D.3 **06** NON-TARGET CATCHES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that management measures are designed to achieve management objectives (see D.2.07) seeking to ensure that non-target catches and discards by the unit of certification of stocks other than the stock under consideration and any associated culture and enhancement activity do not threaten those non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>This is the partner Essential Component of D.2.07. Non-target catches and discards refers to species/stocks that are taken by the unit of certification other than the stock for which certification is being sought (see Glossary). Examples of irreversible or very slowly reversible effects on bycatch species include recruitment overfishing or excessive depletion of very long-lived organisms. Management measures should mitigate effects that are likely to be irreversible or very slowly reversible by making those effects less severe such that they are no longer likely to be irreversible or very slowly reversible.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28.2 (35.2); 31.1 (41.1)</p> <p>Paragraph 28.2 of the Guidelines requires objectives, and as necessary, management measures to address pertinent aspects of the ecosystem effects of fishing as per paragraph 31. Paragraph 31 requires those [ecosystem] impacts that are likely to have serious consequences should be addressed. This may take the form of an immediate management response or further analysis of the identified risk.</p> <p>Paragraph 41 of the Inland Guidelines (a re-write of paragraph 31 from the Marine Guidelines) states that adverse impacts of the fishery and any associated culture and enhancement activity on the ecosystem should be appropriately assessed and effectively addressed. Paragraph 41.1 of the Inland Guidelines states that Non-target catches, including discards, of stocks other than the “stock under consideration” are monitored and should not threaten these non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible. If such impacts arise, effective remedial action should be taken.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.3 06 01 See page 253</p> <p>D.3 06 04 See page 256</p> <p>D.3 06 07 See page 259</p>	<p>D.3 06 02 See page 254</p> <p>D.3 06 05 See page 257</p>
<p>D.3 06 03 See page 255</p> <p>D.3 06 06 See page 258</p>	

GSSI Essential Components for Fisheries Certification Standards

D.3 07 NON-TARGET CATCHES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of management measures that minimize unwanted catch and discards, where appropriate, and reduce post-released mortality where incidental catch is unavoidable.</p>	<p>This Essential Component is related to D.3.06 in that minimizing unwanted catch and discards and reducing post-released mortality can help to reduce the impact of non-target catches and discards by the unit of certification. Under the CCRF, users of aquatic ecosystems should minimize waste and catch of non-target species, both fish and non-fish species. Non-target catches and discards refer to species/stocks that are taken by the unit of certification other than the stock for which certification is being sought (see Glossary).</p> <p>The words “where appropriate” give a scheme the flexibility not to require a fishery to have bycatch avoidance if there is no risk of bycatch in the fishery.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 31 (41); 31.1 (41.1); FAO CCRF 6.6</p> <p>Paragraph 31 of the Guidelines requires those [ecosystem] impacts that are likely to have serious consequences should be addressed. This may take the form of an immediate management response or further analysis of the identified risk.</p> <p>Paragraph 41.1 of the Inland Guidelines (a re-write of 31.1 from the Marine Guidelines) states that Non-target catches, including discards, of stocks other than the “stock under consideration” are monitored and should not threaten these non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible. If such impacts arise, effective remedial action should be taken.</p> <p>Article 6.6 of the CCRF requires that States and users of aquatic ecosystems should minimize waste, catch of non-target species, both fish and non-fish species, and impacts on associated or dependent species.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.3 07 01 See page 260</p>	<p>D.3 07 02 See page 261</p>
<p>D.3 07 03 See page 261</p>	

GSSI Essential Components for Fisheries Certification Standards

D.3 08 ENDANGERED SPECIES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of management measures, as necessary, designed to achieve the management objectives (D.2.08) that seek to ensure that endangered species are protected from adverse impacts resulting from interactions with the unit of certification and any associated culture or enhancement activity, including recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>The context of this Essential Component is Endangered Species. Endangered species are defined in the Glossary. These species are already adversely impacted at the population level, by definition, and are susceptible to further adverse impacts at this level from which they need to be protected. Where “adverse impacts” is used in relation to Endangered Species in the FAO Guidelines there is no further qualification provided (i.e. no “significant” or “severe”). Elsewhere in the Guidelines, the term “adverse impacts” is qualified, but in each case this is in a very specific context. For example the term “significant negative impacts” is used in the FAO Ecolabelling Guidelines only in relation to enhanced fisheries and “severe adverse impacts” is used only in relation to dependent predators. The term “significant adverse impacts” occurs only in the Deep Sea Guidelines with respect to VMEs.</p> <p>The FAO Guidelines acknowledge that much greater scientific uncertainty is to be expected in assessing possible adverse ecosystem impacts of fisheries than in assessing the state of target stocks (paragraph 31 (41)), hence the management measures to meet the objectives to protect endangered species should take into account risk and uncertainty.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28.2 (35.2); 31 (41); 31.1 (41.1) CCRF 7.2.2 and 7.6.9.</p> <p>The CCRF mentions endangered species in Articles 7.2.2 (objectives) and 7.6.9 (minimizing catch). CCRF Article 7.2.2(d) requires that endangered species are protected through the adoption of appropriate measures, based on the best scientific evidence available.</p> <p>Endangered species are not specifically mentioned in the Marine Guidelines (see below for the Inland Guidelines). Paragraph 31.1 of the Guidelines requires that non-target catches (implicitly including endangered species that are caught by the unit of certification) are monitored and should not threaten those non-target stocks with serious risk of extinction. Paragraph 41.1 of the Inland Guidelines (a re-write of paragraph 31.1 from the marine fisheries guidelines) states: “Non-target catches, including discards, of stocks other than the “stock under consideration” are monitored and should not threaten these non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible. If such impacts arise, effective remedial action should be taken.”</p> <p>Paragraph 31 of the Guidelines requires that adverse impacts of the fishery on the ecosystem should be appropriately assessed and effectively addressed. Paragraph 41 of the Inland Guidelines (the equivalent of Paragraph 31 of the Marine Guidelines) goes on to say that enhanced fisheries will be managed to ensure biodiversity of aquatic habitats and ecosystems are conserved and endangered species protected. Paragraph 28.2 (35.2) of the Guidelines requires objectives, and as necessary, management measures to address pertinent aspects of the ecosystem effects of fishing as per paragraph 31 (41).</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.3 08 01 See page 262</p>	

GSSI Essential Components for Fisheries Certification Standards

D.3 09 HABITAT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of management measures, as necessary, designed to achieve the management objectives (D.2.09) seeking to avoid, minimize or mitigate impacts of the unit of certification on essential habitats for the “stock under consideration” and on habitats that are highly vulnerable to damage by the fishing gear of the unit of certification. In assessing fishery impacts, the Standard requires consideration of the full spatial range of the relevant habitat, not just that part of the spatial range that is potentially affected by fishing.</p>	<p>Essential habitats are described in the Glossary. There is no reason to regard them as being significantly different from the “critical fisheries habitats in marine and fresh water ecosystems” referred to in the CCRF (Article 6.8), which include wetlands, mangroves, reefs, lagoons, nursery and spawning areas. Examples of impacts on habitat that should be avoided include those listed in this paragraph: destruction, degradation, pollution and other significant impacts. The purpose of the requirement to consider the full spatial range of the relevant habitat in assessing fishery impacts may be to consider both the degree to which the habitat is rare, or common, and also that there may be impacts on the same habitat in other parts of its spatial range.</p>
<h4>FAO REFERENCE</h4>	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28.2 (35.2); 31.3 (41.3)</p> <p>Paragraph 28.2 of the Guidelines requires objectives, and as necessary, management measures to address pertinent aspects of the ecosystem effects of fishing as per paragraph 31. Paragraph 31.3 requires that impacts on essential habitats [for the stock under consideration] and on habitats that are highly vulnerable to damage by the fishing gear involved are avoided, minimized or mitigated. In assessing fishery impacts, the full spatial range of the relevant habitat should be considered, not just that part of the spatial range that is potentially affected by fishing.</p> <p>Article 6.8 of the CCRF states that all critical fisheries habitats in marine and fresh water ecosystems, such as wetlands, mangroves, reefs, lagoons, nursery and spawning areas, should be protected and rehabilitated as far as possible and where necessary. Particular effort should be made to protect such habitats from destruction, degradation, pollution and other significant impacts resulting from human activities that threaten the health and viability of the fishery resources.</p>	
<h4>RELATED SUPPLEMENTARY COMPONENTS</h4>	
<p>D.3 09 01 See page 263</p>	

GSSI Essential Components for Fisheries Certification Standards

D.3 10 DEPENDANT PREDATORS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of management measures, as necessary, designed to meet the objectives (D.2.10) that seek to avoid severe adverse impacts on dependent predators resulting from fishing on a stock under consideration that is a key prey species.</p>	<p>This is the partner Essential Component of D.2.10. Where the stock under consideration is a key prey species, the standard must require that fishing mortality on that species/stock is managed so as not to result in severe adverse impacts on Dependent Predators. The FAO Guidelines require that all sources of fishing mortality on the stock under consideration are taken into account (whether or not it is a prey species) in assessing the state of the stock under consideration, including discards, unobserved mortality, incidental mortality, unreported catches and catches in other fisheries. Severe adverse impacts are mentioned in the Essential Components only in relation to dependent predators. This is in line with the Ecolabelling Guidelines. The severity of adverse impacts is related to their potential reversibility. Severe adverse impacts can be regarded as those that are likely to be irreversible or very slowly reversible, which is described in the Glossary.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28.2 (35.2); 31.2 (41.2);</p> <p>Paragraph 28.2 requires objectives, and as necessary, management measures to address pertinent aspects of the ecosystem effects of fishing as per paragraph 31.</p> <p>Paragraph 31.2 requires that if the stock under consideration is a key prey species in the ecosystem, management measures are in place to avoid severe adverse impacts on dependent predators.</p>	

GSSI Essential Components for Fisheries Certification Standards

D.3 11 ECOSYSTEM STRUCTURE, PROCESSES AND FUNCTION

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of management measures, as necessary, designed to achieve the management objectives (D.2.09) that seek to minimize adverse impacts of the unit of certification, including any associated enhancement activities, on the structure, processes and functions of aquatic ecosystems that are likely to be irreversible or very slowly reversible.</p>	<p>Ecosystem structure, processes and function are described in the Glossary. This language is in accordance with Section 4.1.4.1 of the FAO Ecosystem Approach to Fisheries, which suggests one of the broad management objectives for fisheries could be to keep impact on the structure, processes and functions of the ecosystem at an acceptable level.</p> <p>Adverse impacts that are likely to be irreversible or very slowly reversible are discussed in the Glossary. These may include genetic modification and changed ecological role.</p> <p>An earlier version of the requirements included an Essential Component on the conservation of biodiversity. Conservation of biodiversity is not mentioned separately in the Guidelines, but it is included in the CCRF Article 7.2.2 (d), which requires that States and sub-regional or regional fisheries management organizations and arrangements should adopt appropriate measures, based on the best scientific evidence available to provide that inter alia biodiversity of aquatic habitats and ecosystems is conserved. The structure processes and function of aquatic ecosystems includes biodiversity, hence this is considered to be included in this Essential Component.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28.2 (35.2); 31 (41); (36.9); CCRF Article 7.2</p> <p>Paragraph 28.2 of the Guidelines requires objectives, and as necessary, management measures to address pertinent aspects of the ecosystem effects of fishing as per paragraph 31.</p> <p>Paragraph 31 of the Guidelines requires that adverse impacts of the fishery on the ecosystem should be appropriately assessed and effectively addressed. Paragraph 31 references Article 7.2 of the CCRF, which requires, inter alia, that the biodiversity of aquatic habitats and ecosystems is conserved. The structure, processes and function of aquatic ecosystems is deemed to include biodiversity.</p> <p>Paragraph 36.9 of the Inland Guidelines requires that In the case of enhanced fisheries, the fishery management system should take due regard of the natural production processes and minimize adverse impacts on ecosystem structure and function.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.3 11 01 See page 265</p>	<p>D.3 11 02 See page 266</p>

GSSI Essential Components for Fisheries Certification Standards

► MANAGEMENT UNDER UNCERTAINTY

D.3 **12** PRECAUTIONARY APPROACH

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that the precautionary approach is applied widely through the management system to the conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment.</p>	<p>The General Principles and Article 6.5 of the CCRF prescribe a precautionary approach to all fisheries, in all aquatic systems, regardless of their jurisdictional nature, recognizing that most problems affecting the fishing sector result from insufficiency of precaution in management regimes when faced with high levels of uncertainty.</p> <p>The precautionary approach referred to in this Essential Component is that elaborated in the FAO Document: Precautionary approach to capture fisheries and species introductions, FAO Technical Guidelines for Responsible Fisheries. No. 2. Rome, FAO. 1996.</p> <p>To meet this Essential Component, the standard must require inter alia that the management system uses a suitable method of risk management to take into account relevant uncertainties in the status of the stock under consideration and the impacts of the unit of certification on that stock and the ecosystem, including those associated with the use of introduced or translocated species. Where the application of less quantitative and data demanding approaches results in greater uncertainty, the management system should apply more precaution, which may necessitate lower levels of utilization of the resource.</p> <p>The FAO Guidelines (Paragraph 29.6) state that the absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures.</p> <p>The FAO Guidelines (Paragraph 31) note that much greater scientific uncertainty is to be expected in assessing possible adverse ecosystem impacts of fisheries than in assessing the state of target stocks. This issue can be addressed by taking a risk assessment/ risk management approach (see also D.5.07).</p> <p>The FAO Guidelines (Paragraph 32) also note that a past record of good management performance could be considered as supporting evidence of the adequacy of the management measures and the management system.</p> <p>The suitability of the method of risk management applied should be assessed by the technical team undertaking the assessment for certification.</p>

GSSI Essential Components for Fisheries Certification Standards

FAO REFERENCE

FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed)

29.6 (36.7); 31 (41); 32 (42).

Articles 6.5 and 7.5.1 of the CCRF require that States should apply the precautionary approach widely to conservation, management and exploitation of living aquatic resources in order to protect them and preserve the aquatic environment.

Paragraph 29.6 of the Guidelines requires that the precautionary approach is being implemented to protect the stock under consideration and to preserve the aquatic environment. Inter alia this will require that the absence of adequate scientific information should not be used as a reason for postponing or failing to take conservation and management measures.

Paragraph 31 of the Guidelines states that much greater scientific uncertainty is to be expected in assessing possible adverse ecosystem impacts of fisheries than in assessing the state of target stocks. This issue can be addressed by taking a "risk assessment/risk management approach".

Paragraph 32 of the Guidelines states that use of less elaborate methods for stock assessment should not preclude fisheries from possible certification for ecolabelling. However it should be noted that, to the extent that the application of such methods results in greater uncertainty about the state of the "stock under consideration", more precautionary approaches to managing fisheries on such resources will be required which may necessitate lower levels of utilization of the resource.

GSSI Essential Components for Fisheries Certification Standards

► FISHERY MANAGEMENT DOCUMENTATION

D.3 **13** CONTINUOUS REVIEW

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that the efficacy of management measures and their possible interactions is kept under continuous review, taking into account the multipurpose nature of the use patterns in inland and marine waters.</p>	<p>The purpose of continuous review of the efficacy of conservation and management measures and their possible interactions is to ensure that there is a well based expectation that management will be successful, taking into account uncertainty and imprecision. “Management measures” in this Essential Component are the measures referred to in the other Essential Components in this Performance Area. They are regarded as being synonymous with the “conservation and management measures” referred to in CCRF Article 7.6.8.</p> <p>The expression “taking into account the multipurpose nature of the use patterns in inland and marine waters” refers to the uncertainty arising from other (non-fishery) impacts on the fishery. For example, if there are other users from other sectors, fishery management, although not being able to control those sectors, should take their impacts into account when devising the strategy for achieving management objectives. This is akin to taking into account all sources of mortality on the fish stock, from fishing and non-fishing sources. For example, if water is abstracted from rivers at certain times of the year and this has an adverse impact on the fish stock, management of the fishery should address that fact (perhaps by reducing fishing or having a closed season at this time), although not being able to influence when and to what extent the water is abstracted. In a coastal context, the fishery management should be integrated with coastal zone management to the extent necessary to account for non-fishing impacts.</p>
<h4>FAO REFERENCE</h4>	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28.1 (35.1); CCRF Article 6.9</p> <p>Paragraph 28.1 of the Guidelines requires documented management approaches for the stock under consideration with a well based expectation that management will be successful, taking into account uncertainty and imprecision.</p> <p>Paragraph 35.1 of the Inland Guidelines (the equivalent of 28.1 from the Marine Guidelines) adds that the well-based expectation that management will be successful should also take into account the multipurpose nature of the use patterns in inland waters. This Essential Component extends this latter requirement to marine waters.</p> <p>Article 6.9 of the CCRF states that States should ensure that their fisheries interests, including the need for conservation of the resources, are taken into account in the multiple uses of the coastal zone and are integrated into coastal area management, planning and development.</p> <p>Article 7.6.8 of the CCRF (continuous review) states that the efficacy of conservation and management measures and their possible interactions should be kept under continuous review. Such measures should, as appropriate, be revised or abolished in the light of new information.</p>	
<h4>RELATED SUPPLEMENTARY COMPONENTS</h4>	
<p>D.3 13 01 See page 267</p>	<p>D.3 13 02 See page 268</p>
	<p>D.3 13 03 See page 269</p>

Paragraph references to FAO Guidelines for Ecolabelling Fish and Fishery Products from Marine/Inland Fisheries (paragraph references to the inland guidelines are in parenthesis), and where listed FAO Code of Conduct for Responsible Fisheries (CCRF).

GSSI Essential Components for Fisheries Certification Standards

D.3 14 CONTINUOUS REVIEW

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Standard requires that the methodology and results of assessments of the current status and trends of the stock under consideration are made publicly available in a timely manner, respecting confidentiality where appropriate.	This Essential Component is included under the Element of continuous review, but is essentially about transparency. It is linked with Essential Component D. 1.05 that addressed Participatory Management. To meet that Essential Component, the standard must require the fisheries management organization or arrangement to make information and advice used in its decision-making publicly available. The methodology and results of assessments of the current status and trends of the stock under consideration is part of the information and advice used in this decision-making. The publication of this information may be constrained by legitimate rules governing confidentiality.
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) CCRF Article 12.3</p> <p>CCRF Article 12.3 requires that states should ensure that data generated by research are analysed, that the results of such analyses are published, respecting confidentiality where appropriate, and distributed in a timely and readily understood fashion, in order that the best scientific evidence is made available as a contribution to fisheries conservation, management and development.</p>	

D.3 15 CONTINUOUS REVIEW

GSSI ESSENTIAL COMPONENT	GUIDANCE
The Standard requires that the methodology and results of the analysis of the most probable adverse impacts of the unit of certification and any associated culture and enhancement activity on the ecosystem are made publicly available in a timely manner, respecting confidentiality where appropriate.	This Essential Component is included under the Element of continuous review, but is essentially about transparency. It is linked with Essential Component D. 1.05 that addressed Participatory Management. To meet that Essential Component, the standard must require the fisheries management organization or arrangement to make information and advice used in its decision-making publicly available. The methodology and results of the analysis of the most probable adverse impacts of the unit of certification and any associated culture and enhancement activity on the ecosystem is part of the information and advice used in this decision-making. The publication of this information may be constrained by legitimate rules governing confidentiality.
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) CCRF Article 12.3</p> <p>CCRF Article 12.3 requires that states should ensure that data generated by research are analysed, that the results of such analyses are published, respecting confidentiality where appropriate, and distributed in a timely and readily understood fashion, in order that the best scientific evidence is made available as a contribution to fisheries conservation, management and development.</p>	

GSSI Essential Components for Fisheries Certification Standards

► **STOCK UNDER CONSIDERATION**

D.4 01 TARGET STOCK STATUS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the collection and maintenance of adequate, reliable and current data and/or other information about the state and trends of the stock under consideration in accordance with applicable international standards and practices.</p>	<p>Adequate, reliable and current data and/or other information are those which are commensurate with the development and delivery of the best scientific evidence available. In this case, the requirement for data collection is focussed on the assessment of the status and trends of stock under consideration (see Essential Components D.5.01-D.5.03). Adequate, reliable and current data and/or other information can include relevant traditional, fisher or community knowledge, provided its validity can be objectively verified.</p> <p>Some fisheries and/or fish stock are hard to monitor for various reasons, including remoteness of operation/distribution and complexity of fishing operations, posing particular challenges with the collection and maintenance of adequate, reliable and current data and/or other information. To meet this Essential Component the standard must require the fishery to acknowledge and explain these challenges and data collection and maintenance to cover all stages of fishery development, in accordance with applicable international standards and practices.</p> <p>Applicable international standards and practices include the output of the Coordinating Working Party on Fishery Statistics (CWP) and the FAO Guidelines for the routine collection of capture fishery data (1998) FAO Fisheries Technical Paper. No. 382.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 29.1 (36.1)</p> <p>Paragraph 29.1 requires that adequate data and/or information are collected, maintained and assessed in accordance with applicable international standards and practices for evaluation of the current state and trends of the stocks.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.4 01 01 See page 270</p>	

GSSI Essential Components for Fisheries Certification Standards

► **ECOSYSTEM EFFECTS OF FISHING**

D.4 02 ECOSYSTEM STRUCTURE, PROCESSES AND FUNCTION

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the collection and maintenance of adequate, reliable and current data and/or other information about the effects of the unit of certification, including any associated enhancement activities, on ecosystem structure, processes and function in accordance with applicable international standards and practices.</p>	<p>Adequate, reliable and current data and/or other information are described in the Glossary. In general these are data which are commensurate with the development and delivery of the best scientific evidence available. The requirements for data collection are focussed on the effects of the unit of certification on the ecosystem, including direct and indirect effects. The adequacy of data relates primarily to the quantity and type of data collected (including sampling coverage) and depends crucially on the nature of the systems being monitored and purposes to which the data are being put. Some analysis of the precision resulting from sampling coverage would normally be part of an assessment of adequacy and reliability. The currency of data is important <i>inter alia</i> because its capacity for supporting reliable assessment of current status and trends declines as it gets older. Adequate, reliable and current data and/or other information can include relevant traditional, fisher or community knowledge, provided its validity can be objectively verified (i.e. the knowledge has been collected and analysed through a systematic, objective and well-designed process, and is not just hearsay).</p> <p>The requirements for data collection are focussed on the effects of the unit of certification on the ecosystem structure, processes and function. The component relating to enhancement activities may be “not applicable” to schemes that explicitly do not cover enhanced fisheries.</p> <p>Ecosystem structure, processes and function are described in the Glossary. This language is in accordance with Section 4.1.4.1 of the FAO Ecosystem Approach to Fisheries, which suggests one of the broad management objectives for fisheries could be to keep impact on the structure, processes and functions of the ecosystem at an acceptable level.</p> <p>Applicable international standards and practices include the output of the Coordinating Working Party on Fishery Statistics (CWP) and the FAO Guidelines for the routine collection of capture fishery data (1998) FAO Fisheries Technical Paper. No. 382.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 31 (41)</p> <p>Paragraph 31 of the Guidelines requires consideration of the most probable adverse impacts of the fishery on the ecosystem, taking into account available scientific information, and traditional, fisher or community knowledge provided that its validity can be objectively verified.</p> <p>Article 6.4 of the CCRF requires States to assign priority to undertake research and data collection in order to improve scientific and technical knowledge of fisheries including their interaction with the ecosystem.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.4 02 01 See page 271</p>	<p>D.4 02 02 See page 272</p>

Paragraph references to FAO Guidelines for Ecolabelling Fish and Fishery Products from Marine/Inland Fisheries (paragraph references to the inland guidelines are in parenthesis), and where listed FAO Code of Conduct for Responsible Fisheries (CCRF).

GSSI Essential Components for Fisheries Certification Standards

D.4 03 NON-TARGET CATCHES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the collection and maintenance of adequate, reliable and current data and/or other information on non-target catches and discards in the unit of certification.</p>	<p>Adequate, reliable and current data and/or other information are described in the Glossary. In general these are data which are commensurate with the development and delivery of the best scientific evidence available. The requirements for data collection are focussed on the need to assess the effects of the unit of certification on non-target stocks. Non-target catches and discards refer to species/stocks that are taken by the unit of certification other than the stock for which certification is being sought (see Glossary).</p> <p>The adequacy of data relates primarily to the quantity and type of data collected (including sampling coverage) and depends crucially on the nature of the systems being monitored and purposes to which the data are being put. Some analysis of the precision resulting from sampling coverage would normally be part of an assessment of adequacy and reliability. The currency of data is important inter alia because its capacity for supporting reliable assessment of current status and trends declines as it gets older. Adequate, reliable and current data and/or other information can include relevant traditional, fisher or community knowledge, provided its validity can be objectively verified (i.e. the knowledge has been collected and analysed through a systematic, objective and well-designed process, and is not just hearsay).</p> <p>The requirements for data collection in this Essential Component are focussed on the effects of the unit of certification on non-target species/stocks. Non-target catches/stocks are described in the Glossary. Catches of Endangered species are covered in Essential Component D.4.04.</p> <p>Applicable international standards and practices include the output of the Coordinating Working Party on Fishery Statistics (CWP) and the FAO Guidelines for the routine collection of capture fishery data (1998) FAO Fisheries Technical Paper. No. 382.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 31.1 (41.1)</p> <p>Paragraph 31.1 of the Guidelines requires that Non target catches, including discards, of stocks other than the stock under consideration are monitored.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.4 03 01 See page 273</p>	<p>D.4 03 02 See page 274</p>
<p>D.4 03 03 See page 275</p>	

Paragraph references to FAO Guidelines for Ecolabelling Fish and Fishery Products from Marine/Inland Fisheries (paragraph references to the inland guidelines are in parenthesis), and where listed FAO Code of Conduct for Responsible Fisheries (CCRF).

GSSI Essential Components for Fisheries Certification Standards

D.4 04 ENDANGERED SPECIES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the collection and maintenance of adequate, reliable and current data and/or other information about the effects of the unit of certification, including any associated enhancement activities, on endangered species in accordance with applicable international standards and practices.</p>	<p>Adequate, reliable and current data and/or other information is described in the Glossary. In general these are data which are commensurate with the development and delivery of the best scientific evidence available. The requirements for data collection are focussed on the effects of the unit of certification on the ecosystem, including direct and indirect effects. The adequacy of data relates primarily to the quantity and type of data collected (including sampling coverage) and depends crucially on the nature of the systems being monitored and purposes to which the data are being put. Some analysis of the precision resulting from sampling coverage would normally be part of an assessment of adequacy and reliability. The currency of data is important inter alia because its capacity for supporting reliable assessment of current status and trends declines as it gets older. Adequate, reliable and current data and/or other information can include relevant traditional, fisher or community knowledge, provided its validity can be objectively verified (i.e. the knowledge has been collected and analysed through a systematic, objective and well-designed process, and is not just hearsay).</p> <p>The requirements for data collection are focussed on the effects of the unit of certification on endangered species. The component relating to enhancement activities may be “not applicable” to schemes that explicitly do not cover enhanced fisheries. Endangered species are described in the Glossary.</p> <p>Applicable international standards and practices include the output of the Coordinating Working Party on Fishery Statistics (CWP) and the FAO Guidelines for the routine collection of capture fishery data (1998) FAO Fisheries Technical Paper. No. 382.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 31 (41); 31.1 (41.1); CCRF 6.4 and 7.2.2(d)</p> <p>Paragraph 31 of the Guidelines requires consideration of the most probable adverse impacts of the fishery on the ecosystem, taking into account available scientific information, and traditional, fisher or community knowledge provided that its validity can be objectively verified. Paragraph 31.1 requires that Non target catches, including discards, of stocks other than the stock under consideration are monitored.</p> <p>Article 6.4 of the CCRF requires States to assign priority to undertake research and data collection in order to improve scientific and technical knowledge of fisheries including their interaction with the ecosystem. CCRF paragraph 7.2.2(d) requires that endangered species are protected through the adoption of appropriate measures, based on the best scientific evidence available.</p>	

GSSI Essential Components for Fisheries Certification Standards

D.4 05 HABITAT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that there is knowledge within the fishery management system of the essential habitats for the stock under consideration and habitats that are highly vulnerable to damage by the fishing gear of the unit of certification. This includes knowledge of the full spatial range of the relevant habitat, not just that part of the spatial range that is potentially affected by fishing.</p>	<p>The level of knowledge of the essential habitats for the stock under consideration and habitats that are highly vulnerable to damage by the fishing gear of the unit of certification should provide sufficient understanding to enable impacts of the unit of certification on those habitats to be avoided, minimized or mitigated; i.e. for the management objective with respect to habitat (D.2.09) to be achieved. The achievement of this Essential Component should be considered alongside D.5.08 and D.6.07. In particular, the FAO Ecolabelling Guidelines acknowledge the importance of a “risk assessment/risk management approach” to address the issue of greater scientific uncertainty associated with ecosystem impacts; also that the most probable adverse impacts should be considered, taking into account available scientific information, and traditional, fisher or community knowledge provided that its validity can be objectively verified. The knowledge of the habitats in question can therefore include relevant traditional, fisher or community knowledge, provided its validity can be objectively verified (i.e. the knowledge has been collected and analysed through a systematic, objective and well-designed process, and is not just hearsay).</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 31 (41); 31.3 (41.3)</p> <p>Paragraph 31 of the Guidelines requires that adverse impacts of the fishery on the ecosystem should be appropriately assessed. Paragraph 31 also recognises that much greater scientific uncertainty is to be expected in assessing possible adverse ecosystem impacts of fisheries than in assessing the state of target stocks and that this issue can be addressed by taking a “risk assessment/risk management approach” (see also D.6.07).</p> <p>Paragraph 31.3 of the Guidelines requires there to be knowledge of the essential habitats for the “stock under consideration” and potential fishery impacts on them. It also requires that in assessing fishery impacts, the full spatial range of the relevant habitat should be considered, not just that part of the spatial range that is potentially affected by fishing.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.4 05 01 See page 276</p>	<p>D.4 05 02 See page 277</p>
<p>D.4 05 03 See page 278</p>	

GSSI Essential Components for Fisheries Certification Standards

D.4 06 DEPENDENT PREDATORS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that data and information are collected on the role of the stock under consideration in the food-web to enable determination of whether it is a key prey species in the ecosystem, and if so whether fishing on that stock might result in severe adverse impacts on dependent predators.</p>	<p>The data and information collected must be sufficient to provide adequate knowledge of the role of the stock under consideration in the food-web to determine whether it is a key prey species and, if so, whether fishing on that stock under consideration might result in severe adverse impacts on dependent predators. Where the stock under consideration is a key prey species, the standard must require that fishing mortality on that species/stock is managed so as not to result in severe adverse impacts on Dependent Predators. The FAO Guidelines require that all sources of fishing mortality on the stock under consideration are taken into account (whether or not it is a prey species) in assessing the state of the stock under consideration, including discards, unobserved mortality, incidental mortality, unreported catches and catches in other fisheries.</p> <p>Data and information on the role of the stock under consideration in the food-web can include relevant traditional, fisher or community knowledge, provided its validity can be objectively verified (i.e. the knowledge has been collected and analysed through a systematic, objective and well-designed process, and is not just hearsay).</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 31.2 (41.2)</p> <p>Paragraph 31.2 requires that role of the “stock under consideration” in the food-web is considered, and if it is a key prey species in the ecosystem, management measures are in place to avoid severe adverse impacts on dependent predators. The role of data and information in this context is therefore to determine whether the stock under consideration is a key prey species and if so whether fishing by the unit of certification on that stock might result in severe adverse impacts on dependent predators.</p>	

GSSI Essential Components for Fisheries Certification Standards

► **TRADITIONAL, FISHER OR COMMUNITY KNOWLEDGE**

D.4 07 TRADITIONAL, FISHER OR COMMUNITY KNOWLEDGE

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that any traditional, fisher or community knowledge used within the management system can be objectively verified.</p>	<p>The methods by which traditional, fisher or community knowledge can be objectively verified will vary between fisheries, and will need to be assessed by the auditors. Elsewhere in the Benchmark there is the general suggestion that the knowledge should be collected and analysed through a systematic, objective and well-designed process, and is not be just hearsay. Scientific uncertainty associated with the use of traditional, fisher or community knowledge can be assessed using a risk assessment/risk management approach, as specified in the Guidelines. In all cases, the management measures implemented by the management system must be based on the best scientific evidence available (Essential Component D.3.02).</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 29.1 (36.1); 29.2 (36.2); 29.3 (36.4); 31 (41)</p> <p>Throughout the FAO Guidelines, wherever the use by the management system of traditional, fisher or community knowledge is mentioned, there is also mentioned the proviso that it be objectively verified. This Essential Component reflects that overarching requirement.</p>	

GSSI Essential Components for Fisheries Certification Standards

► STOCK UNDER CONSIDERATION

D.5 **01** STOCK ASSESSMENT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires management decisions by the fishery management organization or arrangement (D.1.02) to be based on an assessment of the current status and trends of the stock under consideration, using adequate, reliable and current data and/or other information. Other information may include generic evidence based on similar stocks, when specific information on the stock under consideration is not available, providing there is low risk to the stock under consideration in accordance with the Precautionary Approach.</p>	<p>This is a partner Essential Component to D.4.01 which covers the collection and maintenance of the data to be used in the stock assessment referred to in this Essential Component. The purpose of the stock assessment is to contribute to the best scientific evidence available which is used by the fishery management organization or arrangement (D.1.02) to establish management objectives for the stock under consideration (D.2), management measures (D.3) to meet those objectives and evidence regarding outcome status (D.6) - i.e. whether the objectives have been met.</p> <p>The Ecolabelling Guidelines provide additional guidance on the use of data in the stock assessment. Specifically, in the absence of specific information on the stock under consideration, generic evidence based on similar stocks can be used for fisheries with low risk to that stock under consideration. The language of the Essential Component aligns with this text, however, it raises a concern that this approach could be used inappropriately in cases where the risk to the stock under consideration is not “low”. The greater the risk, the more specific evidence is necessary to assess sustainability. In principle, ‘generic evidence based on similar stocks’ should not suffice, but it may be adequate where there is low risk to the stock under consideration. In general, “Low risk to the stock under consideration” would suggest that there is very little chance of the stock becoming overfished, for example where the exploitation rate is very low and the resilience of the stock is high (see Essential Component D.5.03). However, the Standard should make it clear that the evidence for low risk and the justification for using surrogate data must come from the stock assessment itself.</p> <p>The aim of this Essential Component, in conjunction with Essential Component D.5.04, is to avoid the use of less elaborate methods of stock assessment automatically precluding fisheries from potential certification. Nevertheless, to the extent that the application of such methods results in greater uncertainty about the state of the stock under consideration, more precaution must be applied in managing fisheries on such stocks. This may, for example, necessitate lower levels of utilization of the resource than would be possible with lower levels of uncertainty, in accordance with the Essential Components covering the Precautionary Approach (D.3.12) and the Best Scientific Evidence Available (D.2.02 and D.3.02).</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 29.1 (36.1); 30.4 (37.4)</p> <p>Paragraph 29.1 of the Guidelines requires that adequate data and/or information are collected, maintained and assessed in accordance with applicable international standards and practices for evaluation of the current state and trends of the stocks.</p> <p>Paragraph 30.4 of the Guidelines states that In the absence of specific information on the “stock under consideration”, generic evidence based on similar stocks can be used for fisheries with low risk to that “stock under consideration”. However, the greater the risk the more specific evidence is necessary to ascertain the sustainability of intensive fisheries.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.5 01 01 See page 279</p>	

Paragraph references to FAO Guidelines for Ecolabelling Fish and Fishery Products from Marine/Inland Fisheries (paragraph references to the inland guidelines are in parenthesis), and where listed FAO Code of Conduct for Responsible Fisheries (CCRF).

GSSI Essential Components for Fisheries Certification Standards

D.5 02 STOCK ASSESSMENT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that the assessment of the current status and trends of the stock under consideration considers total fishing mortality on that stock from all sources including discards, unobserved mortality, incidental mortality, unreported catches and catches in all fisheries over its entire area of distribution.</p>	<p>This is a partner Essential Component to D.3.03. Management measures for the stock under consideration must be based on an assessment of that stock which takes account of all removals from the stock over its entire area of distribution, i.e. not just by the unit of certification but by all fisheries that utilize that stock, including bycatch, discards, unobserved mortality, incidental mortality, unreported catches, and catches taken outside of the unit of certification. Note that these terms are not defined here, or in the Glossary. They are used collectively in this context to cover all possible descriptions of fishery removals of the stock under consideration. See also Essential Component D.1.09 covering the effective and suitable monitoring, surveillance, control and enforcement of the fishery of which the unit of certification is a part.</p> <p>Area of Distribution is described in the Glossary based on a CITES reference for species, but in the context of fish and fisheries, this can be used for stocks.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 25 (32); 29.2bis (36.3)</p> <p>Paragraph 25 of the Guidelines states that in assessing compliance with certification standards, the impacts on the stock under consideration of all the fisheries utilizing that stock under consideration over its entire area of distribution are to be considered.</p> <p>Paragraph 29.2bis requires that total fishing mortality from all sources is considered in assessing the state of the stock under consideration, including discards, unobserved mortality, incidental mortality, unreported catches and catches in other fisheries.</p>	

D.5 03 STOCK ASSESSMENT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that the assessment of the current status and trends of the stock under consideration takes into account the structure and composition of that stock which contribute to its resilience.</p>	<p>Resilience is described in the Glossary. Understanding the resilience of a stock (i.e. its ability to recover from a disturbance) is an important part of assessing that stock's status and trends and contributes to an assessment of the level of risk to that stock (see Essential Component D.5.01).</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 30 (37); 30.3 (37.3)</p> <p>Paragraph 30 of the Guidelines requires that the stock under consideration is not overfished, and is maintained at a level which promotes the objective of optimal utilization and maintains its availability for present and future generations. In maintaining the stock at this level, Paragraph 30.3 requires that management measures take into account the structure and composition of the stock under consideration which contribute to its resilience. This "taking into account" is achieved through the stock assessment.</p>	

Paragraph references to FAO Guidelines for Ecolabelling Fish and Fishery Products from Marine/Inland Fisheries (paragraph references to the inland guidelines are in parenthesis), and where listed FAO Code of Conduct for Responsible Fisheries (CCRF).

GSSI Essential Components for Fisheries Certification Standards

D.5 04 ENHANCED FISHERIES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>In the case of enhanced fisheries, the standard requires that the assessment of current status and trends of the stock under consideration includes an evaluation of whether there are significant negative impacts of enhancement activities on the naturally reproductive component of the stock under consideration.</p>	<p>This Essential Component addresses the need for standards to require an assessment to support the achievement of management objectives specified in Essential Component D.2.06. It refers to Enhanced Fisheries, hence it may be regarded as not applicable if the Scheme/Standard explicitly excludes enhanced fisheries (see also Guidance for D.2.06). The term natural reproductive stock components is explained in the Glossary. The term “significant negative impacts” is used in the Inland Guidelines. This was not intended to be equivalent to severe adverse impacts (on dependent predators). The consultation that resulted in the drafting of the Inland Guidelines considered that avoidance of “severe adverse impacts” only would not be consistent with a management obligation to manage enhancement in ways that would not impact the productivity and abundance of the natural reproductive stock component of the stock under consideration.</p> <p>The Guidelines specifically require that naturally reproductive components of enhanced stocks are not substantially displaced by stocked components. In particular, displacement must not result in a reduction of the natural reproductive stock component below abundance-based target reference points (or their proxies). With respect to aquaculture production of organisms for stocking, there should be an advance evaluation of the effects of aquaculture development on genetic diversity and ecosystem integrity, based on the best scientific information available.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) (39); (40); CCRF Article 9</p> <p>Paragraph 39 of the Inland Guidelines requires avoidance of significant negative impacts of enhancement activities on the natural reproductive components of stock under consideration.</p> <p>Paragraph 40 of the Inland Guidelines states that aquaculture production of organisms for stocking should be managed and developed according to relevant provisions of Article 9 of the CCRF, especially in relation to maintaining the integrity of the environment, the conservation of genetic diversity, disease control, and quality of stocking material.</p> <p>CCRF Article 9.1.2: States should promote responsible development and management of aquaculture, including an advance evaluation of the effects of aquaculture development on genetic diversity and ecosystem integrity, based on the best available scientific information.</p>	

GSSI Essential Components for Fisheries Certification Standards

D.5 **05** **ENHANCED FISHERIES**

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>In the case of fisheries that are enhanced through aquaculture inputs, the standard requires that the stock assessment of the stock under consideration must consider the separate contributions from aquaculture and natural production.</p>	<p>This is a technical requirement applicable to stock assessments of fisheries that are enhanced through aquaculture inputs. If fisheries that are enhanced through aquaculture inputs are explicitly out of scope for the scheme, then this Essential Component is not applicable.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) (43)</p> <p>Paragraph 43 of the Inland Guidelines requires that stock assessment of fisheries that are enhanced through aquaculture inputs must consider the separate contributions from aquaculture and natural production.</p>	

GSSI Essential Components for Fisheries Certification Standards

► ECOSYSTEM EFFECTS OF FISHING

D.5 **06** NON-TARGET CATCHES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires an assessment of the extent to which non-target catches and discards by the unit of certification of stocks other than the stock under consideration and any associated culture and enhancement activities threaten those non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>This is the partner Essential Component of D.4.03 that requires the collection and maintenance of adequate, reliable and current data and/or other information on non-target catches and discards in the unit of certification. Non-target catches and discards refers to species/stocks that are taken by the unit of certification other than the stock for which certification is being sought (see Glossary).</p> <p>This Essential Component addresses the need for standards to require an assessment to support the achievement of management objectives specified in Essential Component D.2.07. This Essential Component is explicitly and deliberately confined to the effects of non-target catches and discards by the unit of certification on those non-target species/stocks. Cumulative effects on non-target species/stocks are not included in the Ecolabelling Guidelines. They are not part of the Essential Components, but they are covered in the Supplemental Components. The component relating to enhancement activity may be “not applicable” to schemes that explicitly do not cover enhanced fisheries. Non-target catches/stocks are described in the Glossary.</p> <p>Examples of irreversible or very slowly reversible effects on bycatch species include excessive depletion of very long-lived organisms (see Glossary).</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28.2 (35.2); 31.1 (41.1)</p> <p>Paragraph 28.2 requires objectives, and as necessary, management measures to address pertinent aspects of the ecosystem effects of fishing as per paragraph 31.</p> <p>Paragraph 31 requires those [ecosystem] impacts that are likely to have serious consequences should be addressed. This may take the form of an immediate management response or further analysis of the identified risk.</p> <p>Paragraph 41.1 of the Inland guidelines (a re-write of 31.1 from the marine fisheries guidelines) states: “Non-target catches, including discards, of stocks other than the “stock under consideration” are monitored and should not threaten these non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible. If such impacts arise, effective remedial action should be taken.”</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.5 06 01 See page 280</p>	<p>D.5 06 02 See page 281</p>

GSSI Essential Components for Fisheries Certification Standards

D.5 07 ECOSYSTEM STRUCTURE, PROCESSES AND FUNCTION

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires an analysis of the effects of the unit of certification, including any associated enhancement activities where applicable, on ecosystem structure, processes and function to develop timely scientific advice on the likelihood and magnitude of impacts.</p>	<p>This is the partner Essential Component of D.4.02 that requires the collection and maintenance of adequate, reliable and current data and/or other information about the effects of the unit of certification, including any enhancement activities, on ecosystem structure, processes and function. The component relating to enhancement activity may be “not applicable” to schemes that explicitly do not cover enhanced fisheries. Ecosystem structure, processes and function are described in the Glossary. This language is in accordance with Section 4.1.4.1 of the FAO Ecosystem Approach to Fisheries, which suggests one of the broad management objectives for fisheries could be to keep impact on the structure, processes and functions of the ecosystem at an acceptable level.</p> <p>This requirement is about the analysis of these data to develop the best scientific evidence available regarding the ecosystem effects of fishing, which is used by the fishery management organization or arrangement (D.1.02) to establish management objectives (D.2) and management measures (D.3) to meet those objectives.</p> <p>The data and analysis may include local, traditional or indigenous knowledge and research, providing its validity can be objectively verified.</p> <p>As expressed in the Guidance relating to the Essential Component on the precautionary approach (D.3.12), much greater scientific uncertainty is to be expected in assessing possible adverse ecosystem impacts of fisheries than in assessing the state of target stocks. This issue can be addressed by taking a risk assessment/ risk management approach. Note that some ecosystem impacts such as those on bycatch species are often more readily quantifiable than others, such as those on habitat. While a risk assessment approach may mitigate a lack of quantitative information, the management system must still ensure adequate mitigation of adverse impacts.</p>
<p>FAO REFERENCE</p>	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 29.3 (36.4); 31 (41)</p> <p>Paragraph 29.3 requires identification of adverse impacts of the fishery on the ecosystem, and provision of timely scientific advice on the likelihood and magnitude of identified impacts.</p> <p>Paragraph 31 requires adverse impacts of the fishery on the ecosystem to be appropriately assessed and that the most probable adverse impacts are considered.</p>	

GSSI Essential Components for Fisheries Certification Standards

D.5 08 HABITAT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires an assessment of the impacts of the unit of certification, including any associated enhancement activities where applicable, on essential habitats for the stock under consideration and on habitats that are highly vulnerable to damage by the fishing gear of the unit of certification. The assessment should consider the full spatial range of the relevant habitat, not just that part of the spatial range that is potentially affected by fishing.</p>	<p>This is the partner Essential Component of D.4.05 that requires knowledge within the fishery management system of the essential habitats for the stock under consideration and habitats that are highly vulnerable to damage by the fishing gear of the unit of certification. Under this Essential Component the standard must require and assessment of the impacts of the unit of certification on these habitats. The component relating to enhancement activity may be “not applicable” to schemes that explicitly do not cover enhanced fisheries. The results of the assessment should provide sufficient understanding of the relevant habitats and fishery impacts on them to enable those impacts to be avoided, minimized or mitigated; i.e. for the management objective with respect to habitat (D.2.09) to be achieved. The achievement of this Essential Component should be considered alongside D.4.05 and D.6.07. In particular, the FAO Ecolabelling Guidelines acknowledge the importance of a “risk assessment/risk management approach” to address the issue of greater scientific uncertainty; also that the most probable adverse impacts should be considered, taking into account available scientific information, and traditional, fisher or community knowledge provided that its validity can be objectively verified.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 31 (41); 31.3 (41.3)</p> <p>Paragraph 31 requires that adverse impacts of the fishery on the ecosystem should be appropriately assessed. Paragraph 31 also recognises that much greater scientific uncertainty is to be expected in assessing possible adverse ecosystem impacts of fisheries than in assessing the state of target stocks and that this issue can be addressed by taking a “risk assessment/risk management approach” (see also D.6.07).</p> <p>Paragraph 31.3 requires there to be knowledge of the essential habitats for the “stock under consideration” and potential fishery impacts on them. It also requires that Impacts on essential habitats and on habitats that are highly vulnerable to damage by the fishing gear involved are avoided, minimized or mitigated. It further states that In assessing fishery impacts, the full spatial range of the relevant habitat should be considered, not just that part of the spatial range that is potentially affected by fishing.</p>	

GSSI Essential Components for Fisheries Certification Standards

D.5 09 DEPENDANT PREDATORS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that data and information on the role of the stock under consideration in the food-web are assessed to determine whether it is a key prey species in the ecosystem, and if so whether fishing on that stock might result in severe adverse impacts on dependent predators.</p>	<p>The purpose of assessing the data and information is to provide adequate knowledge of the role of the stock under consideration in the food-web. Adequate knowledge means there is enough understanding of the role of the stock under consideration in the food-web to determine whether it is a key prey species and, if so, whether fishing on that stock under consideration might result in severe adverse impacts on dependent predators.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 31 (41); 31.2 (41.2)</p> <p>Paragraph 31 of the Guidelines requires adverse impacts of the fishery on the ecosystem to be appropriately assessed.</p> <p>Paragraph 31.2 of the Guidelines requires that the role of the “stock under consideration” in the food-web is considered, and if it is a key prey species in the ecosystem, management measures are in place to avoid severe adverse impacts on dependent predators.</p>	

GSSI Essential Components for Fisheries Certification Standards

D.5 **10** **ENDANGERED SPECIES**

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires an assessment of the impacts of the unit of certification, including any associated enhancement activities where applicable, on endangered species.</p>	<p>This is the partner Essential Component of D.4.04 that requires the collection and maintenance of adequate, reliable and current data and/or other information about the effects of the unit of certification, including any enhancement activities, on endangered species. Under this Essential Component the standard must require an assessment of the impacts of the unit of certification on these species. The component relating to enhancement activity may be “not applicable” to schemes that explicitly do not cover enhanced fisheries. The results of the assessment should provide sufficient understanding of the relevant endangered species and fishery impacts on them to enable their protection from those impacts; i.e. for the management objective with respect to endangered species (D.2.08) to be achieved.</p> <p>The achievement of this Essential Component should be considered alongside D.4.04 and D.6.06. In particular, the FAO Guidelines acknowledge the importance of a “risk assessment/risk management approach” to address the issue of greater scientific uncertainty associated with ecosystem impacts; also that the most probable adverse impacts should be considered, taking into account available scientific information, and traditional, fisher or community knowledge provided that its validity can be objectively verified.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 31 (41); 31.1 (41.1); CCRF 6.4 and 7.2.2(d)</p> <p>Paragraph 31 of the Guidelines requires consideration of the most probable adverse impacts of the fishery on the ecosystem, taking into account available scientific information, and traditional, fisher or community knowledge provided that its validity can be objectively verified. Paragraph 31.1 requires that Non target catches, including discards, of stocks other than the stock under consideration are monitored.</p> <p>CCRF Article 6.4 requires States to assign priority to undertake research and data collection in order to improve scientific and technical knowledge of fisheries including their interaction with the ecosystem. CCRF Article 7.2.2(d) requires that endangered species are protected through the adoption of appropriate measures, based on the best scientific evidence available.</p>	

GSSI Essential Components for Fisheries Certification Standards

► STOCK UNDER CONSIDERATION

D.6 01 TARGET STOCK STATUS

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires that the stock under consideration is not overfished.	The stock under consideration is considered to be overfished if its stock size is below its limit reference point (or its proxy). Decision rules should avoid stocks falling below Blim but sometimes they do not for reasons that may or may not be wholly or partly due to the fishery and/or the management of the fishery. Nevertheless, the language in the Guidelines states that “the stock under consideration is not overfished, and is maintained at a level which promotes the objective of optimal utilization and maintains its availability for present and future generations.” If the stock under consideration of a certified fishery becomes overfished, the scheme should cause the certification of this fishery to be suspended or revoked.
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 30. (37); 30.1 (37.1); (39)</p> <p>Paragraph 30 requires that the stock under consideration is not overfished, and is maintained at a level which promotes the objective of optimal utilization and maintains its availability for present and future generations.</p> <p>Paragraph 30.1 requires that The stock under consideration is not overfished if it is above the associated limit reference point (or its proxy).</p>	

D.6 02 TARGET STOCK STATUS

GSSI ESSENTIAL COMPONENT	GUIDANCE
The standard requires the existence of outcome indicator(s) consistent with achieving management objectives for the stock under consideration (D.2.01, D.2.03, D.2.04).	The relevant management objectives are those referred to in Performance Area 2 and are for the whole of the stock under consideration. The outcome indicators should be consistent with demonstrating that the management objectives have been effectively achieved. Outcome indicators are required for all management objectives for the stock under consideration, which may include, for example, target reference points that take into account the requirements of dependent predators, where appropriate (D.2.10).
FAO REFERENCE	
<p>4FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 40 (51)</p> <p>Paragraph 40 [51] of the guidelines states that the setting of standards is among the most critical tasks of any ecolabelling scheme of products from sustainable marine [inland] capture fisheries. The standards reflect the objectives for sustainable fisheries that are being pursued through the scheme. Standards comprise quantitative and qualitative indicators of the governance system or management regime of a fishery as well as of its outcome in terms of sustainable fisheries and conservation of marine fishery resources and related ecosystems. Outcome indicators for management objectives for the stock under consideration may include, for example, target reference points that take into account the requirements of dependent predators, where appropriate (D.2.10).</p>	

Paragraph references to FAO Guidelines for Ecolabelling Fish and Fishery Products from Marine/Inland Fisheries (paragraph references to the inland guidelines are in parenthesis), and where listed FAO Code of Conduct for Responsible Fisheries (CCRF).

GSSI Essential Components for Fisheries Certification Standards

D.6 03 ENHANCED FISHERIES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires that the natural reproductive stock components of enhanced stocks are not overfished.</p>	<p>All Essential Components that address Enhanced Fisheries can be “not applicable” to schemes that explicitly do not cover these fisheries. In the case of enhanced fisheries, the stock under consideration may comprise naturally reproductive components and components maintained by stocking. The natural reproductive stock component of enhanced stocks is described in the Glossary.</p> <p>In the context of avoiding significant negative impacts of enhancement activities on the natural reproductive components of the stock under consideration, the Inland Ecolabelling Guidelines state that displacement [of the naturally reproductive components of enhanced stocks by stocked components] must not result in a reduction of the natural reproductive stock component below abundance-based target reference points (or their proxies).</p> <p>Decision rules (D.3.05) should avoid stocks falling below Blim but sometimes they do not for reasons that may or may not be wholly or partly due to the fishery and/or the management of the fishery. Nevertheless, the language in the Guidelines states that both the stock under consideration and the naturally reproductive components of enhanced stocks are not overfished. In addition, naturally reproductive components of enhanced stocks are not substantially displaced by stocked components. If the stock under consideration of a certified fishery becomes overfished, the scheme should cause the certification of this fishery to be suspended or revoked.</p>
<p>FAO REFERENCE</p>	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) (39)</p> <p>Paragraph 39 of the Inland Guidelines requires that naturally reproductive components of enhanced stocks are not overfished. This is to be interpreted in the context of avoiding significant negative impacts of enhancement activities on the natural reproductive components of stock under consideration.</p>	

GSSI Essential Components for Fisheries Certification Standards

D.6 04 ENHANCED FISHERIES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>In the case of enhanced fisheries, the standard requires that the natural reproductive stock component of enhanced stocks is not substantially displaced by stocked components.</p>	<p>All Essential Components that address Enhanced Fisheries can be “not applicable” to schemes that explicitly do not cover these fisheries. In the case of enhanced fisheries, the stock under consideration may comprise naturally reproductive components and components maintained by stocking. The natural reproductive stock component of enhanced stocks is described in the Glossary.</p> <p>With respect to “substantially displaced”, in particular, displacement must not result in a reduction of the natural reproductive stock component below abundance-based target reference points (or their proxies).</p>
FAO REFERENCE	
<p>[FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) (39)]</p> <p>Paragraph 39 of the Inland Guidelines requires that naturally reproductive components of enhanced stocks are not substantially displaced by stocked components. This is to be interpreted in the context of avoiding significant negative impacts of enhancement activities on the natural reproductive components of stock under consideration.</p>	

GSSI Essential Components for Fisheries Certification Standards

► ECOSYSTEM EFFECTS OF FISHING

D.6 **05** NON-TARGET CATCHES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of outcome indicator(s) consistent with achieving management objectives for non-target stocks (D.2.05).</p>	<p>The relevant management objectives are those referred to in Performance Area 2 and are for non-target species/stocks. The outcome indicators should be consistent with demonstrating that the management objectives (D.2.07) have been effectively achieved. Non-target stocks refer to species/stocks that are taken by the unit of certification other than the stock for which certification is being sought (see Glossary).</p> <p>Examples of irreversible or very slowly reversible effects on bycatch species include excessive depletion of very long-lived organisms (see Glossary). To mitigate effects that are likely to be irreversible or very slowly reversible requires those effects to be made less severe such that they are no longer likely to be irreversible or very slowly reversible.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28.2 (35.2); 31.1 (41.1); 40 (51)</p> <p>Paragraph 28.2 requires objectives, and as necessary, management measures to address pertinent aspects of the ecosystem effects of fishing as per paragraph 31.</p> <p>Paragraph 31 requires those [ecosystem] impacts that are likely to have serious consequences should be addressed. This may take the form of an immediate management response or further analysis of the identified risk.</p> <p>Paragraph 41.1 of the Inland guidelines (a re-write of 31.1 from the marine fisheries guidelines) states: “Non-target catches, including discards, of stocks other than the “stock under consideration” are monitored and should not threaten these non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible. If such impacts arise, effective remedial action should be taken.”</p> <p>Paragraph 40 [51] of the guidelines states that the setting of standards is among the most critical tasks of any ecolabelling scheme of products from sustainable marine [inland] capture fisheries. The standards reflect the objectives for sustainable fisheries that are being pursued through the scheme. Standards comprise quantitative and qualitative indicators of the governance system or management regime of a fishery as well as of its outcome in terms of sustainable fisheries and conservation of marine fishery resources and related ecosystems.</p>	

GSSI Essential Components for Fisheries Certification Standards

D.6 06 ENDANGERED SPECIES

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of outcome indicator(s) consistent with achieving management objectives (D.2.08) that seek to ensure that Endangered species are protected from adverse impacts resulting from interactions with the unit of certification and any associated culture or enhancement activity, including recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>The context of this Essential Component is Endangered Species. Endangered species are defined in the Glossary. These species are already adversely impacted at the population level, by definition, and are susceptible to further adverse impacts at this level from which they need to be protected. Where “adverse impacts” is used in relation to Endangered Species in the FAO Guidelines there is no further qualification provided (i.e. no “significant” or “severe”). Elsewhere in the Guidelines, the term “adverse impacts” is qualified, but in each case this is in a very specific context. For example. The term “significant negative impacts” is used in the FAO Ecolabelling Guidelines only in relation to enhanced fisheries and “severe adverse impacts” is used only in relation to dependent predators. The term “significant adverse impacts” occurs only in the Deep Sea Guidelines with respect to VMEs.</p> <p>The outcome indicators required by the standard should be consistent with demonstrating that the management objectives for Endangered Species (D.2.08) have been effectively achieved. The actual outcome would be measures by an assessment required under D.5.10.</p> <p>The FAO Ecolabelling Guidelines acknowledge that much greater scientific uncertainty is to be expected in assessing possible adverse ecosystem impacts of fisheries than in assessing the state of target stocks (paragraph 31 (41)), hence the outcome indicators necessary to meet this Essential Component should take into account risk and uncertainty.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 31 (41); 31.1 (41.1); CCRF 7.2.2 and 7.6.9.</p> <p>The CCRF mentions endangered species in Articles 7.2.2 (objectives) and 7.6.9 (minimizing catch). CCRF Article 7.2.2(d) requires that endangered species are protected through the adoption of appropriate measures, based on the best scientific evidence available.</p> <p>Paragraph 28.2 of the Guidelines requires objectives, and as necessary, management measures to address pertinent aspects of the ecosystem effects of fishing as per paragraph 31.</p> <p>Paragraph 31 of the Guidelines requires those [ecosystem] impacts that are likely to have serious consequences should be addressed. This may take the form of an immediate management response or further analysis of the identified risk.</p> <p>Paragraph 40 [51] of the Guidelines states that the setting of standards is among the most critical tasks of any ecolabelling scheme of products from sustainable marine [inland] capture fisheries [including enhanced fisheries]. The standards reflect the objectives for sustainable fisheries that are being pursued through the scheme. Standards comprise quantitative and qualitative indicators of the governance system or management regime of a fishery as well as of its outcome in terms of sustainable fisheries and conservation of marine fishery resources and related ecosystems.</p>	

GSSI Essential Components for Fisheries Certification Standards

D.6 07 HABITAT

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of outcome indicator(s) consistent with achieving management objectives (D.2.09) for avoiding, minimizing or mitigating the impacts of the unit of certification on essential habitats for the “stock under consideration” and on habitats that are highly vulnerable to damage by the fishing gear of the unit of certification.</p>	<p>The outcome indicators should be consistent with demonstrating that the management objectives have been effectively achieved for habitat (D.2.09).</p> <p>Essential habitats are described in the Glossary. Examples of impacts on habitat that should be avoided include the destruction or severe modification of rare and/or vulnerable habitats. In assessing fishery impacts, the full spatial range of the relevant habitat should be considered, not just that part of the spatial range that is potentially affected by fishing.</p> <p>The FAO Guidelines acknowledge that much greater scientific uncertainty is to be expected in assessing possible adverse ecosystem impacts of fisheries than in assessing the state of target stocks (paragraph 31 (41)), hence the outcome indicators necessary to meet this Essential Component should take into consideration risk and uncertainty.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 31 (41); 31.3 (41.3)</p> <p>Paragraph 31 of the Guidelines requires those [ecosystem] impacts that are likely to have serious consequences should be addressed. This may take the form of an immediate management response or further analysis of the identified risk.</p> <p>Article 6.8 of the CCRF states that all critical fisheries habitats in marine and fresh water ecosystems, such as wetlands, mangroves, reefs, lagoons, nursery and spawning areas, should be protected and rehabilitated as far as possible and where necessary. Particular effort should be made to protect such habitats from destruction, degradation, pollution and other significant impacts resulting from human activities that threaten the health and viability of the fishery resources.</p> <p>Paragraph 40 [51] of the Guidelines states that the setting of standards is among the most critical tasks of any ecolabelling scheme of products from sustainable marine [inland] capture fisheries. The standards reflect the objectives for sustainable fisheries that are being pursued through the scheme. Standards comprise quantitative and qualitative indicators of the governance system or management regime of a fishery as well as of its outcome in terms of sustainable fisheries and conservation of marine fishery resources and related ecosystems.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.6 07 01 See page 282</p>	

GSSI Essential Components for Fisheries Certification Standards

D.6 08 DEPENDANT PREDATORS

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard includes outcome indicator(s) consistent with achieving management objectives (D.2.10) that seek to avoid severe adverse impacts on dependent predators resulting from fishing on a stock under consideration that is a key prey species.</p>	<p>The outcome indicators should be consistent with demonstrating that the management objectives have been effectively achieved for dependent predators (D.2.10). Dependent predators are described in the Glossary.</p> <p>The FAO Guidelines acknowledge that much greater scientific uncertainty is to be expected in assessing possible adverse ecosystem impacts of fisheries than in assessing the state of target stocks (paragraph 31 (41)), hence the outcome indicators should take into account risk and uncertainty.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 31 (41); 31.2 (41.2); 40 (51)</p> <p>Paragraph 31 of the Guidelines requires adverse impacts of the fishery on the ecosystem to be appropriately assessed.</p> <p>Paragraph 31.2 of the Guidelines requires that the role of the “stock under consideration” in the food-web is considered, and if it is a key prey species in the ecosystem, management measures are in place to avoid severe adverse impacts on dependent predators.</p> <p>Paragraph 40 [51] of the guidelines states that the setting of standards is among the most critical tasks of any ecolabelling scheme of products from sustainable marine [inland] capture fisheries. The standards reflect the objectives for sustainable fisheries that are being pursued through the scheme. Standards comprise quantitative and qualitative indicators of the governance system or management regime of a fishery as well as of its outcome in terms of sustainable fisheries and conservation of marine fishery resources and related ecosystems.</p>	

GSSI Essential Components for Fisheries Certification Standards

D.6 09 ECOSYSTEM STRUCTURE, PROCESSES AND FUNCTION

GSSI ESSENTIAL COMPONENT	GUIDANCE
<p>The standard requires the existence of outcome indicator(s) consistent with achieving management objectives (D.2.11) that seek to minimize adverse impacts of the unit of certification, including any enhancement activities, on the structure, processes and function of aquatic ecosystems that are likely to be irreversible or very slowly reversible. Any modifications to the habitat for enhancing the stock under consideration must be reversible and not cause serious or irreversible harm to the natural ecosystem's structure, processes and function.</p>	<p>The outcome indicators should be consistent with demonstrating that the management objectives for impacts on the structure, processes and function of aquatic ecosystems (D.2.11) have been effectively achieved. The component relating to enhancement activity may be "not applicable" to schemes that explicitly do not cover enhanced fisheries.</p> <p>Ecosystem structure, processes and function are described in the Glossary. This language is in accordance with Section 4.1.4.1 of the FAO Ecosystem Approach to Fisheries, which suggests one of the broad management objectives for fisheries could be to keep impact on the structure, processes and functions of the ecosystem at an acceptable level.</p> <p>The FAO Guidelines acknowledge that much greater scientific uncertainty is to be expected in assessing possible adverse ecosystem impacts of fisheries than in assessing the state of target stocks (paragraph 31 (41)), hence the outcome indicators necessary to meet this Essential Component should take into account risk and uncertainty.</p>
FAO REFERENCE	
<p>FAO Marine and/or Inland Guidelines for Ecolabelling + FAO CCRF (where listed) 28.2 (35.2); 31 (41); (36.9)</p> <p>Paragraph 28.2 of the Guidelines requires objectives, and as necessary, management measures to address pertinent aspects of the ecosystem effects of fishing as per paragraph 31.</p> <p>Paragraph 31 of the Guidelines requires that adverse impacts of the fishery on the ecosystem should be appropriately assessed and effectively addressed. Outcome indicators enable the management authority, and hence the scheme, to assess whether the impacts have been effectively addressed. Paragraph 41 (Inland Guidelines) specifically requires that any modifications to the habitat for enhancing the stock under consideration are reversible and do not cause serious or irreversible harm to the natural ecosystem's structure and function. Paragraph 31 references Article 7.2 of the CCRF, which requires, inter alia, that the biodiversity of aquatic habitats and ecosystems is conserved.</p> <p>Paragraph 36.9 of the Inland Guidelines requires that In the case of enhanced fisheries, the fishery management system should take due regard of the natural production processes and minimize adverse impacts on ecosystem structure and function.</p> <p>Paragraph 40 [51] of the Guidelines states that the setting of standards is among the most critical tasks of any ecolabelling scheme of products from sustainable marine [inland] capture fisheries. The standards reflect the objectives for sustainable fisheries that are being pursued through the scheme. Standards comprise quantitative and qualitative indicators of the governance system or management regime of a fishery as well as of its outcome in terms of sustainable fisheries and conservation of marine fishery resources and related ecosystems.</p>	
RELATED SUPPLEMENTARY COMPONENTS	
<p>D.6 09 01 See page 284</p>	



GSSI SUPPLEMENTARY COMPONENTS
FOR FISHERIES CERTIFICATION STANDARDS

GSSI Supplementary Components for Fisheries Certification Standards

► FISHERY MANAGEMENT ORGANIZATION

D.1 **01** **01** **MANAGEMENT ORGANIZATION**

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that the fishery management organization or arrangement provides advice that contributes to the attainment of objectives for the management of the deep-sea fishery (DSFs) in the high seas under consideration and the prevention of significant adverse impacts on Vulnerable Marine Ecosystems (VMEs.) from fishing.</p>	<p>To meet the parent Essential Component, the fishery management organization or arrangement is expected to be fit for purpose. This is tested through the other Essential Components that assess the performance and content of the management system. This Supplementary Component looks more specifically at the advice provided by the fishery management organization or arrangement with respect to the management of DSFs in the high seas. The fishery management organization or arrangement must be required to provide specific advice on the prevention of significant adverse impacts on VMEs arising from fishing by the Unit of Certification. The FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas provide detail on what is regarded as a VME and what is a significant adverse impact in this context.</p>
REFERENCE	
<p>FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas (adopted 2008) 8 to 11 and 14 to 20</p> <p>These paragraphs require that the management system addressed the prevention of significant adverse impacts on VMEs as well as managing the stock under consideration as core to the management proposition.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.1.01 The standard requires the existence of a fishery management organization or arrangement that manages the fishery of which the Unit of Certification is a part.</p>	<p>This Supplementary Component represents an additionally detailed focus on the activities of the fishery management organization or arrangement regarding the prevention of significant adverse impacts on VMEs in DSFs on the high seas.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.1 01 02 MANAGEMENT ORGANIZATION

GSSI SUPPLEMENTARY COMPONENT		GUIDANCE
<p>The standard requires that in giving due recognition to the requirements and opportunities of small-scale fisheries the fishery management organization or arrangement adopts measures for the long-term conservation and sustainable use of fisheries resources and to secure the ecological foundation for food production.</p>		<p>The standard requires that in giving due recognition to the requirements and opportunities of small-scale fisheries the fishery management organization or arrangement adopts measures for the long-term conservation and sustainable use of fisheries resources and to secure the ecological foundation for food production.</p>
REFERENCE		
<p>FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (2014)</p> <p>5.13</p> <p>Paragraph 5.13 requires that States and all those engaged in fisheries management should adopt measures for the long-term conservation and sustainable use of fisheries resources and to secure the ecological foundation for food production. They should promote and implement appropriate management systems, consistent with their existing obligations under national and international law and voluntary commitments, including the Code, that give due recognition to the requirements and opportunities of small-scale fisheries.</p>		
RELATED ESSENTIAL COMPONENT		RATIONALE
<p>D.1.01 The standard requires the existence of a fishery management organization or arrangement that manages the fishery of which the Unit of Certification is a part.</p>		<p>This Supplementary Component qualifies the management system with respect to long-term conservation and sustainability of fisheries resources. There is a particular focus on the requirements and opportunities of small scale fisheries and their role in securing the ecological foundation for food production.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.1 01 03 MANAGEMENT ORGANIZATION

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that the fishery management organization or arrangement is able to coordinate and integrate its activities with other relevant institutions that have mandates for or are active in the ecosystem in which the fishery of which the unit of certification is part is operating (e.g. other relevant ministries), and that respective roles and responsibilities are clarified.</p>	<p>To meet the parent Essential Component, the fishery management organization or arrangement is expected to be fit for purpose. This is tested through the other Essential Components that assess the performance and content of the management system. This Supplementary Component looks more specifically at the requirement for the fishery management organization or arrangement to coordinate and integrate its activities with other relevant institutions that have mandates for or are active in the ecosystem in which the fishery of which the unit of certification is part is operating. The standard must require that their respective roles and responsibilities are clarified.</p>
REFERENCE	
<p>FAO Technical Guidelines for Responsible Fisheries. 4. Fisheries management. 4.2. The ecosystem approach to fisheries (2003). 1.4.5 Adapted from Paragraph 1.4.5 Institutional concepts and functions of the EAF Guidelines.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.1.01 The standard requires the existence of a fishery management organization or arrangement that manages the fishery of which the Unit of Certification is a part.</p>	<p>This Supplementary Component addresses one of the implications of implementing EAF which is an expansion of stakeholder groups and sectoral linkages. An effective ecosystem approach will require effective institutional coordination (e.g. between ministries). This will require clarification of roles and responsibilities, improved coordination and integration across government and other users and more accountability across all stakeholder groups. A greater emphasis on planning at a range of geographical levels that involves all relevant stakeholders will be required and will involve a more collaborative approach and sharing of information.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.1 01 04 MANAGEMENT ORGANIZATION

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that the fishery management organization or arrangement at a minimum, shall:</p> <ul style="list-style-type: none"> - identify interested parties and oversee the formulation of the management objectives; - translate, in cooperation with the interested parties, these objectives into management plans and define the criteria upon which decisions and regulatory measures will be based, evaluated and adjusted as necessary; - ensure implementation of the management measures through monitoring control and surveillance; and - coordinate the collection and analysis of information and data necessary to allow responsible fisheries management. 	<p>To meet the parent Essential Component, the fishery management organization or arrangement is expected to be fit for purpose. This is tested through the other Essential Components that assess the performance and content of the management system. This Supplemental Component lists several specific activities from the FAO Technical Guidelines for Responsible Fisheries. No. 4. Fisheries management that the fishery management organization or arrangement is required to undertake. These are not inconsistent with the parent Essential Component, but are specified in greater detail in the Supplemental Component.</p>
REFERENCE	
<p>FAO Technical Guidelines for Responsible Fisheries. No. 4. Fisheries management. Rome, FAO. 1997. 1.6.2 (ii)</p> <p>Paragraph 1.6.2 (ii) states that responsible fisheries management requires the existence of management institutions among which would be one or more explicit fisheries management authority. In particular, functions of any management authority at a minimum should include the mandate for:</p> <ul style="list-style-type: none"> - identifying the interested parties and overseeing the formulation of the management objectives; - translating, in cooperation with the interested parties, these objectives into management plans and defining the criteria upon which decisions and regulatory measures will be based, evaluated and adjusted as necessary; - ensuring implementation of the management measures through monitoring control and surveillance; - coordinating the collection and analysis of information and data necessary to allow responsible fisheries management; and - liaising and negotiating on behalf of the fisheries interests with users of other resources or areas having an impact on fisheries. 	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.1.01 The standard requires the existence of a fishery management organization or arrangement that manages the fishery of which the Unit of Certification is a part.</p>	<p>This Supplementary Component ensures that the minimum essential functions that any FMO are recognised.</p> <p>There was an objection from within the F-EWG to inclusion of the last bullet point from the list in the FAO Technical Guidelines for Responsible Fisheries. Fisheries management. No. 4 paragraph 1.6.2 (ii), therefore this bullet point was omitted.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.1 02 01 ADAPTIVE MANAGEMENT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that the fishery management organization or arrangement receives and responds in a timely manner to the best scientific evidence available regarding the status of the DSF fish stock under consideration and the likelihood and magnitude of adverse impacts of the unit of certification on the stock under consideration and prevents significant adverse impacts on VMEs.</p>	<p>To meet this Supplementary Component the standard must specifically require the best scientific evidence available regarding the status of the DSF fish stock under consideration. This is essentially part of the Essential Component (except the Supplementary Component is referring specifically to DSF stocks), however, there is an added element in the focus on significant adverse impacts on VMEs. The FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas provide detail on what is regarded as a VME and what is a significant adverse impact in this context.</p>
REFERENCE	
<p>FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas (adopted 2008) 11; 21 to 23</p> <p>Paragraphs 11 and 21 to 23 place equal emphasis on managing the stock under consideration and preventing significant adverse impacts on VMEs from that fishing.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.1.02 The standard requires that the fishery management organization or arrangement receives and responds to in a timely manner the best scientific evidence available regarding the status of the stock under consideration and the likelihood and magnitude of adverse impacts of the unit of certification on the stock under consideration and the ecosystem.</p>	<p>This Supplementary Component seeks puts a specific focus on preventing significant adverse impacts on VMEs.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.1 02 02 ADAPTIVE MANAGEMENT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The Scheme makes available to fisheries management organisations or arrangements information about and communication links to international, regional, national or private funding agencies to encourage funding for small-scale fisheries research and collaborative and participatory data collection analysis and research.</p>	<p>This Supplementary Component is looking for action by the Scheme itself to be proactive in the sharing of information on funding for small scale fisheries research and collaborative and participatory data collection analysis and research.</p>
REFERENCE	
<p>FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (2014) 11.8, 11.9</p> <p>Paragraph 11.8 states that all parties should promote the availability, flow and exchange of information, including on aquatic transboundary resources, through the establishment or use of appropriate existing platforms and networks at community, national, subregional and regional level, including both horizontal and vertical two-way information flows. Taking into account the social and cultural dimensions, appropriate approaches, tools and media should be used for communication with and capacity development for small-scale fishing communities.</p> <p>Paragraph 11.9 requires that States and other parties should, to the extent possible, ensure that funds are available for small-scale fisheries research, and collaborative and participatory data collection, analyses and research should be encouraged. States and other parties should endeavour to integrate this research knowledge into their decision-making processes. Research organizations and institutions should support capacity development to allow small-scale fishing communities to participate in research and in the utilization of research findings. Research priorities should be agreed upon through a consultative process focusing on the role of small-scale fisheries in sustainable resource utilization, food security and nutrition, poverty eradication, and equitable development, including also DRM and CCA considerations.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.1.02 The standard requires that the fishery management organization or arrangement receives and responds to in a timely manner the best scientific evidence available regarding the status of the stock under consideration and the likelihood and magnitude of adverse impacts of the unit of certification on the stock under consideration and the ecosystem.</p>	<p>This Supplementary Component seeks to strengthen the capacity of FMOs with regard to information on possible funding opportunities for fisheries research, data and information.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.1 04 01 TRANSBOUNDARY STOCKS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires that where transboundary fishery resources exist, States should work together to ensure that the tenure rights of small-scale fishing communities that are granted, are protected.	In addition to the requirement for the existence of a bilateral, subregional or regional fisheries organization or arrangement, this Supplementary Component is seeking the inclusion in the standard of a requirement for the tenure rights of small-scale fishing communities to be protected.
REFERENCE	
FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (2014) 5.19 Paragraph 5.19 Where transboundary and other similar issues exist, e.g. shared waters and fishery resources, States should work together to ensure that the tenure rights of small-scale fishing communities that are granted are protected.	
RELATED ESSENTIAL COMPONENT	RATIONALE
D.1.04 Where the stock under consideration is a transboundary fish stock, straddling fish stock, highly migratory fish stock or high seas fish stock, the standard requires the existence of a bilateral, subregional or regional fisheries organization or arrangement, as appropriate that is concerned with the management of the whole stock unit over its entire area of distribution.	This Supplementary Component ensures that the transboundary fisheries management organisation or arrangement recognises the tenure rights of small-scale fishing communities.

► MANAGEMENT SYSTEM

D.1 05 01 PARTICIPATORY MANAGEMENT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The Standard requires the management system to encourage the participation of fishers in policy development, implementation and self-policing in order to promote greater voluntary compliance and improved enforcement of bycatch management measures.	In addition to the governance and fisheries management system being participatory and transparent, this Supplementary Component is seeking the inclusion in the standard of a requirement for the participation of fishers in policy development, implementation and self-policing.
REFERENCE	
FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 9,4 Paragraph 9.4 In order to promote greater voluntary compliance and improved enforcement of bycatch management measures, States and RFMO/As should encourage the participation of fishers in policy development, implementation and self-policing (e.g. through co-management and community-based management).	
RELATED ESSENTIAL COMPONENT	RATIONALE
D.1.05 The standard requires the governance and fisheries management system under which the unit of certification is managed to be both participatory and transparent, to the extent permitted by national laws and regulations.	This Supplementary Component adds specific reference to participation of fishers in policy development, implementation and self-policing. This goes beyond the basic requirement for the governance and fisheries management system to be participatory and transparent.

GSSI Supplementary Components for Fisheries Certification Standards

D.1 05 02 PARTICIPATORY MANAGEMENT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The Standard requires that bycatch and discard data are publicly available to promote transparency in bycatch management.	In addition to the governance and fisheries management system being participatory and transparent, this Supplementary Component is seeking the inclusion in the standard of a requirement for bycatch and discards data to be publicly available.
REFERENCE	
FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 5.1.7 Paragraph 5.1.7 Consideration should be given to making bycatch and discard data publicly available to promote transparency in bycatch management.	
RELATED ESSENTIAL COMPONENT	RATIONALE
D.1.05 The standard requires the governance and fisheries management system under which the unit of certification is managed to be both participatory and transparent, to the extent permitted by national laws and regulations.	Essential Components D.3.14 and D.3.15 require methodology and results of assessments to be made publicly available. Under this Supplementary Component, the standard requires that bycatch and discard data are made publicly available.

D.1 05 03 PARTICIPATORY MANAGEMENT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires the governance and fisheries management system under which the unit of certification is managed to be both participatory and transparent, including consultation with “responsible” deep sea fishers, to the extent permitted by national laws and regulations.	In addition to the governance and fisheries management system being participatory and transparent (as per the parent Essential Component), this Supplemental Component requires to the Standard to include specific consultation with “responsible” deep sea fishers. The source of this Supplemental Component is the FAO Deep Sea Guidelines, which relate to fisheries on the high seas. Hence there is an international context for management of fisheries in areas beyond national jurisdiction which may go beyond the parent requirement. Note, however, that the wording of a Supplemental Component cannot be used as a justification for weakening the application of an Essential Component by implying that something is excluded from the Essential Component that might otherwise have been assumed to be included.
REFERENCE	
FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas (adopted 2008) 21 (vii); 79 and 80 Paragraphs 21 (vii), 79 and 80 set out explicit encouragement for participatory management and consultation with “responsible” deep sea fishers.	
RELATED ESSENTIAL COMPONENT	RATIONALE
D.1.05 The standard requires the governance and fisheries management system under which the unit of certification is managed to be both participatory and transparent, to the extent permitted by national laws and regulations.	This Supplementary Component adds specific reference to consultation with “responsible” deep sea fishers. This may go beyond the basic requirement for the governance and fisheries management system to be participatory and transparent.

GSSI Supplementary Components for Fisheries Certification Standards

D.1 05 04 PARTICIPATORY MANAGEMENT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that the involvement of small-scale fishing communities in the design, planning and, as appropriate, implementation of management measures, including protected areas, affecting their livelihood options is facilitated. Participatory management systems, such as co-management, should be promoted in accordance with national law.</p>	<p>In addition to the governance and fisheries management system being participatory and transparent, this Supplementary Component is seeking the inclusion in the standard of a requirement for the specific facilitation of the involvement of small-scale fishing communities in the management process, where their livelihood options are affected.</p>
REFERENCE	
<p>FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (2014) 5.15 Paragraph 5.15 States should facilitate, train and support small-scale fishing communities to participate in and take responsibility for, taking into consideration their legitimate tenure rights and systems, the management of the resources on which they depend for their well-being and that are traditionally used for their livelihoods. Accordingly, States should involve small-scale fishing communities – with special attention to equitable participation of women, vulnerable and marginalized groups – in the design, planning and, as appropriate, implementation of management measures, including protected areas, affecting their livelihood options. Participatory management systems, such as co-management, should be promoted in accordance with national law.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.1.05 The standard requires the governance and fisheries management system under which the unit of certification is managed to be both participatory and transparent, to the extent permitted by national laws and regulations.</p>	<p>This Supplementary Component ensures particular focus is paid to the needs of small-scale fishing communities with respect to their involvement in fisheries management. Supporting the generation and collection of data regarding the certification unit and its supporting environment should form a key part of this Supplementary Component.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.1 05 05 PARTICIPATORY MANAGEMENT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires, where applicable, that for a fisheries co-management system under which the unit of certification operates, the roles and responsibilities of concerned parties and stakeholders are clarified and agreed through a participatory and legally supported process. All parties shall be responsible for assuming the management roles agreed to. All endeavours should be made so that small-scale fisheries are represented in relevant local and national professional associations and fisheries bodies and actively take part in relevant decision-making and fisheries policy-making processes.</p>	<p>In addition to the governance and fisheries management system being participatory and transparent, this Supplemental Component is seeking the inclusion in the standard of a requirement for a co-management system within which, inter alia, the roles and responsibilities of concerned parties and stakeholders are clarified and agreed and all endeavours are made for small-scale fisheries to be represented in relevant local and national professional associations and fisheries bodies.</p> <p>Although an enabling legal system for co-management is often necessary, a legal framework is not a pre-requisite for an effective co-management arrangement. The roles and responsibilities of concerned parties and stakeholders may therefore be clarified and agreed through a participatory and customarily supported process.</p>
REFERENCE	
<p>FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (2014)</p> <p>5.17</p> <p>Paragraph 5.17 States should ensure that the roles and responsibilities within the context of co-management arrangements of concerned parties and stakeholders are clarified and agreed through a participatory and legally supported process. All parties are responsible for assuming the management roles agreed to. All endeavours should be made so that small-scale fisheries are represented in relevant local and national professional associations and fisheries bodies and actively take part in relevant decision-making and fisheries policy-making processes.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.1.05 The standard requires the governance and fisheries management system under which the unit of certification is managed to be both participatory and transparent, to the extent permitted by national laws and regulations.</p>	<p>This Supplementary Component qualifies how the participatory process operates and ensures that small-scale fisheries have the opportunity to participate in fisheries governance.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.1 06 01 SMALL SCALE AND/OR DATA LIMITED FISHERIES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard recognises that the knowledge, culture and practices of small scale fisheries communities may inform responsible governance and sustainable development processes including co-management.</p>	<p>This Supplementary Component expands on the concept in the parent Essential Component requiring specific recognition of the contribution of the knowledge, culture and practices of small scale fishing communities to responsible governance and sustainable development processes. Co-management is mentioned specifically.</p>
REFERENCE	
<p>FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (2014) 5.18 Paragraph 5.18 states that States and small-scale fisheries actors should encourage and support the role and involvement of both men and women, whether engaged in pre-harvest, harvest or post-harvest operations, in the context of co-management and in the promotion of responsible fisheries, contributing their particular knowledge, perspectives and needs. All parties should pay specific attention to the need to ensure equitable participation of women, designing special measures to achieve this objective.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.1.06 The standard is applicable to governance and management systems for small scale and/or data limited fisheries, with due consideration to the availability of data and the fact that management systems can differ substantially for different types and scales of fisheries.</p>	<p>This Supplementary Component ensures that knowledge, culture and practices of small scale fisheries communities can be used to inform governance and management systems for small-scale fisheries.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.1 07 01 COMPLIANCE OF THE MANAGEMENT SYSTEM

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires the management system to include national policies, legal and institutional frameworks for the effective management of bycatch and the reduction of discards, including those measures agreed at an international level, for example by RFMOs in which they are members or participate as cooperating non-members.</p>	<p>This Supplementary Component puts a greater emphasis on the legal and institutional treatment within the management system of bycatch and reduction of discards. Specifically there is a need to see explicit policies and frameworks for their effective management, and incorporation within domestic legislation of bycatch and discard measures agreed internationally.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 3.1.1; 3.1.2</p> <p>Paragraph 3.1.1 States, acting as flag States, port States, coastal States or importing or exporting (market) States in conformity with the relevant rules of international law, in particular trade-related instruments, or when exercising jurisdiction over their nationals, should, with the advice of the competent fisheries management authority, contribute to the attainment of their objectives for the management of bycatch and reduction of discards.</p> <p>Paragraph 3.1.2 requires that States should establish and implement national policies, legal and institutional frameworks for the effective management of bycatch and the reduction of discards, including those measures agreed by RFMO/As in which they are members or participate as cooperating non-members.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.1.07 The standard requires that the fisheries management system under which the unit of certification is managed operates in compliance with local, national and international laws and regulations, including the requirements of any regional fisheries management organisation that exercises internationally recognised management jurisdiction over the fisheries on the stock under consideration.</p>	<p>The Supplementary Component puts a greater emphasis on the treatment within the management system of bycatch and reduction of discards and compliance with international agreements.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.1 07 02 COMPLIANCE OF THE MANAGEMENT SYSTEM

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that trade-related measures to promote the sustainability of fisheries should be adopted and implemented in accordance with international law, including the principles, rights and obligations established in the WTO Agreements.</p>	<p>In addition to the Essential Component under which the standard must require the Unit of Certification to operate in compliance with the requirements of local, national and international law and regulations, this Supplemental Component is seeking the inclusion in the standard of a requirement that if a fishery management system includes trade-related measures, they must be adopted and implemented in accordance with international law, including WTO Agreements. It does not require every fishery management system to have trade related measures. As such, it is likely that this will have particular relevance to RFMO/As where trade related measures may have greater emphasis (noting that any trade related measures agreed by RFMO/As will need to be implemented at the national level by the Members and Cooperating non-Members of the RFMO/S).</p>
REFERENCE	
<p>FAO Technical Guidelines for Responsible Fisheries Responsible fish trade. No. 11. Rome, FAO. 2009. 11.2.2 (14)</p> <p>Article 11.2.2 para 14 Trade-related measures to promote the sustainability of fisheries should be adopted and implemented in accordance with international law, including the principles, rights and obligations established in the WTO Agreements. Such measures should be used only after prior consultation with interested States. Unilateral trade-related measures should be avoided.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.1.07 The standard requires that the fisheries management system under which the unit of certification is managed operates in compliance with local, national and international laws and regulations, including the requirements of any regional fisheries management organisation that exercises internationally recognised management jurisdiction over the fisheries on the stock under consideration.</p>	<p>This Supplementary Component provides an added focus to the parent Essential Component, with specific mention of the need to be in compliance with the WTO Agreements with respect to any trade-related measures that might be adopted by the management system to promote the sustainability of fisheries.</p>

GSSI Supplementary Components for Fisheries Certification Standards

► LEGAL FRAMEWORK

D.1 **08** **01** **COMPLIANCE OF THE FISHERY**

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires the existence of a legal and/or policy framework that recognizes and addresses the impacts of fisheries on other sectors and the impact of those sectors on fisheries, in accordance with EAF.	This Supplemental Component puts a specific emphasis on the impacts of fisheries on other sectors and the impact of those sectors on fisheries. The Standard must require the management system to recognize and address these within the effective legal framework.
REFERENCE	
<p>FAO Technical Guidelines for Responsible Fisheries. 4. Fisheries management. 4.2. The ecosystem approach to fisheries (2003).</p> <p>4.2.1</p> <p>Copied from 4.2 Legal and institutional aspects of EAF, 4.2.1 Legal:</p> <p>... EAF is not frequently an integral part of national fisheries policy and legislation. This leads to many deficiencies in current fishery management regimes, such as (i) weak cross sectoral consultation and cooperation and (ii) the failure to consider, or a legal inability to act on external influences such as pollution and habitat deterioration. Such problems need to be addressed and corrected where required. Especially in the case of national policies and laws, EAF may require that existing legal instruments and the practices of other sectors that interact with or impact on fisheries need to be considered, and that adjustments to those instruments and practices pertaining to other sectors be made. EAF is, therefore, likely to require more complex sets of rules or regulations that recognize the impacts of fisheries on other sectors and the impact of those sectors on fisheries.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
D.1.08 The standard requires that the fishery of which the Unit of Certification is a part is managed under an effective legal framework at the local, national or regional (international) level as appropriate.	This Supplementary Component puts a specific emphasis on the impacts of fisheries on other sectors and the impact of those sectors on fisheries, and requires the standard to recognize and address these within the effective legal framework.

GSSI Supplementary Components for Fisheries Certification Standards

D.1 09 01 COMPLIANCE OF THE FISHERY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires effective and suitable monitoring, surveillance, control and enforcement of the unit of certification for management of bycatch and reduction of discards</p>	<p>Effective and suitable monitoring, surveillance, control and enforcement of the unit of certification for management of bycatch and reduction of discards may be implicit within the parent Essential Component, but this Supplementary Component is seeking specific reference to the management of bycatch and reduction of discards in this context within the Standard.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 9.2 Paragraph 9.2 States should establish and implement the appropriate national policies, as well as the legal and institutional frameworks, for effective monitoring, control and surveillance of fisheries for management of bycatch and reduction of discards.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.1.09 The standard requires effective and suitable monitoring, surveillance, control and enforcement of the fishery of which the unit of certification is a part.</p>	<p>The Supplementary Component adds a specific emphasis on effective and suitable monitoring, surveillance, control and enforcement for management of bycatch and reduction of discards.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.1 09 02 COMPLIANCE OF THE FISHERY

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that in the case of small scale fisheries, monitoring, control, surveillance and enforcement systems are supported (resourced) and involve small scale fisheries actors as appropriate and promote participatory arrangements within the context of co-management. Small-scale fishers should support the monitoring, control, and surveillance and enforcement systems and provide to the State fisheries authorities the information required for the management of the activity.</p>	<p>In addition to the effective and suitable monitoring, surveillance, control and enforcement of the unit of certification in the parent Essential Component, this Supplementary Component requires the standard to include explicit promotion of participatory arrangements for these activities within the context of co-management.</p>
REFERENCE	
<p>FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication (2014) 5,16 Paragraph 5.16 States should ensure the establishment of monitoring, control and surveillance (MCS) systems or promote the application of existing ones applicable to and suitable for small-scale fisheries. They should provide support to such systems, involving small-scale fisheries actors as appropriate and promoting participatory arrangements within the context of co-management. States should ensure effective monitoring and enforcement mechanisms to deter, prevent and eliminate all forms of illegal and/or destructive fishing practices having a negative effect on marine and inland ecosystems. States should endeavour to improve registration of the fishing activity. Small-scale fishers should support the MCS systems and provide to the State fisheries authorities the information required for the management of the activity.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.1.09 The standard requires effective and suitable monitoring, surveillance, control and enforcement of the fishery of which the unit of certification is a part.</p>	<p>This Supplementary Component aims for improved MCS outcomes through the use of a participatory approach involving small-scale fisheries.</p>

GSSI Supplementary Components for Fisheries Certification Standards

► STOCK UNDER CONSIDERATION

D.2 03 01 REFERENCE POINTS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>In requiring management objectives consistent with avoiding adverse impacts on the stock(s) under consideration that are likely to be irreversible or very slowly reversible, the standard recognises that many marine resources exploited in DSFs in the high seas have low productivity and are only able to sustain very low exploitation rates. Also when these resources are depleted, recovery is expected to be long and is not assured.</p>	<p>In requiring management objectives consistent with avoiding adverse impacts on the stock(s) under consideration that are likely to be irreversible or very slowly reversible, to meet this Supplementary Component the standard is expected to include explicit recognition of the characteristics of marine resources exploited in DSFs in the high seas that create specific challenges for their sustainable utilization and exploitation. These include: (i) maturation at relatively old ages; (ii) slow growth; (iii) long life expectancies; (iv) low natural mortality rates; (v) intermittent recruitment of successful year classes; and (vi) spawning that may not occur every year.</p>
REFERENCE	
<p>FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas (adopted 2008) 13</p> <p>Paragraph 13 Many marine living resources exploited by DSFs in the high seas have biological characteristics that create specific challenges for their sustainable utilization and exploitation. These include: (i) maturation at relatively old ages; (ii) slow growth; (iii) long life expectancies; (iv) low natural mortality rates; (v) intermittent recruitment of successful year classes; and (vi) spawning that may not occur every year. As a result, many deep-sea marine living resources have low productivity and are only able to sustain very low exploitation rates. Also, when these resources are depleted, recovery is expected to be long and is not assured.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.2.03 The standard requires that the management objectives clearly define target and limit reference points, or proxies for the stock under consideration on the basis of the best scientific evidence available and in accordance with the Precautionary Approach. Target reference points must be consistent with achieving Maximum Sustainable Yield, MSY (or a suitable proxy) on average and limit reference points (or proxies) must be consistent with avoiding recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>This Supplementary Component expands on its parent Essential Component by seeking explicit recognition of the challenges of exploiting DSF resources on the high seas in a sustainable manner, and the need for suitably constructed management objectives.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.2 03 02 REFERENCE POINTS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that fishery management plans for DSFs in the high seas include biological reference points for the stock under consideration set at levels that ensure, at a minimum, that fish stocks are harvested at levels that are sustainable in the long term. Appropriate biological reference points for stock assessment and management need to be set in a precautionary manner and determined on a case-by-case basis, taking into account the different target stocks, fishery characteristics, and the state of knowledge about the species and fishery.</p>	<p>To meet this Supplementary Component, standards are expected to recognise the specific characteristics of marine resources exploited in DSF in the high seas in setting suitable biological reference points.</p>
REFERENCE	
<p>FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas (adopted 2008) 76, 77</p> <p>Paragraph 76: Fishery management plans for DSFs should include biological reference points set at levels that ensure, at a minimum, that fish stocks are harvested at levels that are sustainable in the long term. Appropriate biological reference points for stock assessment and management need to be set in a precautionary manner and determined on a case-by-case basis, taking into account the different target stocks, fishery characteristics, and the state of knowledge about the species and fishery.</p> <p>Paragraph 77: In general, for low-productivity species, fishing mortality should not exceed the estimated or inferred natural mortality. Sustainable management strategies that would be robust to uncertainties are likely to require low exploitation rates.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.2.03 The standard requires that the management objectives clearly define target and limit reference points, or proxies for the stock under consideration on the basis of the best scientific evidence available and in accordance with the Precautionary Approach. Target reference points must be consistent with achieving Maximum Sustainable Yield, MSY (or a suitable proxy) on average and limit reference points (or proxies) must be consistent with avoiding recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>This Supplementary Component expands on its parent Essential Component by requiring standards to recognise the specific characteristics of marine resources exploited in DSF in the high seas in setting suitable biological reference points.</p>

GSSI Supplementary Components for Fisheries Certification Standards

► ECOSYSTEM EFFECTS OF FISHING

D.2 **05** **01** **NON-TARGET CATCHES**

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires the existence of management objectives for the use and management of that portion of the full catch of which bycatch and discards are subsets, and that such plans are consistent with the CCRF.	Management objectives required by the standard should include, inter alia, reduction of post-harvest losses and waste, and encouragement for those involved in fish processing, distribution and marketing to improve the use of by-catch, to the extent that this is consistent with responsible fisheries management practices. The over-riding aim should be to minimise waste including, where appropriate, loss of productivity to the marine ecosystem.
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 3.2.4 (i); CCRF 11.1.8</p> <p>Paragraph 3.2.4 (i) States and RFMO/As should:</p> <p>(i) develop or amend management plans for their fisheries so that the plans include objectives for the use and management of that portion of the full catch of which bycatch and discards are subsets, and that such plans are consistent with the Code [CCRF].</p> <p>CCRF Article 11.1.8 States should encourage those involved in fish processing, distribution and marketing to:</p> <p>a) reduce post-harvest losses and waste;</p> <p>b) improve the use of by-catch to the extent that this is consistent with responsible fisheries management practices; and</p> <p>c) use the resources, especially water and energy, in particular wood, in an environmentally sound manner.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
D.2.05 The standard requires the existence of management objectives that seek to ensure that non-target catches and discards by the unit of certification of stocks other than the stock under consideration and any associated culture and enhancement activity do not threaten those non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.	This is a step up from the Essential Component in that it requires management objectives for the use and management of that portion of the full catch of which bycatch and discards are subsets. The Essential Component requires only management objectives to ensure that non-target species are not threatened with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.

GSSI Supplementary Components for Fisheries Certification Standards

D.2 05 02 NON-TARGET CATCHES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires the existence of management objectives, including reference points, that seek to ensure non-target stocks (i.e. stocks/species in the catch that are other than the stock under consideration) are not threatened with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>This Supplementary Component requires that management objectives for non-target stocks (i.e. stocks/species in the catch that are other than the stock under consideration) that consider their overall status, similar to the objectives for the stock under consideration. This takes into account the impacts of all fishing on those stocks that might give rise to recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible. This Supplementary Component has a cumulative element similar to that for stock(s) under consideration in Essential Component D.2.04. To meet this Supplementary Component the standard would require the specification of reference points for non-target stocks.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 4.1.2 (i); 4.1.3; 6.3; 7.7.4</p> <p>Paragraph 4.1.2(i): States and RFMO/As should identify and assess fisheries where bycatch and discards occur and specify the requirements for management actions. Such assessments should, where feasible, include, inter alia: (i) information on the type(s) of fishing conducted or considered, including the vessels and gear types, fishing areas, levels of fishing effort, duration of fishing as well as the target and bycatch species and their sizes, and in particular threatened, endangered or protected species.</p> <p>Paragraph 4.1.3 requires bycatch management planning for all fisheries that require bycatch management action. This planning should include objectives, strategies, standards and measures directed at managing bycatch and reducing discards. Bycatch management planning should be incorporated into broader fisheries management plans.</p> <p>Paragraph 6.3: States and RFMO/As should collaborate in assessing bycatch and discard issues throughout the entire distribution range of the species of concern where applicable.</p> <p>Paragraph 7.7.4: When setting a quota for a species that can be taken both as a target as well as a bycatch in various fisheries, it is necessary to ensure that quotas for the species as targeted catch and as bycatch are accounted for within an overall limit.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.2.05 The standard requires the existence of management objectives that seek to ensure that non-target catches and discards by the unit of certification of stocks other than the stock under consideration and any associated culture and enhancement activity do not threaten those non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>The parent Essential Component seeks to ensure that non-target catches and discards by the unit of certification of stocks other than the stock under consideration and any associated culture and enhancement activity do not threaten those non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible. This Supplementary Component expands on the Essential Component by requiring consideration of the effects of all fishing (not just that of the unit of certification) on stocks other than the stock under consideration.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.2 06 01 ENDANGERED SPECIES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires the existence of management objectives that seek to reduce interactions with particularly vulnerable bycatch (e.g. juveniles and rare, endangered, threatened or protected species).</p>	<p>Under this Supplemental Component the standard must require objectives for the reduction of interactions with a range of particularly vulnerable bycatch, including juveniles and rare, endangered, threatened or protected species. This is in addition to objectives to ensure that endangered species are protected from adverse impacts as in the parent Essential Component. Endangered and threatened are described in the Glossary. “Protected” refers generally to any plant or animal that a government declares by law to warrant protection; most protected species are considered either threatened or endangered; also a species that is recognised by national legislation, affording it legal protection due to its population decline in the wild. The decline could be as a result of human or other causes.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 7.6.1 7.6.1 States and RFMO/As should consider measures to reduce interactions with particularly vulnerable bycatch (e.g. juveniles and rare, endangered, threatened or protected species) through identifying and establishing areas where the use of all or certain gears is limited or prohibited, based on the best available scientific information and consistent with international law.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.2.06 The standard requires the existence of management objectives that seek to ensure that endangered species are protected from adverse impacts resulting from interactions with the unit of certification and any associated culture or enhancement activity, including recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>This is a step up from the parent Essential Component in that it requires a management objective to reduce interactions with particularly vulnerable bycatch.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.2 07 01 HABITAT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires the existence of management objectives for preventing significant adverse impacts of the unit of certification on VMEs in the high seas.</p>	<p>To meet this Supplementary Component the standard must require management objectives specifically for preventing significant adverse impacts of the unit of certification on VMEs in addition to management measures to avoid, minimize or mitigate impacts of the unit of certification on essential habitats for the “stock under consideration” and on habitats that are highly vulnerable to damage by the fishing gear of the unit of certification. The FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas provide detail on what is regarded as a VME and what is a significant adverse impact in this context.</p>
REFERENCE	
<p>FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas (adopted 2008) 12 (ii), 21; 22 Paragraph 12 (ii), 21 and 22 of the DSG require prevention of significant adverse impact on VMEs as a particular category of ecosystem structure, processes and function.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.2.07 The standard requires the existence of management objectives seeking to avoid, minimize or mitigate impacts of the unit of certification on essential habitats for the stock under consideration and on habitats that are highly vulnerable to damage by the fishing gear of the unit of certification.</p>	<p>The parent Essential Component does not explicitly exclude impacts on VMEs, but nor are they explicitly included. This Supplementary Component also seeks prevention of significant adverse impacts on VMEs rather than to avoid, minimize or mitigate impacts on Habitat.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.2 09 01 ECOSYSTEM STRUCTURE, PROCESSES AND FUNCTION

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that in setting management objectives for the fishery of which the unit of certification is part all the economic, social and environmental aspects of the fishery are considered to ensure that important issues or sub-issues are not overlooked, as required for comprehensive EAF.</p>	<p>To meet this Supplementary Component the standard must require management objectives addressing a range of specific ecosystem topics (non-target species, habitat, food web, etc.) that have been developed through a comprehensive and integrated economic, social and environmental analysis.</p>
REFERENCE	
<p>FAO Technical Guidelines for Responsible Fisheries. 4. Fisheries management. 4.2. The ecosystem approach to fisheries (2003). 1.3; 1.4.4</p> <p>The key wording is taken from 1.3 of the EAF Guidelines: Making EAF operational. The aim of [the EAF] guidelines is to translate the high-level policy goals into action by: identifying broad objectives relevant to the fishery (or area) in question;</p> <ul style="list-style-type: none"> • further breaking these objectives down into smaller priority issues and subissues that can be addressed by management measures; • setting operational objectives; • developing indicators and reference points; • developing decision rules on how the management measures are to be applied; and • monitoring and evaluating performance. <p>It is not possible to be prescriptive on these sub-issues because they will obviously vary among fisheries. However, it is important to consider all the economic, social, and environmental aspects of fisheries so that an important issue or sub-issue is not overlooked.</p> <p>Paragraph 1.4.4 states that (inter alia) the shift to EAF will entail the recognition of the wider economic, social and cultural benefits that can be derived from fisheries resources and the ecosystems in which they occur. The identification of the various direct and indirect uses and users of these resources and ecosystems is a necessary first step to attain a good understanding of the full range of potential benefits. While many of these benefits may be amenable to quantitative assessments, some are not, and their value can be described only in qualitative terms. Multi-criteria decision-making techniques may be applied to create aggregate indices that encapsulate both quantitative and qualitative ecological, economic, social and cultural considerations.</p> <p>and</p> <p>The consideration of a broader range of ecosystem goods and services necessarily implies the need of addressing a wider range of trade-offs between different uses, non-uses, and user groups. In view of the higher complexity of EAF and limited ability to predict changes in the future flow of ecosystem goods and services, valuation has to take uncertainties and risks explicitly into account.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.2.09 The standard requires the existence of management objectives that seek to minimize adverse impacts of the unit of certification, including any associated enhancement activities if applicable, on the structure, processes and function of aquatic ecosystems that are likely to be irreversible or very slowly reversible.</p>	<p>This Supplementary Component covers the need for the standard to require objectives addressing a range of specific topics (non-target species, habitat, food web, etc.). These are required at the Essential Component level, but this Supplementary Component reinforces and goes beyond those specific, individual Components by requiring that they are not dealt with in isolation but as part of a comprehensive economic, social and environmental analysis.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.2 09 02 ECOSYSTEM STRUCTURE, PROCESSES AND FUNCTION

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that the ecosystem issues associated with the fishery of which the unit of certification is part are prioritised through a risk assessment and that operational objectives, indicators and reference points are set for all those issues that are assessed as being most important and feasible to address.</p>	<p>To meet this Supplementary Component, the Standard requires operational objectives, indicators and reference points to be developed from broad management objectives for the ecosystem issues that are most important and feasible to address. Prioritising the ecosystem issues should involve three basic steps:</p> <ul style="list-style-type: none"> • identify issues, at a practical level, relevant to the fishery under each of the broad objectives; • prioritize the issues based on the risk they pose; and • develop operational objectives for priority issues, and as necessary, a process for monitoring some lower priority issues.
REFERENCE	
<p>FAO Technical Guidelines for Responsible Fisheries. 4. Fisheries management. 4.2. The ecosystem approach to fisheries (2003). 4.1.4.2(ii) Copied from 4.1.4 Setting objectives: 4.1.4.2 Developing operational objectives from broad objectives: (ii) Rank the issues of the EAF Guidelines.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.2.09 The standard requires the existence of management objectives that seek to minimize adverse impacts of the unit of certification, including any associated enhancement activities if applicable, on the structure, processes and function of aquatic ecosystems that are likely to be irreversible or very slowly reversible.</p>	<p>Many issues, often at very different scales of relevance, are likely to arise in identifying the EAF issues in a fishery or ecosystem. The second stage is to prioritize the issues that occur at the bottom of the tree structure to identify those for which detailed operational objectives, indicators and reference points will be developed. One practical approach is to conduct a risk assessment. Risk assessments can be qualitative and opinion-based, or highly quantitative and data-based. The appropriate level will depend on the circumstances, but should always include the best possible practices given the information available to conduct and document at least a qualitative risk assessment and capacity evaluation.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.2 09 03 ECOSYSTEM STRUCTURE, PROCESSES AND FUNCTION

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard recognizes that scientific uncertainty coupled with natural variability may make it difficult to set realistic reference points for some ecosystem properties. In such cases, indicators and associated reference points should be based on parameters that can be measured or estimated with acceptable certainty; and that the property is known to be modified or could be modified by the fishery and therefore that it can be influenced by controls on the fishery. If it is not appropriate to set a target reference point, then at least a limit reference point should be set.</p>	<p>This Supplementary Component is linked to D.2.09.02. The recognition that scientific uncertainty coupled with natural variability may make it difficult to set realistic reference points for some ecosystem properties is part of the prioritisation described for that Supplementary Component. This Supplementary Component requires the standard to focus on parameters that can be measured or estimated with acceptable certainty and properties of the ecosystem that are known to be modified or could be modified by the fishery. Limit reference points must be required at a minimum.</p>
REFERENCE	
<p>FAO Technical Guidelines for Responsible Fisheries. 4. Fisheries management. 4.2. The ecosystem approach to fisheries (2003). 4.1.4.3 Paragraph 4.1.4.3 states that In EAF, the setting of target reference points may be more problematic than in TROM, especially in relation to less specific ecosystem properties. For example, it is clear that a meaningful target could be set for the amount of benthic habitat to be protected, but that it would be more difficult to set a target for the energy flow through a particular part of one trophic level. The difficulty arises from uncertainty about ecosystem processes, and the extremely dynamic and naturally variable nature of ecosystems. For practical purposes the indicator should be an ecosystem property that is thought to be modified by the fishery, so that at least there is a controllable fishery impact for which a target level of change is identified. If it is not appropriate to set a target reference point, then at least a limit reference point should be set ... lack of scientific certainty should not prevent the selection of indicators and reference points that are considered important, or the clear explanation of a basis for selection.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.2.09 The standard requires the existence of management objectives that seek to minimize adverse impacts of the unit of certification, including any associated enhancement activities if applicable, on the structure, processes and function of aquatic ecosystems that are likely to be irreversible or very slowly reversible.</p>	<p>This Supplementary Component is linked to D.2.09.02. It requires the standard to focus on parameters that can be measured or estimated with acceptable certainty and properties of the ecosystem that are known to be modified or could be modified by the fishery. Limit reference points must be required at a minimum.</p>

GSSI Supplementary Components for Fisheries Certification Standards

► STOCK UNDER CONSIDERATION

D.3 **01** **01** DOCUMENTED MANAGEMENT APPROACH

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that the documented management approaches or other management framework covering the unit of certification and the stock under consideration includes the provision of advice that contributes to the attainment of objectives for the management of bycatch and reduction of discards in the fishery of which the Unit of Certification is a part.</p>	<p>This Supplementary Component is seeking to ensure that the documented management approach or other management framework for the fishery of which the Unit of Certification is a part specifically includes management of bycatch and reduction of discards.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 3.1.1 Paragraph 3.1.1 refers to the need for States and other entities exercising jurisdiction over fishing operations to receive advice from the competent fisheries management authority, to enable them to contribute to the attainment of their objectives for the management of bycatch and reduction of discards</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.3.01 The standard requires the existence of documented management approaches or other management framework covering the unit of certification and the stock under consideration, including management measures consistent with achieving management objectives for the stock under consideration.</p>	<p>There is a cumulative element to this in that it is asking for the management organization or arrangement to advise on the management of bycatch and reduction of discards in the fishery of which the Unit of Certification is a part, not just the Unit of Certification itself. This addresses the concern that several Units of Certification might have an adverse impact in the aggregate, but might not individually.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.3 01 02 DOCUMENTED MANAGEMENT APPROACH

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The Standard requires the incorporation of bycatch management planning into broader fisheries management plans, providing the fishery of which the unit of certification is part requires bycatch management action. This planning should include objectives, strategies, standards and measures directed at managing bycatch and reducing discards.</p>	<p>This Supplementary Component is looking for an integration of bycatch management planning within broader fisheries management plans.</p>
<p>REFERENCE</p>	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 4.1.3 Paragraph 4.1.3 States and RFMO/As should, based on the assessments and identification referred to in paragraph 4.1.2 of these Guidelines, undertake bycatch management planning for all fisheries that require bycatch management action. This planning should include objectives, strategies, standards and measures directed at managing bycatch and reducing discards. Bycatch management planning should be incorporated into broader fisheries management plans.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.3.01 The standard requires the existence of documented management approaches or other management framework covering the unit of certification and the stock under consideration, including management measures consistent with achieving management objectives for the stock under consideration.</p>	<p>This is a step up from the Essential Component in that it requires the incorporation of bycatch management planning into broader fisheries management plans.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.3 01 03 DOCUMENTED MANAGEMENT APPROACH

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard for the management system requires the existence of a current and regularly updated Fishery Management Plan (FMP), incorporating management objectives and management measures to achieve those objectives, for the stock under consideration and pertinent aspects of the ecosystem effects of fishing.</p>	<p>A Fishery Management Plan is required. This Supplementary Component relates to the process by which that plan is maintained.</p>
REFERENCE	
<p>FAO Technical Guidelines for Responsible Fisheries. No. 4. Fisheries management. Rome, FAO. 1997. 4.1 (ii) Section 4.1 deals with formulating Management Plans to reflect selected objectives and constraints. Under paragraph 4.1 (ii) it is suggested that management plans reflecting the management objectives should be drawn-up for all fisheries. These management plans will then serve as a reference and information source for the management authority and all interest groups, summarizing the current state of knowledge on the resource, its environment and the fishery, and reflecting all the decisions and actions agreed upon during the course of consultations between the management authority and the interest groups. Ensuring plans are developed and implemented for all fisheries helps to avoid planned management measures on one fishery creating unforeseen problems and externalities in a neighbouring fishery for which no plan is available.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.3.01 The standard requires the existence of documented management approaches or other management framework covering the unit of certification and the stock under consideration, including management measures consistent with achieving management objectives for the stock under consideration.</p>	<p>This Supplementary Component requires the production of a Fishery Management Plan as an essential component of the management system.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.3 04 01 DECISION RULES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that management measures specify the actions to be taken in the event that the status of the DSF stock in the high seas under consideration drops below levels consistent with achieving management objectives that allow for the restoration of the stock to such levels within a reasonable time frame. The standard requires specific management and operational precautionary actions before and after the establishment regional management arrangements and during the development phase of a fishery as well as once it established.</p>	<p>This Supplementary Component is seeking decision rules specifically applicable to DSF stocks on the high seas.</p>
REFERENCE	
<p>FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas (adopted 2008) 61 to 65; 71; 75 to 77; 81 to 83</p> <p>Paragraphs 61 to 65, 71, 75 to 77 and 81 to 83 require specific management and operational precautionary actions before and after the establishment regional management arrangements and during the development phase of a fishery as well as once it is established.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.3.04 The standard requires that management measures specify the actions to be taken in the event that the status of the stock under consideration drops below levels consistent with achieving management objectives that allow for the restoration of the stock to such levels within a reasonable time frame. This requirement also pertains to species introductions or translocations that have occurred historically and which have become established as part of the natural ecosystem.</p>	<p>This Supplementary Component is seeking decision rules specifically applicable to DSF stocks on the high seas.</p>

GSSI Supplementary Components for Fisheries Certification Standards

► ECOSYSTEM EFFECTS OF FISHING

D.3 **06** **01** **NON-TARGET CATCHES**

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
Where species subject to bycatch and/or discarding in the Unit of Certification are taken in both areas under national jurisdiction and adjacent areas beyond national jurisdiction, the standard requires that states and RFMOs/As collaborate in assessing bycatch and discard issues throughout the entire range of the bycatch species of concern where applicable.	This is addressing the specific case where bycatch and/or discarding in the Unit of Certification is occurring in both areas under national jurisdiction and adjacent areas beyond national jurisdiction. In this case, the standard must require that the relevant management authorities (i.e. the coastal state or states and RFMO/As) collaborate in assessing bycatch and discard issues throughout the entire distribution range of the species of concern where applicable.
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 3.5.2; 3.2.6; 6.3</p> <p>Paragraph 3.5.2 States should strengthen and build the capacity of RFMOs/As in order to manage bycatch and reduce discards, incorporating the relevant principles and norms of international law and international instruments into the mandates of these organizations or arrangements.</p> <p>Paragraph 3.2.6 When a species is taken in both areas under national jurisdiction and adjacent areas beyond national jurisdiction, actions taken in relation to the management of bycatch and reduction of discards for that species would be more effective if they are compatible across these areas.</p> <p>Paragraph 6.3 States and RFMO/As should collaborate in assessing bycatch and discard issues throughout the entire distribution range of the species of concern where applicable.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
D.3.06 The standard requires that management measures are designed to achieve management objectives (see D.2.07) seeking to ensure that non-target catches and discards by the unit of certification of stocks other than the stock under consideration and any associated culture and enhancement activity do not threaten those non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.	This is a step up from the Essential Component in that it requires that states and RFMOs/As collaborate in assessing bycatch and discard issues throughout the entire range of the bycatch species.

GSSI Supplementary Components for Fisheries Certification Standards

D.3 06 02 NON-TARGET CATCHES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The Standard requires a review of the effectiveness of existing initiatives that address bycatch and discard problems in ensuring that non-target stocks (i.e. stocks/species in the catch that are other than the stock under consideration) are not threatened with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>The bycatch and discard problems referred to in this Supplementary Component would be identified through a risk assessment to identify the specific nature and extent of bycatch and discard problems in the fishery as a basis for prioritization and planning. This could be undertaken, for example, as part of the analysis of the effects of the unit of certification, including any enhancement activities, on ecosystem structure, processes and function, as per Essential Component D.5.07. The existing initiatives that address the bycatch and discard problems would include the management measures designed to achieve management objectives (see D.2.07) referred to in the parent Essential Component D.3.06.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 4.1.2</p> <p>Paragraph 4.1.2 states that States and RFMO/As should identify and assess fisheries where bycatch and discards occur and specify the requirements for management actions. Such assessments should, where feasible, include, inter alia:</p> <ul style="list-style-type: none"> (i) information on the type(s) of fishing conducted or considered, including the vessels and gear types, fishing areas, levels of fishing effort, duration of fishing as well as the target and bycatch species and their sizes, and in particular threatened, endangered or protected species; (ii) a risk assessment to identify the specific nature and extent of bycatch and discard problems in the fishery as a basis for prioritization and planning; (iii) a review of the effectiveness of existing initiatives to address the bycatch and discard problems identified in the risk assessment; (iv) a review of the potential effectiveness of alternative methods to address the bycatch and discard problems identified in the risk assessment; (v) an assessment of the impacts of bycatch management and discard reduction measures on fishing operations and, in the case of States, on livelihoods to ascertain the potential effects of their implementation and the support necessary to facilitate their uptake; (vi) a review of the systems for the regular monitoring of the effectiveness of measures for bycatch management and reduction of discards, assessed against the management goals; and (vii) a regular assessment of plans and management measures for adjustment, as appropriate. 	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.3.06 The standard requires that management measures are designed to achieve management objectives (see D.2.07) seeking to ensure that non-target catches and discards by the unit of certification of stocks other than the stock under consideration and any associated culture and enhancement activity do not threaten those non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>This is a step up from the Essential Component in that a review of the effectiveness of existing initiatives to address problems identified in the risk assessment of bycatch and discards is required. It addresses primarily sub-paragraph (iii) of paragraph 4.1.2. Other parts of paragraph 4.1.2 are taken up in Supplementary Components D.3.06.03, D.3.06.04 and D.3.07.04.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.3 06 03 NON-TARGET CATCHES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The Standard requires a review of the potential effectiveness of alternative methods that address the bycatch and discard problems identified in the risk assessment (see D.5.07.01).</p>	<p>This Supplementary Component considers the potential effectiveness of alternative methods that address the bycatch and discard problems. It is a companion Supplementary Component to D.3.06.02, which addresses the effectiveness of existing initiatives. The risk assessment is required under D.5.07.01.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 4.1.2 4.1.2 States and RFMO/As should identify and assess fisheries where bycatch and discards occur and specify the requirements for management actions. Such assessments should, where feasible, include, inter alia: (iv) a review of the potential effectiveness of alternative methods to address the bycatch and discard problems identified in the risk assessment</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.3.06 The standard requires that management measures are designed to achieve management objectives (see D.2.07) seeking to ensure that non-target catches and discards by the unit of certification of stocks other than the stock under consideration and any associated culture and enhancement activity do not threaten those non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>This is a step up from the Essential Component in that a review of the potential effectiveness of alternative methods to address problems identified in the risk assessment of bycatch and discards is required.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.3 06 04 NON-TARGET CATCHES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The Standard requires an assessment of the impacts of bycatch management and discard reduction measures on fishing operations and, in the case of States, on livelihoods to ascertain the potential effects of their implementation and the support necessary to facilitate their uptake.</p>	<p>This is related to Supplementary Component D.3.06.02. It addresses the issue of uptake of initiatives (measures) that address bycatch and discard problems, and is hence related to their effectiveness.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 4.1.2 4.1.2 States and RFMO/As should identify and assess fisheries where bycatch and discards occur and specify the requirements for management actions. Such assessments should, where feasible, include, inter alia: (v) an assessment of the impacts of bycatch management and discard reduction measures on fishing operations and, in the case of States, on livelihoods to ascertain the potential effects of their implementation and the support necessary to facilitate their uptake;</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.3.06 The standard requires that management measures are designed to achieve management objectives (see D.2.07) seeking to ensure that non-target catches and discards by the unit of certification of stocks other than the stock under consideration and any associated culture and enhancement activity do not threaten those non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>This is a step up from the Essential Component in that it requires an assessment of the impacts of bycatch management and discard reduction measures on livelihoods and hence consideration of the uptake of these measures.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.3 06 05 NON-TARGET CATCHES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that management measures are designed to achieve management objectives (see D.2.07.02) seeking to ensure that non-target stocks (i.e. stocks/species in the catch that are other than the stock under consideration) are not threatened with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>This Supplementary Component requires that management measures for non-target species (i.e. stocks/species in the catch that are other than the stock under consideration) consider the impacts of all fishing on those stocks/species of all activities that might give rise to recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible over their entire areas of distribution.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 4.1.2 (i); 4.1.3; 6.3; 7.7.4</p> <p>Paragraph 4.1.2(i): States and RFMO/As should identify and assess fisheries where bycatch and discards occur and specify the requirements for management actions. Such assessments should, where feasible, include, inter alia: (i) information on the type(s) of fishing conducted or considered, including the vessels and gear types, fishing areas, levels of fishing effort, duration of fishing as well as the target and bycatch species and their sizes, and in particular threatened, endangered or protected species.</p> <p>Paragraph 4.1.3 requires bycatch management planning for all fisheries that require bycatch management action. This planning should include objectives, strategies, standards and measures directed at managing bycatch and reducing discards. Bycatch management planning should be incorporated into broader fisheries management plans.</p> <p>Paragraph 6.3: States and RFMO/As should collaborate in assessing bycatch and discard issues throughout the entire distribution range of the species of concern where applicable.</p> <p>Paragraph 7.7.4: When setting a quota for a species that can be taken both as a target as well as a bycatch in various fisheries, it is necessary to ensure that quotas for the species as targeted catch and as bycatch are accounted for within an overall limit.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.3.06 The standard requires that management measures are designed to achieve management objectives (see D.2.07) seeking to ensure that non-target catches and discards by the unit of certification of stocks other than the stock under consideration and any associated culture and enhancement activity do not threaten those non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>The parent Essential Component seeks to ensure that non-target catches and discards by the unit of certification of stocks other than the stock under consideration and any associated culture and enhancement activity do not threaten those non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible. This Supplementary Component expands on the Essential Component by requiring consideration of the effects of all fishing (not just that of the unit of certification) on stocks other than the stock under consideration.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.3 06 06 NON-TARGET CATCHES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires the management system to consider, as part of a fisheries management plan, the establishment of no-discard regimes, wherever applicable, and individual and fleet-wide limits on bycatch in those fisheries where bycatch is unavoidable. When setting a quota for a species that can be taken both as a target as well as a bycatch in various fisheries, it is necessary to ensure that quotas for the species as targeted catch and as bycatch are accounted for within an overall limit. Where information on the bycatch populations is limited, bycatch limits and quotas should be set in accordance with the precautionary approach.</p>	<p>This Supplementary Component refers to several specific bycatch management and discard reduction measures that the standard would need the fishery to consider.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 7.7.1; 7.7.4; 7.7.5</p> <p>7.7.1 States and RFMO/As, as part of a fisheries management plan, should consider the establishment of no-discard regimes, wherever applicable, and individual and fleet-wide limits on bycatch in those fisheries where bycatch is unavoidable.</p> <p>7.7.4 When setting a quota for a species that can be taken both as a target as well as a bycatch in various fisheries, it is necessary to ensure that quotas for the species as targeted catch and as bycatch are accounted for within an overall limit.</p> <p>7.7.5 Where information on the bycatch populations is limited, bycatch limits and quotas should be set in accordance with the precautionary approach.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.3.06 The standard requires that management measures are designed to achieve management objectives (see D.2.07) seeking to ensure that non-target catches and discards by the unit of certification of stocks other than the stock under consideration and any associated culture and enhancement activity do not threaten those non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>This is a step up from the Essential Component in that it requires consideration of several specific bycatch management and discard reduction measures.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.3 06 07 NON-TARGET CATCHES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that the management approaches, strategies and plans that are used to regulate fishing are developed in the broader context of an EAF and that they constitute a coherent mix of approaches that takes account of the interdependencies and functioning of the ecosystem, minimizing cumulative negative impacts and, as far as possible, enhancing ecosystem health and integrity. The EAF management plan should include a description or descriptions of how the mix of management measures has been designed to take into account the interdependencies and minimize negative impacts.</p>	<p>This Supplemental Component is looking for the standard to require bycatch management and discard reduction measures to be established as part of an overall integrated approach in the context of EAF. An EAF management plan is required (see 3.11.02).</p>
REFERENCE	
<p>FAO Technical Guidelines for Responsible Fisheries. 4. Fisheries management. 4.2. The ecosystem approach to fisheries (2003). 3,1 Chapter 3. Management measures and approaches 3.1 Introduction of the EAF Guidelines: The measures available to managers to adopt an EAF will, at least in the short term, be an extension of those conventionally used in TROM [conventional target-resource oriented management]. Thus the range of input and output controls and technical measures (including spatial measures) used to regulate fishing mortality remain highly relevant; but these controls will need to be considered in a broader context. This means recognizing that the range of measures chosen should not only address a series of target species concerns, but should also enhance ecosystem health and integrity. Managers should consider as far as possible a coherent mix of approaches that takes account of the interdependencies and functioning of the ecosystem. Apart from managing the direct effects of fishing activity, fishery managers will need to be aware of other measures that are available for managing populations (e.g. restocking and culling). Similarly, habitats may be modified to enhance the populations of target species or to restore degraded areas.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.3.06 The standard requires that management measures are designed to achieve management objectives (see D.2.07) seeking to ensure that non-target catches and discards by the unit of certification of stocks other than the stock under consideration and any associated culture and enhancement activity do not threaten those non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>This is a step up from the Essential Component in that it requires bycatch management and discard reduction measures to be established as part of an overall integrated approach in the context of EAF.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.3 07 01 NON-TARGET CATCHES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires that management measures incorporate best practices for bycatch management and reduction of discards.	<p>The FAO International Guidelines on Bycatch Management and Reduction of Discards, paragraph 4.1.4 sets out best practices for bycatch management and reduction of discards. These best practices are required, where applicable, to meet this Supplementary Component.</p> <p>See also Responsible fish utilization. FAO Technical Guidelines for Responsible Fisheries. No. 7. Rome, FAO. 1998. 33p 108, 112</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 4.1.4</p> <p>Paragraph 4.1.4: States and RFMO/As should ensure that bycatch management planning includes best practices for bycatch management and reduction of discards developed in cooperation with relevant stakeholders. Inter alia:</p> <p>(iv) where bycatch and discard problems need to be addressed, the development of measures to meet these objectives, tailored to the characteristics of each fishery, while seeking to increase the compatibility and consistency between the different management measures applied to the same stock or in the same fishery, to:</p> <p>(a) minimize potential bycatch through spatial and/or temporal measures;</p> <p>(b) minimize bycatch through the modifications of fishing gears and practices;</p> <p>(c) maximize the live release of bycatch while ensuring the safety of the fishing crew;</p> <p>(d) reduce discards; and/or</p> <p>(e) utilize the bycatch to the extent possible that continues to be taken under these measures in a manner that is consistent with the Code.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
D.3.07 The standard requires the existence of management measures that minimize unwanted catch and discards, where appropriate, and reduce post-released mortality where incidental catch is unavoidable.	This is a step up from the Essential Component in that it requires bycatch management and discard reduction measures to be established as part of an overall integrated approach in the context of EAF.

GSSI Supplementary Components for Fisheries Certification Standards

D.3 07 02 NON-TARGET CATCHES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires that regulatory measures do not provide incentives which may undermine bycatch management and discard reduction measures.	Regulatory measures that undermine bycatch management and discard reduction measures might be, for example, those that reduce the level of uptake, or otherwise create an incentive to discard.
REFERENCE	
FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 7.9.1 Paragraph 7.9.1 States and RFMO/As should seek to eliminate or adjust regulatory measures that provide incentives which may undermine bycatch management and discard reduction measures.	
RELATED ESSENTIAL COMPONENT	RATIONALE
D.3.07 The standard requires the existence of management measures that minimize unwanted catch and discards, where appropriate, and reduce post-released mortality where incidental catch is unavoidable.	This is a step up from the Essential Component in that it specifically requires an absence of measures that may undermine bycatch management and discard reduction measures.

D.3 07 03 NON-TARGET CATCHES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires the adoption of measures to minimize mortalities as a result of pre-catch losses and ghost fishing.	Examples of measures to minimize mortalities as a result of pre-catch losses and ghost fishing include gear modifications that enable undersized fish and/or non-target species to escape the fishing gear unharmed and measures to reduce gear loss, or ensure that lost gear does not continue to result in mortality.
REFERENCE	
FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 8,1 Paragraph 8.1 States and RFMO/As should consider measures to address the impact of pre-catch losses and ghost fishing on living aquatic resources. Possible actions to assess and mitigate such impacts include, inter alia: (i) adopting objectives in fisheries management policies and plans to minimize mortalities as a result of pre-catch losses and ghost fishing;	
RELATED ESSENTIAL COMPONENT	RATIONALE
D.3.07 The standard requires the existence of management measures that minimize unwanted catch and discards, where appropriate, and reduce post-released mortality where incidental catch is unavoidable.	This is a step up from the Essential Component in that it specifically requires measures to minimize mortalities as a result of pre-catch losses and ghost fishing.

GSSI Supplementary Components for Fisheries Certification Standards

D.3 08 01 ENDANGERED SPECIES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires the existence of management measures, where appropriate, to reduce interactions with particularly vulnerable bycatch (e.g. juveniles and rare, endangered, threatened or protected species) through identifying and establishing areas where the use of all or certain gears is limited or prohibited, based on the best scientific evidence available and consistent with international law.</p>	<p>To meet this Supplementary Component, the standard must require management measures, where necessary, to reduce interactions with particularly vulnerable bycatch. The Supplementary Component provides examples of categories of bycatch that are particularly vulnerable. The measures envisaged are areas where use of certain gears is limited or prohibited. Endangered and threatened are described in the Glossary. "Protected" refers generally to any plant or animal that a government declares by law to warrant protection; most protected species are considered either threatened or endangered. A species that is recognised by national legislation, affording it legal protection due to its population decline in the wild. The decline could be as a result of human or other causes.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 7.6.1 Paragraph 7.6.1 States and RFMO/As should consider measures to reduce interactions with particularly vulnerable bycatch (e.g. juveniles and rare, endangered, threatened or protected species) through identifying and establishing areas where the use of all or certain gears is limited or prohibited, based on the best available scientific information and consistent with international law.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.3.08 The standard requires the existence of management measures, as necessary, designed to achieve the management objectives (D.2.08) that seek to ensure that endangered species are protected from adverse impacts resulting from interactions with the unit of certification and any associated culture or enhancement activity, including recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>The Essential Component aims to protect endangered species from adverse impacts. This Supplementary Component builds on this, requiring management measures, where necessary, to reduce interactions with particularly vulnerable bycatch.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.3 09 01 HABITAT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires the existence of management measures designed to achieving management objectives (D.2.07.01) that seek to prevent significant adverse impacts of the unit of certification on VMEs.</p>	<p>This Supplementary Component is related to D.2.09.01 which establishes the requirement for management objectives specifically for preventing significant adverse impacts of the unit of certification on VMEs. This Supplementary Component establishes the requirement for management measures to meet the management objectives for preventing significant adverse impacts of the unit of certification on VMEs. The FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas provide detail on what is regarded as a VME and what is a significant adverse impact in this context. This document also provides an extensive list of management measures that could be applied.</p>
REFERENCE	
<p>FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas (adopted 2008) 63; 65; 74; 81 to 83</p> <p>Paragraph 63. Until a functioning regulatory framework is developed to prevent significant adverse impacts on VMEs and to ensure the long-term sustainability of DSFs, conservation and management measures should include, at a minimum:</p> <ul style="list-style-type: none"> i. closing of areas to DSFs where VMEs are known or likely to occur, based on the best available scientific and technical information; ii. refraining from expanding the level or spatial extent of effort of vessels involved in DSFs; iii. reducing the effort in specific fisheries, as necessary, to the nominal levels needed to provide information for assessing the fishery and obtaining relevant habitat and ecosystem information. <p>Such interim measures are without prejudice to future allocations and participatory rights in the fishery, in accordance with international law.</p> <p>Paragraph 65. Precautionary conservation and management measures, including catch and effort controls, are essential during the exploratory phase of a DSF, and should be a major component of the management of an established DSF. They should include measures to manage the impact of the fishery on low-productivity species, non-target species and sensitive habitat features. Implementation of a precautionary approach to sustainable exploitation of DSFs should include the following measures:</p> <ul style="list-style-type: none"> i. precautionary effort limits, particularly where reliable assessments of sustainable exploitation rates of target and main bycatch species are not available; ii. precautionary measures, including precautionary spatial catch limits where appropriate, to prevent serial depletion of low productivity stocks; iii. regular review of appropriate indices of stock status and revision downwards of the limits listed above when significant declines are detected; iv. measures to prevent significant adverse impacts on vulnerable marine ecosystems; and v. comprehensive monitoring of all fishing effort, capture of all species and interactions with VMEs. 	

GSSI Supplementary Components for Fisheries Certification Standards

Paragraph 74. If after assessing all available scientific and technical information, the presence of VMEs or the likelihood that individual DSFs activities would cause significant adverse impacts on VMEs cannot be adequately determined, States should only authorize individual DSFs activities to proceed in accordance with:

- i. precautionary conservation and management measures to prevent significant adverse impacts as described in paragraph 65;
- ii. a protocol for encounters with VMEs consistent with paragraphs 67 to 69; and
- iii. measures, including ongoing scientific research, monitoring and data collection, to reduce uncertainty.

Paragraph 81. States and RFMO/As should establish a transparent system for regular monitoring of the implementation of fishery management plans as well as conservation and management measures. Using information obtained from such a system, together with the best available scientific and technical information, the effectiveness of such plans and measures should be reviewed and assessed for the purpose of making adjustments as necessary. This adaptive management should form an integral part of the management plans for DSFs.

Paragraph 82. States and RFMO/As should regularly review the accumulating scientific information on deep-sea fish stocks, known or likely location of VMEs and the impacts of DSFs on VMEs and the marine biodiversity that these ecosystems contain. Where important uncertainties are identified, practical measures to reduce them should be pursued.

Paragraph 83. States and RFMO/As should ensure regular and independent reviews of the data and impact assessments, as well as the effectiveness of conservation and management measures for DSFs and other issues, as appropriate.

RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.3.09 The standard requires the existence of management measures, as necessary, designed to achieve the management objectives (D.2.09) seeking to avoid, minimize or mitigate impacts of the unit of certification on essential habitats for the “stock under consideration” and on habitats that are highly vulnerable to damage by the fishing gear of the unit of certification. In assessing fishery impacts, the Standard requires consideration of the full spatial range of the relevant habitat, not just that part of the spatial range that is potentially affected by fishing.</p>	<p>The parent Essential Component does not exclude impacts on VMEs, but nor are they explicitly included. This Supplementary Component also seeks prevention of significant adverse impacts on VMEs rather than to avoid, minimize or mitigate impacts on habitat.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.3 11 01 ECOSYSTEM STRUCTURE, PROCESSES AND FUNCTION

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that fisheries management approaches, plans and strategies are an integral part of integrated coastal management, and/or ocean management for oceanic fisheries, and that there are safeguards in place to protect the fisheries ecosystems from adverse effects stemming from activities in other sectors.</p>	<p>This Supplemental Component is looking for fisheries management to be integrated within broader coastal and/or oceanic management, with the aim of protecting ecosystems on which fisheries rely from the impacts of non-fishing activities. The expectation should be that the fishery managers ensure that they are recognized as important stakeholders in the process of integrated coastal management so that they can safeguard the function of the habitats that support fisheries ecosystems from adverse effects stemming from activities in other sectors.</p> <p>It is understood that there are many issues that concern fishery managers that are nevertheless generally within the competence of other agencies outside of the fishery management system. These may be highly relevant in an EAF context; they include such issues as the impact associated with human activities on land and sea leading to habitat destruction, eutrophication, contaminants, CO2 emissions, litter, accidental introduction of exotic species through ballast water, etc. While fishery managers cannot be expected to control these issues, in the context of this Supplemental Component they should be expected to be proactive to ensure that the appropriate authorities include all those involved in fisheries as important stakeholders in management planning and decision-making.</p>
REFERENCE	
<p>FAO Technical Guidelines for Responsible Fisheries. 4. Fisheries management. 4.2.The ecosystem approach to fisheries (2003). 3.5 Abridged from 3.5 Other considerations of the EAF Guidelines (see also 3. Management measures and approaches 3.1 Introduction)</p> <p>Many of the problems facing fisheries management in an EAF context fall outside the direct control of fisheries managers. [Paragraph 3.5 provides examples]. Fisheries managers need to ensure that they are recognized as important stakeholders in the process of integrated coastal management so that they can safeguard the function of the habitats that support fisheries ecosystems from adverse effects stemming from activities in other sectors.</p> <p>Extract from Section 3.1: While population and habitat manipulation may lie partly within the remit of fishery management bodies, there are many other issues, generally within the competence of other agencies that concern fisheries managers. These may be highly relevant in an EAF context; they include such issues as the impact associated with human activities on land and sea leading to habitat destruction, eutrophication, contaminants, CO2 emissions, litter, accidental introduction of exotic species through ballast water, etc. Fishery managers should be proactive in these circumstances to ensure that the appropriate authorities include all those involved in fisheries as important stakeholders in management planning and decision-making.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.3.11 The standard requires the existence of management measures, as necessary, designed to achieve the management objectives (D.2.09) that seek to minimize adverse impacts of the unit of certification, including any associated enhancement activities, on the structure, processes and functions of aquatic ecosystems that are likely to be irreversible or very slowly reversible.</p>	<p>The parent Essential Component addresses adverse impacts of the unit of certification on the ecosystem. This Supplementary Component requires that fisheries management approaches, plans and strategies are a part of integrated coastal management, and/or ocean management, with the aim of protecting ecosystems on which fisheries rely from the impacts of non-fishing activities.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.3 11 02 ECOSYSTEM STRUCTURE, PROCESSES AND FUNCTION

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires the development and maintenance of an EAF Management Plan through a series of iterative steps that include: defining the initial scope; gathering background information and analysis; setting objectives (broad objectives as well as operational objectives along with their associated indicators and performance measures); and the formulation of rules, and monitoring, assessment and review.</p>	<p>An EAF Management Plan is required. This Supplementary Component relates to the process by which that plan is developed and maintained.</p>
REFERENCE	
<p>FAO Technical Guidelines for Responsible Fisheries. 4. Fisheries management. 4.2. The ecosystem approach to fisheries (2003). 4.1 Chapter 4.1 provides guidelines for the process to be followed to develop and revise management plans within EAF.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.3.11 The standard requires the existence of management measures, as necessary, designed to achieve the management objectives (D.2.09) that seek to minimize adverse impacts of the unit of certification, including any associated enhancement activities, on the structure, processes and functions of aquatic ecosystems that are likely to be irreversible or very slowly reversible.</p>	<p>The difference between the parent Essential Component and this Supplementary Component is the way in which EAF is implemented. The specificity in this Supplementary Component is intended to lead to a stronger EAF management approach under an EAF Management Plan.</p>

GSSI Supplementary Components for Fisheries Certification Standards

► FISHERY MANAGEMENT DOCUMENTATION

D.3 **13** **01** **CONTINUOUS REVIEW**

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires a regular assessment through periodic review of plans and management measures addressing bycatch, reduction of discards and reduction of post-released mortality to ensure that they continue to meet goals and objectives and for adjustment, as appropriate.</p>	<p>To meet this Supplemental Component, the standard must require review of all plans relating to bycatch management and discard reduction measures.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 4.1.2; 7.2</p> <p>Paragraph 4.1.2 States and RFMO/As should identify and assess fisheries where bycatch and discards occur and specify the requirements for management actions. Such assessments should, where feasible, include, <i>inter alia</i>: (vii) a regular assessment of plans and management measures for adjustment, as appropriate.</p> <p>Paragraph 7.2 Management measures should be periodically reviewed to ensure that they continue to meet goals and objectives.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.3.13 The standard requires that the efficacy of management measures and their possible interactions is kept under continuous review, taking into account the multipurpose nature of the use patterns in inland and marine waters.</p>	<p>This is a step up from the Essential Component in that it specifically requires periodic review of the efficacy of management measures that minimize unwanted catch and discards and adjustment as necessary.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.3 13 02 CONTINUOUS REVIEW

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires a review of the systems for the regular monitoring of the effectiveness of management measures for bycatch management and reduction of discards, assessed against the management objectives.	To meet this Supplementary Component, the standard must require review of the systems for the regular monitoring of the effectiveness of management measures for bycatch management and reduction of discards. This review must be relative to the management objectives for bycatch management and reduction of discards.
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 4.1.2</p> <p>Paragraph 4.1.2 States and RFMO/As should identify and assess fisheries where bycatch and discards occur and specify the requirements for management actions. Such assessments should, where feasible, include, inter alia: (vi) a review of the systems for the regular monitoring of the effectiveness of measures for bycatch management and reduction of discards, assessed against the management goals.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
D.3.13 The standard requires that the efficacy of management measures and their possible interactions is kept under continuous review, taking into account the multipurpose nature of the use patterns in inland and marine waters.	This adds specificity to the parent Essential Component, focussing specifically on the review of systems for the regular monitoring of the effectiveness of management measures for bycatch management and reduction of discards.

GSSI Supplementary Components for Fisheries Certification Standards

D.3 13 03 CONTINUOUS REVIEW

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that the EAF Management Plan includes the specification of regular reviews in which the success of the management measures in attaining the objectives in the EAF Management Plan is appraised. This should include short-term, for example annual, reviews of achievement of operational objectives as well as longer-term reviews of progress in achieving broader policy objectives.</p>	<p>To meet this Supplementary Component, the standard must require an EAF Management Plan (D.3.11.02), and this plan must include specification of regular reviews to assess the efficacy of the management measures.</p>
REFERENCE	
<p>FAO Technical Guidelines for Responsible Fisheries. 4. Fisheries management. 4.2.The ecosystem approach to fisheries (2003). 4.1.6 Abridged from 4.1.6 Monitoring, assessment and review process of the EAF Guidelines</p> <p>The EAF management plan should include the specification of regular reviews in which the success of the management measures in attaining the objectives is appraised. ...Such review should be carried out under guidance from, and making regular reports to, a designated stakeholder group. Both short-term and long-term reviews should be conducted. Short-term reviews, for example as part of an annual cycle, should make assessments of species abundance and productivity in the case of targeted resources, assessments of impacts of the fishery for other broader ecological aspects and social and economic assessments. ...In turn, because of the linkages between these and the higher-level goals, an evaluation of whether the longer-term broader objectives are being achieved should also be provided.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.3.13 The standard requires that the efficacy of management measures and their possible interactions is kept under continuous review, taking into account the multipurpose nature of the use patterns in inland and marine waters.</p>	<p>This Supplementary Component establishes the need for a review of the measures contained in the EAF. It therefore builds on the review process in the parent Essential Component and also adds detail to the EAF Management Plan required in Supplementary Component D.3.11.03.</p>

GSSI Supplementary Components for Fisheries Certification Standards

► STOCK UNDER CONSIDERATION

D.4 01 01 TARGET STOCK STATUS

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires the collection and maintenance of adequate, reliable and current data and/or other information about the state and trends of the DSF stock in the high seas under consideration in accordance with applicable international standards and practices. Data collection programmes developed by States and competent RFMO/As should cover all stages of fishery development and should include, as far as practicable, data on historical stages of the fishery or on past fisheries in the area.</p>	<p>There are particular challenges with the collection and maintenance of adequate, reliable and current data and/or other information on fisheries on DSF stocks in the high seas. To meet this Supplemental Component the standard must require the fishery to acknowledge and explain these challenges with respect to DSF and data collection and maintenance to cover all stages of DSF development, in accordance with applicable international standards and practices.</p>
REFERENCE	
<p>FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas (adopted 2008) 31 to 39</p> <p>Paragraphs 31 to 39. Data collection programmes developed by States and competent RFMO/As should cover all stages of fishery development and should include, as far as practicable, data on historical stages of the fishery or on past fisheries in the area.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.4.01 The standard requires the collection and maintenance of adequate, reliable and current data and/or other information about the state and trends of the stock under consideration in accordance with applicable international standards and practices.</p>	<p>This Supplementary Component addresses the particular challenges regarding the collection and maintenance of adequate, reliable and current data and/or other information on fisheries on DSF stocks in the high seas.</p>

GSSI Supplementary Components for Fisheries Certification Standards

► **ECOSYSTEM EFFECTS OF FISHING**

D.4 02 01 ECOSYSTEM STRUCTURE, PROCESSES AND FUNCTION

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
The standard requires that the management system collects and analyses data necessary to ensure that all operational objectives, indicators and reference points required for implementation of EAF can be assessed and monitored.	This Supplementary Component creates a blanket requirement for the data and analyses necessary to determine the extent to which operational objectives for implementing EAF have been met.
REFERENCE	
<p>FAO Technical Guidelines for Responsible Fisheries. 4. Fisheries management. 4.2. The ecosystem approach to fisheries (2003).</p> <p>2.2</p> <p>From 2.2 Developing management plans:</p> <p>The FAO EAF Guidelines provide some examples of data requirements in Annex 4 but otherwise do not give much attention to elaborating on collection and maintenance of data specifically for EAF. The underlying principles are clear, however: EAF will require a broadening of data, analyses and information provision. The guidelines stress the need to translate policy goals and broad fishery objectives into operational objectives in order to implement EAF. The process also needs to be informed by the best available scientific advice so that, firstly, all the issues relevant to a particular fishery have been covered and secondly, that all alternative objectives, indicators and reference points can be assessed.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
D.4.02 The standard requires the collection and maintenance of adequate, reliable and current data and/or other information about the effects of the unit of certification, including any associated enhancement activities, on ecosystem structure, processes and function in accordance with applicable international standards and practice.	The parent Essential Component specifies the collection and maintenance of adequate, reliable and current data and/or other information about the effects of fishing on the ecosystem. This Supplementary Component is more specific in requiring data and information covering the achievement of all operational objectives for implementing EAF.

GSSI Supplementary Components for Fisheries Certification Standards

D.4 02 02 ECOSYSTEM STRUCTURE, PROCESSES AND FUNCTION

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires the management system to ensure that available traditional, fisher and community knowledge about the ecosystem and the fishery of which the unit of certification is part is collected and validated to contribute to implementation and monitoring of EAF. Further, information about the local situation should be complemented by information from ecologically similar situations elsewhere.</p>	<p>Under this Supplemental Component the standard must require the collection of traditional fisher and community knowledge to support implementation of EAF. This applies particularly to countries where information is not already available in reports and statistics.</p>
<p>REFERENCE</p>	
<p>FAO Technical Guidelines for Responsible Fisheries. 4. Fisheries management. 4.2. The ecosystem approach to fisheries (2003). 2 Section 2 Ecosystem approach to fisheries data and information requirements and use: However, it is important to stress that immediate action should be based, as much as possible, on data and information that already exist. In some countries, much of the information will already be available in reports and statistics from various research institutes, agencies and ministries. In others, EAF will have to be based on comparatively fewer data. However, in these cases there is often extensive traditional knowledge about the ecosystem and the fishery, which can be extremely useful if collected and validated from interviews with local fishermen and other stakeholders. In all cases, information about the local situation should be complemented by information from ecologically similar situations elsewhere.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.4.02 The standard requires the collection and maintenance of adequate, reliable and current data and/or other information about the effects of the unit of certification, including any associated enhancement activities, on ecosystem structure, processes and function in accordance with applicable international standards and practice.</p>	<p>The parent Essential Component specifies the collection and maintenance of adequate, reliable and current data and/or other information about the effects of fishing on the ecosystem. This Supplementary Component is more specific in requiring the collection of traditional, fisher and community knowledge to support implementation of EAF.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.4 03 01 NON-TARGET CATCHES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The Standard requires, where necessary, a level and scope of observer programs sufficient to provide quantitative estimates of total catch, discards, and incidental takes of living aquatic resources.</p>	<p>This Supplemental Component identifies observer programs as an important means to provide quantitative estimates of total catch, discards, and incidental takes of living aquatic resources. To meet this Supplemental Component the standard would need to explicitly state that, where necessary, a suitable level and scope of observer programs is needed for this purpose.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 5.1.3 Paragraph 5.1.3 Where necessary, States and RFMO/As should strive to achieve a level and scope of observer programs sufficient to provide quantitative estimates of total catch, discards, and incidental takes of living aquatic resources.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.4.03 The standard requires the collection and maintenance of adequate, reliable and current data and/or other information on non-target catches and discards in the unit of certification.</p>	<p>The parent Essential Component specifies the collection and maintenance of adequate, reliable and current data and/or other information on non-target catches and discards in the unit of certification. This Supplementary Component is more specific in explicitly requiring observer programs to collect data on total catch, discards, and incidental takes.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.4 03 2 NON-TARGET CATCHES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The Standard requires that where information is insufficient to conduct a risk assessment to identify the specific nature and extent of bycatch and discard problems in the fishery of which the unit of certification is part (see D.5.07.01), additional research should be conducted on the biology of species taken as bycatch, the performance of fishing gears and mitigation measures and the social and economic consequences of measures and techniques to manage bycatch and reduce discard mortality.</p>	<p>This Supplementary Component lists a range of topics for additional research that should be conducted in the event that there is insufficient information to conduct a risk assessment to identify the nature and extent of bycatch and discard problems in the fishery. This is related to Supplementary Component D.3.06.02 which makes reference (in the Guidance to Auditors) to this same risk assessment. The risk assessment is required under D.5.07.01. To meet this Supplementary Component, the standard would need to require this research to be undertaken, or for there to be sufficient information already available for the risk assessment.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 6.1 Paragraph 6.1 States and, as appropriate, RFMOs should conduct and promote research that is essential for planning on bycatch management and the reduction of discards. Where information is insufficient to conduct the types of risk assessment and other analyses referred to in sections 4 and 5 of these Guidelines, additional research should be conducted on the biology of species taken as bycatch, the performance of fishing gears and mitigation measures and the social and economic consequences of measures and techniques to manage bycatch and reduce discard mortality.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.4.03 The standard requires the collection and maintenance of adequate, reliable and current data and/or other information on non-target catches and discards in the unit of certification.</p>	<p>The parent Essential Component specifies the collection and maintenance of adequate, reliable and current data and/or other information on non-target catches and discards in the unit of certification. This Supplementary Component is more specific in requiring research on a range of named topics to fill gaps should the data be insufficient to undertake a risk assessment to identify the nature and extent of bycatch and discard problems in the fishery.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.4 03 03 NON-TARGET CATCHES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The Standard requires that the management system implements data collection procedures and protocols appropriate to the scale and type of fishery and taking into account the results of a risk assessment (see D.5.07.01), including the use of observers, standardized logbooks and vessel position monitoring systems to ensure effective monitoring of non-target catches and discards in the unit of certification, including catch handling on board the fishing vessel and landings at ports.</p>	<p>While D.4.03.02 requires research (where necessary) to enable the undertaking of a risk assessment to identify the nature and extent of bycatch and discard problems in the fishery, this Supplementary Component requires data collection to ensure effective monitoring of non-target catches and discards in the unit of certification taking into account the results of the risk assessment. The risk assessment is the same one as referred to in the Guidance to Auditors for Supplementary Component D.3.06.02 and required under Supplemental Component D.5.07.01.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 5.1.1; 9.1; 5.1.3</p> <p>Paragraph 5.1.1 As part of bycatch management planning, States and RFMO/As should, to the extent possible and taking into account the scale and type of the fisheries:</p> <p>(ii) implement data collection procedures and protocols appropriate to the scale and type of fishery and taking into account the results of the risk assessment referred to in paragraph 4.1.2 of these Guidelines, including the use of observers, standardized logbooks and vessel position monitoring systems;</p> <p>Paragraph 9.1 States and RFMO/As should, where appropriate and to the extent possible:</p> <p>(i) require reporting of all relevant information related to bycatch and discards; and</p> <p>(ii) undertake MCS of all relevant fishing operations, including catch handling on board the fishing vessel and landings at ports.</p> <p>Paragraph 5.1.3 Where necessary, States and RFMO/As should strive to achieve a level and scope of observer programs sufficient to provide quantitative estimates of total catch, discards, and incidental takes of living aquatic resources.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.4.03 The standard requires the collection and maintenance of adequate, reliable and current data and/or other information on non-target catches and discards in the unit of certification.</p>	<p>The parent Essential Component specifies the collection and maintenance of adequate, reliable and current data and/or other information on non-target catches and discards in the unit of certification. This Supplementary Component requires collection of data to ensure effective monitoring of non-target catches and discards in the unit of certification taking into account the results of the risk assessment.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.4 05 01 HABITAT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that there is knowledge within the fishery management system of the essential habitats for the DSF stock in the high seas under consideration and VMEs that are highly vulnerable to damage by the fishing gear of the unit of certification. This includes knowledge of the full spatial range of the relevant habitat, not just that part of the spatial range that is potentially affected by fishing.</p>	<p>This Supplementary Component is similar to its parent Essential Component, except it is specific to DSF stocks in the high seas and VMEs. These might be expected to be covered by the parent Essential Component by default, but the Supplementary Component requires an explicit recognition that DSF stocks in the high seas and VMEs represent a special case, and carry with them particular challenges with respect to collection and maintenance of data.</p>
REFERENCE	
<p>FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas (adopted 2008) 18 (ii); 42 to 46</p> <p>Paragraph 18 (ii) established that the spatial extent of the impact relative to the availability of the habitat type affected should be considered when determining the scale and significance of an impact. Paragraphs 42 to 46 set criteria for identifying VMEs.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.4.05 The standard requires that there is knowledge within the fishery management system of the essential habitats for the stock under consideration and habitats that are highly vulnerable to damage by the fishing gear of the unit of certification. This includes knowledge of the full spatial range of the relevant habitat, not just that part of the spatial range that is potentially affected by fishing.</p>	<p>This Supplementary Component provides an expansion of its parent Essential Component by establishing an explicit recognition that DSF stocks in the high seas and VMEs represent a special case, and carry with them particular challenges with respect to collection and maintenance of data.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.4 05 02 HABITAT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires the collection and maintenance of adequate, reliable and current data and/or other information about the effects of the unit of certification on VMEs in accordance with standards and practices in the FAO Guidelines on Deep-sea Fisheries in the High Seas.</p>	<p>The focus of this Supplementary Component is on the collection of data about the effects of the unit of certification on VMEs. To meet this Supplementary Component, the standard would need to take into consideration the standards and practices in the FAO Guidelines on Deep-sea Fisheries in the High Seas.</p>
REFERENCE	
<p>FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas (adopted 2008) 47 to 53 Paragraphs 47 to 53 set specific data requirements for preventing significant adverse impacts on VMEs.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.4.05 The standard requires that there is knowledge within the fishery management system of the essential habitats for the stock under consideration and habitats that are highly vulnerable to damage by the fishing gear of the unit of certification. This includes knowledge of the full spatial range of the relevant habitat, not just that part of the spatial range that is potentially affected by fishing.</p>	<p>This Supplementary Component provides an expansion of its parent Essential Component in terms of requiring a current data on the effects of the unit of certification on VMEs.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.4 05 03 HABITAT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires, where appropriate, mapping of seabed habitats, distributions and ranges of species taken as bycatch, in particular rare, endangered, threatened or protected species, to ascertain where species taken as bycatch might overlap with fishing effort.</p>	<p>This Supplementary Component requires mapping of distributions of ranges of species taken as bycatch, including what can be inferred from habitat mapping, to assess the likely overlap with fishing effort. This is a particular type of analysis that can fill gaps in bycatch data taken directly from the fishery. To meet this Supplementary Component, the standard would need to specifically require such a mapping approach to assessing bycatch.</p> <p>Endangered and threatened are described in the Glossary. “Protected” refers generally to any plant or animal that a government declares by law to warrant protection; most protected species are considered either threatened or endangered. A species that is recognised by national legislation, affording it legal protection due to its population decline in the wild. The decline could be as a result of human or other causes.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 6.5 Paragraph 6.5 In support of management measures to mitigate bycatch and discard problems, States and RFMO/As should, where appropriate, map seabed habitats, distributions and ranges of species taken as bycatch, in particular rare, endangered, threatened or protected species, to ascertain where species taken as bycatch might overlap with fishing effort.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.4.05 The standard requires that there is knowledge within the fishery management system of the essential habitats for the stock under consideration and habitats that are highly vulnerable to damage by the fishing gear of the unit of certification. This includes knowledge of the full spatial range of the relevant habitat, not just that part of the spatial range that is potentially affected by fishing.</p>	<p>The parent Essential Component specifies the collection and maintenance of adequate, reliable and current data and/or other information on non-target catches and discards in the unit of certification. This Supplementary Component requires mapping of distributions of ranges of species taken as bycatch, including what can be inferred from habitat mapping, to assess the likely overlap with fishing effort. This is a particular type of analysis that can fill gaps in bycatch data taken directly from the fishery.</p>

GSSI Supplementary Components for Fisheries Certification Standards

► **STOCK UNDER CONSIDERATION**

D.5 01 01 STOCK ASSESSMENT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires management decisions by the fishery management organization or arrangement (D.1.02) to be based on an assessment of the current status and trends of the DSF stock in the high seas under consideration, using adequate, reliable and current data and/or other information. In light of data limitations regarding many deep-sea species, lower cost or innovative methods based on simpler forms of monitoring and assessment need to be developed. Such techniques should quantify uncertainty in stock assessments, including that resulting from such data limitations and simplified approaches.</p>	<p>This Supplementary Component is similar to its parent Essential Component, except it is specific to the assessment of DSF stocks in the high seas. These might be expected to be covered by the parent Essential Component by default, but the Supplementary Component requires an explicit recognition that DSF stocks in the high seas represent a special case, and carry with them particular challenges with respect to undertaking assessments in data limited situations.</p>
REFERENCE	
<p>FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas (adopted 2008) 40; 41</p> <p>Paragraph 40 Appropriate monitoring and assessment techniques are needed to reliably determine the status of stocks of low-productivity species which possess the characteristics described in paragraph 13 of these Guidelines. In light of data limitations regarding many deep-sea species, lower cost or innovative methods based on simpler forms of monitoring and assessment need to be developed. Such techniques should quantify uncertainty in stock assessments, including that resulting from such data limitations and simplified approaches.</p> <p>Paragraph 41 States and RFMO/As should, as appropriate, collaborate in assessing deep-sea stocks throughout their range of distribution.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.5.01 The standard requires management decisions by the fishery management organization or arrangement (D.1.02) to be based on an assessment of the current status and trends of the stock under consideration, using adequate, reliable and current data and/or other information. Other information may include generic evidence based on similar stocks, when specific information on the stock under consideration is not available, providing there is low risk to the stock under consideration in accordance with the Precautionary Approach.</p>	<p>This Supplementary Component provides an expansion of its parent Essential Component by establishing an explicit recognition that DSF stocks in the high seas represent a special case, and carry with them particular challenges with respect to stock assessment.</p>

GSSI Supplementary Components for Fisheries Certification Standards

► **ECOSYSTEM EFFECTS OF FISHING**

D.5 06 01 NON-TARGET CATCHES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires a risk assessment to identify the specific nature and extent of bycatch and discard problems in the fishery of which the unit of certification is part as a basis for prioritization and planning.</p>	<p>The parent Essential Component requires an analysis of the effects of the unit of certification, including any enhancement activities, on ecosystem structure, processes and function. This Supplementary Component focuses on the requirement for a risk assessment to identify the specific nature and extent of bycatch and discard problems in the fishery. Several other Supplementary Components make reference to this risk assessment, and either require data collection activity based on its results (D.4.03.03), or additional research to make it possible (D.4.03.02).</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 4.1.2 Paragraph 4.1.2 States and RFMO/As should identify and assess fisheries where bycatch and discards occur and specify the requirements for management actions. Such assessments should, where feasible, include, inter alia: (ii) a risk assessment to identify the specific nature and extent of bycatch and discard problems in the fishery as a basis for prioritization and planning;</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.5.06 The standard requires an assessment of the extent to which non-target catches and discards by the unit of certification of stocks other than the stock under consideration and any associated culture and enhancement activities threaten those non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>This Supplementary Component expands on its parent Essential Component by requiring a risk assessment specifically to identify the specific nature and extent of bycatch and discard problems in the fishery.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.5 06 02 NON-TARGET CATCHES

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that the management system addresses in fisheries management planning all significant sources of fishing mortality in the fishery of which the unit of certification is part and that such planning is based on an ecosystem approach to fisheries.</p>	<p>The parent Essential Component requires an analysis of the effects of the unit of certification, including any enhancement activities, on ecosystem structure, processes and function. This Supplementary Component focuses on the requirement to address all significant sources of fishing mortality.</p>
REFERENCE	
<p>FAO International Guidelines on Bycatch Management and Reduction of Discards (adopted in 2010) 4.1.1 Paragraph 4.1.1 States and RFMO/As should ensure that all significant sources of fishing mortality in a fishery are addressed in fisheries management planning and that such planning is based on an ecosystem approach to fisheries and is consistent with the CCRF.</p>	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.5.06 The standard requires an assessment of the extent to which non-target catches and discards by the unit of certification of stocks other than the stock under consideration and any associated culture and enhancement activities threaten those non-target stocks with recruitment overfishing or other impacts that are likely to be irreversible or very slowly reversible.</p>	<p>This Supplementary Component expands on its parent Essential Component by requiring fisheries management planning to address all significant sources of fishing mortality in the fishery of which the unit of certification is part and that such planning is based on an ecosystem approach to fisheries.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.6 07 01 HABITAT

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires the existence of outcome indicator(s) consistent with achieving management objectives (D.2.09.01) that seek to prevent significant adverse impacts of the unit of certification on VMEs.</p>	<p>This Supplementary Component is related to D.2.09.01 and D.3.09.01 which establish the requirement for management objectives and management measures, respectively, specifically for preventing significant adverse impacts of the unit of certification on VMEs. This Supplementary Component establishes the requirement for outcome indicators to demonstrate when the objectives have been achieved. The FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas provide detail on what is regarded as a VME and what is a significant adverse impact in this context.</p>
REFERENCE	
<p>FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas (adopted 2008) 63; 65; 74; 81 to 83</p> <p>Paragraph 63. Until a functioning regulatory framework is developed to prevent significant adverse impacts on VMEs and to ensure the long-term sustainability of DSFs, conservation and management measures should include, at a minimum:</p> <ul style="list-style-type: none"> i. closing of areas to DSFs where VMEs are known or likely to occur, based on the best available scientific and technical information; ii. refraining from expanding the level or spatial extent of effort of vessels involved in DSFs; iii. reducing the effort in specific fisheries, as necessary, to the nominal levels needed to provide information for assessing the fishery and obtaining relevant habitat and ecosystem information. <p>Such interim measures are without prejudice to future allocations and participatory rights in the fishery, in accordance with international law.</p> <p>Paragraph 65. Precautionary conservation and management measures, including catch and effort controls, are essential during the exploratory phase of a DSF, and should be a major component of the management of an established DSF. They should include measures to manage the impact of the fishery on low-productivity species, non-target species and sensitive habitat features. Implementation of a precautionary approach to sustainable exploitation of DSFs should include the following measures:</p> <ul style="list-style-type: none"> i. precautionary effort limits, particularly where reliable assessments of sustainable exploitation rates of target and main bycatch species are not available; ii. precautionary measures, including precautionary spatial catch limits where appropriate, to prevent serial depletion of low productivity stocks; iii. regular review of appropriate indices of stock status and revision downwards of the limits listed above when significant declines are detected; <p>[CLICK INTO THE CELL TO VIEW FULL TEXT]</p> <ul style="list-style-type: none"> iv. measures to prevent significant adverse impacts on vulnerable marine ecosystems; and v. comprehensive monitoring of all fishing effort, capture of all species and interactions with VMEs. <p>Paragraph 74. If after assessing all available scientific and technical information, the presence of VMEs or the likelihood that individual DSFs activities would cause significant adverse impacts on VMEs cannot be adequately determined, States should only authorize individual DSFs activities to proceed in accordance with:</p> <ul style="list-style-type: none"> i. precautionary conservation and management measures to prevent significant adverse impacts as described in paragraph 65; ii. a protocol for encounters with VMEs consistent with paragraphs 67 to 69; and iii. measures, including ongoing scientific research, monitoring and data collection, to reduce uncertainty 	

GSSI Supplementary Components for Fisheries Certification Standards

Paragraph 81. States and RFMO/As should establish a transparent system for regular monitoring of the implementation of fishery management plans as well as conservation and management measures. Using information obtained from such a system, together with the best available scientific and technical information, the effectiveness of such plans and measures should be reviewed and assessed for the purpose of making adjustments as necessary. This adaptive management should form an integral part of the management plans for DSFs.

Paragraph 82. States and RFMO/As should regularly review the accumulating scientific information on deep-sea fish stocks, known or likely location of VMEs and the impacts of DSFs on VMEs and the marine biodiversity that these ecosystems contain. Where important uncertainties are identified, practical measures to reduce them should be pursued.

Paragraph 83. States and RFMO/As should ensure regular and independent reviews of the data and impact assessments, as well as the effectiveness of conservation and management measures for DSFs and other issues, as appropriate.

RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.6.07 The standard requires the existence of outcome indicator(s) consistent with achieving management objectives (D.2.09) for avoiding, minimizing or mitigating the impacts of the unit of certification on essential habitats for the “stock under consideration” and on habitats that are highly vulnerable to damage by the fishing gear of the unit of certification.</p>	<p>The parent Essential Component does not explicitly exclude impacts on VMEs, but nor are they explicitly included. This Supplementary Component also seeks outcome indicators for the prevention of significant adverse impacts rather than to avoid, minimize or mitigate impacts.</p>

GSSI Supplementary Components for Fisheries Certification Standards

D.6 09 01 ECOSYSTEM STRUCTURE, PROCESSES AND FUNCTION

GSSI SUPPLEMENTARY COMPONENT	GUIDANCE
<p>The standard requires that the management system implements EAF in a manner that strives to ensure that the impact of fisheries on the ecosystem is limited to the extent possible and that ecological relationships between harvested, dependent and associated species are maintained so as to avoid jeopardizing the options for future generations to benefit from the full range of goods and services provided by the ecosystem.</p>	<p>This Supplementary Component implies outcomes with respect to the ecosystem that go beyond those in the parent Essential Component. The outcome indicators required to meet this Supplementary Component would be consistent with achieving the principles in Section 1 of the FAO Technical Guidelines for Responsible Fisheries. 4. Fisheries management. 4.2. The ecosystem approach to fisheries.</p>
REFERENCE	
<p>FAO Technical Guidelines for Responsible Fisheries. 4. Fisheries management. 4.2. The ecosystem approach to fisheries (2003).</p> <p>1</p> <p>Section 1 Introduction: The desired outcomes from EAF will vary from case to case but they should all be consistent with the purpose and principles of an ecosystem approach to fisheries as outlined in the FAO EAF Guidelines. The purpose of EAF is given as “to plan, develop and manage fisheries in a manner that addresses the multiple needs and desires of societies, without jeopardizing the options for future generations to benefit from the full range of goods and services provided by marine ecosystem.”</p> <p>The principles listed in the Guidelines are:</p> <ul style="list-style-type: none"> • fisheries should be managed to limit their impact on the ecosystem to the extent possible; • ecological relationships between harvested, dependent and associated species should be maintained; • management measures should be compatible across the entire distribution of the resource (across jurisdictions and management plans); • the precautionary approach should be applied because the knowledge on ecosystems is incomplete; and • governance should ensure both human and ecosystem well-being and equity. 	
RELATED ESSENTIAL COMPONENT	RATIONALE
<p>D.6.09 The standard requires the existence of outcome indicator(s) consistent with achieving management objectives (D.2.09) that seek to minimize adverse impacts of the unit of certification, including any enhancement activities, on the structure, processes and function of aquatic ecosystems that are likely to be irreversible or very slowly reversible. Any modifications to the habitat for enhancing the stock under consideration must be reversible and not cause serious or irreversible harm to the natural ecosystem’s structure, processes and function.</p>	<p>This Supplementary Component implies outcomes with respect to the ecosystem that go beyond those in the parent Essential Component.</p>



GLOBAL BENCHMARK TOOL

Glossary

GSSI GLOSSARY

TERM	SECTION				DEFINITION	REFERENCE
	A	B	C	D		
Accreditation	●	●			A process by which an authoritative body gives formal recognition of the competence of a certification body to provide certification services against an international standard.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms.
Accreditation body	●	●			An agency having jurisdiction to formally recognise the competence of a certification body to provide certification services.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms
Accreditation remediation procedure	●	●			A process which is in place to specify how certification bodies are required to address non-compliances.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms
Accreditation system	●	●			System that has its own rules of procedure and management for carrying out accreditation.	FAO (2011) Technical Guidelines for Aquaculture Certification Paragraph 12. (ISO Guide 2, 17.1)
Adverse Impact				●	<p>The term “adverse impacts” is used in the FAO Ecolabelling Guidelines in a general sense (e.g. “adverse impacts of the fishery on the ecosystem”) but also in the specific context of dependent predators, where it is qualified as “severe adverse impacts”. The severity of adverse impacts is related to their potential reversibility. Severe adverse impacts can be regarded as those that are likely to be irreversible or very slowly reversible (see separate entry in this Glossary).</p> <p>The term “significant adverse impacts” (note: “significant” not “severe”) is used in the FAO Deep Sea Guidelines with respect to Vulnerable Marine Ecosystems (VMEs). Significant adverse impacts are those that compromise ecosystem integrity (i.e. ecosystem structure or function) in a manner that: (i) impairs the ability of affected populations to replace themselves; (ii) degrades the long-term natural productivity of habitats; or (iii) causes, on more than a temporary basis, significant loss of species richness, habitat or community types. Impacts should be evaluated individually, in combination and cumulatively.</p> <p>When determining the scale and significance of an impact, the following six factors should be considered:</p> <ol style="list-style-type: none"> i. the intensity or severity of the impact at the specific site being affected; ii. the spatial extent of the impact relative to the availability of the habitat type affected; iii. the sensitivity/vulnerability of the ecosystem to the impact; iv. the ability of an ecosystem to recover from harm, and the rate of such recovery; <ol style="list-style-type: none"> i. the extent to which ecosystem functions may be altered by the impact; and ii. the timing and duration of the impact relative to the period in which a species needs the habitat during one or more of its lifehistory stages. 	GSSI; FAO International Guidelines for the Management of Deep Sea Fisheries in the High Seas (adopted 2008)

(continued on next page)

While terms are not limited to a specific section, the color coding indicates in which section the term is used most.

GSSI GLOSSARY

TERM	SECTION	DEFINITION	REFERENCE
	A B C D		
Adverse Impact <i>(continued from previous page)</i>		● The term “significant negative impacts” (note: “negative” rather than “adverse”) is used in the FAO Ecolabelling Guidelines only in relation to enhanced fisheries. This was specifically intended to be different from “severe adverse impacts” on dependent predators (see above). The FAO consultation that resulted in the drafting of the Inland Guidelines considered that avoidance of only “severe adverse impacts” only would not be consistent with a management obligation to manage enhancement in ways that would not impact the productivity and abundance of the natural reproductive stock component of the stock under consideration, hence the term “significant negative impacts” was used to capture more than just “severe adverse impacts”.	
Agreement	● ●	An arrangement between parties as to the proposed course of action.	GSSI
Alignment	● ●	An arrangement in having similar relative positions.	GSSI
Allowable Zone of Effect (AZE)	●	The area of sea-bed or volume of the receiving water body in which competent authority allow the use of specific Environmental Quality Standards (EQSs) for aquaculture, without irreversibly compromising the basic environmental services provided by the ecosystem. The utility of AZE is to define the boundary of impact of responsible aquaculture activities in order to permit the free and safe use of marine space for the other stakeholders outside the AZE. The use of AZE gives some responsibility to farms for good practices.	General Fisheries Commission for The Mediterranean. www.faosipam.org/GfcmWebSite/CAQ/WGSC/2011/SHoCMed_AZE/GFCM-CAQ-WGSC-2011-SHoCMed_AZE-Report.pdf
Antimicrobial	●	A naturally occurring, semi-synthetic or synthetic substance that at in vivo concentrations exhibits antimicrobial activity (kill or inhibit the growth of micro-organisms). Parasiticides, anthelmintics and substances classed as disinfectants or antiseptics are excluded from this definition. (Adapted from OIE)	OIE Aquatic Animal Health Code (www.oie.int/index.php?id=171&L=0&htmfile=glossaire.htm)
Appeal	● ●	A request by a scheme owner for reconsideration of a decision made by the GSSI Steering Board, GSSI employee or person contracted to GSSI. (adapted from GFSI)	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms
Application	● ●	A document confirming a scheme owner’s intention to seek recognition by the GSSI for a scope of recognition.	GSSI
Aquaculture	●	The farming of aquatic organisms including fish, molluscs, crustaceans and aquatic plants. Farming implies some sort of intervention in the rearing process to enhance production, such as regular stocking, feeding, protection from predators, etc. Farming also implies individual or corporate ownership of the stock being cultivated, the planning, development and operation of aquaculture systems, sites, facilities and practices, and the production and transport.	FAO (2010) Technical Consultation on the Technical Guidelines on Aquaculture Certification. Rome, FAO, Page 2

While terms are not limited to a specific section, the color coding indicates in which section the term is used most.

GSSI GLOSSARY

TERM	SECTION				DEFINITION	REFERENCE
	A	B	C	D		
Aquaculture byproducts			●		See fishery byproducts; the primary difference being a) aquaculture byproducts must be from the processing waste of aquacultured fish and crustaceans that were destined for human consumptions, and b) can be of both marine and freshwater aquaculture origin.	GSSI
Aquaculture facility			●		The physical site where aquatic animals are grown-out to market size. Usually the unit of certification for aquaculture standards.	GSSI
Aquatic animal health professional			●		A person who, for the purposes of the Aquatic Code, is authorised by the Competent Authority to carry out the actions identified in Prudent Use of Antibiotics section of the OIE Aquatic Animal Health Code 2014 (or latest version) including identifying, preventing and treating aquatic animal diseases, as well as the promotion of sound animal husbandry methods, hygiene procedures, vaccination and other alternative strategies to minimise the need for antimicrobial use in aquatic animals. They are authorised to prescribe veterinary medicines should only prescribe, dispense or administer a specific course of treatment with an antimicrobial agent for aquatic animals under their care. (Adapted from the OIE Aquatic Animal Health Code. 2014).	OIE Aquatic Animal Health Code www.oie.int/index.php?id=171&L=0&htmfile=chapitre_antibio_resp_prudent_use.htm
Aquatic animals			●		All life stages (including eggs and gametes) of fish, molluscs, crustaceans and amphibians originating from aquaculture establishments or removed from the wild, for farming purposes, for release into the environment, for human consumption or for ornamental purposes.	OIE Aquatic Animal Health Code www.oie.int/index.php?id=171&L=0&htmfile=glossaire.htm
Area management system (AMS)			●		A contractual or legally enforceable agreement for shared activities by aquaculture establishments (and possibly other polluting industries) within a defined area or zone. The AMS boundary must be defined to meet the objectives of the AMS. Alternative terms include zonal management agreement, area management agreements, single bay management.	GSSI
Area of distribution (of a species or stock)			●		Area of distribution is defined (by CITES) as the area contained within the shortest continuous imaginary boundary which can be drawn to encompass all the known, inferred or projected sites of occurrence, excluding cases of vagrancy (though inferring and projecting area of occurrence should be undertaken carefully, and in a precautionary manner) . The area should, however, exclude significant areas where the species does not occur, and account should be taken of discontinuities or disjunctions in the spatial distribution of species. For migratory species, the area of distribution is the smallest area essential at any stage for the survival of that species (e.g. colonial nesting sites, feeding sites for migratory taxa, etc.).	CITES (1994): Criteria for amendment of Appendices I and II. Conference Resolution 9.24 Adopted at the 9th Conference of the Parties, Fort Lauderdale (USA).
Arrangement	●	●			A cooperative mechanism established by two or more parties be they governmental, private or non-governmental entities.	GSSI

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Assessment	● ●	The act of judging or deciding the amount, value, quality, or importance of something, or the judgment or decision that is made.	Cambridge dictionaries online http://dictionary.cambridge.org
Audit	● ●	A systematic and functionally independent examination to determine whether activities and related results comply with a conforming scheme.	FAO (2011) Technical Guidelines for Aquaculture Certification Paragraph 12. (Codex Alimentarius, Principles for Food Import and Export Certification and Inspection, CAC/GL 20)
Auditor	● ●	A person qualified to carry out audits for or on behalf of a certification body.	GSSI
Balanced decision-making	● ●	A decision making process which ensures proportionate representation of interested parties in the standard development, revision and approval process.	GSSI
Balanced participation	● ●	The participation by proportionate representation of interested parties in the standard development, revision and approval process.	GSSI
Benchmark committee	● ●	A team of technical experts who have been appointed by GSSI to undertake the benchmarking process of a seafood certification scheme applying for recognition.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms
Benchmark committee member	● ●	A person who has the required qualifications and experience and has undergone selection for the membership of a Benchmark Committee.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms
Benchmark process	● ●	A mechanism by which a seafood certification scheme can be objectively assessed, against a series of defined requirements laid down in the GSSI Framework Document, to determine if formal recognition by the GSSI Steering Board can be gained.	GSSI
Best scientific evidence available	●	<p>(1) The “best scientific evidence available” is required by UNCLOS as the basis for management decision-making, including for the application of the precautionary approach.</p> <p>In the context of the GSSI Benchmark, the “best scientific evidence available” can include traditional, fisher or community knowledge, provided its validity can be objectively verified. Objective verification of validity implies that the knowledge has been collected and analysed through a systematic, objective and well-designed process, and is not simply hearsay. Publication of results in the peer-reviewed literature could be one form of objective verification.</p> <p>What is actually the best scientific evidence available in any given fishery or for any given stock under consideration will vary between fisheries and stocks and will also vary over time and information levels fluctuate. What is important, therefore, is that the management system is designed in such a way that the mechanism by which it commissions science and solicits scientific advice results in it receiving the best scientific evidence</p>	<p>(1) GSSI</p> <p>(2) Sullivan et. al. (2006) Defining and Implementing Best Available Science for Fisheries and Environmental Science, Policy, and Management Fisheries Vol 31, No 9 September 2006</p> <p>(3) NRC (2004) Improving the Use of the “Best Scientific Information Available” Standard, National Academies Press</p>

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TERM	SECTION	DEFINITION	REFERENCE
<p>Best scientific evidence available <i>(continued from previous page)</i></p>	<p>A B C D</p>	<ul style="list-style-type: none"> ● available. Achieving the best scientific evidence available requires inter alia: <ul style="list-style-type: none"> – questions to be clearly stated, – scientific investigation to be well designed, and – results to be analysed logically, documented clearly, and subjected to peer review. <p>Even science that has been developed through an open, transparent, and well-communicated process may not be fully adequate for addressing management issues. Scientists must often rely on incomplete information in offering their best expert advice.</p> <p>(2) To adequately implement the best available science, it is essential that policymakers clearly articulate the purpose of regulations and laws, clearly specify who is responsible for interpreting and enforcing them, endeavour to identify and reduce conflicts of interest, and recognize differences in the knowledge base and values of scientists, managers, and other stakeholders.</p> <p>(3) Scientific information includes, but is not limited to, factual input, data, models, analyses, technical information, or scientific assessments. Scientific information includes data compiled directly from surveys or sampling programs, and models that are mathematical representations of reality constructed with primary data. The complexity of the model should not be the defining characteristic of its value; the data requirements and assumptions associated with a model should be commensurate with the resolution and accuracy of the available primary data. Scientific information includes established and emergent scientific information. Established science is scientific knowledge derived and verified through a standard scientific process that tends to be agreed upon often without controversy. Emergent science is relatively new knowledge that is still evolving and being verified, therefore, may potentially be uncertain and controversial. Emergent science should be considered more thoroughly, and scientists should be attentive to effective communication of emerging science.</p> <p>Science is a dynamic process, and new scientific findings constantly advance the state of knowledge. Best scientific information is, therefore, not static and ideally entails developing and following a research plan with the following elements: Clear statement of objectives; conceptual model that provides the framework for interpreting results, making predictions, or testing hypotheses; study design with an explicit and standardized method of collecting data; documentation of methods, results, and conclusions; peer review, as appropriate; and communication of findings.</p> <p>Criteria to consider when evaluating best scientific information are relevance, inclusiveness, objectivity, transparency and openness, timeliness, verification and validation, and peer review, as appropriate.</p>	
<p><i>(continued on next page)</i></p>			

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Best scientific evidence available <i>(continued from previous page)</i>	●	<ul style="list-style-type: none"> i. Relevance. Scientific information should be pertinent to the current questions or issues under consideration and should be representative of the fishery being managed. In addition to the information collected directly about the fishery being managed, relevant information may be available about the same species in other areas, or about related species. For example, use of proxies may be necessary in data-poor situations. Analysis of related stocks or species may be a useful tool for inferring the likely traits of stocks for which stock-specific data are unavailable or are not sufficient to produce reliable estimates. Also, if management measures similar to those being considered have been introduced in other regions and resulted in particular behavioral responses from participants or business decisions from industry, such social and economic information may be relevant. ii. Inclusiveness. Three aspects of inclusiveness should be considered when developing and evaluating best scientific information: <ul style="list-style-type: none"> a. The relevant range of scientific disciplines should be consulted to encompass the scope of potential impacts of the management decision. b. Alternative scientific points of view should be acknowledged and addressed openly when there is a diversity of scientific thought. c. Relevant local and traditional knowledge (e.g., fishermen's empirical knowledge about the behavior and distribution of fish stocks) should be obtained, where appropriate, and considered when evaluating the BSIA. iii. Objectivity. Scientific information should be accurate, with a known degree of precision, without addressable bias, and presented in an accurate, clear, complete, and balanced manner. Scientific processes should be free of undue nonscientific influences and considerations. iv. Transparency and openness. There should be broad public and stakeholder access to the fishery conservation and management process, including access to the scientific information upon which the process and management measures are based. Public comment should be solicited at appropriate times during the review of scientific information. Communication with the public should be structured to foster understanding of the scientific process. 	
Better management practice(s) (bmp(s))	●	<p>Management practices aimed at improving the quantity, safety and quality of products taking into consideration animal health and welfare, food safety, environmental and socio-economical sustainability. BMP implementation is generally voluntary. The term "better" is preferred rather than "best" because aquaculture practices are continuously improving (today's 'best' is tomorrow's 'norm').</p>	<p>FAO. (2010) Technical Consultation on the Technical Guidelines on Aquaculture Certification. Rome, FAO, Page 4</p>

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	A	B	C	D		
Biosecurity			●		A set of management and physical measures designed to reduce the risk of introduction, establishment and spread of pathogenic agents to, from and within an aquatic animal population.	OIE Aquatic Animal Health Code (www.oie.int/index.php?id=171&L=0&htmfile=glossaire.htm)
Broodstock			●		Sexually mature specimens of both sexes kept for the purpose of controlled reproduction (independent of whether a first or subsequent generation is produced) as well as younger specimens destined to be used for the same purpose.	FAO Term Portal
Broodstock facility			●		The physical site where broodstock are held. This could be part of a hatchery or a separate facility only for broodstock.	GSSI
CCRF	●	●	●	●	FAO Code of Conduct for Responsible Fisheries	FAO(1995)
Central focal point	●	●			A person, location or address that is put in place to ensure standards-related enquiries and for submission of comments are gathered.	GSSI
Certification	●	●			Procedure by which certification body or entity gives written or equivalent assurance that a product, process or service conforms to specified requirements. Certification may be, as appropriate, based on a range of audit activities that may include continuous audit in the production chain.	FAO (2011) Technical Guidelines for Aquaculture Certification Paragraph 12. (Modified from ISO Guide 2, 15.1.2; Principles for Food Import and Export Certification and Inspection, CAC/GL 20; Ecolabelling Guidelines)
Certification body	●	●			A provider of certification services, accredited to do so by an accreditation body.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms Page 135
Certification decision	●	●			The granting, continuing, expanding the scope of, reducing the scope of, suspending, restoring, withdrawing or refusing of certification by a certification body.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms Page 135
(Seafood) Certification Scheme	●	●			An organisation in the seafood sector, which is responsible for the processes, systems, procedures and activities related to standard setting, accreditation and implementation of certification.	Adapted from FAO (2011) Technical Guidelines for Aquaculture Certification Paragraph 12. (Adapted from the Report of the First Expert Workshop on Aquaculture Certification held in Bangkok, Thailand. March 2007)
Chain of custody	●	●			The set of measures that verify that a certified product originates from a certified aquaculture production chain, and is not mixed with non-certified products. Chain of custody verification measures should cover the tracking/traceability of the product all along the production, processing, distribution and marketing chain, the tracking of documentation, and the quantity concerned.	FAO. (2005a) Guidelines for the Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries. Rome, FAO, Page 90
Chemicals			●		In food technology: any substance either natural or synthetic, which can affect live fish, its pathogens, water, equipment used for production or at land within the aquaculture establishment. Includes antifoulant treatments used on nets in marine cage aquaculture.	FAO/WHO Codex Alimentarius Commission (2004) Code of Practice for Fish and Fishery Products. Aquaculture. (ftp://ftp.fao.org/codex/alinorm04/al04_18e.pdf)

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Competence	●	●			The demonstrated ability to apply knowledge and skills to achieve intended results.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms Page 135
Competent authority			●		Means the Veterinary Authority or other Governmental Authority of a country having the responsibility and competence for ensuring or supervising the implementation of animal health and welfare measures, international veterinary certification and other standards and recommendations in the OIE Aquatic Animal Health Code in the region. Adapted from the OIE.	OIE Aquatic Animal Health Code. (www.oie.int/index.php?id=171&L=0&htmfile=glossaire.htm)
Complaint	●	●			Expression of dissatisfaction, other than appeal (6.4), by any person or organization to a conformity assessment body (2.5) or accreditation body (2.6), relating to the activities of that body, where a response is expected	ISO/IEC 17000:2004 6.5
Conflict of interest	●	●			Where either a Certification Body or an individual is in a position of trust requiring them to exercise judgement on behalf of others and also have interests or obligations (whether financial or otherwise) of the sort that might interfere with the exercise of that judgment.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms Page 135
Conformity assessment	●	●			Demonstration that specified requirements (3.1) relating to a product (3.3), process, system, person or body are fulfilled.	ISO/IEC 17000:2005 2.1
Conformity assessment program					A defined and documented program by which the Scheme Owner monitors the performance of Accreditation Bodies, Certification Bodies and participating organisations against defined criteria.	GSSI
Consensus	●	●			General agreement, characterised by the absence of sustained opposition to substantial issues by any important concerned party and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments. Consensus need not imply unanimity. (adapted from ISO)	ISO/IEC Guide 2:2004.
Contingency plan			●		Means a documented work plan designed to ensure that all needed actions, requirements and resources are provided in order to eradicate or bring under control outbreaks of specified diseases of aquatic animals.	OIE Aquatic Animal Health Code (http://www.oie.int/index.php?id=171&L=0&htmfile=glossaire.htm)
Corrective action	●	●			An action to eliminate the cause of a detected non conformity or other undesirable matters.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms
Culture practices			●		Concept comprising not only the production facilities but also a description of the husbandry practices applied.	GSSI

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TERM	SECTION	DEFINITION	REFERENCE
	A B C D		
<p>Data (information): adequate, reliable, current <i>(continued from previous page)</i></p>	<p style="text-align: center;">●</p>	<p>(1) Data are facts that result from measurements or observations.</p> <p>(2) In the context of the GSSI Benchmark, assessment of the adequacy of data for different purposes would generally be part of an assessment against the certification standard. Adequate, reliable and current data and/or other information are those which are fit for purpose and commensurate with the development and delivery of the best scientific evidence available. This may include traditional, fisher or community knowledge, provided that their validity can be objectively verified.</p> <p>Applicable international standards and practices for fisheries data and statistics include the output of the Coordinating Working Party on Fishery Statistics (CWP): http://www.fao.org/fishery/cwp/en and the FAO Guidelines for the routine collection of capture fishery data (1998) FAO Fisheries Technical Paper. No. 382.</p> <p>The adequacy of data relates primarily to the quantity and type of data collected (including sampling coverage) and depends crucially on the nature of the systems being monitored and purposes to which the data are being put. Some analysis of the precision resulting from sampling coverage would normally be part of an assessment of adequacy.</p> <p>The reliability of data relates to the quality of the data collected, and also the level and representativeness of sampling coverage. Inadequate sampling can lead to high uncertainty and hence poor reliability, however, high sampling coverage does not necessarily mean the data collected are of high quality and hence reliable. Bias can result from a poorly designed survey plan (e.g. if the gear and seasons of a fishery are not well sampled). Reliability depends on the design and execution of an effective data collection program.</p> <p>The currency of data relates to how recently the data were collected relative to the application of the conclusions that are being drawn from them. Catch data generally need to be of the highest currency in order for management to function effectively (e.g. to close fisheries when catch limits are reached) and for assessments to provide a reliable estimate of current stock size. A survey conducted several years in the past for assessing abundance of a short lived species with highly variable stock size may not be regarded as current. Data from surveys of longer lived species with less variability may have greater longevity for drawing conclusions about current abundance.</p> <p>(3) The FAO has recently developed the Quality Assurance Framework for the FAO Statistics system (FAO SQUAF). It consists of a quality framework and a mechanism to ensure the compliance of FAO statistics to the quality framework itself. The document includes the FAO SQUAF definition of Quality, including accuracy, reliability and comparability.</p>	<p>(1) FAO (1998): Guidelines for the routine collection of capture fishery data. FAO Fish. Tech. Pap, 382: 113 p.</p> <p>(2) GSSI</p> <p>(3) FAO (2014) The FAO Statistics Quality Assurance Framework. http://www.fao.org/docrep/019/i3664e/i3664e.pdf</p>
<p><i>(continued on next page)</i></p>			

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TERM	SECTION	DEFINITION	REFERENCE
Data (information): adequate, reliable, current <i>(continued from previous page)</i>	<div style="display: flex; justify-content: space-around; width: 100%;"> A B C D </div>	<ul style="list-style-type: none"> ● FAO SQAF definition of Quality Quality is a multi-faceted and subjective concept. The International Organisation for Standardization (ISO) defines quality as “the totality of features and characteristics of a product or service that bears on its ability to satisfy stated or implied needs” (ISO No 8402; 1986, 3.1). The most important quality characteristics depend on user perspectives, needs and priorities, which vary across groups of users. For this reason the major challenge is to achieve a compromise among the needs of the various possible users (current and potential) in order to produce and disseminate statistical outputs that satisfy the most important needs given constraints concerning available resources. Taking stock of the work already done by several international organizations³ (Eurostat, ECB, IMF and OECD) in this area, the definition of quality in statistics, which has been tailored to the FAO framework, encompasses five quality dimensions, as described below. FAO defines quality in statistics as the degree to which its statistical outputs fulfill requirements and the following quality dimensions are taken into account: <ul style="list-style-type: none"> • Relevance - degree to which statistics meet the current and potential user needs. • Accuracy and Reliability – refers to the closeness of estimates, to the true values that statistics were intended to measure. • Reliability – refers to the closeness of the initial estimates to the subsequent or final estimates. • Timeliness – the speed of dissemination of statistical outputs – i.e. the lapse of time between the end of a reference period (or a reference date) and the dissemination of the statistical outputs. • Punctuality – refers to the possible time lag existing between the actual delivery date of statistical outputs and the target date when they should have been delivered, for instance, with reference to dates announced in an official release calendar or previously agreed among partners. • Coherence – the adequacy of the statistical outputs to be meaningfully combined in different ways and for various uses. • Comparability – refers to the extent to which differences between different geographical areas, non-geographical domains, or over time, can be attributed to differences between the true values of the statistical characteristics. • Accessibility – defined as the ease, the set of conditions and the modalities by which users can obtain data. 	

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Data (information): adequate, reliable, current <i>(continued from previous page)</i>	●	<ul style="list-style-type: none"> Clarity – refers to the availability of adequate documentation: whether data are accompanied with appropriate metadata, illustrations such as graphs and maps, whether information on their quality are also available (including limitation in use), and the extent to which additional assistance is provided. 	
Data limited fishery	●	<p>(1) Data-limited fishery – A fishery where limited data are available to inform management, e.g. fisheries for species where baseline biological data such as size at maturity, fishing mortality and growth rates are unknown.</p> <p>(2) Data limited fisheries are those fisheries where stock assessments are not feasible, yet they provide continuing yields for fisheries.</p> <p>(3) Data limited fisheries assessment:</p> <ul style="list-style-type: none"> Inputs – Approximate catches, some life history information Outputs – Incomplete, imprecise status and some MRPs; often as broad probability distributions, with no clear answer <p>(4) The extracts above (1) to (4) refer only to biological data-limitations and stock assessment. The FAO EAF Guidelines highlight that data-limitation on the human and governance dimensions is also a constraint to management. The FAO EAF Guidelines use the term “data-poor” rather than “data limited” and, while they provide no definition, the text provides an indication of what is meant by the term; e.g. on Page 57: “the development of measures and decision rules should ideally be underpinned by rigorous data analyses, including modelling the dynamics of the system or sub-system. However, as stressed throughout (the EAF) guidelines, a lack of this capacity does not preclude the general approach. Even in data-poor situations, the best available information should be objectively analysed and considered. In such cases, an extrapolation based on better studied areas can be used to provide guidance on operational objectives and associated decision rules.”</p>	<p>(1) South Africa Department of Primary Industries.</p> <p>(2) Sea Fish Authority http://www.seafish.org/responsible-sourcing/conserving-fish-stocks/data-limited-fisheries</p> <p>(3) MacCall, A. NMFS / SWFSC Santa Cruz, CA http://www.fgc.ca.gov/meetings/subcommittees/052510mrcpresentation/MacCallDataPoor.pdf</p> <p>(4) FAO Technical Guidelines for Responsible Fisheries. 4. Fisheries management. 4.2.The ecosystem approach to fisheries (2003).</p>
Dependent predators	●	<p>A species within the food chain (e.g. a predator) which depends heavily on another (e.g. a prey species) for its maintenance.</p>	FAO Term Portal (fisheries): www.fao.org/faoterm
Desktop review	● ●	<p>An assessment carried out on documentation away from the location of the organisation being assessed.</p>	GSSI
Detection Limit	●	<p>Detection limit – is the lowest quantity of aquatic animals that can be distinguished from the stock within a stated confidence limit (often the limit of the counting equipment or method used).</p>	GSSI

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	A B C D		
Discards		<ul style="list-style-type: none"> ● (1) Discard – To release or return fish to the sea, dead or alive, whether or not such fish are brought fully on board a fishing vessel. (2) Discarded Catch – That portion of the catch returned to the sea as a result of economic, legal, or personal considerations. 	<p>(1) CCRF Technical Guide 4 Fisheries management</p> <p>(2) Alverson, D.L.; Freeberg, M.H.; Pope, J.G.; Murawski, S.A. A global assessment of fisheries bycatch and discards. FAO Fisheries Technical Paper. No. 339. Rome, FAO. 1994. 233p.</p>
Ecosystem (structure, processes and function)		<ul style="list-style-type: none"> ● The FAO EAF Guidelines refer to ‘structure, processes and function’ in Section 4.1.4.1 and ‘ecosystem structure and functions’ in the Executive Summary. The three terms structure, processes and function are distinct and different, however, common usage suggests that in terms of the ecosystems features covered under these terms, ‘structure, processes and function’ is generally regarded to be the same as ‘structure and function’ and the latter is not intended to exclude processes. This is because ecosystem processes are often listed under the heading of ecosystem functions, as in the description below: Ecosystem: An organizational unit consisting of an aggregation of plants, animals (including humans) and microorganisms, along with non-living components of the environment. Ecosystem Function: An intrinsic ecosystem characteristic related to the set of conditions and processes whereby an ecosystem maintains its integrity (such as primary productivity, food chain, biogeochemical cycles). Ecosystem functions include such processes as decomposition, production, nutrient cycling, and fluxes of nutrients and energy. Ecosystem Structure: Pattern of the interrelations of organisms in time and in spatial arrangements. Attributes related to the instantaneous physical state of an ecosystem; examples include species population density, species richness or evenness, and standing crop biomass. 	FAO Technical Guidelines for Responsible Fisheries. The ecosystem approach to fisheries. No. 4, Suppl. 2. Rome, FAO. 2003. 112 p.
Ecosystem effects of fishing		<ul style="list-style-type: none"> ● (1) “Ecosystem effects of fishing” is used as a Topic within the Fisheries component of the GSSI Benchmark Tool. It is an expression intended to cover all of the direct and indirect impacts of fishing operations on aquatic ecosystems. In the GSSI Benchmark Tool it is further broken down into five Elements: <ul style="list-style-type: none"> • Non-target catches, • Endangered species; • Dependent predators; • Habitat; and • Ecosystem structure, processes and function 	<p>(1) GSSI</p> <p>(2) FAO Term Portal (fisheries) www.fao.org/faoterm</p>

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	A B C D		
Endangered (Threatened with extinction) <i>(continued from previous page)</i>		● “Protected” refers generally to any plant or animal that a government declares by law to warrant protection; most protected species are considered either threatened or endangered. A species that is recognised by national legislation, affording it legal protection due to its population decline in the wild. The decline could be as a result of human or other causes.	
Endangered	●	Endangered species for Section “C” are expected to be defined in the Standard, with reference to general national listings (e.g., Red Data Books) or global listing organizations such as CITES (Appendix 1), IUCN Red List (Categories Critically Endangered (CR), Endangered (EN), Vulnerable (VU)). See www.iucnredlist.org and www.cities.org for more information.	GSSI
Enhanced fisheries	●	Fisheries that are supported by activities aimed at supplementing or sustaining the recruitment of one or more aquatic organisms and raising the total production or the production of selected elements of a fishery beyond a level which is sustainable by natural processes. Enhancement may entail stocking with material originating from aquaculture installations, translocations from the wild and habitat modification.	FAO Technical Guidelines for Responsible Fisheries. Inland fisheries. No. 6. Rome, FAO. 1997. 36p.
Enhancement activities	●	See Enhanced Fisheries	
Environmental impact assessment (EIA)	●	A set of activities designed to identify and predict the impacts of a proposed action on the biogeophysical environment and on man’s health and wellbeing, and to interpret and communicate information about the impacts, including mitigation measures that are likely to eliminate the risks. In many countries, organizations planning new projects are required by law to conduct EIA. Usually it is carried out by three parties, the developer, the public authorities and the planning authorities.	FAO Term Portal – Aquaculture. (www.fao.org/faoterm/en/) Scialabba, N. (ed.) (1998) Integrated coastal area management and agriculture, forestry and fisheries. FAO Guidelines: 256p. Rome, FAO, Environment and Natural Resources Service. http://www.fao.org/docrep/W8440e/W8440e00.htm
Environmental impacts	● ●	A result of activity which has influence upon or changes the environment.	GSSI

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Environmental Quality Standard			●		<p>An Environmental Quality Standard is a value, generally defined by regulation, which specifies the maximum permissible concentration of a potentially hazardous chemical in an environmental sample, generally of air or water. (Sometimes also known as an ambient standard.)</p> <p>Environmental Quality Standards (EQSs) for marine, freshwaters and sediments have been developed and although there are no global values many countries have their own standards which are used to assess pollution levels in the aquatic environment. EQS values vary from country to country and are often incomplete. Metal speciation directly impacts on toxicity but this is often ignored. Despite these omissions they are nevertheless invaluable in the interpretation of monitoring data. EQS are not available for many parts of the world. In the absence of regional standards it is still preferable to compare values obtained against an EQS to assess the extent of pollution and potential for ecological damage.</p>	Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP)
Escapes			●		<p>A term used to describe specimens of cultured species, which escape from the rearing system into the ambient environment. There are potential impacts through interbreeding with wild conspecifics and through disease transfer. Also termed escapee.</p>	FAO Term Portal – Aquaculture. (www.fao.org/faoterm/en/)
Essential habitat (essential fish habitat)			●		<p>(1) Habitat for a fish is the environment in which it lives, including everything that surrounds and affects its life: e.g., water quality; bottom; vegetation; associated species (including food supplies).</p> <p>(2) Essential fish habitat (EFH) is those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.”</p>	<p>(1) FAO Term Portal (fisheries) www.fao.org/faoterm</p> <p>(2) Magnuson Stevens Fishery Conservation and Management Act.</p>
Evaluation			●		<p>An examination of production facilities or services in order to verify that they conform to requirements.</p>	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms
Exotic species			●		<p>Species not native to a particular area, which may pose a risk to endemic species.</p>	FAO Term Portal – Aquaculture. (www.fao.org/faoterm/en/)
Expert	●	●			<p>A person appointed by GSSI who has demonstrable specific knowledge and expertise with respect to the subject at hand.</p>	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms
FAO	●	●	●	●	Food and Agriculture Organization of the United Nations	FAO
Feed			●		<p>Fodder intended for the aquatic animal in aquaculture establishments, in any form and of any composition. Adapted from FAO, 2010.</p>	FAO (2010) Technical Consultation on the Technical Guidelines on Aquaculture Certification. Rome, FAO, page 2
Feed additives			●		<p>Chemicals other than nutrients for fish that are approved for addition to their feed.</p>	Codex Alimentarius Commission Code of Practice for Fishery and Fishery Products, First Edition, 2009. (http://www.codexalimentarius.net/web/publications.jsp?lang=en)

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	A	B	C	D		
Feed ingredients			●		A component, part or constituent of any combination or mixture making up a feed, including feed additives, whether or not it has a nutritional value in the animal's diet. Ingredients may be of terrestrial or aquatic, plant or animal origin and may be organic or inorganic substances.	OIE Aquatic Animal Health Code (www.oie.int/index.php?id=171&L=0&htmfile=glossaire.htm)
Field audit	●	●			An audit carried out at the location of a participating organisation.	GSSI
Fish in fish out ratio			●		A calculation to determine the ratio of wild harvested marine ingredients used per unit mass of farmed aquatic animal, usually on a wet weight basis. Alternative terms include forage fish dependency ratio, or forage fish equivalency ratio.	GSSI
Fish stock			●		The living resources in the community or population from which catches are taken in a fishery. Use of the term fish stock usually implies that the particular population is more or less isolated from other stocks of the same species and hence self-sustaining. In a particular fishery, the fish stock may be one or several species of fish but here is also intended to include commercial invertebrates and plants.	FAO (1997): Fisheries management. FAO Technical Guidelines for Responsible Fisheries, 4: 82 p.)
Fisheries management organisation or arrangement			●		Institution responsible for fisheries management, including the formulation of the rules that govern fishing activities. The fishery management organization, and its subsidiary bodies, may also be responsible for all ancillary services, such as the collection of information, its analysis, stock assessment, monitoring, control and surveillance (MCS), consultation with interested parties, application and/or determination of the rules of access to the fishery, and resource allocation. Also called: Fishery management arrangement.	(FAO (1997): Fisheries management. FAO Technical Guidelines for Responsible Fisheries, 4: 82 p.
Fishery			●		A unit determined by an authority or other entity that is engaged in raising and/or harvesting fish. Typically, the unit is defined in terms of some or all of the following: people involved, species or type of fish, area of water or seabed, method of fishing, class of boats and purpose of the activities.	FAO Term Portal (fisheries): www.fao.org/faoterm
Fishery Byproduct			●		A byproduct is a useful and marketable product that is not the primary product being produced. A marketable by-product is from a process that can technically not be avoided. This includes materials that may be traditionally defined as waste such as industrial scrap that is subsequently used as a raw material in a different manufacturing process. Fishery byproducts refers to commodities that are manufactured from fish, including shellfish, and crustaceans in a form that is different than conventional foods and which are intended for human consumption (either directly or as a food ingredient). They include but	Adapted from IFFO Marine Ingredients Organisation.

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TERM	SECTION	DEFINITION	REFERENCE
	A B C D		
Fishery Byproduct <i>(continued from previous page)</i>	●	<p>are not limited to: by-products derived from fish, including fish cartilage, fish oils, and fish proteins; and byproducts derived from the carapaces of crustaceans; but do not include marine plants or marine plant products.</p> <p>In addition, a whole fish which is rejected on an intrinsic quality ground e.g. does not meet the specification for Human Consumption due to physical damage or the quality is substandard. These whole fish shall in these cases be classified as a byproduct from the human consumption fishery, and can be used for fishmeal and fish oil production. A whole catch of fish that is rejected by a fish processing factory on economic grounds is not considered to be a fish by-product.</p> <p>Adapted from IFFO Marine Ingredients Organisation.</p>	
Fishing mortality	●	A mathematical expression of the part of the total rate of deaths of fish due to fishing. Fishing mortality is often expressed as a rate that indicates the percentage of the population caught in a year.	<p>FAO Term Portal (fisheries) www.fao.org/faoterm</p> <p>Modified from Commonwealth of Australia (1997): http://www.brs.gov.au/fish/gloss.html</p>
Fit for purpose	●	(Of an institution, facility, etc.) well equipped or well suited for its a designated role or purpose.	Oxford English Dictionary
Genetic drift	●	Random changes in gene frequency caused by small effective population size, e.g. sampling error (shipment of fish from one station to another; broodstock selection). The ultimate effect of genetic drift is the loss of genetic variance. Genetic drift is inversely related to effective breeding number.	FAO Term Portal – Aquaculture. <i>(www.fao.org/faoterm/en/)</i>
Genetically modified organism (GMO)	●	An organism that has been transformed by the insertion of one or amore transgenes.	ICES (2004) Code of Practice on the Introductions and Transfers of marine Organisms. http://www.ices.dk/reports/general/2004/icescop2004.pdf
Grandfathered In	●	A clause creating an exemption based on circumstances previously existing. A relevant aquaculture example includes historical conversion of mangrove forest into shrimp ponds and where Standards may prohibit aquaculture facilities from certification or require that restoration of losses occur prior to certification if the initial conversion occurred after the Ramsar Convention of 1999 but offering an exemption to facilities where mangrove loss occurred before the Ramsar agreement took place. Also termed a “grandfather clause”.	Merriam-Webster Dictionary.
GSSI	● ● ● ●	Global Sustainable Seafood Initiative	GSSI
GSSI Essential Component	● ● ● ●	Criteria grounded in the CCRF and the FAO Guidelines, which a seafood certification scheme needs to meet to be recognised by GSSI.	GSSI

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GSSI Supplementary Component	●	●	●	●	Criteria grounded in the CCRF and related FAO documents, ISO normative standards and ISEAL codes. They show a seafood certification scheme's diverse approach and help stakeholders understand where differences exist. A seafood certification scheme does not need to meet them for GSSI Recognition.	GSSI
Habitat			●		A specific place with its environmental conditions occupied by and covering the requirements of an organism, a population or a community.	Odum, E.P. (1959) Fundamentals in ecology. 2nd Edition, Philadelphia, Saunders Co: Page 53.
Hatchery			●		A facility used for the artificial and controlled breeding, hatching and rearing of aquatic organisms, on a commercial or experimental basis, through their early life stages. A hatchery is usually closely associated with a nursery facility where the cultured organism is grown to the appropriate size before being released to the wild or an on-growing structure. Adapted from FAO.	FAO Term Portal – Aquaculture. (www.fao.org/faoterm/en/)
Impartiality	●	●			The actual and perceived presence of objectivity.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms
Inbreeding			●		Mating or crossing of individuals more closely related than average pairs in the population.	FAO Term Portal – Aquaculture. (www.fao.org/faoterm/en/)
Inbreeding depression			●		Declines in growth rate, fecundity, etc. and an increase in the percentage of deformed/abnormal fish that occur when inbreeding reaches certain levels.	FAO Term Portal – Aquaculture. (www.fao.org/faoterm/en/)
Independence	●	●			A state of being free from outside control and not subject to another's authority.	GSSI
Independent Expert	●	●			A competent trained person, appointed by GSSI, who is assigned to manage the benchmarking process for a specific scheme application.	GSSI
Internal audit	●	●			Internal audits, sometimes called first-party audits, are conducted by, or on behalf of, the organization itself for management review and other internal purposes, and may form the basis for an organization's self-declaration of conformity. In many cases, particularly in smaller organizations, independence can be demonstrated by the freedom from responsibility for the activity being audited.	ISO 19011:2002 3.1, Note 1
Internal review	●	●			An evaluation, undertaken on a regular basis by representatives of a company's management, to assess the suitability, adequacy and effectiveness of the company's management system and to identify improvement opportunities. The evaluation shall also be used to identify and assess any changes needed to policy, objectives, resource needs and improvement to product or services.	GSSI
Introduction			●		Of a fish species: intentional or accidental transport and release by humans into an environment beyond its present range.	FAO Term Portal – Aquaculture. (www.fao.org/faoterm/en/)

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TERM	SECTION	DEFINITION	REFERENCE
	A B C D		
Introductions	D	<ul style="list-style-type: none"> Species or races of fish and other aquatic organisms that are intentionally or accidentally transported and released by humans into an aquatic environment outside their natural range set by biogeographic barriers. 	FAO (2012) Technical Guidelines for Responsible Fisheries. Recreational fisheries. No. 13. 176 pp.
Invasive Species	C	<p>An non-native or introduced species (i.e., one that is not native to the region it's been farmed in) that causes negative impact to economic, environmental, socio-political or cultural values due to prolific growth and unmanaged population. Potential negative environmental impacts include habitat conversion/damage, outcompeting native populations for food or habitats, and predation on native species.</p> <p>For additional information see the Invasive Species Specialist Group website (www.issg.org/).</p>	Adapted from FAO Term Portal – Aquaculture. (www.fao.org/faoterm/en/)
Irreversible or very slowly reversible	D	<ul style="list-style-type: none"> (1) Irreversibility is the quality of being impossible or difficult to return to, or to restore to, a former condition (see also Reasonable time frame (for restoration of stocks). (2) Examples of slowly reversible or irreversible effects of fishing are recruitment overfishing (reduced age structure with consequences to the quality of spawning), genetic modification, changed ecological role such as in food-web dynamics, and excessive depletion of very long-lived organisms. (3) Serious or Irreversible Harm: Impacts that compromise ecosystems integrity (i.e. ecosystem structure or function) in a manner that: <ol style="list-style-type: none"> impairs the ability of affected populations to replace themselves; degrades the long-term natural productivity of habitats; or causes, on more than a temporary basis, significant loss of species richness, habitat or community types. (4) “The 1980 Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR) is usually considered a precursor of the ecosystem approach to fisheries. Its provisions require that any harvesting and associated activities must be conducted in accordance with the following principles of conservation: (i) prevention of decrease in the size of any harvested population to levels below those which ensure its stable recruitment, and for this purpose, size should not be allowed to fall below a level close to that which ensures the greatest net annual increment; (ii) maintenance of the ecological relationships between harvested, dependent and related populations of Antarctic marine living resources and the restoration of depleted populations to the levels defined in (i) above; and (iii) prevention of changes or minimization 	<p>(1) Alcamo, J. et al. (2003) Ecosystem and human well-being. A framework for assessment. Millennium Ecosystem Assessment. Island Press, 245 p.</p> <p>(2) Sainsbury, K. (2008) Best Practice Reference Points for Australian Fisheries. Report to AFMA</p> <p>(3) Fisheries and Oceans Canada Ecological Risk Assessment Framework (ERAF) for Coldwater Corals and Sponge Dominated Communities. Sustainable Fisheries Framework (SFF): Policy to Manage the Impacts of Fishing on Sensitive Benthic Areas http://www.dfo-mpo.gc.ca/fm-gp/peches-fisheries/fish-ren-peche/sff-cpd/risk-ecolo-risque-eng.pdf</p> <p>(4) FAO Technical Guidelines for Responsible Fisheries. 4. Fisheries management. 4.2. The ecosystem approach to fisheries (2003) Annex 1. Institutional foundation to the ecosystem approach to fisheries</p>

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Irreversible or very slowly reversible <i>(continued from previous page)</i>					<ul style="list-style-type: none"> of the risk of changes in the marine ecosystem which are not potentially reversible over two or three decades, taking into account the state of available knowledge of the direct and indirect impact of harvesting, the effect of the introduction of alien species, the effects of associated activities on the marine ecosystem and of the effects of environmental changes, with the aim of making possible the sustained conservation of Antarctic marine living resources. 	
ISEAL Alliance		● ●			Global membership association for sustainability standards	ISEAL
Key performance indicators		● ●			A series of criteria which are quantifiable measurements, agreed to beforehand, that reflect the critical success factors of an organization.	Crandall, W.J. (2010) Revenue Administration: Performance Measurement in Tax Administration; IMF
Key prey species				●	A species within the food chain (e.g. a prey species) which is depended upon heavily for its maintenance by another (e.g. a predator species). A species within the food chain (e.g. a prey species) which is depended upon heavily for its maintenance by another (e.g. a predator species).	Adapted from 'Dependent Species' as defined in the FAO Term Portal (this being the corollary).
Legal entity		● ●			Any entity recognized by the law, including both juristic and natural persons.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms.
Legal framework (effective)				●	<p>A legal framework is defined as a broad system of rules that governs and regulates decision making, agreements, laws etc. It includes a set of rules, procedural steps, or test, often established through precedent in the common law, through which judgments can be determined in a given legal case.</p> <p>In a fisheries context this can be regarded as the framework of legal instruments required for the exercise of responsible fisheries and to formulate and implement appropriate measures. An "effective" legal framework can be regarded as one that enables outcomes for the fishery consistent with the requirements of the CCRF.</p>	Compilation of dictionary definitions with added context for fisheries.
Likely (likelihood)				●	<p>Likelihood, (see Table 1 from the IPCC report referenced), provides calibrated language for describing quantified uncertainty. It can be used to express a probabilistic estimate of the occurrence of a single event or of an outcome (e.g., a climate parameter, observed trend, or projected change lying in a given range). Likelihood may be based on statistical or modelling analyses, elicitation of expert views, or other quantitative analyses. The categories defined in Table 1 (see report) can be considered to have "fuzzy" boundaries. A statement that an outcome is "likely" means that the probability of this outcome can range from ≥66% (fuzzy boundaries implied) to 100% probability. May also be determined according to expert judgment and/or plausible argument.</p>	Guidance Note for Lead Authors of the IPCC Fifth Assessment Report on Consistent Treatment of Uncertainties. IPCC Cross-Working Group Meeting on Consistent Treatment of Uncertainties Jasper Ridge, CA, USA 6-7 July 2010

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Local applicability	● ●	The process of adaptation by a Scheme Owner of standards or rules for direct application at the national or regional level.	GSSI
Management measures	●	Specific controls applied in a fishery to contribute to achieving the objectives, including input controls (fishing effort limitations), output controls (catch quotas), technical measures (gear regulations, closed areas and time closures), and socio-economic incentives (access and use rights).	FAO Technical Guidelines for Responsible Fisheries. Fisheries management. 4. Marine protected areas and fisheries. No. 4, Suppl. 4. Rome, FAO. 2011. 198p.
Management objectives	●	<p>(1) A formally established, more or less quantitative target that is actively sought and provides a direction for management action.</p> <p>(2) According to the Fishery Manager's Guidebook: "the term 'objective' is used to mean the object of an action, or what is intended to be achieved. Describing an objective will typically require a more precise description of the desired end point than for a goal. An objective must include explicit statements against which progress can be measured and it is helpful to think in terms of SMART objectives, that is, objectives should be Specific, Measurable, Achievable, Relevant and Time-bound. A goal may therefore be, for example, to harvest a particular stock sustainably. One of the objectives necessary to achieve this goal could be to ensure that fishing mortality does not lead to a reduction in the biomass of the stock below the biomass capable of producing maximum sustainable yield."</p>	<p>(1) FAO Term Portal (fisheries) www.fao.org/faoterm</p> <p>(2) A fishery manager's guidebook / edited by Kevern L. Cochrane and Serge M. Garcia — 2nd ed. 2009 Published by The Food and Agriculture Organization of the United Nations and Blackwell Publishing.</p>
Management system	●	<p>The framework of processes and procedures used to ensure that an organization can fulfil all tasks required to achieve its objectives.</p> <p>(1) Element used to refer to a Management System domain element. It contains the domain elements such as Management authority, Jurisdiction, Fishery Management Unit, which altogether enable positive Referencing of a Management System.</p> <p>Includes, but is not restricted to, agencies or entities involved in the management of the fishery, the legislative framework within which the fishery is undertaken, the management measures implemented and the processes and procedures that enable the collective functioning of the various components.</p>	(1) FAO FIRMS data dictionary. FIRMS Technical Working Group Meeting First Session Rome, Italy, 05-08 December 2005 ftp://ftp.fao.org/Fi/DOCUMENT/FIGIS_FIRMS/TWG1/4a_e.pdf
Marine feed ingredients	●	Feed ingredients derived from marine aquatic organisms, such as fish, crustaceans, and algae.	GSSI

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Maximum sustainable yield (MSY)	●	<p>(1) The highest theoretical equilibrium yield that can be continuously taken (on average) from a stock under existing (average) environmental conditions without affecting significantly the reproduction process. Also referred to sometimes as potential yield.</p> <p>(2) It is estimated from surplus production models (e.g. Schaefer model) and other methods. In practice, however, MSY, and the level of effort needed to reach it are difficult to assess. Referred to in UNCLOS, it is an essential fisheries management benchmark but it is also only one of the possible Management reference points, considered also as an international minimum standard for stock rebuilding strategies (i.e. stocks should be rebuilt to a level of biomass which could produce at least MSY).</p>	<p>(1) FAO Term Portal (fisheries) www.fao.org/faoterm</p> <p>(2) Indicators for sustainable development of marine capture fisheries. FAO Technical Guidelines for Responsible Fisheries. No. 8. Rome, FAO. 1999. 68p.</p>
Monitoring	● ●	<p>A planned sequence of observations or measurements to assess compliance with requirements.</p>	<p>GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms</p>
Monitoring, surveillance, control and enforcement (effective and suitable)	●	<p>● MCS: Monitoring, control, and surveillance. Activities undertaken by the fishery enforcement system to ensure compliance with fishery regulations. "Enforcement" refers generally to the enforcement of rules and regulations, and can be regarded as part of the overarching term "MCS".</p> <p>(1)</p> <ul style="list-style-type: none"> – Monitoring – The continuous requirement for the measurement of fishing effort characteristics and resource yields. – Control – The regulatory conditions under which the exploitation of the resource may be conducted. This is generally considered to include the juridical component. – Surveillance – The degree and types of observations required to maintain compliance with the regulatory controls imposed on fishing activities. <p>The qualifiers "effective and suitable" need some explanation. With respect to "effective", below there is a relevant extract from Flewwelling et al (2002). "Suitable" is not included in the FAO Guidelines for Marine Capture Fisheries, but was introduced in the drafting of the Guidelines for Inland Capture Fisheries. The important element here is that the MCS is appropriate (suitable) to the scale and intensity of the fishery. Hence what is suitable from the perspective of a large scale industrial fishery would not necessarily be the same as for a small scale fishery.</p>	<p>(1) Flewwelling, P. (1995) An introduction to monitoring, control and surveillance for capture fisheries. FAO Fisheries Technical Paper No. 338. Rome, FAO. 1995. 217 p</p> <p>(2) Flewwelling, P.; Cullinan, C.; Balton, D.; Sautter, R.P.; Reynolds, J.E. Recent trends in monitoring, control and surveillance systems for capture fisheries. FAO Fisheries Technical Paper. No. 415. Rome, FAO. 2002. 200p</p>

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<p>Monitoring, surveillance, control and enforcement (effective and suitable) <i>(continued from previous page)</i></p>	<ul style="list-style-type: none"> ● 	<p>(2) Extract from Flewwelling et al (2002):</p> <p>Some view arrests as the only relevant indication of the effectiveness of MCS efforts. The real indicator for MCS is the level of compliance, and this is governed by many factors, e.g. the number of fishers; the number of vessels; effort and area coverage of patrols; results of patrols, increase in voluntary compliance, etc.</p> <p>Effective MCS involves a two-pronged, parallel approach. The preventive approach is to encourage “voluntary compliance” through understanding and support for the management strategies and this includes:</p> <ol style="list-style-type: none"> a) enhancement of community/fisher awareness and understanding of management practices and MCS through seminars, public awareness and information, education, and communication campaigns; b) participatory management development to promote ownership of the management regime and input into the regulatory/control aspect of management (laws and regulations) in preparation for acceptance by the fishers of their joint “stewardship” role for the management of their fisheries in partnership with government; c) peer pressure towards voluntary compliance and support for the management regime; d) the institution of accurate and verifiable data collection regimes; and e) surveillance and verification for compliance. <p>The parallel approach of deterrent/enforcement MCS is necessary to ensure compliance by fishers who resist the regulatory regime to the detriment of both the fishery and the economic returns to their fellow fishers. Deterrent and enforcement include inspection, investigation, prevention and court proceedings to enforce the law. Voluntary compliance will fail if stakeholders see non-compliant fishers successfully evading the law and receiving economic returns from their illegal activity, at the expense of the fishers who comply with all requirements.</p>	
<p>Mono-sex</p>	<ul style="list-style-type: none"> ● 	<p>The selection or rearing of a single sex of a given species in an aquaculture unit in order to avoid uncontrolled reproduction or to obtain higher yields. Commonly used with salmonids and tilapias in which there is a dichotomy between the growth of the two sexes that is activated after the onset of sexual maturity.</p>	<p>FAO Term Portal – Aquaculture. <i>(www.fao.org/faoterm/en/)</i></p>

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Multi-site certification	● ●	<p>Certification covering multi-site organisations including several sites and where sampling of these sites may be used by a certification body in its conformity assessment work.</p> <p>The scope of certification covers the actual products and processes as defined in the normative documents describing the scheme in question.</p> <p>Every site covered by this certification is mentioned on the main certificate documentation and every site is entitled to get its own sub-certificate.</p>	GSSI
Multi-site organisation	● ●	An organisation having an identified central office, but not necessarily the headquarters of the organisation at which certain activities are planned, controlled and managed and a network of local offices or branches or sites at which such activities are fully or partially carried out.	GSSI
Natural reproductive stock component of enhanced stocks	●	The survival of fish stocks that are not enhanced depends entirely on their natural reproductive component. Stocks that are enhanced may have a natural reproductive component that contributes to the production of new generations.	FAO (2011) Guidelines for the Ecolabelling of Fish and Fishery Products from Inland Capture Fisheries. 106pp. Paragraph 26.
Non-conformity	● ●	A deviation of product or process from specified requirements, or the absence of, or failure to implement and maintain, one or more required management system elements, or a situation which would, on the basis of available objective evidence, raise significant doubt as to the conformity of what the auditee is supplying.	GSSI
Non-Established Species	●	An introduced (non-native) species that do not currently have breeding populations in the wild.	GSSI
Non-Native Species	●	See Introduction	GSSI
Non-target catch (stock)	●	<p>1) Species for which the gear is not specifically set, although they may have immediate commercial value and be a desirable component of the catch.</p> <p>(2) In the context of fishery certification, the target catch is the catch of stock under consideration by the unit of certification – i.e. the fish that are being assessed for certification and ecolabelling. Anything other than this catch is non-target catch. Hence there may be species for which the gear is set, but that are not being assessed as a target species for certification. In this case these species are non-target catch, even though they may be a target for the fishery according to the OECD definition above</p>	<p>(1) OECD (1996), Synthesis report for the study on the economic aspects of the management of marine living resources. AGR/FI(96)12</p> <p>(2) GSSI</p>
Normative documents	● ●	A document to which reference is made in the standard in such a way as to make it indispensable for the application of the standard.	European Committee for Standardization
Nutrient Load	●	The nutrient load refers to the total amount of waste nitrogen or phosphorus released as a result of production of the aquatic animal. Examples include “tons of nitrogen per ton of production”.	GSSI

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Office audit	● ●	An audit carried out at the office or designated centres of an applicant.	GSSI
Offsetting	●	Counteract (something) by having an opposing force or effect. A relevant aquaculture example is the restoration of a specific area of mangrove forest to replace those converted during the construction of a shrimp pond, and may apply to restoring the actual area converted on the farm or restoring an area of similar size or ecological value in a different region.	Oxford English Dictionary
OIE	●	World Organization for Animal Health	OIE
Operational	●	In or ready for use.	Oxford English Dictionary
Organisation	● ●	A group of people or other legal entity(ies) that is responsible for ensuring that products and processes meet and, if applicable, continue to meet the requirements on which the certification is based.	GSSI
Overfished	●	A stock is considered “overfished” when exploited beyond an explicit limit beyond which its abundance is considered “too low” to ensure safe reproduction. In many fisheries for the term is used when biomass has been estimated to be below a limit biological reference point that is used as the signpost defining an “overfished condition”.	FAO Term Portal (fisheries) www.fao.org/faoterm Mace, P.M. 1998. The status of ICCAT species relative to optimum yield and overfishing criteria recently proposed in the United States, also with consideration of the precautionary approach. ICCAT SCRS/97/074
Overfishing (including recruitment overfishing)	●	<p>Overfishing – A generic term used to refer to the state of a stock subject to a level of fishing effort or fishing mortality such that a reduction of effort would, in the medium term, lead to an increase in the total catch. Often referred to as overexploitation and equated to biological overfishing, it results from a combination of growth overfishing and recruitment overfishing and occurs often together with ecosystem overfishing and economic overfishing.</p> <p>Recruitment Overfishing – A situation in which the rate of fishing is (or has been) such that annual recruitment to the exploitable stock has become significantly reduced. The situation is characterized by a greatly reduced spawning stock, a decreasing proportion of older fish in the catch, and generally very low recruitment year after year.</p> <p>Growth Overfishing – Occurs when too many small fish are being harvested too early, through excessive fishing effort and poor selectivity (e.g. too small mesh sizes) and the fish are not given enough time to grow to the size at which the maximum yield-per-recruit from the stock would be obtained. A reduction of fishing mortality on juveniles, or their outright protection, would lead to an increase in yield from the fishery.</p>	FAO Term Portal (fisheries) www.fao.org/faoterm Garcia, S.M. (Comp.). 2009. Glossary. In Cochrane, K. and S.M. Garcia. (Eds). A fishery managers’ handbook. FAO and Wiley-Blackwell:473-505.

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GSSI GLOSSARY

TERM	SECTION	DEFINITION	REFERENCE
	A B C D		
Participatory (fishery management)	C	<ul style="list-style-type: none"> ● Participatory is defined in the Merriam-Webster Dictionary as characterized by or involving participation; especially: providing the opportunity for individual participation. <p>(1) A participatory approach to fisheries management requires there to be an opportunity for all interested and affected parties to be involved in the management process. This does not mean that stakeholders are required to have specific decision rights in the fishery, but there should be a consultation process that regularly seeks and accepts relevant information, including traditional, fisher or community knowledge and there is a transparent mechanism by which the management system demonstrates consideration of the information obtained. Consultation processes must be inclusive and provide opportunities for interested and affected parties to be involved. A participatory approach further requires that all major stakeholders have been identified and that the functions, roles and responsibilities of the key organisations and individuals involved in the management process are explicitly defined and well understood.</p> <p>(2) Participatory management. Any form of management involving a degree of stakeholder participation. Co-management is a specific form of participatory management in which there is a sharing of decision-making power between the state and the stakeholders.</p>	<p>(1) GSSI</p> <p>(2) Glossary in Cochrane, K.L. and S.M. Garcia (eds). 2009. A Fishery Manager's Guidebook, 2nd Edition. FAO and Wiley-Blackwell Publishers. 518pp.</p>
Pest	C	<ul style="list-style-type: none"> ● Animals, generally rodents or insects, that may contaminate feed or chemicals used or stored on the aquaculture facility. This is separate from predators. 	GSSI
Pollution	C	<ul style="list-style-type: none"> ● The introduction by man, directly or indirectly, of substances, or energy into the aquatic environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and aquatic life, hazards to human health, hindrance to aquatic activities, including fishing and other legitimate uses of the aquatic environment and unacceptable impairment of local water quality. Adapted from the United Nations Convention on the Law of the Sea (1982). 	Adapted from the United Nations Convention on the Law of the Sea (1982).
Polyploidy	C	<ul style="list-style-type: none"> ● An organism with more than two sets of chromosomes. Sometimes used in aquaculture to create seed with more desirable traits, such as faster growth rates, than the same species with a normal set of chromosomes. In Section C, polyploidy is required to result in sterility due to the abnormal number of chromosomes. Examples include triploid (organisms with three sets of chromosomes). 	GSSI
Precautionary approach (Aquaculture)	C	<ul style="list-style-type: none"> ● A set of agreed measures and actions, including future courses of action that ensures prudent foresight and reduces or avoids risk to the resource, the environment, and the people, to the extent possible, taking into account existing uncertainties and the potential consequences of being wrong. 	GSSI

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GSSI GLOSSARY

TERM	SECTION	DEFINITION	REFERENCE
	A B C D		
Precautionary approach to fisheries management	●	<p>The precautionary approach involves the application of prudent foresight, taking account of the uncertainties in fisheries systems and the need to take action with incomplete knowledge. It requires, inter alia:</p> <ul style="list-style-type: none"> i consideration of the needs of future generations and avoidance of changes that are not potentially reversible; ii prior identification of undesirable outcomes and of measures that will avoid them or correct them promptly; iii that any necessary corrective measures are initiated without delay, and that they should achieve their purpose promptly, on a timescale not exceeding two or three decades; iv that where the likely impact of resource use is uncertain, priority should be given to conserving the productive capacity of the resource; v that harvesting and processing capacity should be commensurate with estimated sustainable levels of resource, and that increases in capacity should be further contained when resource productivity is highly uncertain; vi all fishing activities must have prior management authorization and be subject to periodic review; vii an established legal and institutional framework for fishery management, within which management plans that implement the above points are instituted for each fishery, and viii appropriate placement of the burden of proof by adhering to the requirements above (FAO, 1996, para 6). 	FAO. 1996. Precautionary Approach to Capture Fisheries and Species Introductions. FAO Technical Guidelines for Responsible Fisheries, 2: 54 p.
Prepackaged	● ●	Prepackaged means packaged or made up in advance in a container, ready for offer to the consumer, or for catering purposes.	Labelling of Prepackaged Foods (CODEX STAN 1-1985)
Process	● ●	A set of interrelated or interacting activities which result in an outcome.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms Page 137
Production system	●	Concept identified by what is being cultured, giving also hints on how this is done, and possibly the aquaculture milieu in which it takes place, such as for example land-based trout culture, suspended rope culture of mussel, intensive eel culture, pond culture of Nile tilapia and intensive catfish raceway culture.	FAO Term Portal – Aquaculture (www.fao.org/faoterm/en/)
Production unit	●	An individual tank, cage, or pond holding a single batch of aquatic animals.	GSSI

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TERM	SECTION	DEFINITION	REFERENCE
	A B C D		
Publicly available	● ●	Obtainable by any person, without unreasonable barriers of access. NOTE – Information that is published on an organisation’s website and can be found through a basic and quick search is considered to be publicly available. ‘Available on request’ is not the same as publicly available.	ISEAL (2014) Impacts Code v2
Quarantine	●	(1) The facility and/or process by which live organisms and of their accompanying organisms can be held or reared in isolation from the surrounding environment. (2) Maintenance of a group of aquatic animals in isolation with no direct or indirect contact with other aquatic animals, in order to undergo observation for a specified length of time and, if appropriate, testing and treatment, including proper treatment of the effluent waters.	(1) ICES Code of Practice on the Introductions and Transfers of marine Organisms 2004. http://www.ices.dk/reports/general/2004/icescop2004.pdf (2) (OIE Aquatic Animal health Code http://www.oie.int/eng/normes/icode/en_glossaire.htm#sous-chapitre-2)
Reasonable time frames (for restoration of overfished stocks)	●	The time period for ending overfishing and rebuilding an overfished stock should be as short as possible, taking into account the status and biology of the overfished stock, the needs of fishing communities, recommendations by international organizations exercising jurisdiction over the overfished stock, and the interaction of the overfished stock within the marine ecosystem. In any event it should not exceed 10 years, except in cases where the biology of the stock, other environmental conditions, or management measures under an applicable international agreement dictate otherwise.	Magnuson-Stevens Fishery Conservation and Management Act; 104-297 (e) REBUILDING
Re-benchmarking	● ●	The process of benchmarking a scheme that was previously recognised by the GSSI and that is seeking renewed recognition.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms Page 137
Recovery rate	●	The percentage of the number of aquatic animals recovered at harvest divided by the number stocked. Intended as an indicator of mortality, incorporate both known and unknown losses.	GSSI
Reference point (limit)	●	(1) Reference Point: An estimated value derived from an agreed scientific procedure and/or model, which corresponds to a specific state of the resource and of the fishery, and that can be used as a guide for fisheries management. Reference points may be general (applicable to many stocks) or stock-specific. (2) Limit Reference Point (LRP) indicates the limit beyond which the state of a fishery and/or a resource is not considered desirable. Fishery development should be stopped before reaching it. If an LRP is inadvertently reached, management action should severely curtail or stop fishery development, as appropriate, and corrective action should be taken. Stock rehabilitation programmes should consider an LRP as a very minimum rebuilding target to be reached before the rebuilding measures are relaxed or the fishery is re-opened.	(1) Garcia S.M. (1996). The precautionary approach to fisheries and its implications for fishery research, technology and management: An updated review. FAO Fish. Tech. Paper, 350.2: 1-76 (2) + (3) FAO Term Portal (fisheries) www.fao.org/faoterm (2) Fish Stock Assessment Manual, FAO Fisheries Technical Paper 393, Fisheries Department, FAO, 2000. (3) Garcia S.M. (1996). The precautionary approach to fisheries and its implications for fishery research, technology and management: An updated review. FAO Fish. Tech. Paper, 350.2: 1-76

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GSSI GLOSSARY

TERM	SECTION	DEFINITION	REFERENCE
	A B C D		
Reference point (limit) <i>(continued from previous page)</i>		<ul style="list-style-type: none"> (3) LRP indicates the limit beyond which the state of a fishery and / or a resource is not considered desirable. Fishery development should be stopped before reaching it. If a LRP is inadvertently reached, management action should severely curtail or stop fishery development, as appropriate, and corrective action should be taken. Stock rehabilitation programmes should consider and LRP as a very minimum rebuilding target to be reached before the rebuilding measures are relaxed or the fishery is re-opened". If a LRP is well established, the probability to reach inadvertently is very low and indeed below a formally agreed level. (3) Indicates that the state of a fishery and / or a resource is approaching a target reference point (TRP) or a limit reference point (LRP), and that a certain type of action (usually agreed beforehand) needs to be taken. Fairly similar to a LRP in their utility, the ThRp specific purpose is to provide an early warning, reducing further the risk the the LRP or TRP are inadvertently passed due to uncertainty in the available information or inherent inertia of the management and industry systems. Adding precaution to the management set-up, they might be necessary only for resources or situations involving particularly high risk. 	
Reference point (target)		<ul style="list-style-type: none"> (1) Reference Point: An estimated value derived from an agreed scientific procedure and/or model, which corresponds to a specific state of the resource and of the fishery, and that can be used as a guide for fisheries management. Reference points may be general (applicable to many stocks) or stock-specific. (2) Corresponds to a state of a fishery and / or a resource which is considered desirable. Management action, whether during a fishery development or a stock rebuilding process should aim at bringing and maintaining the fishery system at this level. In most cases a TRP will be expressed in a desired level of output for the fishery (e.g. in terms of catch) or of fishing effort or capacity and will be reflected as an explicit management objective for the fishery. 	<p>(1) Garcia S.M. (1997) Indicators for sustainable development in fisheries. In: FAO (1997). Land Quality indicators and their use in sustainable agriculture and rural development: 131-162.</p> <p>(2) FAO Term Portal (fisheries) www.fao.org/faoterm</p> <p>(2) Fish Stock Assessment Manual, FAO Fisheries Technical Paper 393, Fisheries Department, FAO, 2000.</p> <p>(2) Garcia S.M. (1996) The precautionary approach to fisheries and its implications for fishery research, technology and management: An updated review. FAO Fish. Tech. Paper, 350.2: 1-76</p>
Regional fisheries management organization (RFMO)		<ul style="list-style-type: none"> Regional Fisheries Management Organizations (RFMOs) have a management mandate and play a unique role in facilitating international cooperation for the conservation and management of fish stocks. These organizations present the only realistic means of governing fish stocks that occur either as straddling or shared stocks between zones of national jurisdiction or between these zones and the high seas, or exclusively on the high seas. RFMOs adopt fisheries conservation and management measures that are binding on their members. 	<p>FAO Fisheries websites: www.fao.org/fishery/topic/16800/en and www.fao.org/fishery/topic/16810/en</p>

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GSSI GLOSSARY

TERM	SECTION				DEFINITION	REFERENCE
	A	B	C	D		
Register of benchmark committee members	●	●			A document containing the names of experts selected by GSSI, who may carry out benchmarking activities on their behalf.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms Page 137
Resilience			●		Resilience is the capacity of a system to absorb disturbance and reorganize while undergoing change, so as to still retain essentially the same function, structure, identity and feedbacks of regulation mechanisms.	FAO Technical Guidelines for Responsible Fisheries. Fisheries management. 4. Marine protected areas and fisheries. No. 4, Suppl. 4. Rome, FAO. 2011. 198p.
Review	●	●			Verification of the suitability, adequacy and effectiveness of selection and determination activities, and the results of these activities, with regard to fulfilment of specified requirements (3.1) by an object of conformity assessment.	ISO/IEC 17000:2004, 5.1
Risk assessment			●		The evaluation of the likelihood of entry, establishment or spread of a pest or disease within the territory of an importing Member according to the sanitary or phytosanitary measures which might be applied, and of the associated potential biological and economic consequences; or the evaluation of the potential for adverse effects on human or animal health arising from the presence of additives, contaminants, toxins or disease-causing organisms in food, beverages or feedstuffs.	WTO (1995) The WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement)
Risk based programme	●	●			A documented programme developed by a competent person(s) based on risk assessment principles.	GSSI
Safety Data Sheet (SDS)			●		Generally expected to conform to the Global Harmonized System (GHS). The (Material) Safety Data Sheet (SDS) provides comprehensive information for use in workplace chemical management. Employers and workers use the SDS as sources of information about hazards and to obtain advice on safety precautions. The SDS is product related and, usually, is not able to provide information that is specific for any given workplace where the product may be used. However, the SDS information enables the employer to develop an active program of worker protection measures, including training, which is specific to the individual workplace and to consider any measures that may be necessary to protect the environment. Information in a SDS also provides a source of information for other target audiences such as those involved with the transport of dangerous goods, emergency responders, poison centers, those involved with the professional use of pesticides and consumers. See www.osha.gov/dsg/hazcom/ghs.html#4.8 , particularly section 4.8 for more details.	Occupational Safety & Health Administration. United States Department of Labor,
Saline Water			●		Saline water is defined as >0.7 electrical conductivity (d S/m) and > 500mg/l salt concentration.	The use of saline waters for crop production – FAO irrigation and drainage paper 48 1992.

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TERM	SECTION				DEFINITION	REFERENCE
	A	B	C	D		
Salinization			●		For waters: the increase in salinity of fresh surface and groundwater supplies. A result of saltwater intrusion by pumping of seawater boreholes and wells, and the building of inland seawater ponds structures. Can have a serious effect on local agriculture, especially paddy fields.	FAO Term Portal – Aquaculture (www.fao.org/faoterm/en/)
Seafood Certification Scheme	●	●			See Certification Scheme.	
Seed			●		Meaning eggs, spawn, offspring, progeny or brood of the aquatic organism (including aquatic plants) being cultured. At this infantile stage, seed may also be referred to or known as fry, larvae, postlarvae, spat, and fingerlings. They may originate from two principal sources: from captive breeding programmes (e.g., hatcheries) or caught from the wild.	Adapted from FAO Term Portal – Aquaculture (www.fao.org/faoterm/en/)
Scheme Owner	●	●			An organisation, which is responsible for the development, management and maintenance of a certification scheme.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms Page 137
Scope	●	●			The extent of the area or subject matter that a scheme applies to or to which it is relevant	GSSI
Senior management	●	●			A person or persons who have the authority and accountability to develop, implement or amend organisational policies and procedures	GSSI
Sensitive habitat/ biodiversity			●		Sensitive is used in terms of habitat and/or biodiversity that are of biological, ecological values which are considered outstandingly significant or critically important, at the local, national, regional or global level. Adapted from the High Conservation Value Network. Relevant examples in aquaculture include, but are not limited to include mangrove and wetland forests, supported by the Ramsar Convention , International Union for Conservation of Nature (IUCN) listed species and Protected Areas, High Conservation Value areas defined by the High Conservation Value Area Network, the Convention on International Trade in Endangered Species of Wild Fauna and Flora.	High Conservation Value Area Network www.hcvnetwork.org
Site	●	●			A permanent location where an organisation carries out work or activity'	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms

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GSSI GLOSSARY

TERM	SECTION	DEFINITION	REFERENCE
	A B C D		
Small scale fisheries	●	<p>(1) Small-scale fisheries are social units with porous boundaries that individual fishers can cross. In fact, fishers can unconsciously or deliberately blur the boundaries between the various fisheries.</p> <p>(2) Small-scale fisheries represent a diverse and dynamic subsector, often characterized by seasonal migration. The precise characteristics of the subsector vary depending on the location; indeed, small-scale fisheries tend to be strongly anchored in local communities, reflecting often historic links to adjacent fishery resources, traditions and values, and supporting social cohesion. For many small-scale fishers and fish workers, fisheries represent a way of life and the subsector embodies a diverse and cultural richness that is of global significance. Many small-scale fishers, fish workers and their communities – including vulnerable and marginalized groups – are directly dependent on access to fishery resources and land. Tenure rights to land in the coastal/waterfront area are critical for ensuring and facilitating access to the fishery, for accessory activities (including processing and marketing), and for housing and other livelihood support. The health of aquatic ecosystems and associated biodiversity are a fundamental basis for their livelihoods and for the subsector's capacity to contribute to overall well-being.</p> <p>(3) These Guidelines recognize the great diversity of small-scale fisheries and that there is no single, agreed definition of the subsector. Accordingly, the Guidelines do not prescribe a standard definition of small-scale fisheries nor do they prescribe how the Guidelines should be applied in a national context. These Guidelines are especially relevant to subsistence small-scale fisheries and vulnerable fisheries people. To ensure transparency and accountability in the application of the Guidelines, it is important to ascertain which activities and operators are considered small-scale, and to identify vulnerable and marginalized groups needing greater attention. This should be undertaken at a regional, subregional or national level and according to the particular context in which they are to be applied. States should ensure that such identification and application are guided by meaningful and substantive participatory, consultative, multilevel and objective-oriented processes so that the voices of both men and women are heard. All parties should support and participate, as appropriate and relevant, in such processes.</p>	<p>1) Wilson, D. C. and Delaney, A.E. (2005) Scientific knowledge and participation in the governance of fisheries in the North Sea. In: Participation in fisheries governance, Gray, T.S. (Ed.). Review: Methods and Technologies in Fish Biology and Fisheries, 4. Springer. Netherlands: 319-341</p> <p>(2) FAO (2014) Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication. Preface</p> <p>(3) (2014) FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries in the Context of Food Security and Poverty Eradication. Paragraph 2.4</p>

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Stakeholder	● ●	An individual or group of individuals, whether at institutional or personal level, who has an interest or claim that has the potential of being impacted by or having an impact on a given activity. This interest or claim can be stated or implied and direct or indirect. Stakeholders and stakeholder groups can be at the household, community, local, regional, national, or international levels.	ISO 26000, Working Draft 3 (Rev), definition 3.17.
Standard	● ●	Document approved by a recognized organization or arrangement, that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory under international trade rules. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method.	WTO (1995) Technical Barriers to Trade agreement, Annex 1,2
Steering Board Liaison	● ●	An appointed member of GSSI's Steering Board assigned to support and monitor the Benchmark Process on behalf of the Steering Board.	GSSI
Sterile	●	Being infertile	FAO Term Portal – Aquaculture (www.fao.org/faoterm/en/)
Stock	●	See Fish Stock	
Stock assessment	●	The process of collecting and analysing biological and statistical information to determine the changes in the abundance of fishery stocks in response to fishing, and, to the extent possible, to predict future trends of stock abundance. Stock assessments are based on resource surveys; knowledge of the habitat requirements, life history, and behaviour of the species; the use of environmental indices to determine impacts on stocks; and catch statistics. Stock assessments are used as a basis to assess and specify the present and probable future condition of a fishery.	FAO Term Portal (fisheries) www.fao.org/faoterm
Stock structure and composition	●	The structure of a particular stock, in terms of its size or age composition or in terms of its species composition (for a multispecies stock) or its separate genetic structure.	Adapted from FAO Term Portal (fisheries) www.fao.org/faoterm
Stock under consideration	●	The “stock under consideration” exploited by the unit of certification may be one or more biological stocks as specified by the stakeholders for certification. The certification applies only to products derived from the “stock under consideration”. In assessing compliance with certification standards, the impacts on the “stock under consideration” of all the fisheries utilizing that “stock under consideration” over its entire area of distribution are to be considered. See also “Unit of Certification”	FAO (2009) Guidelines for the Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries, revision 1

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GSSI GLOSSARY

TERM	SECTION				DEFINITION	REFERENCE
	A	B	C	D		
Subcontracting	●	●			A firm, company or individual carrying out a process on products on the behalf of the site audited and is under contract to do so.	GSSI
Supplier	●	●			An organisation supplying food, feed or a service.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms Page 138
Surveillance	●	●			Follow-up audit(s) to assess compliance with the specific requirements of a scheme's standard and to verify the validity of an issued certificate.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms Page 138
Survival rate			●		Number of fish alive after a specified time interval, divided by the initial number. Usually on a yearly basis or for the rearing period.	FAO Term Portal – Aquaculture (www.fao.org/faoterm/en/)
Suspension	●	●			The process by which a scheme is temporarily not recognised by GSSI.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms Page 138
Systematic non-compliance				●	Fishery regulations and/or controls are being regularly and repeatedly violated to an extent that threatens the effective implementation of the management strategy (see Management Measures). Non-compliance is closely related to the commonly used term illegal, unreported and unregulated (IUU) fishing. See also “Monitoring, surveillance, control and enforcement (effective and suitable)”	FAO International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing. http://www.fao.org/docrep/003/y1224e/y1224e00.htm
Tamper-proof (packaging)	●	●			Made so that one is able to see if anything has been changed, opened, removed, or damaged.	Cambridge dictionaries
Third party	●	●			A person or body that is independent of the organization or person that provides the object of conformity assessment.	(ISO/IEC 17000, 2004, Definition 2.4)
Third party certification			●		Procedure by which an accredited external, independent, certification body which is not involved in standards setting or has any other conflict of interest, analyzes the performance of involved parties, and reports on compliance. This is in contrast to first party certification (by which a single company or stakeholder group develops its own standards, analyzes its own performance, and reports on its compliance and second party certification (by which an industry or trade association or NGO develops standards, analyzes the performance of involved parties, and reports on compliance).	Adapted from the Report of the First Expert Workshop on Aquaculture Certification held in Bangkok, Thailand. March 2007
Traceability	●	●			The ability to follow the movement of a product of fisheries or aquaculture or inputs such as feed and seed, through specified stage(s) of production, processing, transport and distribution. (Adapted for GSSI)	FAO (2011) Technical Guidelines for Aquaculture Certification. Paragraph 12.
Transfer			●		The movement of individuals of a species or population of an aquatic organism from one location to another within its present range.	FAO (1998) Codes of practice and manual of procedures for consideration of introductions and transfers of marine and freshwater organisms

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GSSI GLOSSARY

TERM	SECTION				DEFINITION	REFERENCE
	A	B	C	D		
Transition period for compliance	●	●			A defined period of time by which an organisation shall comply to a series of requirements or standard.	GSSI
Trash fish			●		Small fish species, damaged catch and juvenile fish are sometimes referred to as ‘trash fish’ because of its low market value. Usually part of a (shrimp) trawler’s bycatch. Often it is discarded at sea although an increasing proportion is used as human food or as feed in aquaculture and livestock feed.	FAO Term Portal – Aquaculture (www.fao.org/faoterm/en/)
Unit of certification (Fisheries)				●	<p>The “unit of certification” is the fishery for which ecolabelling certification is sought, as specified by the stakeholders who are seeking certification. The certification could encompass: the whole fishery, where a fishery refers to the activity of one particular gear-type or method leading to the harvest of one or more species; a sub-component of a fishery, for example a national fleet fishing a shared stock; or several fisheries operating on the same resources. The “stock under consideration” exploited by this fishery (unit of certification) may be one or more biological stocks as specified by the stakeholders for certification. The certification applies only to products derived from the “stock under consideration”. In assessing compliance with certification standards, the impacts on the “stock under consideration” of all the fisheries utilizing that “stock under consideration” over its entire area of distribution are to be considered.</p> <p>(2) The “unit of certification” is the fishery for which ecolabelling certification is called for. The certification could encompass: the whole fishery, where a fishery refers to the activity of one particular gear-type or method leading to the harvest of one or more species; a sub-component of a fishery, for example a national fleet fishing a shared stock; or several fisheries operating on the same resources. The certification applies only to products derived from the “stock under consideration” In assessing compliance with certification standards, the impacts on the “stock under consideration” of all the fisheries utilizing that stock or stocks over their entire area of distribution are to be considered.</p>	<p>(1) FAO (2009) Guidelines for the Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries, Revision 1.</p> <p>(2) FAO Term Portal (fisheries) www.fao.org/faoterm</p>
Unit of certification (Aquaculture)				●	The scale or extent of the aquaculture operation(s) assessed and monitored for compliance. The unit of certification could consist of a single farm, production unit or other aquaculture facility. The certification unit could also consist of a group or cluster of farms that should be assessed and monitored collectively.	FAO Technical Guidelines for Aquaculture Certification (2011)
Unscheduled audit	●	●			Audits planned within a defined programme, but without the allocation of a specified programme date.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms
Validation	●	●			An activity to obtain evidence that a requirement is controlled effectively.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms
Verification	●	●			A confirmation, through the review of objective evidence that requirements have been fulfilled.	GFSI (2013) Guidance Document Version 6.3 Part IV: Glossary of Terms

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TERM	SECTION	DEFINITION	REFERENCE
	A B C D		
Veterinarian	●	See Aquatic Animal Health Professional	
Veterinary drugs	●	Definitions of veterinary drugs vary from source-to-source. In this document veterinary drugs as considered to include antimicrobials, antibacterials, therapeutants, antibiotics, and veterinary medicinal products, if misused, can result in food safety implications, including residues, as well environmental implications, such as the spread of resistance to treatments in pathogenic organisms.	GSSI
Water quality criteria	●	Specific levels of water quality desired for identified uses, including drinking, recreation, farming, aquaculture production, propagation of other aquatic life, and agricultural and industrial processes.	FAO Term Portal – Aquaculture (www.fao.org/faoterm/en/)
Wet-fish	●	Unprocessed, uncooked whole or chopped fish. Sometimes referred to as trash fish.	GSSI
Whole fish	●	These are marine feed ingredients (e.g., algae, crustaceans, and fish) harvested specifically for rendering into fishmeal and fish oil (as opposed to those primarily destined for human consumption. The term does not include aquaculture or fishery byproducts.	GSSI
Work program	● ●	A defined series of activities to be carried out within a defined time period.	GSSI

While terms are not limited to a specific section, the color coding indicates in which section the term is used most.



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