
Whole Fish Fishery Assessment Interpretation Document

**IFFO RS GLOBAL STANDARD FOR RESPONSIBLE SUPPLY OF
MARINE INGREDIENTS**



INTRODUCTION

The IFFO RS Global Standard and Certification Programme for the Responsible Supply of Fishmeal and Fish Oil (IFFO RS) assess fishmeal and fish oil against three key pillars: sourcing, traceability and production. Source fisheries are assessed against the IFFO RS standard using an 11-section assessment template, which awards a high, medium or low compliance level under each section.

This document provides guidance for the completion of the sourcing assessment based on Issue 1, Revision 6 (November 2015) of the IFFO Standard for Responsible Supply. Its purpose is threefold:

1. Clarify the requirements of each assessment section.
2. Recommend determinations based on possible fishery circumstances.
3. Improve consistency by listing previous key assessment decisions.

It is important to note that the guidance contained within this document is not binding; final interpretation of the adequacy of a fishery at meeting each clause of the standard, and the approval decision for the fishery as a whole, rests with the certification body and their assessment team.

The fishery management process has as many variations as there are fisheries, and so this document is not intended to cover all eventualities but rather provide advice for fishery assessors under commonly-encountered scenarios. It is intended to remain under development and will be updated as additional fisheries are assessed, and additional scenarios encountered.

Note that the format of this document should not be used as a template for conducting fishery assessments; **assessors should use the fishery assessment template prepared by IFFO RS** for this purpose.

Structure and layout of the Interpretation document

This document is formatted to match the structure of the IFFO RS fishery assessment template. The first half contains information on how to complete the application details, quality of information, conformance level achieved, guidance for on-site assessment, and assessment determination sections. Many of these are self-explanatory and so guidance is minimal.

The main body of the interpretation document provides guidance advice on a section-by-section basis. Each section is broken into three components:

1. Relevant IFFO RS standard clauses (Issue 1, Revision 6)
2. Requirements for high compliance / general guidance / examples of high compliance
3. Recommended information sources

Section Compliance Ratings

Medium compliance ratings issued to a fishery represent a minor discrepancy between the state of the fishery and the ideal situation described in the requirements that will receive a High compliance rating.

A fishery that is issued a low compliance rating when appropriate is where the Certification Body's assessment team considers the discrepancy to the requirements required to gain a high compliance rating to be more severe.

Assessment Requirements

Initial/New Fishery Assessment

Fisheries can undergo three types of assessment under the IFFO RS scheme. Fisheries which have not previously been approved undergo an **initial assessment**. This usually takes up to 10 working days usually over a 3 month period and includes an in-depth examination desk top study of fishery science and management of an applicant's fishery or fisheries.

Annual Surveillance

If approved the fisheries Approval Status lasts for three years; however the fishery must also undergo an **annual surveillance assessment to maintain its approval status**. This usually takes up to 3 working days over one calendar month, and although it still examines the same eleven clauses it is primarily aimed at ensuring there have been no major changes in fishery science or management since the initial approval. Of particular importance in surveillance assessments is section D1, which ensures the level of fishing continues to be set in line with scientific advice.

If at this stage the certification body's assessment team considers that changes in the fishery have occurred, they should re-rate the section affected. If this means that the rating is lower this could result in the approval status of the fishery being revoked. If this situation arises the certification body will contact the applicant and the IFFO RS Peer Review committee to initiate proceedings to suspend the fishery initially until further investigations are completed. If satisfactory information cannot be provided that will result in an upgrading of a compliance rating, the approval status for the fishery to the IFFO RS Standard will be removed and it will then no longer be an approved raw material for the production of IFFO RS compliant fishmeal and fish oil. To regain its approval status the fishery will have to be totally re-assessed and will be considered at this time as a new fishery.

Full Re-assessment

Three years after the initial assessment, the fishery must undergo a full **re-assessment**. This is essentially identical to the initial assessment and is a complete review of all the new scientific evidence and responsible management objectives within the fishery, takes up to 10 working days over a 3 month period, and represents another in-depth examination of fishery science and management. ***To gain a true reflection of the fishery the certification body should utilise a different assessment team to conduct this assessment.***

Fishery Levels of compliance

Fisheries are awarded a level of compliance under each of the eleven sections: high, medium or low.

A fishery scoring **high compliance** under every section will be approved as HIGHLY compliant fishery to the IFFO RS standard.

A fishery scoring **medium compliance** under one or more sections will usually be approved to a **medium compliance** with conditions designed to enhance this fishery to a higher level of compliance.

A fishery with more than one medium in an individual section should not be re-approved without ratification from the IFFO RS Fisheries Peer Review Committee prior to full approval being granted

A fishery scoring with any **low compliance** in any section will not be approved until the reasons for the low compliance have been addressed. A time period of up to 3 months to provide this additional evidence will be allowed from the end of the assessment and if after that period no satisfactory evidence is forthcoming the fishery will be rated as low compliance for approval to the IFFO RS Standard.

Fishery Conditions

Conditions imposed upon a raw material fishery at the initial approval are placed upon the IFFO RS client that wishes to utilise this material to produce IFFO RS compliant fish meal and fish oil. All conditions must be addressed at the time of re-assessment by the production of evidence by the client that they have complied with the condition requirements. Surveillance assessments will not penalise fisheries for not addressing conditions as they will have the full term of the approval to put the necessary measures in place to meet with these conditions. ***At full re-assessment the certification body contracted to do the assessment will pay particular attention to conditions (and any clauses which scored medium compliance without conditions being imposed) to ensure that improvements have been made.***

Where relevant, the certification body's on-site auditors will also enquire about progress made on conditions during the execution of the associated factory audits to the IFFO RS Standard, and feed the information back to the fishery assessment team.

One of the key strengths of the IFFO RS assessment is the ability to place conditions on the approval of fisheries. These requirements are usually instigated at the time of the initial fishery assessment, and must be acted upon by the time of the next re-assessment. In many cases, conditions describe potential improvements to aspects of fishery management which are not sufficiently sub-optimal to deserve a low compliance rating, but which substantially impact the adherence of the fishery to the IFFO RS Standard.

General Fishery Assessment guidance

The certification body Assessment team will provide a brief summary of the assessment under each section under an initial determination, followed by enough information to justify the compliance level being awarded. Information should always be from reliable sources, preferably recognised scientific or governmental organisations or NGOs. References will need to be provided under each clause to show the source of all information used. Where there is information or evidence deficiency, the fishery assessment team will have two options.

- a) Firstly, the client can be approached directly to provide answers or additional evidence.
- b) Secondly, in some cases additional information or evidence can be sought by the on-site auditors during the factory assessment.

If there is sufficient information to award the fishery a medium or high compliance rating under every clause, the fishery should be provisionally approved and ratings updated when the additional

information becomes available. Where information deficiency prevents the assessment of a clause, or leads to an implied rating of low compliance, the fishery should not be approved until additional information is made available to the assessment team.

Whole Fishery Assessment Report Interpretation

1. Application Details and Summary of the Assessment Outcome			
Name:			
Address:			
Country:		Zip:	
Tel. No.		Fax. No.	
Email address:		Applicant Code	
Key Contact:		Title:	
Certification Body Details			
Name of Certification Body:			
Assessor Name:	Peer Reviewer:	Assessment Days: Number of working days for assessment: usually up to 10 for initial or re-certification, up to 3 for surveillance	Initial/Surveillance/Re-approval: See introduction
Assessment Period	Dates between which assessment was carried out		
Scope Details			
1. Scope of Assessment:	IFFO Global Standard for Responsible Supply – Issue 1 V6		
2. Fishery	Common name of species under assessment, including Latin name, and nationality of the applicant organisation		
3. Fishery Location	Marine region where fishery is conducted, e.g. ICES area or national EEZ, FAO area, coordinates		
4. Fishery Method	Fishing gear type(s) under assessment		
Outcome of Assessment			
5. Overall Fishery Compliance Rating	Overall fishery compliance, usually high, medium or low and equivalent to lowest individual clause compliance. If Low Compliance No onsite assessment shall be conducted		
6. Sub Components of Low Compliance	Numbers of sections scoring low compliance, if any		
7. Information deficiency	Level of information deficiency, if any		
8. Peer Review Evaluation	Result of peer review, usually approve or do not approve		
9. Recommendation	Result of assessment, either approve or do not approve		

2. Quality of Information

Estimate of reliability of information and summary of gaps, if any.

3. Compliance Level Achieved

Identical to section 5 in 'Outcome of assessment', above.

Recommendation

Identical to section 9 in 'Outcome of assessment', above.

4. Guidance for On-site Assessment

Based on High Compliance Findings

After a fishery is approved against the responsible sourcing requirements, the other components of the IFFO RS standard are assessed. This process includes site visits to processing plants, and offers an opportunity to check any components of the sourcing assessment which received a high compliance rating but for which more evidence is required. For example:

- Ensure that all landings are monitored by government officials
- Ensure that all by-catch is monitored
- Ensure that vessel details, species details, weights, etc. are recorded at landing

This section is for ensuring compliance with the clauses within the sourcing assessment only, and should not be used for any other purpose (such as chain-of-custody or processing, which are covered by the other components of the scheme).

Based on Medium Compliance Findings

As above, but for sections which received a medium compliance rating.

Based on Low Compliance Findings

As above, but for sections which receive a low compliance rating.

Key Stakeholders of the Fishery

Make a list of all the key institutes that will have an impact on the fishery, e.g. Marine Institutes, Government enforcement departments, fish meal associations etc.

5. Assessment Determination

Brief summary of the findings of the assessment. Include a statement on each of fishery management infrastructure, stock assessment, research, control and enforcement, and adherence to the precautionary approach. Include additional detail on any sections under which the fishery scored medium or low compliance. Also include any conditions which are being placed on the fishery.

HIGH COMPLIANCE

List the section numbers under which the fishery was awarded high compliance.

MEDIUM COMPLIANCE

List the section numbers under which the fishery was awarded medium compliance.

LOW COMPLIANCE

List the section numbers under which the fishery was awarded low compliance.

SUMMARY OF LEVEL OF COMPLIANCE

	The Management Framework and Procedures	Stock assessment procedures and management advice	Precautionary approach	Management measures	Implementation
Legal and administrative basis	A1				
Fisheries management should be concerned with the whole stock unit	A2				
Management actions should be scientifically based	A3				
Research in support of fisheries conservation and management should exist		B1			
Best scientific evidence available should be taken into account when designing conservation and management measures		B2			
The precautionary approach is applied in the formulation of management plans			C1		
The level of fishing permitted should be set according to management advice given by research organisations				D1	
Where excess fishing capacity exist, mechanisms should be established to reduced capacity				D2	
Management measures should ensure that fishing gear and fishing practices do not have a significant impact on non-target species and the physical environment				D3	
A framework for sanctions of violation of laws and regulations should exist					E1
A management system for fisheries control and enforcement should be established t					E2

KEY: Low Compliance  Medium Compliance  High Compliance: 

6. Section-by-section Interpretation guidance

a. The Management Framework and Procedure

a.i. The management of the fishery must include a legal and administrative basis for the implementation of measures and controls to support the conservation of the fishery.

Relevant IFFO RS clauses

1.3.1.1 There must be objectives that promote the long-term conservation and sustainable use of fishery resources and ecosystem.

1.3.1.2 Fishery management actions must be based on the long-term conservation of the fishery and ecosystem

1.3.1.4 The management of the fishery must include a legal and administrative basis for the implementation of measures and controls to support the conservation of the fishery.

1.3.1.5 Management procedures and outcomes must be transparent and publically available.

1.3.2.4 Representation must, where applicable, include both governmental and non-governmental organisations, concerned with fisheries conservation and management.

1.3.4.4 The fishery must not engage in dynamiting, poisoning, and other comparable destructive fishing practices.

1.3.4.5 Management must ensure that all vessels under its responsibility including foreign vessels flying their flag are authorised and included in management measures of the fishery

Corresponding FAO Code of Conduct for Responsible Fisheries Clauses

7.1.1;7.1.2;7.1.3;7.1.4;7.1.9;7.3.1;7.3.2;7.3.4;7.4.1;7.6.8;7.7.1;8.4.2

High compliance

For a high compliance clear evidence to identify the key organisations involved in the management and administration of the fishery shall be publically available. This should usually include the government department(s) responsible for law- and decision-making; the government department(s) or other organisation(s) responsible for control and enforcement; and the government department(s) or other organisation(s) responsible for research and stock assessment. Assessors should also identify, where possible, the key legal instrument(s) used by these organisations as a basis for fishery management; for example:

- In Iceland, the Fisheries Management Act 1996
- In the USA, The Magnuson Stevens Fishery Conservation and Management Act (FCMA) 1976

In some cases there may not be a single over-arching legal instrument and so this is not an absolute requirement.

Where there is sufficient information available publically to conduct the IFFO RS assessment without resorting to requests for additional information, assessors should consider this evidence that the management process is adequately transparent for the purposes of this clause. Assessors should ensure that the management system includes mechanisms for the engagement and involvement of relevant non-governmental organisations, such as fishing industry representatives or environmental NGOs.

Medium compliance

Medium compliance will be awarded if there is significant evidence to suggest the management regime is ineffective, that non-governmental organisations are excluded from the management process, or that there are any other issues which might limit the responsible management of the fishery.

Low compliance

Low compliance would usually reflect such a significant lack of management infrastructure that such fisheries would be unlikely to apply for IFFO RS approval; however, assessors should remain aware of the possibility. The total lack of a management regime may also indicate that the fishery is illegal, unreported, or unregulated (IUU). A key objective of the assessment is to ensure that IUU fisheries are NOT used to make IFFO RS compliant Fishmeal and Fish Oil

Reference Information sources

Primarily the national governmental websites of the country prosecuting the fishery. The majority of national governments have a Ministry which covers fisheries, either independently or as part of a broader environmental or economic portfolio.

a.ii. Fisheries management should be concerned with the whole stock unit over its entire area of distribution and take into account fishery removals and the biology of the species

Relevant IFFO RS clauses

1.3.1.3 Management must be concerned with the whole stock over its entire distribution and consider all fishery removals and the biology of the species.

1.3.2.2 The conservation and management measures of the fishery must be based on the best scientific information available, concerned with the entire stock, its life-cycle characteristics and geographic distribution.

1.3.2.3 Where there is more than one stock management system (e.g. where stocks are distributed across trans-boundaries), there must be sufficient interaction between relevant domestic and international parties to promote compatibility of management objectives for the conservation and sustainable utilisation of the fishery resource.

Corresponding FAO Code of Conduct for Responsible Fisheries Clauses

7.1.3;7.1.4;7.1.9;7.3.1;7.3.2;7.3.4;7.4.1;7.6.8;7.7.1

High compliance

For a high compliance the stock geographical definition of the fishery matches the best available scientific understanding of the biological stock.

If the biological stock is fished by more than one country, there must be effective international cooperation for its management. This includes consideration of the fishery removals described below by *all participating nations*.

All removals of the species under assessment are considered by management / factored into stock assessments, including targeted catch, landings as by-catch, and discards. If by-catch and/or discards have been estimated as minimal by a scientific organisation then this is acceptable for the purposes of this clause.

Assessors should also consider any other relevant scientific information about the species under assessment.

Medium compliance

Although not an exhaustive list, medium compliance rating is given where:

- The current management unit does not match the best available scientific understanding of the stock. Assessors should also consider the potential extent to which the discrepancy might prevent the responsible management of the fishery – in particularly severe cases a low compliance rating may be most appropriate.
- Stock assessments and/or the broader management process do not consider all fishery removals. Fishery removals include targeted and non-targeted fishing (i.e. as by-catch in another fishery), discards/slippage, and any other significant causes of non-natural mortality.
- The biological stock is subject to multiple, independently-managed fisheries. Where stocks are subject to exploitation by more than one state, or by more than one fishery within an individual state; assessors should consider whether management of the fisheries is sufficiently integrated to enable responsible management.
- Relevant biological characteristics of the stock are not considered during the management process. Examples of such characteristics include reproductive rate, speed of maturation, preferred habitat, migratory tendencies and other behaviour.

Low compliance

Although not an exhaustive list, assessors should consider awarding low compliance:

- Under any of the circumstances described in the 'medium compliance' section, if the assessor considers the situation to entirely prevent the responsible management of the fishery.
- If there has been a significant discrepancy between the scientific understanding of the population and the management of the stock which has lasted for an unacceptable length of time.

Reference Information sources

The administrative definition of the stock is usually provided by the IFFO RS client prior to assessment, but can also be found (often along with maps) on government websites, particularly within fishery management plans for the stock. Information on the biological understanding of the stock can be more difficult to find. For ICES-assessed fisheries, consideration of the biology of the species forms a component of the assessment process and such information is usually available in ICES reports; this may also be true for other regional scientific organisations. Other potential information sources include primary scientific literature, and NGOs such as [FishSource](#).

a.iii .Management actions should be based on long-term conservation objectives

Relevant IFFO RS clauses

1.3.1.1 There must be objectives that promote the long-term conservation and sustainable use of fishery resources and ecosystem.

1.3.1.2 Fishery management actions must be based on the long-term conservation of the fishery and ecosystem.

Corresponding FAO Code of Conduct for Responsible Fisheries Clauses

7.1.1;7.2.1;7.4.1;7.6.7;7.6.8;8.4.2

High compliance

To attain high compliance in this clause requires the necessity to have long-term management goals defined. These can take many forms, including but not limited to:

- A commitment to maintain biomass above a specified reference point (which has been demonstrated to be appropriate by a scientific organisation).
- A commitment to a multi-year or rolling management plan which has either been judged by a scientific organisation as precautionary, or is considered by the certification body's assessment team to be precautionary.

Generalized management objectives, i.e. those which are applied across multiple fisheries and are not stock-specific, should be considered and may lead to a higher compliance level than would be achieved by stock-specific objectives alone. However, a fishery cannot score high compliance under this section with generalized objectives alone, and will always need some form of stock-specific objectives in place or under development to avoid low compliance.

Medium compliance

Although not an exhaustive list, medium compliance rating can be considered where:

- The fishery is managed according to objectives which are short-term only, or are not supported by robust science, or are otherwise determined by the certification body's assessment team to be ineffective in ensuring the long-term sustainability of the fishery, but are under review and/or development. The assessment may also wish to award a medium compliance rating (rather than low) if such objectives are ineffective due to a lack of scientific understanding of the stock, but should be aware that this is likely to reduce the compliance rating of the fishery under section B1 of the assessment.
- The fishery has established reference points which are used in the stock assessment process and therefore inform the level of fishing permitted, but these reference points are not formally used as management objectives.
- The fishery is managed according to long-term objectives which are not fully monitored and/or are sometimes treated as secondary to other (e.g. economic) aims.

Low compliance

Although not an exhaustive list, a low compliance rating will be issued where:

- There are no defined stock-specific management objectives, reference points, or any other performance indicators against which the long-term effectiveness of fishery management can be measured.
- There is substantial evidence that management actions are not carried out with the long-term objectives or management plan as the primary driver, for example, if the fishery is not closed when biomass falls below the limit reference point.

Reference Information sources

Primarily fishery management plans but also government websites.

b. Stock Assessment Procedures and Management Advice

bi. Research in support of fisheries conservation and management should exist.

Relevant IFFO RS clauses

1.3.2.1 There must be scientific information available on the characteristics of the fishery relevant to the long term conservation of the fishery and ecosystem, including: its geographic distribution, stock assessment of target species and where applicable, impact on non-target species.

1.3.2.3 Where there is more than one stock management system (e.g. where stocks are distributed across trans- boundaries), there must be sufficient interaction between relevant domestic and international parties to promote compatibility of management objectives for the conservation and sustainable utilisation of the fishery resource.

1.3.2.4 Representation must, where applicable include both governmental and non-governmental organisations, concerned with fisheries conservation and management.

Corresponding FAO Code of Conduct for Responsible Fisheries Clauses

7.1.9;7.2.1;7.4.2;7.4.4;7.4.6;7.4.7;8.4.3

High compliance

To attain a high compliance the assessment team should be able to determine whether the research conducted on the fishery stock is effective and informed to correctly manage the fishery. Usually the research will take three forms:

- fishery dependent (data collected by on-board observers, landings data, discard and by catch data),
- fishery independent (trawl, hydro-acoustic and other surveys), and
- 'tertiary' (other research, not necessarily directly fishery related, which contributes to the understanding of the biology and ecology of the target species and associated organisms).

Of these the first two are essential and the assessment team will only consider a medium compliance level to any fishery completely lacking one of either fishery dependent or independent research. Where both are present, assessors should determine the extent to which they are suitable for the responsible management of the stock.

Tertiary research is not consider to be essential for high compliance rating under this section, but it can affect an assessment determination if the non-fishery understanding of the stock is particularly good or poor.

Note that this section does not aim to assess the extent to which research is actually applied in the management process (which is covered in sections B2 and D1), but is **only concerned** with the amount and adequacy of research conducted.

Medium compliance

For a medium compliance rating there is scientific research conducted on the fishery, but it is insufficient to enable the responsible management of the fishery such as it does not have fishery dependent or independent data collection. If the scientific research does not have both then a low compliance rating should be considered.

A medium compliance rating may also be appropriate if on determination there is a significant lack of

understanding of the effects of the fishery on the broader ecosystem, the physical environment, or non-target species. Finally, a medium compliance rating may also be appropriate if there is a lack of clarity in the stock assessment process, or any other aspect of the study of the stock, or if the results of these are not in the public domain.

Low compliance

To attain a low compliance rating the research conducted in support of fishery management is found to be extremely limited or non-existent. Additionally, a low compliance rating may be appropriate if the research conducted is considered by the assessment team to be flawed or unreliable, or in any other way prevents the informed management of the fishery.

Reference Information sources

Stock assessments almost invariably contain information about the data sources used to produce their recommendations. In fisheries where no stock assessment is carried out, assessors should turn to management organisations for information about the methodology for management decision-making.

b.ii Best scientific evidence available should be taken into account when designing conservation and management measures

Relevant clauses

1.3.2.2 The conservation and management measures of the fishery must be based on the best scientific information available, concerned with the entire stock, its life-cycle characteristics and geographic distribution.

1.3.2.4 Representation must, where applicable include both governmental and non-governmental organisations, concerned with fisheries conservation and management.

Corresponding FAO Code of Conduct for Responsible Fisheries Clauses

7.2.1;7.4.1;7.6.7

High compliance

To attain a high compliance rating the management measures must be based on the best available scientific understanding and knowledge of the stock, excluding the total fishing effort permitted (i.e. annual quotas), which is assessed under section D1. The assessment team will determine the extent to which the management measures in place are based on scientific advice. The stock's fishery management must be firmly backed up by the scientific data, and the stock assessments should form the foundation for all these management decisions. Highly compliant fisheries may also have processes in place to scientifically assess the efficacy of management measures and to adjust or remove them as appropriate.

The assessment team will also determine whether there are any scientific recommendations which have not been adopted, e.g. closed fishing seasons or fishing locations, increased mesh sizes, fleet capacity reductions etc.. If these recommendations are not stated for immediate implementation the high compliance can be maintained. However, if the advice states "in the immediate future", failing to rapidly implement such recommendations will result in the fishery scoring medium compliance in this section, or low compliance if such failures are endemic.

In fisheries where scientific understanding of the stock is limited, a highly precautionary approach, as judged by either an independent scientific organization or its principles may still allow a fishery to meet the requirements

for a high compliance rating. However, it should be note that such a fishery will almost certainly only gain a medium compliance rating or even a low compliance rating under section B1.

Medium compliance

To attain a medium compliance rating the fishery management measures are regularly implemented without significant scientific justification, due to there being a substantial time period between scientific advice and the adoption of new measures, or if scientific understanding of the stock is limited and no documented precautionary measures are in place.

Low compliance

To gain a low compliance rating there will be clear evidence that fishery managers have repeatedly ignored scientific advice when setting measures to manage the stock, or if there is clear evidence that by neglecting to follow the scientific advice this has had a serious detrimental effect on the stock.

Reference Information sources

Stock assessments and fishery management plans. Management measures can also be obtained from government or enforcement agency websites.

c. The Precautionary Approach

c.i The precautionary approach is applied in the formulation of management plans.

Relevant IFFO RS clauses

1.3.3.1 The fisheries management framework must apply a precautionary approach to the conservation of the target fishery resource, associated non target species and for the conservation of the wider eco-system.

1.3.3.2 Suitable or proxy target and limit reference points must be set and take into account uncertainties relating to size and productivity of the stocks, unknown fishing mortality and the impact of fishing on the environment.

1.3.3.3 Precautionary measures must consider (where relevant), discards, dependent species, habitats, communities and threatened, endangered and protected species.

Corresponding FAO Code of Conduct for Responsible Fisheries Clauses

7.5.1;7.5.2;7.5.3;7.5.4;7.5.5;7.6.1;7.6.4;7.6.9;8.7

High compliance

The precautionary approach has two key pillars. ***Firstly, a lack of scientific information should not be used as an excuse for not taking action. Secondly, management actions and measures should take into account uncertainty, and the level of scientific understanding available.*** The assessment team will consider both of these pillars as they apply to the target stock, but also to the broader fishery management process as it applies to non-target species, ecosystems, habitats, and the other aspects listed in the relevant clauses of the standard.

To attain a high compliance rating a determination to the extent to which the precautionary approach is ingrained within the management systems and approach of the fishery under assessment, and also the extent to

which it is actually applied by fishery managers. Management systems ostensibly based on the precautionary approach should be awarded medium or low compliance if the assessment team discovers that there are significant gaps between theory and what is actually happening in practice.

Medium compliance

For a medium compliance rating to be given there will be a discrepancy between the management of the fishery and the highly precautionary approach as described in the “high compliance” section above – for example, if quota-setting follows the scientific advice but does **not close** the fishery when SSB falls below B_{pa}

Low compliance

To award a low compliance rating the two main components of the precautionary approach, described in the ‘high compliance’ section, will have been ignored in the management of the fishery. This includes a lack of scientific information being used as justification for not implementing a management regime on the fishery, and not considering the level of scientific uncertainty when developing management actions. In general, fisheries which are managed using a partially-implemented precautionary approach should be awarded medium compliance, as described above; a low compliance rating should only be awarded when there is evidence that management is being carried out in **direct opposition** to the precautionary approach.

Reference Information sources

Primarily government websites and fishery management plans, although assessing this clause does often require the synthesis of information obtained throughout the rest of the assessment process. In some cases fishery management plans are assessed for compliance to the precautionary approach by independent scientific organisations, particularly in the case of fisheries managed based on ICES advice.

d. Management Measures

d.i The level of fishing permitted should be set according to management advice given by research organisations.

Relevant IFFO RS clauses

1.3.4.1 The level of fishing permitted must be set according to the scientific information and where available, the recommendation from an officially recognised body.

Corresponding FAO Code of Conduct for Responsible Fisheries Clauses

7.1.2;7.1.6;7.6.1;7.6.9

High compliance

Assessment is by a direct comparison of scientific advice against the published fishing quota. The enforcement is covered in section E2, the assessment team will also consider final landings data and compare this to the initial scientific advice. In an initial assessment, the assessment will consider all historical data, but can award a high compliance rating providing that;

- a) quotas in recent years have been set according to scientific advice
- b) recorded landings have not significantly (5%+) exceeded quotas

In surveillance assessments, this section should be rated in accordance with the compliance of quotas set since the initial assessment; in simple terms a fishery rated as medium compliance in the initial assessment can be

upgraded to highly compliant if the quota(s) set in the intervening years reflect the scientific advice.

Any fishery where quotas or landings exceed the scientific recommendations by more than 5%, in one or more recent years may be awarded a medium compliance rating if there are mitigating factors as described in the section below. However, in fisheries where the assessment team determines that high quotas in excess of the scientific advice are a consistent issue, a low compliance rating should be awarded.

Some Mitigating Factors

Note that all advice in this section is subject to the interpretation of all available evidence. Some states issue small quotas for scientific research purposes even when the advice is for fishery closure. Fisheries with quotas which have historically been significantly above advice may achieve medium compliance if there is a long-term plan under implementation which is making significant reductions in landings each season. The final determination is the decision of the assessment team and the guidance above is not binding.

Medium compliance

In general, assuming the required information is available; determining whether or not the level of fishing is set according to the scientific advice is a direct matter of comparing the Scientific advice to the TAC (or other effort-limiting management mechanism). However, where the recent level of fishing permitted is set significantly (5%+) above the advice, the following mitigating factors may lead the assessment team to consider a medium compliance rating to be most appropriate:

- The advice was to close the fishery, but a limited fishery was permitted for research purposes.
- The scientific advice has been exceeded but is higher than 5% but is less than 10%, and only occasionally (i.e. the level of fishing is not consistently set above the advice).
- The original scientific advice is not publically available, but other evidence leads the assessment team to conclude that the level of fishing is still deemed to be responsible.

The assessment team will also consider awarding a medium compliance rating if the level of fishing is set in line with scientific advice, but that advice is not provided by an officially recognised body. Finally, if there is significant reason to believe that the level of fishing permitted may be set in excess of the advice in future years, the assessment team may consider a medium compliance rating more appropriate, and should include a note to the surveillance assessment team to this end.

Low compliance

Low compliance will be awarded to any fishery where the level of fishing is either set significantly above the scientific advice in the most recent year, or consistently set somewhat above the scientific advice, with no mitigating factors. The assessment team will also consider awarding low compliance if the total actual landings and/or fishery removals are significantly or consistently above the scientific advice.

Reference Information sources

Assessors should obtain quota and landings data for recent years as a minimum. Scientific advice should be produced independently of the quota-setting organisation, and assessors may wish to award a reduced compliance level to fisheries where this is not the case, or where the initial scientific advice is not available.

d.ii Where excess fishing capacity exists, mechanisms should be established to reduce capacity to allow for the recovery of the stock to sustainable levels.

Relevant IFFO RS clauses

1.3.4.2 There must be adequate control on excess fishing capacity to ensure that it does not prevent the recovery of stocks that are outside of safe biological limits.

Corresponding FAO Code of Conduct for Responsible Fisheries Clauses

7.1.8;7.2.2;7.4.3;7.6.1;7.6.2;7.6.3,7.6.10;8.2.1

High compliance

The assessment team will determine the mechanisms in place to reduce excess fishing capacity within the fishery. Note that fisheries where there is no excess capacity will be rated as highly compliant under this clause, but the assessment team will need to ensure that fishing fleet capacity is monitored and that fishery managers have mechanisms in place in other fisheries they control which demonstrate their ability to restrict capacity if deemed necessary.

The use of effectively enforced scientifically-based quotas will be an acceptable mechanism for the control of excess capacity, but the assessment team may consider a medium compliance rating appropriate if there is no evidence to support the ability of the fisheries managers to control the size of the fleet. Licensing or rationalisation schemes will also similarly be acceptable provided the assessment team determines they are effective at maintaining fishing effort at sustainable levels.

Medium compliance

For a fishery to gain a medium compliance in this clause the assessment team will consider the following, although not an exhaustive list, where:

- There is currently and historically no excess capacity, but there is no specific mechanism in place should excess capacity occur in the future. Under these circumstances, if capacity-reducing mechanisms are in place in other fisheries within the same state the assessment team will award high compliance.
- There are no mechanisms in place specifically designed to reduce fishing capacity, but effective, scientifically-based mechanisms are in place to restrict the amount of effort exerted on the stock.

Low compliance

The assessment team will consider awarding a low compliance rating where there is clear excess fishing capacity and no mechanism in place to reduce or restrain it. Note that effort-limiting technical measures such as TACs, when effective, are considered appropriate mechanisms for this purpose, and thus a low compliance rating will rarely be appropriate for any fisheries with functioning, scientifically-based restrictions on the level of fishing permitted.

Reference Information sources

Government websites usually have information available to fishermen describing the schemes in place for capacity reduction. Information on quotas and other effort restrictions should already have been obtained by assessors under sections D1 and B2.

d.iii Management measures should ensure that fishing gear and fishing practices do not have a significant impact on non-target species and the physical environment.

Relevant IFFO RS clauses

1.3.4.3 Management measures must ensure that fishing gear and fishing practices do not have a significant impact on non-target species and the physical environment.

1.3.4.4 The fishery must not engage in dynamiting, poisoning and other comparable destructive fishing practices.

Corresponding FAO Code of Conduct for Responsible Fisheries Clauses

7.2.2;7.2.3;7.4.4;7.6.4;7.6.9;8.2.4;8.4.1;8.4.2;8.4.6;8.4.7;8.4.8;8.5.1;8.5.2

High compliance

The assessment team will need to consider the extent to which fishery science and management considers and effectively minimises the effects of the fishery under the following categories:

- Non-target species, including by catch and ghost fishing.
- Protected, endangered and threatened (PET) species, including but not limited to marine mammals, turtles, and seabirds.
- Ecosystems, particularly when the species under assessment occupies a low trophic level (e.g. sand eel, sprat).
- Physical environment, including benthic organisms such as coral and sponges.

The assessment will award high compliance under this section only when they have considered the fishery science and management measures to adequately minimise the negative impacts of the fishery under all of these categories. A fishery which is determined to have a minor impact under any one of these categories, or for which there is not enough information available to reach a firm conclusion, will be awarded medium compliance. Where a fishery has significant impacts in multiple categories, or where management measures or fishery activities are having serious negative impacts on non-target species or the physical environment, the assessment team will consider awarding a low compliance rating.

Although the stock under assessment is defined by, amongst other factors, the fishing gears used by the fishery, the assessment team should ensure that highly destructive fishing practices such as those stated in the IFFO RS clause 1.3.4.4 have been banned..

Medium compliance

As noted in the “high compliance” section the assessment team will consider awarding a medium compliance rating if the fishery has a minor impact in only one of the listed categories, or if there is insufficient information available for the assessment team to come to a firm conclusion about the level of impact the fishery has.

Low compliance

The assessment team will award a low compliance rating when the fishery has significant impacts in more than one of the categories listed in the ‘high compliance’ section, or where the fishery has a serious negative impact in any single category. Potential serious impacts include:

- Regular or substantial by catch of PET species.

- Regular or substantial by catch of a species which is considered over-exploited to the extent that the targeted fishery is closed.
- Disruption of the broader ecosystem to the extent of significantly impacting the population of other species.
- Consistent, un-ameliorated damage to the physical environment.

Reference Information sources

Utilise a combination of fishery management plans, stock assessments, and external scientific research into gear, ecosystem and non-target species impacts of the fishery. Generalised scientific evidence may be used to illustrate the impacts (or lack of impacts) of gear types or fishing methods.

e. Implementation

e.i There should be a framework for sanctions of violation of Laws and regulations.

Relevant clauses

1.3.4.6 There must be a management system for fisheries control and enforcement

1.3.4.7 There must be laws and regulations that provide for sanctions in respect to their violation, (for example where vessels engage in illegal, unregulated and unreported fishing activity).

Corresponding FAO Code of Conduct for Responsible Fisheries Clauses

7.1.7;7.7.2;7.7.1;8.1.9;8.2.7

High compliance

The assessment team will ensure that where fishing regulations are broken, sanctions of appropriately effective scale are invoked by the state or states controlling the fishery. The assessment team will list all the key laws and sanctions deemed to be a violation, and where possible provide examples of cases where the punishment on offending vessels has been executed.

Medium compliance

The assessment team will consider awarding a medium compliance rating if there are sanctions in place but there is evidence that they are ineffective, or if there is any other evidence that they do not act as a deterrent.

Low compliance

The assessment team will award a low compliance rating when there is no evidence of any sanctions for violations of laws and regulations in place in the fishery.

Reference Information sources

Many government ministry websites include summaries of convictions and associated punishments.

e.ii A management system for fisheries control and enforcement should be established.

Relevant clauses

1.3.4.5 Management must ensure that all vessels under its responsibility including foreign vessels flying their flag are authorised and included in management measures of the fishery.

1.3.4.6 There must be a management system for fisheries control and enforcement.

1.3.4.8 There must be evidence of effective fisheries management and control.

Corresponding FAO Code of Conduct for Responsible Fisheries Clause

7.1.7;7.1.10;7.6.2;7.7.1;7.7.3;8.1.1;8.1.4;8.2.1;8.2.2;8.2.3;8.3.1;8.4.3

High compliance

The assessment team will determine the effectiveness of the state organisation responsible for fishery control and enforcement, and the actions taken by that organisation. These will include, but are not limited to,

- a) dockside monitoring,
- b) boarding vessels,
- c) on-board observers,
- d) video or GPS vessel monitoring, and
- e) vessel licensing.

The assessment team will determine the extent to which these measures are effective, looking in particular for any reports illustrating examples of failed enforcement. Additional evidence for this section can be obtained by on-site assessors, for example ensuring that all landings are monitored or that vessel locations are recorded.

Medium compliance

The assessment team will consider awarding a medium compliance rating if there is evidence that enforcement measures are ineffective or insufficient, or if the assessment team believes that the level of funding, training, equipment or staffing of the enforcement agency significantly restricts its ability to enforce laws and regulations.

Low compliance

The assessment will award a rating of low compliance if there is no enforcement of laws and regulations, or if there is significant evidence that the enforcement in place is completely ineffective or inadequate.

Reference Information sources

Many enforcement organisations, often national coastguards or navy, have their own website. News websites can be used to check for examples of failed enforcement.

ALL REFERENCES To be documented

Information provided throughout the assessment should be from reliable sources, such as official government websites, internationally-recognised scientific organisations, and NGOs. The reference will include the author, the title of the report, the page number and a hyperlink to the internet source (If applicable).