

ASC Responsible Feed Project

White paper – Marine Ingredients

Author: Duncan Leadbitter, June 2014

Within the ASC Responsible Feed Project several Technical Working Groups (TWGs) will focus on what “responsible” should mean for their areas of expertise.

These TWGs address the main aqua feed ingredients groups: 1) marine ingredients, 2) terrestrial plant ingredients, 3) terrestrial animal ingredients, 4) micro ingredients and one working group on 5) feed mill requirements and supply chain.

As a starting point for the group discussions on what “responsible” should mean, a number of White Papers are drafted (one per TWG). These papers will present an overview of the current environmental and social issues per ingredient group, as well as proposed steps forwards and points of attention. The reason for the development of these papers is to make sure that all members of the relevant TWG have the same starting information. Depending on their stakeholder background and/or expertise, members analyses of, and additions to this information are expected.

The key role of the TWGs is to develop draft criteria and indicators for the Feed Standard based on the starting point of these WP’s.

Please keep in mind that the points addressed in the WPs should start the discussion, not define its boundaries.

Table of contents

Each White paper is constructed according to the Terms Of Reference, as agreed upon by the Steering committee during the meeting of 24th January 2014.

- **Introduction**
- **Scope**
- **What is the rationale for the Feed Standard establishing requirements for this area – for raw materials and processing plants, what are the environmental and social issues that need to be addressed?**
- **What existing mechanisms are in place to make judgments about the suitability of an ingredient? How well do these meet the aspirations and requirements of the ASC?**

- **What is the cost of meeting the available standards to the certificate holder and other entities in the supply chain? How can these costs be managed to acceptable levels?**
 - **What mechanisms are in place to handle potential suppliers who are currently unable to meet the standards? Is there an assistance mechanism, improver program or similar?**
 - **What options are available if there are no mechanisms available or those that are do not deliver a result which meets ASC expectations?**
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1. Introduction

Marine ingredients are sourced from a wide variety of species taken directly from the wild, farmed for the purpose of producing marine ingredients or derived from the processing of wild caught or farmed species.

The rationales for including marine ingredients in an aquafeed standard include:

- Aquafeed producers are users of marine resources and have a responsibility to ensure good fisheries management in the same way that other users are.
- The ASC has a commitment to responsible production and this ethos needs to be expressed down the supply chain
- Despite growing efficiency in the use of marine ingredients there is a business case for ensuring that scarce capture fishery resources are well managed.

In addition to issues associated with product quality the most common concern about the supply of marine ingredients has been associated with the impacts of fishing on fish stocks and the wider marine environment. These concerns have mainly been focused on so called 'forage' fish but there are equally, if not more, compelling issues associated with the use of trash fish in Asia.

Over the past 15 years the main interest in marine ingredients has been on natural resource management and overall supplies but this has been expanded to include some social issues such as resource allocation and working conditions. Mechanisms for evaluating the performance of supply chains in these terms require further consideration as to scope.

This paper documents the variety of approaches to evaluating and verifying that supplies of marine ingredients meet expectations. All have been created for their own purposes and can be restricted in scope, as least as far as the needs of the ASC may be concerned. Assessing the suitability of any one system is complicated by the fact that the ASC has no clear set of requirements. Defining the ASC's needs is important from a diversity of perspectives, not the least of which is being able to gain some estimate of the costs of compliance and the potential need for higher risk programs that do not involve third party certification.

2. Scope

This discussion paper covers all ingredients sourced from the aquatic environment (marine and freshwater) and covers both animal and plant products produced by either capture from the wild or by farming, although in the case of farmed product it defers to ASC standards where they exist. It also covers the production and processing sectors.

There are a variety of products of aquatic origin used for aquafeeds which can be allocated to the categories illustrated in Table 1, below.

	Plant¹ based	Animal based
Wild harvest	Limited use – farmed abalone	Large industries in existence based on directed capture and processing wastes. Mainly marine but freshwater sources important in some areas (e.g. Mekong)
Farmed	Mainly microalgae used for early life history stages Abalone feed? Microbial flocs grown for benthic feeders such as shrimp	Growing industry based on processing wastes of both marine and freshwater origin such as carps and pangsius

Notes:

1. Includes non plant microorganisms such as bacteria

Analyses of the processing factories and associated impacts for each type of ingredient haven't been undertaken. Its assumed that the range of impacts are similar to any type of factory processing organic matter, with the main pollutants of interest being waterborne (BOD, suspended solids and nutrients) and air pollution. The same is assumed for labour issues.

3. What is the rationale for the Feed Standard establishing requirements for this area – for raw materials and processing plants, what are the environmental and social issues that need to be addressed?

In terms of perceptions of impacts (at least in terms of environmental impacts) the wild-harvest marine sector has attracted most attention. The prime reasons are as follows:

- General concerns about overfishing and sustainability
- Concerns about fishing impacts on dependent species, habitats, ecosystem structure and other aspects

- General allocation issues – who benefits from the fish either directly (via catching) or indirectly (processing)
- Ethical issues surrounding the use of fish for feed versus fish for food
- Interactions between resource management and social issues such as the potential consequences of overfishing on food security.

In some cases there are directed fisheries for fish meal and thus the issues could be said to be specific to that use but there are also fisheries that supply fish for fish meal from general catches of fish used for other purposes or indirectly from fish processing operations. Whilst the relative importance of the issues may vary from fishery to fishery the broad categories mentioned above cover all potential sources of supply.

Fish meal also enters the supply chain from the processing of aquaculture species. The concerns about aquaculture are well articulated in the main ASC (and other) standards and its not necessary to articulate them again here. However, from a fish meal perspective there have been concerns raised about the potential transfer of disease, including prion related diseases. Evidence for the risk posed by the latter is weak but a precautionary approach has been taken in the GAA standard.

Aquatic plants are used in aquafeeds, especially in the raising of early life history stages and for the growout of herbivorous species such as abalone but also as a source of feed additives. The primary source of aquatic plants is aquaculture, some of which is micro scale in nature (i.e. within a building at a hatchery) and some conducted on a commercial and extensive scale (i.e. pond culture for additives such as betacarotene). The extent of wild harvesting of macroalgae is unknown but it may be a feed source for abalone.

Whilst standards for such cultivation (especially outdoor, extensive systems) are not available the environmental and social issues are probably similar in a broad sense, to those of other aquaculture ventures (e.g. habitat interactions, water quality issues, labour issues, amongst others).

As far as processing is concerned the environmental and social impacts associated with each type of supply chain could well be similar and include issues such as pollution and labour. The production of fish meal and oil could result in the production of waste streams with a high organic loading which, if untreated, could lead to high levels of Biological Oxygen Demand (BOD), suspended solids and nutrient pollution. Air pollution is also an issue that can affect local amenity and the siting of processing facilities.

Like any factory workplace the treatment of workers may be an issue if local regulations are inadequate or not followed.

Nature of issue	Potential for impact	Ability for an ASC Standard to make progress
Overfishing	High	Medium - depends on fishery
Ecosystem alteration	High	Medium – depends on fishery



Resource allocation	Medium	Low
Ethical use questions	Low	Low
Food security	Medium	Low
Workplace	Medium/High	High
Factory impacts	Low/medium	Medium/High

4. What existing mechanisms are in place to make judgements about the suitability of an ingredient? How well do these meet the aspirations and requirements of the ASC?

The level of scrutiny applied to some aspects of the production of fish meal and oil (FMO) has resulted in the creation of a number of options for evaluating candidate supplies and making judgments about suitability. As documented in the Scoping paper there are a number of existing approaches, namely;

- *Standards specific to aquafeeds – e.g. the proposed ASC Standard, Global Aquaculture Alliance, Friend of the Sea*
- *Farm standards which include feed as a component – e.g. existing ASC Standards, most organic aquaculture standards*
- *Feed Standards of which aquafeed is one consideration – e.g. GlobalGAP Compound Feed Standard*
- *Ingredients standards – including dedicated fishmeal standards (IFFO) and general fishery standards (e.g. MSC and Global Trust)*
- *Guidance and other non-standards based approaches – e.g. FishSource*
- *Labour standards – such as SAI8000. Not reviewed here as many of the standards reviewed have incorporated ILO agreements into them, especially organic, Fair Trade, Roundtable standards.*

Noting that the ASC Feed Standard is in drafting but there are precedents in existing species based ASC standards, there are few areas of commonality across the range of other options. The variability arises from:

1. The scope of the standards – the scope of standards is subject to a great deal of variability and includes:
 - Variations in the range of ingredients covered - some standards, such as the MSC, are focused purely on fisheries whilst others, such as GAA, include fisheries as part of a wider suite of ingredients.
 - Limitations on the farmed species to which the standard is applicable -some of the organic standards may be developed for a limited number of farmed species.
 - Fishery standards may be focused on particular geographies such as some of the Global Trust created standards.

2. The aim of the standards – some standards are oriented towards supply chain assurance and not public claims. The IFFO RS program, for example, is not oriented towards public claims, in comparison to Friend of the Sea.
3. Level of fishery performance mandated –
 - some standards require very detailed assessments and have ‘best practice’ requirements for how a fishery should be managed (e.g. MSC). Others have relatively low bar requirements (e.g. no IUCN Redlisted species) but welcome more rigorous approaches if available. The IFFO RS standard represents somewhat of a midpoint.
 - in regards to claims about fisheries management performance there has evolved some distinctions between claims of sustainability versus responsible production. For example, the Debio organic standard requires fish meal sourced from sustainable fisheries whereas the Naturland organic standard requires sourcing from fisheries that can demonstrate ‘responsible utilisation’. Note that the GAA standard recognises both MSC (sustainability) and IFFO RS (responsibly sourced), as does GlobalGAP.
4. Level of proof required – the MSC requires clear evidence of performance against MSC indicators as part of the third party certification system. In contrast the IFFO RS program does not certify a fishery directly but requires proof of responsible performance as part of a fish meal factory certificate assessment.

Table 2 (next page) sets out some of the attributes of existing systems that may be relevant to ASC. The rationale for the aspects covered are as follows:

- Claim/requirement

The aspirations of the ASC, with respect to certified aquaculture produced species are embodied in the following:

Mission: to transform aquaculture towards environmental and social sustainability.

Furthermore, the ASC describes itself as a certification and labelling program for *responsibly farmed seafood* with a label that recognises and rewards *responsible aquaculture*.

Thus the focus is on identifying, certifying and promoting responsible aquaculture, not sustainable aquaculture. Assuming that these aspirations also apply to other inputs then the minimum benchmark for the fish meal is that it is responsibly produced. Given that sustainability represents a step beyond responsibly produced it could be argued that systems that require sustainable produced fish meal meet ASC requirements as well as those meeting responsible production requirements.

- Chain of custody



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Traceability along the supply chain is now an expected part of providing assurance to customers

- Level of assurance

Third party systems have the most respect in the marketplace

- Certification of supply fishery

Whilst certification is not essential there needs to be a credible mechanism for ensuring that the supply fishery meets ASC expectations.

- Social

Social issues are increasingly of interest to the supply chains, especially those relating to the treatment of workers.

- ISEAL membership

ISEAL membership is an indicator of whether the standard/system was created in a collaborative fashion by a diverse stakeholder group.

Table 2

Standard or other relevant program	Claim/requirement with respect to FM/FO		System attributes				
	Responsible	Sustainable	Chain of custody	Level of assurance	Supply Fishery certified	Social aspects	ISEAL Membership?
MSC		Yes	Yes	3 rd party certified	Yes	No	Yes
FoTS		Yes		3 rd party certified	Yes	Yes	No
GlobalGAP	Yes	Yes		3 rd party certified	Mixed ¹	Yes	No
GAA	Yes	Yes		3 rd party certified	Mixed ¹	Yes	No
FishSource ⁴			No	Advisory	No	No	No
IFFO RS	Yes		Yes	3 rd party certified	No	No	No ³
Debio organic		Yes		3 rd party certified	Mixed ¹	No	Yes
Naturland organic	Yes			3 rd party certified	Mixed ¹	No	Yes
Fair Trade ²				3 rd party certified	Yes	Yes	Yes
Global	Yes	No	Yes	3 rd party	Yes	No	No



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Trust⁵ Respon- sible Fishing				certified			
MBAq			No	Advisory	No	No	No

Notes

1. Mixed means that the standard either has its own requirements for fish or recognises fish certified to MSC or other system
2. Fair Trade Capture Fishery Standard released for coment May 2014)
3. Under consideration
4. Some aspects of FishSource map to MSC
5. Global Trust has developed a series of standards such as the FAO Based Responsible Fisheries Management Certification Scheme and the Responsible Fishing Certification Scheme. Most are country based including UK, Ireland, Iceland and Alaska.

Note that the two organic standards are included for illustrative purposes. There don't appear to be any standalone organic fish meal/oil or aquafeed standards and the requirements for these are incorporated into the relevant, generally species based, farming standard.

Social issues in fisheries

Whilst social issues have always been an issue in fisheries due to the impacts of active and passive allocation decisions on the distribution of benefits, they have only become of interest to the supply chain vis a viz corporate social responsibility and corporate risk. The latter has been of a more urgent nature due to public discussion over labour issues on vessels and in processing factories.

The allocation of benefits from access to a fishery is a source of significant concern in some fisheries and allocation decisions can be contentious. Certification systems avoid getting involved in these. Some are relatively agnostic on allocation (e.g. MSC) whilst others support specific groups, especially small scale fishers (e.g. Fair Trade).

Fisheries that supply fish meal and oil can be of any size and supporting one type of fishery over another does not provide much assistance. Supporting the implementation of fishery management systems that deliver healthy stocks and management arrangements that are transparent and inclusive of all stakeholders goes some way to ensuring that competing interests have their voices heard.

The treatment of workers has always been a consideration in many standards such as organic, aquaculture, factory processing, amongst others. Friend of the Sea and now Fair Trade have included labour issues in their fishery certification programs and this is timely as these issues have increasingly come to the fore due to increasing media coverage of breaches of basic labour standards on vessels and in processing plants. The ASC farm standards set a precedent and thus these need to be reflected in the feed standard,



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especially at the processing plant level. An extension to the capture sector also requires some thought as to feasibility and desirability.

Mechanisms for providing the type of independent verification of interest to ASC are in their infancy as the main focus of external scrutiny of fisheries in the past two decades has been on resource status and fishing impacts. Whereas the industrial scale processing sector is potentially well serviced by applicable standards the same is not true for smaller scale facilities, fishing communities and fishing vessels.

Labour standards are covered in a plethora of standards and in higher level forums.

For example:

The Supplier Ethical Data Exchange (Sedex) is a not-for-profit, membership organisation for businesses committed to the continuous improvement of ethical performance within their supply chains. Sedex was founded in 2001 by a group of UK retailers to drive convergence in social audit standards and monitoring practices. The aims of Sedex are to ease the auditing burden on suppliers through the sharing of reports and to drive improvements in supply chain Labour Standards.

At the standards level the best known, labour specific standard is run by Social Accreditation International (SAI) which is an ISEAL member. It has created the SA8000 standard which is:

“.....an auditable standard for a third-party verification system, setting out the voluntary requirements to be met by employers in the workplace, including workers’ rights, workplace conditions, and management systems. The normative elements of this standard are based on national law, international human rights norms and the conventions of the ILO.”

Labour issues are a component of several of the standards relevant to aquafeed such as the GAA, GlobalGAP and organic standards, although the direct application of the organic farm standards to the production of aquafeeds is unclear unlike the farming activity itself. As with SA8000 there is a strong reliance on the conventions of the ILO which provides a global norm.

At a fishery level, whilst primarily focused on resource management issues, Friend of the Sea (FoTS) makes reference to the ILO when including the following social aspects in its fishery certification system:

- 8.1 The Organisation must respect human rights by conforming to the following requirements :*
 - 8.1.1 compliance with international and ILO directives regarding child labour*
 - 8.1.2 remunerating workers with salaries conforming at least to the legal minimum*
 - 8.1.3 assuring workers’ access to medical care*
 - 8.1.4 applying safety measures in accordance with legal requirements*
- 8.2 The organisation should be SA8000 certified. (Note – this is not an essential requirement)*

At the factory level, FOTs requires that:

The Organization must comply with the following:

- 3.1 *Respect Human Rights.*
- 3.2 *Respect National and International Labor legislation (International Labor Organization (ILO) Core Conventions.*
- 3.3 *Pay fair wages, that are at least equal to the highest of legal minimum wages or local average wages for similar activities.*
- 3.4 *Apply health and safety measures at a minimum at the level of legal requirements.*
- 3.5 *Ensure employee access to adequate medical care, wherever possible.*
- 3.6 *When relevant, have equitable access agreements that protect security for local populations.*

The need at the small/medium enterprise, community and vessel levels are probably greater than at the industrial factory level. As mentioned in the Scoping Paper, a recent report by the International Labour Organisation (ILO) found that only one of 600 crew interviewed on Thai fishing vessels had the correct papers. Even though there were only a small number of particularly egregious labour agreement and human rights violations, the tolerance of supply chains to even small numbers of cases is, rightfully, low. It regards to fishing communities the published literature contains a large number of cases of dispossession, poverty and conflict driven by inadequate fisheries management and its not proposed to review them all here.

A far more comprehensive fishery social system has recently been developed and released for public comment (May 2014) by Fair Trade USA. The Fair Trade Capture Fishery Standard is first and foremost a social standard based on other Fair Trade Standards which have a strong standing in the marketplace. All Fair Trade standards have an environmental component and for the Capture Fishery Standard this component is designed to work with data poor fisheries and encourage improvements in management. The FT CFS is oriented towards developing country fisheries and, whilst there are many fisheries that produce material for fish meal and oil there could well be challenges in securing large volumes of ingredients.

Benchmarking studies

As canvassed in the Scoping Paper there are a number of benchmarking studies already in the peer reviewed and grey literature.

The value of these benchmarking studies is very limited due to a variety of reasons, not the least of which is the rapidly changing nature of certification and assessment systems, the interests of the organisations commissioning the benchmarking and the criteria used to evaluate the systems of interest (and who determines those criteria and how).

The results of these studies are sensitive to the assessment indicators used. For example, in its comparison of capture fishery sustainability schemes for WWF, Anon (2012) noted that:
“The assessment criteria used in this study reflect the priorities of WWF. The priorities of other stakeholders, users or consumers may produce a different set of criteria.”

Even though only one of the scheme owners (MSC) participated in the study there was sufficient information to determine that MSC was the only scheme that complied with the WWF criteria.

The review of benchmarking schemes presented by Friend of the Sea focused on independent evaluations and rejected the WWF study due to WWF's explicit support for the MSC. The FoTS study documented the outputs from the following:

1. Peer reviewed and published study by Froese and Proelss (2012)
2. Food and Water Watch Europe – NGO grey literature
3. Monterey Bay Aquarium – NGO grey literature

The FoTs also included several other reviews that simply recognised the existence of the FoTs system but did not provide evaluation criteria or ranking. For each of the comparative studies there are different criteria used which makes comparisons difficult.

In their earlier, peer reviewed study Leadbitter and Ward (2007) compared a number of fishery assessment (not certification) systems using 19 criteria and found that all systems required some improvement but that, overall, the MSC outperformed the others in seeking to deliver sustainable fisheries. This study noted the common lack of social considerations.

As is apparent from the above short review the value of benchmarking studies is seriously questionable due to the wide variety of assessment criteria and the differing goals of any individual benchmarking study. As was put forward in the Scoping Paper a better approach to deciding on what schemes offer the best fit for the ASC would be for the ASC to set out its own criteria for determining how its needs could be met.

5. What is the cost of meeting the available standards to the certificate holder and other entities in the supply chain? How can these costs be managed to acceptable levels?

The diversity of standards available means that each one is unique in terms of scope and purpose and, as such, any reliable comparison of costs is almost impossible. Furthermore, even for the two schemes that offer fishery certification either the costs are highly variable according to the size and complexity of the fishery (MSC) or are confidential unless a contract is signed (Friend of the Sea).

The following were excluded from considerations of costs for the following reasons:

- a. GAA and GlobalGAP – both include MSC and/or IFFO and thus the fishery assessment costs covered below are embodied in the overall feed certification costs.
- b. Organic systems – the requirements for FMO are embodied in the overall farm standard and the specific costs of complying with the fish meal components are impossible to separate out.
- c. Fair Trade – standard not yet fully operational
- d. FishSource – not a pay per decision system

- e. Social audits – expected to be conducted at a factory level and thus not specific to FMO

The known range of costs (in USD) are as follows:

Table 3

	MSC ¹	FoTS ⁴	IFFO RS ²	Fishsource ³	MBAq ³
Fishery assessment	50000+	?	14000	n/a	15 000
Follow-up audits	10000	?	2000	n/a	
Chain of custody	Yes – variable costs. 3 year cycle	?	n/a	n/a	n/a
Licence/claim fees	Annual fee – max 2000	?	n/a	n/a	n/a
Other fees			Annual admin fee 250-2500		

Notes:

1. MSC certificate lasts for 5 years - fishery assessments are highly variable in terms of costs
2. IFFO RS certificate lasts for 3 years
3. MBAq and FishSource have an updating cycle. In the case of MBAq if an interested party wants an assessment that is out of cycle then costs are levied. Otherwise the assessment is free.
4. No costings are available on the FoTS website and fishery specific quotes are required. Several certificate holders were approached for information about costs but there was no response.

As one fishery may supply several processing plants both MSC and IFFO have arrangements to ensure that monopolies are not created, free riders are dissuaded and some measure of cost control is exercised. The MSC provides non-binding guidance in its MSC Certification Requirements Guidance (Version1.3) - section G27.4.8. The stated intent of the guidance is to:

- *To minimise the number of overlapping assessments requiring harmonisation.*
- *To encourage the largest proportion of fishers to enter at the start of the full assessment process, but when only a select group of fishers within a fishery wants to undertake MSC assessment, to allow them to proceed so as not to delay certification.*

- *Ensuring that the process is clear and transparent to interested parties.*

The MSC is not prescriptive as it believes that private companies are best placed to negotiate mutually agreeable solutions and one type of solution may not be universally applicable. The IFFO approach is somewhat more prescriptive but shares the same objectives as MSC. The requirements are as follows:

1. *Only fishery assessment costs are shared between Founders (and Followers) per country*
2. *Founders have a benefit compared with followers, but cannot prohibit or dictate the terms under which subsequent participants ("Followers") enter the scheme*
3. *Any additional monies above costs go to IFFO for running the scheme*
4. *Followers pay on a monthly pro-rata basis 20% higher than Founders*
5. *Each applicant pays the first year cost up-front (ie not monthly)*

6. What mechanisms are in place to handle potential suppliers who are currently unable to meet the standards? Is there an assistance mechanism, improver program or similar?

Any type of standard creates the goalposts for those who may not meet the requirements and thus there is always an opportunity for the applicant to make the changes necessary to seek compliance. The question of how, and whether, to assist and then recognise in some public fashion those that make commitments to the changes required to meet a standard has been considered by standard owners for many years, including those involved in organic production, coffee and fish, just to name a few.

For organic certification there is commonly a recognition that a farm is in the process of transition from non-organic to organic but during this phase the farm is not certified and no claims or logos can be used. Its possible that the reasons for this is that the market for organic products is already relatively large, growing rapidly and clear premiums available. Thus there are clear incentives available to drive progress by interested producers. It is probably also true that the private nature of landownership and lack of any need to collaborate with other landowners means the cost of transition does not have to be shared, as is the case with public resource users such as fishermen.

There is a wide variety of approaches to assisting farmers make the transition to organic production. There is a great deal of online information available provided by scheme owners, government agriculture agencies and self-help groups.

As the concept of market driven support for producer improvements has developed, the extension of this support to entities seeking to meet standards has caused extensive discussion amongst NGOs, standard owners, existing certificate holders and others. These discussions have covered:

- Should any public recognition in the marketplace be provided for entities that don't meet standards? Some feel that any recognition undermines the potential for those

that do meet standards to derive (financial) benefit and therefore puts the standard at risk.

- Should standards have tiered levels of performance and thus formalise the improvement process? Similar sorts of arguments to those put forward above have been advanced on behalf of both supporters and opponents.
- What criteria should be applied to those undertaking improvements in order to provide some assurance to interested parties that legitimate actions are being undertaken so as to avoid the risk of greenwash? How should progress be monitored and reported and who should monitor, control and enforce compliance? Should there be specific standards applied and will these introduce unnecessary costs?

In the case of coffee a formalised program is in place (4C Coffee Association - <http://www.4c-coffeeassociation.org/>). The 4C has put in place a program aimed at ensuring intending certificate holders have the basics in place that would enable them to make a choice about which coffee certification best meets their needs. As described by 4C:

“The 4C Association is the platform that brings together stakeholders in the coffee sector to address sustainability issues in a pre-competitive manner.”

To pursue this, the Association will:

- *Set and maintain the 4C Code of Conduct, a set of baseline standards to start producers on the path to sustainable production;*
- *Provide access to tools and information for coffee farmers to implement the 4C Code of Conduct and good agricultural practices;*
- *Set rules for the 4C verification system to preserve the integrity of 4C verifications;*
- *Actively promote sustainability standards and initiatives in the market to create greater value for verified/certified coffees; and*
- *Provide an open and dynamic platform for exchange where stakeholders can work together on pre-competitive sustainability issues that affect the entire coffee sector. In this role, the 4C Association organizes forums or workshops on a regular basis or helps setting joint projects between different stakeholders to tackle a particular sustainability issue.*

In the case of wild harvest fisheries there is little structure in the arrangements created to date. In the United States some NGOs have created an agreement under the auspices of the Conservation Alliance for Sustainable Seafood (CASS) that sets out what the parties accept as a Fishery Improvement Project (FIP) and the nature of any public claims or promotion that



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can be made about the FIP. The rationale behind the creation of this agreement relate to the interest by sellers of seafood in both supporting FIPS (either directly via funding or indirectly via preferred product sourcing and supply chain pressure) and gaining some kudos in the marketplace for providing that support. The agreement was needed because different groups had varying perceptions of what comprised a FIP and what elements were critical for ensuring NGO support and thus avoiding greenwashing.

The agreement covers two types of FIP – one that can be officially recognised as a FIP, the requirements of which are as follows:

- *Draw upon market forces, which might include suppliers, retailers, food service, fishing industry, etc., to motivate fishery improvements.*
- *A workplan with measureable indicators and an associated budget.*
- *Explicit willingness from participants to make improvements (e.g., a signed memorandum of understanding, email correspondence stating a commitment, etc.).*
- *Willingness from participants to make the investments required to make improvements as outlined in the workplan and budget.*
- *A system for tracking progress*

The second type of FIP is one that can make a public claim of ‘moving towards sustainability’. Since the term sustainable is quarantined for MSC certified fisheries this claim is only able to be used by fisheries seeking the MSC Standard, as follows:

- *Have a scoping document completed by a third party experienced with applying the Marine Stewardship Council Fishery Assessment Methodology (see step one, below).*
- *Have a workplan specifically designed to address deficiencies in the fishery to achieve a level of sustainability consistent with an unconditional pass of the MSC standard (see step two, below).*
- *Employ a system for tracking and reporting progress against the indicators in the workplan (see step three, below).*
- *Include active participation by supply chain companies, at a minimum local processors and exporters.*

The CASS agreement only binds those entities that are signatories but it may apply to fisheries outside of the United States if the products are sold there or there is a need for some type of public disclosure/claim. Fisheries that sell to both the US and to other markets may be subject to differing rules in different markets and these rules may be determined by a different office of the organisation that was a signatory in the US. This complexity has resulted in some stakeholders in Asia seeking to craft a FIP Protocol for ASEAN countries that creates one approach for those fisheries that supply product to both the US and outside.

A significant feature of the agreement is the quarantining of any reference to sustainability to those fisheries explicitly seeking certification to the MSC Standard. Outside of the US

WWF has gone further and restricted the use of the acronym FIP to MSC oriented fisheries. Other organisations continue to use the acronym FIP, even for improvement projects that do not aim for MSC and this is a considerable source of confusion.

IFFO is creating an improver program to bolster its Responsible Sourcing certification scheme. It operates along similar lines in that a candidate for certification triggers an assessment of the supply fishery against the RS requirements for fishery performance. This assessment is then used as a gap analysis to identify areas for improvement. A stakeholder group is used to prioritise which gaps to address first via a workplan. As with other types of FIPs there is a need to report publicly on progress in a timely fashion.

The reasons why FIPs are an item for consideration by the ASC Feed Standard are as follows:

- The amount of certified FMO is currently very limited and allowing the use of products from fisheries in a FIP may enable sufficient volumes to be made available in a short period of time.
- Limiting the choice of FMO to certified product, especially certified sustainable product, may cause some major market distortions as the standards were based on developed country views on what constituted a sustainable fishery. In particular there may be regional biases introduced as some regions have the sorts of single species fisheries that suit the standards, whereas others don't.
- Mechanisms for dealing with the fish meal production fisheries in Asia are not well developed. This is particularly the case for multispecies trawl and purse seine fisheries. Many of these fisheries require improvements and standards that are workable.
- It allows the aquaculture industry to contribute to the growing demand for fishery improvements.

The ASC needs to weigh up the risks and benefits of allowing FMO from an improver program to enter the supply chain. Countering the potential benefits of allowing in more product and helping drive improvements is the possible inclusion of material that is not responsibly or sustainably produced. Mechanisms for reducing the risk include:

- Ensure transparency in the fishery assessment, the planning documents and progress reports
- Agree on what the public claim is

- Ensure that progress is reported on a regular basis (every 6 months or more frequently)
- If there is concern over the veracity of claims about progress have an agreed mechanism for third party verification in place.
- Have an agreed trigger point such that if progress is not being made then the supply is withdrawn

At present, the mechanisms for verifying progress are somewhat informal. A FIP group can seek an evaluation of their progress by an assessor of their choice. As mentioned above, outside of the US there are no widely agreed guidelines on such evaluations (frequency, public reporting etc) and the costs may be a significant consideration, especially for small scale and developing country fisheries. The 4C Association has created a structured approach that sets basic entry level criteria and then allows a potential certification applicant to work towards whichever standard they like. The system relies on verification of progress rather than certification, the latter being more rigorous and thus more costly. The aim is to get the focus on progress and ensuring that scarce resources directed towards improvements. This has enabled verification bodies to be established closer to clients (especially in developing countries). At present, in the case of fisheries, most CABs are located in developed countries and the costs of certification are significant.

7. What options are available if there are no mechanisms available or those that are do not deliver a result which meets ASC expectations?

FIPs provide one mechanism for evaluating the potential suitability of fish meal/oil from fisheries that do not meet current standards. They are dealt with in Section 6 as they are a tool for encouraging a transition from a non-compliant fishery to one that can supply product that meets certification standards. There is an assumption that by working towards recognised standards then, pending a decision by ASC on the acceptability of those standards, the products may also be acceptable for use as aquafeed ingredients.

There are circumstances under which a fishery may operate but there are no workable standards or where the standard it chooses to utilise may be of insufficient scope or level of performance to meet ASC requirements. Three examples could be:

1. Fisheries that do not conform to the generally expected 'single species, small pelagic' format that is generally associated with the production of fish meal and oil. As has been mentioned above the most significant of these are the trawl and purse seine fisheries in tropical areas of Asia.
2. The main existing standards do not cover both social and resource management aspects in an equal manner. Each standard has its own strengths which raises the question as to how to create the right balance.

3. If a standard requires a level of performance that is insufficient to meet ASC expectations then what is the most efficient mechanism for delivering the additional performance required?

Some options for making progress on each of these could include:

1. Multispecies fisheries – there is an estimated 10 million tonnes per year of so called ‘trash fish’ directed to the aquaculture industry in Asia. Even though this estimate is old and may have declined and it is probable that not all goes to the manufacture of compound feeds, the fact remains that trash fish remain a significant input to aquafeeds in Asia and the production systems are having a significant impact on fisheries and marine ecosystems. Some of the supply fisheries take 100 or more species, of which a small number are used for direct human food or for making value added products.

Whilst the existing fishery standards could conceivably handle large number of species the practical reality is that the information requirements to meet the standards would be so expensive as to possibly exceed the value of the supply fishery. On the one hand, the total exclusion of domestic sources of fish meal supply in Asia would cause major market distortions but on the other hand the fisheries have some major management deficiencies.

Some of the options for dealing with this situation include:

- Bespoke standard for fish meal and oil from the region
- Modifications to existing standards to enable realistic performance expectations to be adopted

Efforts have been made to create workable management frameworks for at least the trawl fisheries via the Asia Pacific Fisheries Commission (APFIC). Trawl Management Guidelines were released in June 2014 and these could provide the basis for a new standard. Alternatively, there are a number of approaches to evaluating data poor fisheries available (e.g. the Risk Based Framework created by the MSC and similar approaches) and these could be used to identify species at risk that could either be removed from the supply chain or some form of risk mitigation strategy put in place. Both of these approaches could be used as the basis for the design of FIPs.

2. Inadequate scope of standards – existing fishery standards have been designed to meet the needs of the scheme owners and these aims may not fully coincide with the needs of the ASC.
 - Seek two certifications for one supply fishery, in order to deal with both natural resource management and social issues - likely to be cost prohibitive.

- ASC to create ‘missing modules’ – potentially time consuming but would at least enable bespoke arrangements that suit ASC. May be possible, in the case of social aspects, to bring these over from existing farm standards.
 - ASC to negotiate with other scheme owners some form of access to modules that cover ASC needs
3. Inadequate requirements – at this stage the expectations of the ASC have not been articulated, an example being the requirement for responsibly produced versus sustainable fish meal. This has implications for not only which standards are suitable but flow-on implications for other ingredients and the farm standards themselves. Other expectations may relate to the processes by which standards are prepared. The ASC is an ISEAL member but has not stated that all ingredient standards have to be prepared in accordance with ISEAL requirements.
4. Some options to consider
- Benchmarking of systems – as discussed above the use of existing benchmarking exercises is highly questionable as the criteria used to evaluate candidate systems are very much dependent on the requirements of the organisation commissioning the benchmarking. ASC could commission a benchmarking study but it would be better in the short term for its needs to be clearly articulated. This would enable candidate assessment systems to be evaluated.
 - Negotiate with other standard owners some form of ASC modules that build upon what they currently offer – some standards create a minimum requirement but then require an applicant to have regard to any higher requirements (e.g. if a law exists that has higher levels of performance). Maybe this could be extended to a private requirement.

The above discussion focuses on options that involve robust, standards oriented solutions and the implications for time and costs constraints have been touched upon.

Less robust solutions are potentially also available and have precedents in the existing farm standards. For example, a supplier of fish meal/oil can make use of a FishSource score, at least for a period of time, in order to assess the suitability of meal made from some of the small pelagics assessed. The scores and the data and methodology used to assess them are publicly available and they are updated annually. However, they are restricted to the ‘main’ (i.e. higher volume) species/fisheries. This information is freely available but there are challenges for a small producer using fish from an unassessed stock in that there may well be costs involved. This raises the question as to what requirements would be in place if a producer sought to provide their own assessment, even if it followed the FishSource methodology.



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Self declarations provide an even weaker level of assurance. Whilst there has been growth in the number of companies making commitment to sustainable sourcing and some have their own fishery assessment mechanisms in place there are valid concerns about the potential risks to ASC associated with such schemes in terms of public claims regarding responsibly/sustainably produced fish meal. Even if some third party verification of the claims was made the question of what performance expectations are being applied would need to be agreed by ASC.

Opening the door further to higher risk schemes may increase the amount of FMO available but there will be also be costs. The benefits include the opportunity to enable access for smaller scale fisheries in countries outside of South/North America and Europe. Enabling this access is very important and it may be that less robust mechanisms are not the way but the challenge is for ASC to provide a way forward that is defensible.