

MARINE STEWARDSHIP COUNCIL - TECHNICAL ADVISORY BOARD

TAB DIRECTIVE SERIES

TAB Directive Number	Title	Date of Issue
TAB D-001 v2	Enhanced Fisheries – Scope of Application of the MSC Principles and Criteria	1 May 2010
Decision Date: 16 June 2009 Effective Date: 1 August 2009		

Documents Supplemented or Modified by this Directive

MSC Scheme Document	Status Change
Policy Advisory 10 v1	Superseded
TAB Directive 001 v2	Superseded

Background

MSC's primary focus is on ensuring the long-term viability of global fish populations and the health of the aquatic eco-systems on which they depend. The MSC has always included some types of fishery enhancement within its programme, but has specifically excluded aquaculture. In recent years, increasing numbers of applications have been received by the MSC for guidance on the scope of the programme in relation to enhanced fisheries. At their January 2009 meetings, the Technical Advisory Board (TAB) and Board of Trustees decided in principle the types of enhancement activities that would be considered in scope. This Directive provides for the implementation of the decisions made at that time.

Given the very wide range of types of enhanced fishery that may seek to enter the MSC programme, it is recognised that the existing Fisheries Assessment Methodology (FAM) may require modification for the assessment of such fisheries, through the development of additional or modification of existing Performance Indicators and/or Scoring Guideposts.

This TAB Directive defines the criteria and processes by which enhanced fisheries may be identified as within the scope of the MSC programme and the steps to be followed for their assessment against the MSC's Principles and Criteria for Sustainable Fishing. The process provides for the performance assessment of enhanced fisheries using CB-developed indicators prior to the development of relevant guidance by MSC. The directions may be expected to be revised at the time that performance evaluation guidance relating to enhanced fisheries is confirmed by MSC.

Intent

The focus of MSC is on the sustainability of wild fish stocks. The intent of this Directive is to enable certain defined types of enhanced fisheries to be eligible for certification against the MSC standard while maintaining this objective.

Definitions

MSC direction on this issue is provided in relation to three broad categories of enhanced fishery, as defined below.

Catch and Grow Fishery (CAG)	Fishery production system that involves wild harvest followed by a grow-out phase, e.g. mussel farming based on wild spat collection (often termed Capture-Based Aquaculture).
Hatch and Catch Fishery	Fishery production system that involves the release of fish either as

(HAC)	eggs, larvae or juveniles and subsequent recapture from the wild, e.g. salmon stocking (often termed Culture-Based Fisheries).
Habitat Modified Fishery (HM)	Fishery production system that involves the modification of habitats to increase production or favour desirable species, e.g. lobster casitas, fish attracting devices – FADs, mussel ropes or other structures.

Direction

1 Determination of scope

- 1.1 At the pre-assessment stage, the Certification Body shall examine the characteristics of the fishery to determine whether it should be regarded as an enhanced fishery. An enhanced fishery for the purpose of this Directive shall be one that meets the characteristics of one or more of the enhanced fishery categories, CAG, HAC and HM, as defined in this Directive.
- 1.2 Where a fishery is identified as an enhanced fishery, the Certification Body shall analyse the characteristics of the fishery against the scope criteria given in Table 1, taking account of comments in the Guidance section, so as to provide a determination as to whether the fishery is within the scope of the MSC scheme.
- 1.3 Where an enhanced fishery is determined as being within scope and the client has taken the decision to enter full assessment, Certification Bodies shall:
 - a. provide with their Notification Report (Fisheries Certification Methodology version 6 2.1.1.1) an assessment of the enhancement activities undertaken by the fishery in addition to an adequate rationale for their determination that the fishery is within scope for publication on the MSC website; and
 - b. include a statement on the fishery's position in relation to the scope criteria in each of the assessment reports for the fishery for publication on the MSC website;.
- 1.4 Where an enhanced fishery does not meet one or more of the scope criteria, it shall not be eligible for assessment under the MSC scheme.

2 Application of the scope criteria

- 2.1 The requirement in Criterion A4 against using fish stocking as a major part of a rebuilding strategy for depleted stocks shall apply to the "current" status of the fishery. Wild stocks shall thus be managed by other conventional means. However, if rebuilding has been done by stocking in the past, such activity need not result in an out-of-scope determination so long as other measures are now in place.
- 2.2 In relation to Criterion C1:
 - a. habitat modifications that are not reversible, but are already in place and were not created specifically for the fishery, shall be in scope: this provision shall include the prior creation of large-scale artificial reefs; and
 - b. structures associated with enhancement activities that do not cause irreversible harm to the natural ecosystem inhabited by the stock, such as salmon fry farms adjacent to river systems, shall be in scope.

3 Development of performance indicators for assessment of enhancement aspects

- 3.1 The Certification Body shall use the guidance provided within this directive to review and if necessary modify the FAM (including the default assessment tree and/or guidance sections). The process for this shall follow the steps defined in TAB Directive D-017 v2 Sections 6.1 through to 6.7.

- 3.2 To ensure consistency of application, where Certification Bodies that wish to proceed with the assessment of an enhanced fishery that they have determined as 'in-scope' submit proposed modifications to the FAM,
- a. the MSC may require additional consultation with other Certification Bodies developing performance assessment guidance for similar fisheries; and
 - b. the Certification Body may be required to delay the publication of certain assessment products (e.g. Public Comment Draft Report) until the compatibility of the CB-developed modifications to the FAM and any related guidance being developed by the MSC is confirmed by MSC.
- 3.3 In cases where modifications to the FAM made by the Certification Body are deemed by the MSC to result in a materially different¹ outcome compared to any guidance developed in due course by the MSC, a fishery shall be required to review and if necessary revise its assessment and scoring to conform to the MSC-developed guidance. The process for undertaking such review and revisions shall be at the discretion of the MSC and shall be sufficient to ensure the continued validity of the determination taking account of the guidance developed by MSC.

4 Implementation of this Directive

- 4.1 MSC presents this direction on a trial basis, as allowed by Section 1.11.2 of the MSC Accreditation Manual (v5). CBs shall advise any potential fishery clients of the risks inherent in entering a fishery for assessment prior to MSC's finalisation of the performance assessment guidance for enhanced fisheries.
- 4.2 The requirements specified in this TAB Directive shall be effective for all fisheries from 1st August 2009.
- 4.3 On the release of this TAB Directive, Policy Advisory 10 is superseded.

Table 1. Scope criteria for enhanced fisheries

<p><u>A. Linkages to and maintenance of a wild stock</u></p> <p>A1. At some point in the production process, the system relies upon the capture of fish from the <u>wild environment</u>. Such fish may be taken at any stage of the life cycle including eggs, larvae, juveniles or adults. The 'wild environment' in this context includes marine, freshwater and any other aquatic ecosystems.</p> <p>A2. The <u>species are native</u> to the geographic region of the fishery and the natural production areas from which the fishery's catch originates [introduced species are currently out of scope; further work is planned to determine the possibility of including scope criteria for introduced species].</p> <p>A3. There are <u>natural reproductive components</u> of the stock from which the fishery's catch originates that maintain themselves without having to be restocked every year.</p> <p>A4. Where fish stocking is used in HAC systems, such <u>stocking</u> does not form a major part of a current rebuilding plan for depleted stocks.</p>
<p><u>B. Feeding and husbandry</u></p> <p>B1. The production system operates without <u>substantial augmentation of food supply</u>. In HAC systems, any feeding is used only to grow the animals to a small size prior to release (not more than 10% of the average adult maximum weight), such that most of the total growth (not less than 90%) is achieved during the wild phase. In CAG systems, feeding during the captive phase is only by natural means (e.g. filter-feeding in mussels), or at a level and duration that provide only for the maintenance of condition (e.g. crustacean in holding tanks) rather than to achieve growth.</p> <p>B2. In CAG systems, production during the captive phase does not routinely require <u>disease prevention</u> involving chemicals or compounds with medicinal prophylactic properties.</p>

¹ A 'material difference' in this sense would be one that results in the assessment producing a different outcome with respect to the overall determination and any conditions that are applied, depending on which indicators and/or guidance is used.

C. Habitat and ecosystem impacts

C1. Any modifications to the habitat of the stock are reversible and do not cause serious or irreversible harm to the natural ecosystem's structure and function.

Guidance

Categories of enhanced fisheries

The scope criteria in this Directive confirm that grow-out and holding systems may be considered within scope under certain conditions as outlined below.

- Catch and grow (CAG) production systems that have the features of intensive aquaculture – that require routine and intensive inputs such as feed, chemical or medicinal treatments or control and manipulation of the brood stock – are outside of scope. However, the wild harvest phase, whether it involved the collection of larvae, juveniles or adults, would fall within the current scope of the standard *up to the point of landing*.
- Catch and grow systems that only require limited enhancement (eg rope culture of bivalves or the extensive farming of wild shrimp) may be considered within scope for the entirety of their operation (see scope criteria B).

Hatch and catch (HAC) production systems may also be considered within scope in certain circumstances, reflecting the established case history and precedent set by the hatchery-stocked salmon fisheries. For these types of fisheries, more intensive culture activities may be allowed so long as they only apply to a short part of the animals' growth.

A single fishery may display several of the features of CAG, HAC or HM fisheries. In the application of this Directive, it is intended that any overlaps between categories should not become complicating factors in determining whether a given fishery is within or outside scope. Distinctions are nevertheless drawn in some cases between the application of the criteria to these different categories.

General guidance on the scope criteria and the assessment of enhancement aspects in fisheries

Table 1 provides the criteria for making a determination as to whether a fishery production system is within or outside the scope of the MSC programme. The criteria are grouped under three headings:

- A. Linkages to and maintenance of a wild stock
- B. Feeding and husbandry
- C. Habitat and ecosystem impacts

The fundamental characteristics of the enhanced fisheries adopted under this policy (i.e. those having links to wild stocks and potential impacts on wild ecosystems) mean that such enhanced fisheries should fall under the general coverage of MSC's Principles and Criteria for Sustainable Fishing. The basic Performance Indicators (PIs) currently embodied in the Fisheries Assessment Methodology (FAM) may require modification however to assess the full range of impacts of all types of enhanced fisheries. Work now underway on the development of guidance on these issues is expected to be completed over the next 6-24 months.

Recognising the additional guidance development work that is now ongoing, the process outlined in Part 2 of the Direction section of this paper allows for the entry into assessment of those enhanced fisheries that wish to begin an MSC assessment prior to the completion of this work. Some enhanced fisheries may be able to proceed with entering the MSC programme and be assessed against the existing FAM assessment tree. Other enhanced fisheries may be considered in scope but require additional guidance and/or Performance Indicators and Scoring Guideposts to be developed for a full assessment. The performance assessment issues that would be expected to be covered by these modifications for each category of enhanced fishery are outlined in the following sections.

One factor that was noted in TAB Directive D-001 as a possible scope criterion was the degree of ownership of the organisms under production or of the locations used for production. If an enhanced fishery (e.g. mussels attached to the seabed) restricts other fishing opportunities in an area, such alienation of space was considered a possible restriction to eligibility. Recognising that some wild capture fisheries also use static gear that prevents other activities within a localised area, the issue of ownership was rejected from the criteria system.

Scope Criteria A. Linkages to and maintenance of a wild stock

Given the MSC focus on the sustainability of global wild fish stocks, the concept of 'wildness' plays a central role in scoping enhanced fisheries. The fishery must incorporate some element of harvest of a wild population, and must be managed so that the natural productivity and genetic biodiversity of that population is not undermined with respect to any impacts on long term sustainability.

Linkages to wild stocks may exist either in CAG systems where fish are raised to a larval or juvenile stage in captivity, then released into and harvested from a wild stock; or HAC systems where fish are harvested as juveniles or young adults from the wild and then raised in captivity until the 'flesh' is sold on to the market.

Performance assessment - Scope Criteria A

1. Enhancement activities shall be assessed against their impacts on the natural reproductive component of the associated wild stock. This mirrors the treatment of salmon in existing MSC fishery assessments.

This requirement might have implications for the interpretation of or need for additional Performance Indicators in Principle 1 (particularly in relation to the maintenance of productivity of the natural genetic characteristics of the wild stocks); and for Principle 2, where the fishery's impact (e.g. bycatch, discard) on the natural population and other ecosystem components will be important, not its impact on the direct removal of the enhanced population.

The intent is that management systems exist to control exploitation rates on wild stocks in order to allow for self-sustaining, locally adapted wild populations (i.e., adequate wild stock levels that can perpetuate themselves at harvestable levels on a continuing basis – consistent with Principle 1). The management of enhancement activities related to the fishery should not prevent the ability of wild populations to sustain themselves at their optimum levels, according to their natural habitat related and biologically based productive capacities.

2. The extent of translocation shall be assessed against both the effect on the natural genetic characteristics of the stock and the environmental impacts of translocation.

Systems where translocation occurs are potentially in scope. The extent of translocation must however be considered at the pre-assessment stage and during full assessment to ensure that the fishery enhancement programmes predominantly utilize stocks or populations that are native to the natural production area from which the fishery's catch originates. It is noted that the means of confirming that fish are 'native' to a fishery production area (i.e. from within the 'natural range') may not be simple except in cases where no movement occurs. Performance Indicators may thus need to be developed to determine the extent of movement within a range that can be considered to have acceptably low risks. Related performance assessment will require the identification of the 'natural production area' or genetic range of a stock.

Translocation of fish in enhanced fisheries should ensure that fisheries maintain the diversity, structure and function of the ecosystem on which they depend while minimising any adverse effects that are caused. Inadequately managed translocations of fish between different areas may have both genetic and other impacts that need to be assessed (e.g. the spread of diseases between areas, accidental species introductions etc).

Scope Criteria B. Feeding and husbandry

The criteria included in this group emphasise the main focus of the MSC on *wild* fisheries. Production systems that show characteristics more consistent with closed and/or intensive aquaculture are out of scope.

Feeding is a fundamental requirement in most intensive aquaculture systems and thus provides a clear means for distinguishing between wild and farmed production systems. The framing of the scope criteria distinguishes between the use of feeding for a short initial period in HAC fisheries (such as in those stocked salmon fisheries already in the programme) and the intent to exclude those CAG fisheries where feed inputs are used to achieve the greater part of the weight gain of the fish over their life cycle. Other CAG operations that rely on natural sources of feed (such as mussels and other bivalves) are thus considered potentially within scope against this criterion. Tuna fattening in pens after capture would be out of scope, at least after the point of first capture from the wild.

Criterion B1 also allows for the certification of fish that are fed in captivity only for the purpose of maintaining condition once caught, as commonly practiced in holding facilities for crustacea prior to sale.

The application of criterion B2 specifically to CAG operations recognises that disease prevention and other measures to maximise survival may be routinely used in some HAC fisheries. Such practices are allowed within these systems to reflect the limitations on potential environmental impacts imposed by the short duration of the captive growth phase. Such impacts shall however be included in the Principle 2 assessment in this type of fishery.

Performance assessment - Scope criteria B

The issues of feed augmentation and the use of medicines or other chemical compounds are not currently covered by the MSC standard or the FAM default tree. Where feeding or disease prevention are used in HAC systems, or where other interventions are used in CAG systems (e.g. fertilisation to enhance natural food availability, removal of predators or competitors, either to maximise capture or minimise post-capture mortality), assessments shall confirm that these activities do not have serious negative impacts on other species or the wild environment. Such assessment would be included in the Principle 2 scoring for the fishery.

Scope Criteria C. Habitat and ecosystem impacts

Habitat modifications in enhanced fisheries can include both physical changes to the sea bed or river course and the use of a range of man-made structures associated with the rearing or capture of fish that are not strictly 'fishing gear'. In the first case, modifications can range from the construction of simple ponds in intertidal areas or river floodplains through to watercourse management measures aimed at improving spawning habitats. In the second case, fish attracting devices (FADs), lobster casitas and mussel culture ropes (in CAG systems) are examples. Such artificial habitat modifications either enhance the productivity of the fishery or facilitate the capture or production of fish.

Performance assessment issues – Scope criteria C

The impacts of habitat modification shall be assessed under the habitats and ecosystems components in Principle 2, to the standard that they do not cause serious or irreversible harm to the natural ecosystem's structure and function, including the natural food chains of predator and/or prey species. Performance assessment will identify the types and extent of modifications and determine that they have no serious or irreversible impacts.

Consideration is also required as to the cumulative impacts of multiple production operations, areas, facilities, systems, etc within a geographical region. One small mussel ropes facility may for example have minimal impact on the natural ecosystem's structure and function while filling a whole bay with such structures may have much greater impacts. Consideration is needed of those situations where an individual operation is the subject of an assessment under the MSC programme which is only one of several similar operations in a finite space. The assessment should consider whether the cumulative impacts of a particular production system are likely to cause serious or irreversible harm to the natural ecosystem's structure and function.

----- END -----