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# Whole Fish Fishery Assessment Data Gathering Guidance Document

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IFFO RS STANDARD FOR MARINE INGREDIENTS

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## INTRODUCTION

The IFFO RS Global Standard and Certification Programme for the Responsible Supply of Marine Ingredients (IFFO RS) assess fishmeal and fish oil and other marine ingredients 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 2014) of the IFFO Standard for Responsible Supply. Its purpose is threefold clarify the requirements of each assessment section.

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.

Note that the format of this document should not be used as a template for conducting fishery assessments but as guidance for applicants and current certificate holders to obtain all the relevant and most accurate information the fisheries assessment team will require to conduct the assessment.

### Structure and layout of the Interpretation document

This document is formatted to match the structure of the IFFO RS fishery assessment template.

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

### 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.

## **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.

## **Fishery Conditions**

*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**

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. In case the assessment team encounters information or evidence deficiency, the fishery assessment team will:

- a) Firstly, approach the applicant requesting 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.

## **Useful evidence to be submitted:**

- Stock assessment outputs, including catch data, biomass estimates, TAC recommendations, diagrams and tables, etc.
- Main fisheries legislation
- Comparisons of total fishery removals against sustainable fishery removals, reference points, or any other indicator used to ensure the level of fishing is sustainable.
- Stock-specific or other fishery management plan.

## **Tip!**

If an IFFO RS fishery assessment has been produced for the desired fishery, then look for the references used in the previous reports that can be found on the IFFO RS website.

## 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

#### Key Questions

What is the authority responsible for the management of the fishery? Describe the structure and function of the authority

Are there additional authorities or agencies involved in the fishery management structure?

What are the major legal instruments and regulations under which this authority and fishery operates?

What organisation(s) is responsible for fisheries research? Describe the structure and function of the organisation.

#### Quality of information

There should be clear evidence to identify the key organisations involved in the management and administration. 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. The key legal instrument(s) used by these organisations as a basis for fishery management should be identified; 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.

#### 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.

#### **Key Questions**

Define the fishery management unit(s) by geographic location, season and gear type. How does this compare to the scientifically-understood stock unit?

Is the same stock also fished by other states? If so, describe the level of scientific and managerial cooperation which occurs, and describe any other country or international body in place to coordinate such efforts.

#### **Quality of information**

The stock geographical definition of the fishery should match 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.

Any other relevant scientific information or biological characteristics about the species under assessment. Examples of such characteristics include reproductive rate, speed of maturation, preferred habitat, migratory tendencies and other behaviour.

#### **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.

**Key Questions**

Is there a stock-specific management plan in place for the fishery? If not, what are the long-term objectives of fishery managers, and where are they set out?

**Quality of information**

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

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.

**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.

### Key Questions

Are regular stock assessments conducted? If so, how often? Is the most recent stock assessment available?

Detail all fishery-dependent data collection, monitoring and research conducted on the fishery, including monitoring of landings; information collected by fishers; biological information collected by port or at-sea sampling programmes.

Detail all fishery-independent data collection, monitoring and research conducted on the fishery, including species-specific surveys; ecosystem surveys; at sea scientific observation and other academic studies on the fishery or associated species.

### Quality of information

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).

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.

### 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.

#### **Key Questions**

How are the outputs of the research organisation(s) incorporated into management decisions?

Is there a legal requirement or defined policy for how scientific recommendations should be adopted by management?

What restrictions are in place to limit the total amount of fish caught? This can include TAC; seasonal and geographic restrictions; total time-at-sea restrictions; gear restrictions; other effort restrictions.

How is/was the sustainable level of fishing determined?

What measures are in place to ensure the total fishery removals do not exceed a sustainable level, and what measures are applied if this occurs?

#### **Quality of information**

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 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 be looking for 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.

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.

#### **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.

### Key Questions

To what extent is the precautionary approach applied in the management of this fishery, and in the management of fisheries in the country in general?

Is the precautionary approach outlined in policy or a legal document?

Is the precautionary approach applied to other aspects of uncertainty such as by-catch in the fishery or effects on habitat and wider ecosystem?

### Quality of information

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.

### 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.

### Key Questions

Are regular stock assessments conducted? If so, how often? Is the most recent stock assessment available? (same as B1)

What restrictions are in place to limit the total amount of fish caught? This can include TAC; seasonal and geographic restrictions; total time-at-sea restrictions; gear restrictions; other effort restrictions. (same as B2)

How is/was the sustainable level of fishing determined? (Same as B2)

What measures are in place to ensure the total fishery removals do not exceed a sustainable level, and what measures are applied if this occurs? (Same as B2)

### Quality of information

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.

### 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.

### 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.

**Key Questions**

How is total fishing effort and capacity measured, and are any measures in place to reduce total capacity in overcapacity fisheries? Provide an overview of how effort is quantified and how many vessels are active (inactive) in the fishery?

**Quality of information**

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. In case there are no mechanisms in place specifically designed to reduce fishing capacity, then effective scientifically-based mechanisms in place to restrict the amount of effort exerted on the stock

**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.

### **Key Questions**

What measures, if any, are in place to minimise the amount of bycatch in the fishery? Provide details of bycatches such as monitoring programmes and the quantities of bycatches by species and areas.

Are there other retained species that are caught at the same time as the target species? Provide the same details of these.

What measures, if any, are in place to minimise the effects of the fishery on the ecosystem?

What measures, if any, are in place to minimise the effects of the fishery on the physical environment?

Is there a potential for the fishery to affect ETP species, and if so what measures are in place to monitor and minimise these effects?

### **Quality of information**

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.

### **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).

### Key Questions

What sanctions are applied to those who break fishery laws?

What organisation applies these sanctions? Describe the scale, functions and effectiveness of the organisation(s).

### Quality of information

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. 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.

### 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.

### Key Questions

What organisation applies these sanctions? Describe the scale, functions and effectiveness of the organisation(s).

What organisation(s) monitor compliance? Describe the scale, functions and effectiveness of the organisation(s). Summaries published by enforcement agencies of the number of inspections/vessel boarding's/and number and type of violations occurring each year are useful.

### Quality of information

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.

#### **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).