

Oceans Practice Global Expert Report

WWF RETROSPECTIVE ON INDIAN OCEAN TUNA HARVEST CONTROL RULES

Indian Ocean tuna fisheries, harvest control rules (HCR) and sustainability assessments: A stakeholder's experience with application of the MSC Fisheries Standard (10 November 2016)

EXECUTIVE SUMMARY

This paper sets out to capture and share WWF's experience as a stakeholder in the Marine Stewardship Council (MSC) fisheries certification scheme. WWF considered the assessments of a set of Indian Ocean (IO) tuna fisheries as a case study to illustrate how the various elements of the MSC scheme responded when WWF raised concerns about fishery sustainability. More specifically WWF focused on effective harvest control rules (HCRs). Our position throughout these assessments was built on the premise that appropriate HCRs (i.e. those which meet the MSC definition) were not in place for any IO tuna fisheries. This is a very simple case. The facile conclusion is that the complete absence of HCRs means that no IO tuna fisheries should meet the MSC Fisheries Standard. However, multiple assessment teams, MSC technical oversight and MSC peer reviewers concluded otherwise. Such an outcome is inexplicable and it represents a very clear case of misapplication of the MSC Fisheries Standard. WWF attempted to redress the matter using all available avenues provided in the MSC scheme. This path started a journey that lasted more than five years and drained heavy on WWF charitable resources. The retelling of WWF's story provides a number of important insights into the application of the MSC Fisheries Standard.

This account identifies a number of more troubling, systemic flaws with the MSC scheme. Foremost among these, the WWF experience plainly illustrates how MSC assessments tend to disregard factual input from stakeholders in place of discretion by conformity assessment bodies (CABs) which, it would seem, invariably trends towards an affirmation that the fishery should be certified. Near the outset of the first IO skipjack tuna (SKJ) assessment, WWF very clearly articulated that the Indian Ocean Tuna Commission (IOTC) lacks HCRs to manage tunas. Nonetheless, the CAB repeatedly disregarded fact and proceeded to score the fishery as if HCRs were in place, supplying rationales based on inference, weak commitments to implement actions, or anecdote in place of hard evidence. Subsequent assessments of IO tunas by different CABs followed suit. Considering WWF's similar experiences in fishery assessments in other oceans, it can be surmised that ignoring stakeholder input is a general aspect of the MSC scheme. It can be anticipated that CABs will continue to disregard stakeholder feedback when it does not align with expectation. This leads WWF to question the value of continued efforts to provide conscientious feedback. Furthermore, heavy stakeholder engagement - a core feature of the MSC scheme - is often identified as a key attribute which separates MSC from other assurance systems. But WWF's experience would certainly call this notion into question.

When CAB error was plainly evident and consequential to an IO tuna certification determination, WWF found that mechanisms prescribed by MSC to redress certification errors and misapplication of the Fisheries Standard were ineffective. The first mechanism for redress (complaint to CAB) was painfully inadequate. The second mechanism for redress (complaint to Accreditation Services International; ASI) was somewhat more effective in validating the objective evidence of the case. However, slow progress via the accreditation mechanism and a failure to establish precedent more broadly meant that any potential conservation gains made by the complaint mechanism were effectively nullified by standard developments as they related to this and other ongoing MSC assessments of IO tunas.

As an 'act of last resort', WWF pursued the option of lodging an objection when the Echebastar IO tuna fishery was recommended for certification. Objecting was productive insofar as the outcome validated, through an independent review process, the WWF position that the CAB had incorrectly assessed HCRs. The reversal of a positive certification determination was a significant victory for WWF. However the broader conservation gains that WWF might have realized from this objection were largely negated by MSC actions over the ensuing months to "clarify" the interpretation of HCRs in the MSC Fisheries Standard. WWF describes the unusual follow-up by MSC to the Echebastar objection, and speculates as to why an independent standard setter would take such prompt action to reverse an outcome that derived from a process of their own scheme.

Lastly, it is briefly considered whether WWF should adopt a renewed focus on MSC 'conditions' as a tool for achieving "change on the water" despite the persistent flaws encountered with the MSC scheme. However this idea is also deeply flawed. Notwithstanding the fact that all fisheries given conditional certification must demonstrably meet the minimum levels set out in the MSC Fisheries Standard, our experience has shown that few tuna fisheries ultimately fulfil conditions as promised. Many will retain certification without ever meeting conditions. Further, the reliance on conditions only perpetuates a psychology that sub-standard fisheries should be embraced within "the MSC Program" in order to foster their improvement. Experience to date has largely discredited this notion. Instead, it is argued that WWF should continue to insist that tuna fisheries must deliver on promises of improved sustainability <u>before</u> they are entitled to make public claims. This end goal might be better attained, for example, by WWF pursuing Fishery Improvement Projects (FIPs).

From this retrospective, WWF concludes that the MSC scheme was not an accurate means for assessing the sustainability of IO tuna fisheries. Although in some cases WWF may be able to use MSC as a tool to effect change on the water, it is doubtful that the MSC scheme will provide stakeholders with a consistent and transparent mechanism for delivering the kind of change that is envisioned by WWF for IO tuna fisheries management. Furthermore, WWF's experience with

MSC in the IO has revealed some troubling systematic flaws with the MSC scheme which undermines WWF's confidence about the generality of MSC as a lever for improving the fisheries sustainability. Such concerns are only exacerbated by the aggressive efforts by MSC to penetrate the tuna industry with their certification scheme in accordance with the stated objectives of MSC's integrated strategic plan.

The experiences described in this account should inform WWF's strategy on how to engage with the MSC scheme going forward. These lessons were learned through five years of intensive WWF activity, engagement and resources use and it is clear that this type of heavy engagement with the MSC eco-labelling system offers poor 'value for money' for conservation impact. To summarize, some of the key lessons were as follows:

- 1. participation in the fisheries standard review (FSR) was not cost-effective insofar as the proposed relaxation of HCR requirements went forward despite WWF's ardent resistance to it, ultimately resulting in a lowering of the bar for HCRs in the new MSC Standard;
- 2. reliance on conditions of certification is unlikely to be an effective tool for WWF to effect change in the sustainability of fisheries;
- 3. <u>reviews by independent bodies (stakeholders, ASI, and MSC Independent Adjudicator)</u> <u>converged on a singular conclusion CABs were misapplying MSC requirements for</u> <u>assessing HCRs however:</u>
 - a) valid stakeholder input was largely disregarded/ignored in MSC fishery assessments;
 - b) elements of the MSC System did not work together to identify and rectify misapplication of the standard;
 - c) recourse to the complaints mechanism of CABs was pointless, recourse to the complaints mechanism of the accreditation body was marginally effective but was also severely compromised by long reaction timeframes and gains were erased by follow-up actions taken by MSC;
 - d) recourse to the objections procedure was highly effective in the short term, but over the longer term all conservation gains were erased by follow-up actions taken by MSC;
- 4. MSC actively interjected itself into ongoing certification processes (e.g. YFT expedited audit) with emails that unfairly modified the application of new scheme requirements;
- 5. MSC utilized questionable practices to introduce 'interpretations' to clarify the rules relating to HCRs which have served to further distort and lower the bar; and
- 6. MSC has a financial interest in certification outcomes notably in relation to MSC's strategy to increase logo licencing revenue and penetrate the global tuna fishery sector circumstantial evidence is accumulating that this creates a conflict with MSC's role as an independent and impartial standard setting body.

PREFACE

This document sets out a factual account of the events which transpired around WWF's engagement with one industry sector (tuna fisheries) in one part of the globe (the Indian Ocean). Despite the comparatively narrow focus, this case study contains lessons that may be more broadly reflective of how the MSC scheme actually works in practice. Although written with WWF

as the intended audience, the story may be of general interest to other environmental groups or anyone who is contemplating some form of participation in the MSC certification scheme.

The matters considered are primarily examined in the light of objective, verifiable information – most of which is publicly available. In addition, though, subjective information was considered because application of the MSC Standard involves a degree of subjectivity and specific points may be, and often are, open to debate. Since this retrospective seeks to capture a stakeholder's account of events, the writing must also portray WWF's perspective. Therefore non-public WWF documents and the views of key WWF personnel who were directly involved in the MSC assessments are also presented. Their opinions give important insights even if they may not reflect the views of other organizations such as fishing industry groups or the MSC itself.

Completion of this document would not have been possible without the efforts of a number of people from WWF's Smart Fishing Initiative (SFI) Program. Daniel Suddaby played a central role in initiating and orchestrating this undertaking. Many other members of the WWF Fisheries Team have contributed their insights throughout review and comment including Wetjens Dimmlich, Kathryn Read, and several anonymous reviewers.

SCOPE

This work is a 'retrospective' document. It is a case study. Scope covers WWF's engagement as a stakeholder in MSC assessments of tuna fisheries in the Indian Ocean, with particular emphasis on how Harvest Control Rules (HCRs) were assessed. The first of these fishery assessments was announced by the conformity assessment body (CAB) Moody Marine Ltd back in July 2009 – the Pole and Line Skipjack Fishery in the Maldives (Anderson et al. 2012). In the time since then, WWF has been engaged more-or-less continuously with this and other tuna assessments in the Indian Ocean. Hence, the relevant timeframe for this retrospective extends from at least 2009 up until the present – more than 6 years.

Scope must also include consideration of the MSC Fisheries Standard because the MSC certification scheme was itself undergoing an evolution during the timeframe of relevance. Scheme developments impacted – either directly or indirectly - upon the application of MSC Fishery Standard to the assessment of HCRs in Indian Ocean tuna fisheries. And because WWF was a key stakeholder in the MSC Fishery Standard review process for development of FCR2.0, it is relevant to consider the 'fruits' of the organization's efforts in relation to IO tuna fisheries. This retrospective will refer to relevant scheme documents (normative requirements, guidance, and associated instructions), but it will largely be restricted to MSC Principle 1.

It is further noted there are currently 17 tuna fisheries which are already certified or undergoing assessment (MSC website; MSC Fisheries by Species; accessed 19 May 2016). They comprise three species, skipjack tuna, yellowfin tuna and albacore – being harvested from the Indian Ocean, Western & Central Pacific, and Eastern Pacific Ocean. WWF has engaged in many of these assessments, including the first tuna fishery to receive MSC-certification – the AAFA Albacore fishery (Powers et al. 2007). Although not intrinsically part of the scope of consideration, reference is sometimes made to other tuna fishery assessments where relevant.

1. INTRODUCTION

WWF introduces this stakeholder account by starting near the endpoint - the outcome from WWF's objection to the proposed certification of the Echebastar Indian Ocean tuna fisheries. In August 2015, an Independent Adjudicator (IA) reviewed the certification determination reached by Acoura Marine (Pfeiffer et al. 2015) and contested by WWF (WWF 2015a), and he decided that the CAB's determination should not be upheld (Greenberg 2015). The IA's decision set precedent on a number of different levels. From WWF's perspective, it was a watershed moment because it represented the first time in more than five years of work that the MSC System had reinforced

WWF's core assertion that, among other things, the IO tuna fisheries cannot be certified to the MSC Fisheries Standard because they lack HCRs. Finally, it seemed, the MSC System had validated WWF's view.

MSC presents the objection process as a participatory and transparent feature which improves the robustness of fishery certifications (Gutierrez and Agnew 2013), thereby distinguishing MSC from other certification schemes lacking such a process. But it should be recognized that stakeholders face a lopsided battle in an objection. The burden of proof rests with the objector – not the certifier – to demonstrate that an unreasonable determination has been reached. Additionally there are heavy costs and time commitments associated with an objection. And the odds of actually having the objection 'upheld' an MSC objection are very low. At the time of the Echebastar oral hearing in July 2015, there had been a total of 19 objections (see review in Christian et al. 2013). Of these, only one had been upheld such that the fishery was not certified. In that lone case, the CAB had made such a glaring scoring error that it led the Independent Adjudicator to ask if "...the Certification Body¹ may have taken into account whether or not the Fishery would fail overall, in its consideration of individual scoring issues and in turn individual Performance Indicators (Carter 2010)." In short, lodging an objection should never be any stakeholder's preferred action. It should always serve as an act of last resort, as it had always been for WWF.

It is easy to forget that WWF's objection to the Echebastar certification was an act of last resort. WWF had diligently engaged in MSC assessments of Indian Ocean tuna fisheries for more than five years according to the processes prescribed by the MSC 'system'. Despite strong indications that the other actors were not, WWF continued to follow the rules of the MSC game. WWF tried to ensure that each fishery was adequately and fully assessed against the MSC Standard. A key area of WWF's concerns was that CABs assess fisheries against international norms for good fisheries management, especially with regard to ensuring that adequate harvest control rules (HCRs) are in place. WWF's long-standing commitment to rigorous HCRs is evident in their extensive engagement with MSC over Principle 1 during revision of the MSC Fishery Standard (i.e. during the drafting of FCR2.0). But perhaps nowhere else had WWF expended more energy in the MSC arena than working on fishery assessments of Indian Ocean tunas.

Now, WWF's efforts had culminated in an independent adjudicator upholding WWF's objection to the proposed certification of the Echebastar Indian Ocean tunas. Because it represents a success story on one level, it is worth recounting the tale of how victory was achieved and the obstacles that appeared on that journey. On another level, though, the events which transpired shortly after the adjudicator's decision seemed to have reversed the victory, erasing any possibility of the outcome setting a broader precedent in MSC fisheries assessments. This duality of victory and defeat makes the account all the more fascinating and relevant.

2. STRUCTURE OF THIS ACCOUNT

WWF's stakeholder experience is described in two main parts or 'streams' that interconnect with one another. The first stream considers the sustainability of the fishery operation itself. Here is where WWF discusses the management of the fishery and concerns about it. The second stream describes interactions with the various elements of the MSC System. In a sense, this second stream is the "machinery" of the scheme. It consists of independent certification bodies, an independent accreditation body, a standard setting body, independent adjudicators, and various complaints mechanisms and procedures that serve to interconnect those bodies to the MSC certification scheme. The standard setter is included as a component because the MSC Fisheries

¹ The term "Certification Body" (CB) and "Conformity Assessment Body" (CAB) are used as synonyms here.

Standard evolved significantly over the timeframe of this case study. Some of these developments impacted on how HCRs were (and will be) assessed in tuna fisheries.

2.1 Two Streams

In assembling this retrospective, it was important to put the sequence of events onto an accurate timeline (Appendix 1). But it was not practical or even useful to try to describe all of these events in strict chronological order. Related events were often separated in time, while unrelated developments sometimes coincided. WWF looked for a logical organizing principle. Based on WWF's experience, there is a gap between what the MSC Standard promised to deliver (i.e. rigor of the standard) compared to what was actually delivered by the system (i.e. the application of the standard). It was decided that the easiest way to visualize events is using timelines, and events are depicted in two parallel 'streams'. The streams are separate, but they are not independent. An action in one stream might have had consequences that 'overflow' into the adjacent stream, influencing events occurring there. These streams are illustrated in the figure below (Figure 1).

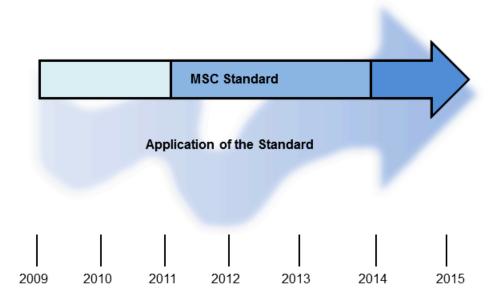


Figure 1. Two 'streams': the MSC standard and its application.

The first stream is the MSC Standard which promises to give us a clear and objective way to view the sustainability of any fishing operation. This stream is represented by normative documents written by MSC. The boundaries of the stream are crisp, the trajectory is clear. The Standard flows (or evolves) in discrete phases according to a scheduled process called "MSC Standard Setting Procedure" (MSC 2016d). WWF is a participant in standard development. WWF's interest in the process is to ensure that the standard is set high enough to incentivize change.

The second stream is what will be called the "application of the Standard." It is a much larger and more complex apparatus. This stream includes CABs and the accreditation body, the procedures that they follow, and the requirements they must meet. Collectively, this apparatus represents the 'machinery' of the MSC System. It is supposed to deliver objective, evidence-based assessments of whether or not fisheries meets the criteria prescribed in the MSC Standard. MSC is also part of

this stream (as discussed below). The boundaries of the second stream are sometimes ill-defined, the trajectory often unclear, and the evolution is nearly continuous. WWF's interest in this stream is to ensure that the apparatus is fit for the purpose of delivering robust, independent assessments.

In this account WWF will distinguish the idea of a certification 'standard' from the concept of a certification 'scheme'. A certification scheme encompasses the standard, but also includes a diverse assortment of additional pieces that give structure to the certification system. These scheme elements provide for standard development, standard implementation and standard review as well as governance and dispute resolution. A simplified view of the standard-to-scheme relationship is illustrated with a Venn diagram in Figure 2. For additional information about the general structure, function and operation of eco-labelling certification schemes, interested readers should consult ISEAL (http://www.isealalliance.org/).



Figure 2. Venn diagram to show how the certification standard is just one part of a certification scheme.

2.2 The MSC System - Independent Assessment, Stakeholder Review

The MSC certification scheme provides us with a certification standard – the MSC Fisheries Standard – and it promises to facilitate independent assessments of fisheries against that standard. The scheme prescribes which bodies give effect to the scheme. Bodies include independent Conformity Assessment Bodies or CABs (also known as Certification Bodies or CBs), a designated accreditation body or AB (Accreditation Services International, GmbH (ASI)), and the procedures according to which they operate. Operational procedures may be prescribed by the MSC or they may follow other international norms such as ISO. This is the 'machinery' that delivers an independent evaluation of the fishery operation against the sustainability standard. Here the term "MSC System" is used to describe to totality of the apparatus as illustrated in Figure 3).



Figure 3. An illustration of the make-up of the MSC System

Included also in the second stream is the standard setting body, MSC. They too play a role in designing and implementing the apparatus as well as introducing modifications to the methodologies, procedures and requirements used to by those bodies when applying the MSC Fisheries Standard.

Stakeholder groups are also expected to play a role within the MSC System. A core component of the MSC approach to fishery assessments is for audit teams to solicit and address stakeholder feedback in order to ensure that the scheme delivers credible, durable certifications. Indeed, the purported sensitivity and responsiveness of the MSC scheme to stakeholder concerns is probably one of the main reasons that WWF has continued to invest significant resources in MSC.

3. APPLICATION OF MSC TO INDIAN OCEAN TUNAS

3.1 Sustainability: Maldives Skipjack

Our account of Indian Ocean tuna assessments begins on 14 July 2009 when Moody Marine Ltd (MML)² officially announced the assessment of the Maldives Pole & Line and Handline Tuna Fisheries. From a stakeholder's perspective, regular and sustained engagement was challenged by the erratic and unpredictable progression of the assessment. There were abundant irregularities in the process, including among others the fact that it ran for more than three years, it involved publishing two versions of the public comment draft report (once in 2010 and again in 2012), there were substitutions of experts on the assessment team, and there were changes to the scope

² Because of a corporate acquisition, the name of the CAB "Moody Marine Ltd (MML)" changed twice during the timeframe of this case study: first to Intertek Moody Marine (IMM) and later to Intertek Fisheries Certification (IFC). But because the CAB continued to function as a single accredited entity, the names and acronyms are effectively interchangeable: MML \leftrightarrow IMM \leftrightarrow IFC.

of gear and species included in the assessment (yellowfin tuna and the handline component of the fishery were eventually dropped from the proposed scope). Nonetheless, despite MML's questionable management of the assessment process, on 18 October 2012 the CB released a final report with its determination that the Maldives pole & line skipjack tuna fishery had met the MSC Fisheries Standard (Anderson et al. 2012).

3.1.1 WWF Objection to Maldives SKJ

WWF objected to the certification of the Maldives skipjack fishery primarily because of "...the persistence of shortfalls by the conformity assessment body (CAB)..." (WWF 2012a). The notice of objection itself was comprehensive, running to 41 pages in length. Only a brief account is given here. In Part 4 of the notice, the shortfalls listed by WWF included ten (10) instances where the CAB had omitted or incorrectly applied procedures: two (2) relating to stakeholder consultation, three (3) relating to formulation of conditions, and five (5) relating to MSC requirements, guidance, definitions, or procedures for scoring. In Part 5 of the notice, WWF argued that the CAB had made arbitrary or unreasonable decisions in relation to setting conditions #1, #2, #3 and #7 (for failure to consult with the IOTC – the organization with ultimate responsibility for implementation of proposed actions), condition #1 (for failing to specify attainment of the 80 level of scoring) and condition #2 (for failing to specify measureable improvements by the fishery). In Part 6 of the notice, WWF asserted that the CAB's scoring was unreasonable or unjustified for eleven (11) performance indicators as summarized in Table 1 below. In Part 7 of the notice, WWF argued that the CAB had not considered relevant information from the IOTC Compliance Committee which may have materially affected the formulation of condition #3 and condition #4 (raised against PI 1.2.3 and PI 2.1.2, respectively).

Table 1. Summary of the scoring errors put forward by WWF in the objection to Maldives SKJ.

Performance Indicator	Brief description
1.1.1 The Stock is at a level which	Fishery does not meet SG100 of issue b because there is
maintains high productivity and	not a high degree of certainty that the skipjack stock has
has a low probability of	been fluctuating around its target reference point over
recruitment overfishing	recent years
1.1.2 Limit and target reference	Fishery does not meet SG60 of scoring issue a because
points are appropriate for the	there are no reference points for the fishery
stock	
1.2.1 There is a robust and	Fishery does not meet SG60 of issue a-c because there is
precautionary harvest strategy in	no harvest strategy in place and the key elements of any
place	such presumptive strategy (HCR, reference points) are
	lacking
1.2.2 There are well defined and	Fishery does not meet SG60 for issues a and c because
effective harvest control rules in	there are no HCRs in place for the fishery and,
place	consequently, no evidence that HCRs are effective
1.2.3 Relevant information is	Fishery does not meet SG60B because the is only limited
collected to support the harvest	data available on all 'other' (non-UoC) removals from the

strategy	stock
1.2.4 There is an adequate	Fishery does not meet the SG100 level for issue a and d
assessment of the stock status	because of considerable uncertainties associated with the stock assessment
 2.1.1 The fishery does not pose a risk of serious or irreversible harm to the retained species and does not hinder recovery of depleted retained species 2.1.3 Information on the nature and extent of retained species is adequate to determine the risk posed by the fishery and the effectiveness of the strategy to manage retained appears 	Fishery does not meet the SG80 level because of considerable uncertainties associated with the assessment of baitfish. Note: the CAB used the risk based framework (RBF) to score this indicator. Fishery does not meet the SG80 level of issue a and d because there is insufficient quantitative information on the amount of main retained species (bigeye tuna) taken to detect any increase in risk levels
 manage retained species 2.2.2 The fishery does not pose a risk of serious or irreversible harm to the bycatch species or species groups and does not hinder recovery of depleted bycatch species or species groups. 	Fishery does not meet the SG80 level of issue a because maintaining current practices is not sufficient to ensure that bycatch species remain within biologically based limits
2.5.1 The fishery does not cause serious or irreversible harm to the key elements of ecosystem structure and function.	Fishery does not meet the SG100 level because of the many uncertainties. To our knowledge, there is no evidence that changes in species composition due to the bait fishery are not detectable against natural variation.
3.1.2. The management system has effective consultation processes that are open to interested and affected parties. The roles and responsibilities of organisations and individuals who are involved in the management process are clear and understood by all relevant parties.	Fishery does not meet the SG100 level of issue a because the roles and responsibilities are not well defined or understood in many areas of the IOTC, for example Contracting Parties and Cooperating Non-Contracting Parties at IOTC SC and Commission meetings.

WWF's notice of objection contained a lengthy and detailed list of alleged CAB errors but many of those issues are beyond the scope of the present account. Of direct relevance to this retrospective are WWF's criticisms of how the CAB interpreted and scored harvest control rules under PI 1.2.2. Also in relation to HCRs, errors were found in how the CAB scored the harvest strategy under PIs 1.2.1 and 1.2.3. WWF asserted unequivocally that HCRs are not in place for the management of IO skipjack fisheries. WWF had already voiced this criticism in their comments on the Public Comment Draft Report (PCDR) for Maldives SKJ on 20 April 2012. A more technical consideration of HCRs follows in subsequent section of this document. The main point here is that WWF clearly articulated concerns about HCRs near the very beginning of the first MSC assessment of an Indian Ocean tuna fishery. And WWF restated this point with equal clarity and emphasis every time the CAB solicited stakeholder feedback.

It is possible that a complete adjudication of the Maldives skipjack objection would have corroborated WWF's allegations about CAB errors on many, if not all, of the points raised therein. However we will never know the answer because the objection did not run its full course. On 23 November 2012, the independent adjudicator Michael Lodge issued a final decision that the objection would not proceed further because the parties to the objection were able to resolve their differences through negotiations (Lodge 2012). One week later IMM certified the Maldives skipjack fishery with an amended set of conditions.

Why did WWF back down from the objection when their case for CAB misapplication of the Standard appeared to be so strong? Daniel Suddaby, Global Tuna Governance Lead for WWF, explained, "We wanted the IOTC to implement clear HCRs. Since our concern was really with the CAB misapplication, rather than the fishery client, we decided to negotiate directly with the fishery client for robust action and adoption of HCRs by the IOTC. The CAB's lack of performance would be best addressed separately through the MSC accreditation system." In mid-November, WWF and the fishery client, Maldives Seafood Processors and Exporters Association or MSPEA, reached a negotiated settlement on the points raised in the Notice of Objection. Settlement involved agreeing to some significant re-wording and timings of three conditions (PI 1.1.2, PI 1.2.2 and PI 1.2.3) and a revision of the associated milestones and Client Action Plan (see Lodge 2012) which created a much more demanding level of achievement needed to continue certification.

That approach, however, left the question open of whether the CAB had misapplied the MSC Standard in relation to HCRs. Suddaby added that "We still saw this as a misapplication of the MSC Standard, and hence a critical global issue of poor CAB performance. But to address this problem of CAB performance, we decided to use the tools that are provided by the MSC system." Suddaby is alluding to the complaints mechanism - one of the central tools the MSC scheme uses to address stakeholder concerns about misapplications. Taking a strategic view, WWF was satisfied with client's proposed actions for "change on the water." So WWF decided to handle CAB errors as a separate matter. They took it to the next level of the MSC system by filing a complaint about the CAB.

3.1.2 WWF Complaint about Maldives SKJ

On 29 January 2013, WWF lodged a formal complaint with IMM over the CAB's assessment of the Maldives SKJ fishery (WWF 2013b). The WWF letter of complaint ran to 13 pages in length and it touched on many of the same points raised in the notice of objection. WWF asserted that IMM had, in a number of instances, misinterpreted or misapplied MSC certification requirements. The letter presented detailed evidence for eight (8) different items or points of contention. Of direct relevance to this account, complaint items #4 (PI 1.2.1) and #7 (PI 1.2.2) were directly related to the matter the CAB misapplying MSC requirements for HCRs. The letter of complaint closed by explaining that WWF's intention is "...to ensure preventative actions be taken [by IMM] to avoid repeat lack of conformance with MSC certification requirements in further IMM assessments, especially for tuna."

The sequence of events relating to the investigation of WWF's complaints is shown in Table 2 below. IMM confirmed receipt of the complaint on 4 February 2013 but provided WWF with no updates (despite several inquiries) for the next three months. It is noted that the accreditation body, ASI, became involved at a later stage in the process. Note that ASI's policy regarding complaints about CABs is that these matters should be, in the first instance, directed to the CAB for resolution.

Date	Activity or Communication Relating to Maldives SKJ Complaint
29-Jan-	WWF submits complaint to IMM
2013	
04-Feb-	IMM confirms receipt of WWF complaint
2013	
25-Mar-	WWF queries IMM on status of complaint
2013	

Table 2. Event timeline: WWF complaint about Maldives SKJ.

25-Mar-	IMM responds explaining that investigation is delayed until end of April
2013	
01-May-	WWF forwards complaint to ASI because of lack of CAB response
2013	
01-May-	IMM responds that they will finish investigating the complaint by May 6
2013	
o6-May-	IMM provides formal response to WWF complaint
2013	
29-May-	WWF informs ASI that CAB response was unsatisfactory. Complaint accepted by
2013	ASI.
01-Aug-	ASI completes investigation, sends report to WWF. ASI raises 2 nonconformities
2013	(NCs) with IMM
o8-Oct-	WWF requests ASI to re-assess the complaint based only on information from the
2013	PCDR stage
14-Oct-	ASI acknowledges receipt of revised complaint and forwards to CAB for resolution
2013	
03-Mar-	WWF inquires to ASI about the status of revised complaint
2014	
10-Mar-	ASI explains to WWF that IMM appealed ASI's decision from the first complaint
2014	investigation
29-Aug-	ASI updates WWF on complaint explaining status of NCs, plan for review of
2014	Maldives YFT PCDR.
01-Sep-	ASI explains that revised complaint will be examined on the basis of the present,
2014	not past
02-Sep-	WWF asks that ASI provide a timely response on the revised complaint
2014	
o8-Oct-	ASI update: NC upgraded to major following YFT audit; PI 1.2.2 HCR definition
2014	not in conformity
02-Dec-	ASI follow-up: advises WWF about MSC email to CABs on 'available' HCRs
2014	

On 6 May 2013, IMM provided a response to WWF about the Maldives SKJ complaint. The IMM response was characteristically brief. IMM had reviewed each item and consulted with team members. For Items #4 and #7, IMM reiterated the scoring rationale as presented by the assessment team in the Final Assessment Report, including a note that "the same concern was raised by WWF in their response at the PCDR stage of this assessment and the assessment team provided a detailed response." IMM conceded that one error had been made regarding the score for an interim milestone (item #1) but concluded that with respect to all of the other issues WWF raised, "I do not believe there was misinterpretation or application of the MSC certification requirements."

On 29 May 2013, WWF informed ASI that IMM's handling of the complaint was unsatisfactory and therefore WWF formally lodged the same complaint with ASI (WWF 2013c). Shortly afterwards, ASI took up the investigation of the Maldives SKJ complaint. On 1 August 2013, ASI issued a complaint investigation report (ASI 2013). Two non-conformities³ (NCs) were raised. The first was a major NC in relation to the CAB's failing to take appropriate action upon receiving a stakeholder complaint regarding the Maldives Pole & Line Skipjack Tuna assessment (ISO-GUIDE-65: 1996 – 7.2b). The second was a minor NC because the CAB failed to use the definition

³ The accreditation body typically issues audit findings to CABs as nonconformities (NCs). NCs are graded as either minor (i.e. a temporary lapse in compliance which is of small consequence) or major (a systematic lapse in compliance and/or a lapse which is of potentially significant consequence). Once issued, CABs must resolved NCs within prescribed timeframes. For more details, see the ASI website: www.accreditation-services.com/

of harvest strategy and harvest control rules required by the MSC Certification Requirements v1.2 in the scoring of PI 1.2.1 and PI 1.2.2 (MSC-CR-v1.2 -Annex AA: MSC-MSCI Vocabulary – Normative). ASI advised WWF of the schedule for following-up with the CAB on the findings.

When WWF reviewed ASI's complaint report, it became clear that ASI had not based their investigation on the desired body of evidence. ASI had evaluated CAB conformity based on evaluation of the Public Certification Report or PCR (a document which was the result of lengthy and expensive interventions by WWF into an objection, not as a result of IMM internal systems and practices). WWF did not intend for ASI to audit against a PCR that WWF had itself contributed to. In WWF's original complaint to ASI (WWF 2013c) it was stated that the purpose of the complaint was to assure WWF that IMM are able to "perform assessments in full conformance with MSC Certification Requirements and, critically, to demonstrate their capacity to be able to identify situations when this is not possible and to assess the fishery accordingly." In effect, WWF wanted the accreditation body to look more deeply at this instance of misapplication to search for root cause within the CAB's management system.

On 8 October 2013, WWF submitted to ASI a 'revised' complaint letter (WWF 2013d) requesting that the audit outcomes be reassessed by ASI, without making reference to immaterial events or reports taking place following the date of publication of the PCDR. ASI forwarded the revised WWF complaint to the CAB (Table 2) but it is unclear if IMM ever responded to it. However, what is clear is that IMM appreciated the significance of the situation because the CAB took the unusual step of appealing ASI's decision from the complaint investigation (i.e. the CAB contested the validity of the two NCs raised by ASI in the original complaint report). The appeal was not upheld and the NCs were deemed valid.

Subsequent details of ASI handling of the revised WWF complaint are based on a number of email exchanges which took place over the ensuing 10-12 month period. It is evident that ASI did not revisit the PCDR as WWF had requested them to do. Instead, the key part of ASI's proposed follow-up was to review IMM's ongoing expedited assessment of Maldives YFT (see below). ASI witnessed the on-site component of the YFT expedited assessment in October 2014 and raised a major nonconformity⁴ regarding the team's scoring of PI 1.2.2. The basis of that major NC was the misapplication of the MSC requirements relating to HCRs and tools. This action, had the effect of stalling the YFT assessment...perhaps until the IOTC had implemented HCRs for yellowfin tuna. It also serves to underscore that reviews by independent bodies (stakeholders, ASI, and later the IA) were converging on a singular conclusion: CABs were misapplying MSC requirements for assessing HCRs.

It is difficult to establish closure on WWF's complaint to ASI. ASI acknowledged that the complaint was still open in December of 2014 – nearly two years after the complaint was first submitted to IMM. But discussions about the complaint ceased shortly after an email from the MSC (24 November 2014), which enabled and encouraged CABs to use the 'available' clause for HCRs from FCR2.0 in their ongoing assessments. ASI's last communication to WWF on the matter cited the same MSC email. ASI said (2 December 2014) that two CABs still had open major NCs relating to the level of rationale provided in relation to harvest tools for different tuna fisheries" and that ASI would "keep WWF informed about the still open complaint and the respective NCs." Regardless, IMM moved forward quickly and certified the Maldives YFT fishery just eight days later. ASI's ongoing complaint investigation and the open NCs did not impede the CAB from wrapping-up the assessment.

3.2 IOTC Management of Tunas: HCRs are NOT in place

⁴ ASI upgraded minor nonconformity #11431 (misapplication of HCRs) to a major nonconformity.

Are the Indian Ocean tuna fisheries managed with HCRs as defined by MSC? Simple answer, no. During the Maldives assessment, WWF articulated this case very clearly and presented evidence to show that there were no HCRs 'in place' in the Indian Ocean for management of skipjack stocks. Enactment and implementation of HCRs would require action by the Indian Ocean Tuna Commission or IOTC (see description in Box 1).

Box 1. IOTC

(From MSC Independent Adjudicator, Greenberg, 2015) The [Echebastar purse seine tuna] fishery is managed by the Indian Ocean Tuna Commission (the "IOTC" or the "Commission"), a Regional Fisheries Management Organization "RFMO") established under the terms of the Agreement for the Establishment of the Indian Ocean Tuna Commission (the "Agreement"). The Agreement, adopted at the 105th Session of the Council of the U. N. Food and Agriculture Organization, was signed on November 25, 1993, and entered into force on March 27, 1996. The IOTC has thirty-one Members States. Nearly all the major tuna fishing nations in the Indian Ocean, including the European Union and the Sevchelles where the fishery client's vessels are flagged, are parties to the Agreement and members of the Commission. The Commission is structured like other RFMOs, with the Commission itself, which is composed of the Member States, exercising basic decision-making authority. Under Article IX of the Agreement, a two-thirds majority of the Members present and voting is required to adopt conservation and management measures, which are then binding on the Member States. The Commission relies upon the advice and recommendations of subsidiary bodies, most importantly the permanent Scientific Committee, in taking action.

With respect to PI 1.2.2, WWF summarized the situation as follows in the Notice of Objection (WWF 2012a; p. 28): "as determined by the IOTC itself, there are no harvest rules in place for IO skipjack. Therefore there are no mechanisms to effectively control catch and/or effort for the skipjack stock. Evidence from other tuna stocks managed by IOTC provides no basis even based on plausible argument that effective harvest rules would be adopted, and if adopted that they would be implemented. We cannot therefore see how given the current MSC requirements the Fishery can score 60."

At this point in the account, it seems self-evident that the CAB had made an error. HCRs are not in place to manage the IO Skipjack stock and therefore the fishery cannot be said to meet MSC requirements. Concluding otherwise would be a misapplication of MSC Fisheries Standard. However the CAB's conclusions were not nearly so transparent and the arguments presented were much more nuanced. To understand, we need to digress from the specifics of Indian Ocean tuna assessment and consider how HCRs fit within the MSC System. Appendix 3 elaborates on HCR concepts & definitions and how MSC intends for HCRs to be assessed in fishery assessments.

3.3 Expedited Assessment of Maldives Yellowfin Tuna

Amidst WWF's concerns about ongoing tuna assessments in the Indian Ocean, another certification quietly began to move forward again in fall of 2013. The Maldives Yellowfin Tuna (YFT) – previously put forward as a unit of certification within the assessment of the Maldives pole & line fishery – was restarted by IMM during August-September (see Scott and Stokes 2014). For this stock, the CAB sought to utilize a relatively new mechanism entitled "Expedited Principle 1 Assessment" which was introduced by MSC with the release of CRv1.3 in January 2013. MSC created the new rules (see Annex CL of CRv1.3) to streamline the assessment process for stocks which are managed within an already-certified MSC fishery. Maldives YFT was, in fact,

the first tuna fishery to be put forward by any CAB for certification under an expedited P1 assessment mechanism.

Note that expedited P1 assessments are vastly reduced from the full assessment process. This means that fishery clients can potentially move more quickly and save money. It also means that stakeholders are significantly disadvantaged in participating - to the point where objections are disallowed. MSC recognized the problem of disallowing objections and, with release of FCR2.0, they rectified it by giving stakeholders the ability to also object to certifications awarded through expedited assessments to extend scope (see Annex PE in FCR2.0). Significantly, it must also be noted that before any CAB can conduct an expedited P1 assessment, they must seek MSC approval via a variation request

Some of the key steps in the expedited assessment of Maldives YFT are shown in Table 4 below. IMM announced the expedited P1 assessment on 30 September 2013 as posted on the MSC website. In the announcement IMM stated their intention to assess Maldives YFT in accordance with Annex CL of CRv1.3: Expedited Principle 1 Assessments. The announcement was published alongside an approved variation request from MSC (30 September 2013). That approval letter from MSC was actually a re-issue of the original approval that MSC had given to IMM's first variation request (submitted 13 August 2013). Re-issuance happened for reasons discussed below.

Date	Event
13-Aug-	IMM requests a variation from MSC for expedited P1 assessment
2013	
16-Sep-	WWF expresses concerns to MSC over the proposed assessment.
2013	
30-Sep-	MSC accept the variation after strengthening its terms; the assessment can
2013	proceed.
30-Sep-	IMM publicly announces the expedited P1 assessment of Maldives YFT.
2013	
13-Dec-	WWF submits input to IFC detailing items of concern with the assessment.
2013	
26-Aug-	IFC releases the Draft Report for public comment.
2014	
25-Sep-	WWF comments on PCDR: Has IFC misapplied MSC requirements for HCRs to
2014	Maldives YFT?
o8-Oct-	ASI raises major NC: IFC had misapplied the MSC requirements for HCR to
2014	Maldives SKJ
24-Nov-	MSC publicly acknowledges: there is widespread misapplication of HCR
2014	requirements
10-Dec-	IFC certifies Maldives YFT
2014	

Table 4. Event timeline: key steps in the expedited assessment of Maldives YFT.

The re-issuance of MSC's variation approval came about because of WWF input. In a private letter to MSC dated 16 September 2013, WWF voiced concerns about risks associated with Indian Ocean stocks of YFT, about the use of Annex CL to assess fisheries on those stocks, and about the

omission of an objection procedure which could possibly compromise stakeholder involvement. These matters came to a point as MSC and WWF were debating IMM's variation request for Maldives YFT. MSC ultimately decided to approve the variation request but assured WWF that "... we [MSC] will seek to strengthen the assessment itself under strengthened terms [specified in the variation]." Notably those terms set out a requirement: #4 *The CAB shall take particular note of the issues raised in the objection to the existing SKJ fishery, and the amendments that were made to the SKJ assessment to satisfy them, and shall provide rationale to ensure consistency with these outcomes.* Harmonization to SKJ would mean that YFT would also get a condition requiring development of HCRs within a set time frame.

As the assessment proceeded, WWF twice submitted thorough sets of comments about the fishery: first as an initial summary of concerns (16 September 2013) during the CAB's information gathering phase, and again upon review of PCDR (25 September 2014). In the latter case, WWF input was explicit about the CAB's apparent misapplication of MSC rules for assessing HCRs. Additionally, and perhaps more significantly: the CAB did not adhere to the terms of the variation that MSC had issued, failing to harmonize the language of conditions on YFT to that used for conditions on SKJ (see procedural error #1 in WWF Notice of Objection; WWF 2015b).

In an interesting juxtaposition, MSC informed CABs (in an email dated 24 November 2014) that they could use the "available clause" of the newly released FCR2.0 for assessments which were otherwise being done under CRv1.3. In that email, MSC recognized and publicly acknowledged the mistaken application by CABs of this rule for assessing HCRs. Perhaps MSC felt that allowing for early implementation of new MSC rules for assessing HCRs would serve to correct widespread misapplication. Or perhaps there was an interest in showing that YFT fishery actually met the standard. MSC's motivation is unknown. But MSC's timing is uncanny (YFT was certified 16 days later) and MSC's rationale for doing so is inconsistent with the effect. If MSC's objective was to correct the errors relating to application of Annex CL, it would have been logical for MSC to also allow an objection to YFT – a process which was erroneously disallowed in Annex CL⁵. But this was not the case.

On 19 January 2015, WWF tried to object to the expedited certification of Maldives YFT but the independent adjudicator concluded that CRv1.3 requirements "do not allow for an objection to this decision." The adjudicator went on to say that "Any concerns as to the propriety/process in this matter would need to be directed to MSC itself and I will pass this matter on so it may be brought to their attention" (Carter 2015). In fact, WWF did try to address the matter directly by lodging a formal complaint against MSC (WWF Letter to MSC dated 20 February 2015). Although MSC is obligated to resolve formal complaints according to its internal procedures (MSC 2011), it seems the WWF complaint was put on hold indefinitely after some informal discussions between MSC and the complainant.

What is interesting about this case isn't the fact that WWF's input was flatly ignored by the CAB (again) or that WWF was disallowed from objecting to CAB errors of HCR assessment. The fascinating part is how the timing of the YFT assessment and certification sits within the sequence of controversies which had arisen over the misapplication of HCRs (Figure 4). The assessment began after IMM and ASI had reviewed the WWF's complaint about the CAB misapplying HCRs in the assessment of Maldives SKJ (an analogous case involving IOTC management of a tuna stock). As a result of ASI's complaint review, the accreditation body had already raised a nonconformity about IMM's handling of HCRs even before the formal start of the YFT expedited assessment (ASI 2013).

⁵ MSC acknowledged to WWF that they had inadvertently excluded the objection process under Annex CL of CRv1.3. MSC rectified this error in FCR2.0 by allowing for objections to expedited assessments.

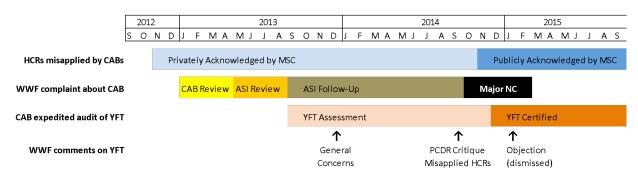


Figure 4. Timing of Maldives YFT expedited assessment compared to misapplication of HCRs.

Things get even more interesting if one looks at events happening near the date of certificate issue (10 December 2014). Just weeks prior, ASI had raised a major nonconformity with IMM owing to the failure of the CAB to correct their misapplication of HCRs in their fishery assessments. In November, MSC had, for the first time, publicly acknowledged that CABs were misapplying the rules for assessing HCRs⁶. And yet a certificate was awarded to Maldives YFT. This outcome suggests that intentions of the various parties to make corrections – whether by CAB, ASI, or WWF – were totally inconsequential to the certification determination. The process for Maldives YFT was a straight-line trajectory to certification.

While the expedited assessment of Maldives YFT is an interesting story in its own right, this case is included in the retrospective primarily because it shows how the MSC System can fail to resolve an obvious misapplication of scheme requirements. WWF's persistent and concisely expressed input should have made the error clear for all parties to see. The CAB of record was known to have misapplied HCR requirements in the past and had done so in the very fishery under consideration (SKJ UoC). A review by the accreditation body concluded that CAB misapplication was a risk that must be addressed. And the standard setting body was acutely aware of the problem. Yet despite all this, the CAB reached a positive determination and an MSC certificate was awarded. The system of checks and balances failed – a fact painfully highlighted by recent YFT stock decline due to lack of harvest control tools (see below).

If there is an epilogue to the Maldives YFT example, it is not a reassuring one. Despite clear evidence of misapplication of MSC rules for assessing HCRs, there was never a move to revoke MSC certification of Maldives YFT fishery on those same grounds. The major NC which was raised by ASI was not enough to trigger a certification review...even though the measure by ASI implied that the fishery assessment process was itself flawed. The verdict from the Echebastar objection was not weighty enough to prompt surveillance auditors⁷ to do an expedited audit of the fishery to re-score PIs relating to HCRs. And the IOTC did not adopt HCRs to bring the YFT fishery into compliance with MSC (although IOTC did subsequently adopt HCRs for SKJ; see below). No, the Maldives YFT fishery enjoyed its certification status continuously for a full 16 months. That certification extended eight months beyond the Echebastar verdict.

On 15 April 2016, the CAB suspended the Maldives YFT because the IOTC Scientific Committee had determined that the stock was being overfished (Kiseleva et al. 2015). Ironically, even when scientific advice made it clear that the YFT stock was being subjected to overfishing, there was

⁶ Long before public admission, MSC had privately acknowledged to WWF that CABs were misapplying HCRs. In an email to WWF from 4 October 2012, the MSC Standards Directors confirmed WWF's "concern that there is widespread misunderstanding about the issue, and that this is putting WWF in the difficult position of having to repeatedly raise commentary on it for individual fisheries."

⁷ Certificates for the Maldives fishery were transferred from IFC to DNV-GL on 9 December 2015.

still no indication that IOTC would take meaningful action according to an HCR for yellowfin tuna⁸.

3.4 YFT Stock Status and HCR in Hindsight

They say hindsight is 20:20. Still, it may be useful to examine old arguments in light of new stock assessment information for YFT. This enables us to ask about the accuracy of scores for stock status and HCR effectiveness. In effect, we can ask: who was more accurate, the team or the stakeholders?

In the 2014 PCDR for expedited YFT, WWF commented on PI 1.1.1, saying "...all the CAB's rationale for their scores are based on projections forward from the last stock assessment, several years ago [2011]. We do not see how they can arguably claim to have knowledge, at greater than 95% confidence level, of the current status of the fishery based on their projections of old stock assessments of a heavily fished stock.". Regarding PI 1.2.2, WWF asserted that "As the burden of proof in all cases rests with the assessment team, the CAB should provide clear evidence that management of yellow fin tuna stock in the Indian Ocean have used appropriate tools in the implementation of defined harvest control rules effectively at some time in response to changes in the fishery." In the final report, the CAB justified scoring PI 1.2.2si(c) at > SG60 on grounds that the fishery met the requirements of SA2.5.6 insofar as the current levels of exploitation in the UoA were evidence that tools to control harvest are working. WWF's warnings were ignored by the assessment team.

As it came to light in late 2015, new assessment information showed that IO YFT was overfished and that overfishing had been occurring for several years. IOTC did not follow an HCR⁹ in response to the stock decline because there no pre-agreed actions were in place for them to follow. With the benefit of hindsight, we can now see that WWF's assertions were accurate – that YFT was being subjected to overfishing and that overfishing was occurring at the very time when the CAB was making the argument that a healthy YFT stock was evidence of an effective HCR. The CAB had dismissed stakeholder input which was subsequently validated. The new information also substantiated WWF's general view that the IOTC had lacked effective tools to control YFT exploitation – a concern which was also ignored by the CAB. Does this dismissive approach to fishery assessment reflect a sincere effort to gauge the sustainability of fisheries management? Or is this an exercise to certify stocks while they are healthy and then suspend them when they are not?

3.5 Echebastar Objection

On 22 January 2013, a second IO tuna fishery was announced for full MSC assessment: the Echebastar Indian Ocean Purse Seine Skipjack, Yellowfin and Bigeye Tuna Fishery. The CAB was Food Certification International, Ltd (FCI)¹⁰ and the version of the MSC Standard used for the assessment was CRv1.3¹¹. There was obvious overlap of the Echebastar assessment with that of

⁸ IOTC has recently initiated a management strategy evaluation (MSE) for YFT which may eventually lead to the adoption of HCRs for YFT, much the same as has occurred for SKJ. However, IOTC is presently is not capable of adequately responding to YFT stock declines via effective harvest control tools which are in place or available.

⁹ as above

 $^{^{\}rm 10}$ In 2015, a corporate acquisition led to FCI being renamed "Acoura Marine". The two CAB names are used interchangeably here.

¹¹ In scoring Echebastar, FCI did not make recourse to the "available" HCR argument as provided for in FCR2.0 despite an enabling email from MSC on 24 November 2014 which would have allowed the CAB to do so.

Maldives SKJ fishery, namely the both fisheries are conducted under the same overarching management framework, the IOTC. But there were also some big differences. Notably, Echebastar involved a fishing method (purse seine fished either in association with FADs¹² or as un-associated 'free' sets) that differed considerably from pole & line as used in the Maldivian fishery. By extension, the Echebastar fishery had greater potential for environmental impact. But of greater relevance to this retrospective account, the Echebastar assessment would involve new tuna species – bigeye and yellowfin tuna¹³ – which are typically less resilient to exploitation than skipjack (e.g. Fishbase¹⁴).

FCI released the PCDR for Echebastar IO tunas on 5 December 2014. WWF provided the CAB with comments shortly afterwards. WWF's concerns were numerous and the comments were extensive (c. 26 pages in length). WWF summarized: *"There is a lack of objective evidence provided by the assessment team to provide a convincing case that the tuna stocks are managed sustainably, in conformance with the MSC requirements. In fact the evidence to date indicate that the fishery lacks a harvest strategy as defined by the MSC, any harvest control rules as defined by the MSC, and, of greater concern, there is no evidence of a precautionary approach to management, in spite of projected declines of some stocks resulting from overcapacity and a demonstrated and repeated lack of management response to catch levels recommended by the IOTC Scientific Committee."* These broader assertions were abundantly supported by detailed facts presented in the main body of WWF's submission. Nonetheless, FCI reached a determination that Echebastar Indian Ocean Purse Seine Skipjack, Yellowfin and Bigeye Tuna Fishery should be certified according to the MSC Principles and Criteria for Sustainable Fisheries (Final Report; 24 March 2015). WWF filed a notice of objection on 17 April 2015 (WWF 2015a).

The Independent Adjudicator for the objection convened an oral hearing on 31 July 2015 in London and the he issued his decision shortly thereafter (on 21 August 2015; see Greenberg 2015). The central thrust of the IA's decision is encapsulated well in paragraph 14:

"Despite the complexity of the Notices of Objection, I believe that this case ultimately comes down to a single, core scoring issue under MSC Principle 1¹⁵: whether a Harvest Control Rule ("HCR") is in place or available so as to satisfy PI 1.2.2 at the SG level of 60 as found by the CAB¹⁶. In my judgment, the CAB has established neither that an HCR is in place nor that one is available (as the MSC defines availability). The flaw is fundamental, irremediable and fatal. Because, as I explain below, the CAB acted arbitrarily and unreasonably in even assigning a score of 60 under this PI for each of the three free set UoCs, the fishery itself

¹² The three FAD-associated UoCs were withdrawn during the course of the Echebastar assessment.

¹³ FCI announced the Echebastar YFT assessment before IMM announced the expedited audit of Maldives YFT.

¹⁴ Fishbase lists the vulnerability index of bigeye tuna as high/very high. YFT and SKJ are both listed as medium. But high exploitation level of the Indian Ocean YFT stock was cause for concern.

¹⁵ [from Greenberg 2015] MSC Principle 1 provides: "The fishing activity must be a level which is sustainable for the fish population. Any certified fishery must operate so that fishing can continue indefinitely and is not overexploiting the resources."

¹⁶ [from Greenberg 2015] WWF objects the CAB's approach to PI 1.2.2 on both procedural and scoring grounds. In re: Greenland Cod, Haddock and Saithe Trawl Fishery, §§ 12-14 (MSC, March 27, 2015), the Independent Adjudicator determined that procedural objections of a similar nature, basically related to the CAB's approach to scoring, could not stand, and it was proper just to consider the scoring objections per se, without regard to the asserted procedural irregularity. I would be disposed to follow this decision. However, in view of my resolution of the scoring element of W WF's objections, I find that it is not necessary to reach this issue.

must fail¹⁷, and I see no reason to reach the myriad of other issues raised by the objectors."

The Independent Adjudicator concluded at §25 that the grounds for WWF's objection to PI 1.2.2 had been established and, therefore, the objection was to be upheld. Following the IA's remand, on 13 November 2015, Acoura Marine announced that the Echebastar Indian Ocean tuna fishery "shall not be certified according to the Marine Stewardship Council Principles and Criteria for Sustainable Fisheries, as the fishery has failed to meet the standard." In so doing, an Independent Adjudicator – who was appointed by MSC - had confirmed that the IOTC lacks the HCRs and harvest tools required by the MSC standard for tuna stock management. Finally, the MSC System had addressed head-on the issue of CAB misapplication of HCRs that had been repeated in previous tuna assessments over a number of years.

Dr Wetjens Dimmlich, WWF's Indian Ocean Tuna Programme Manager, commented, "The situation in the Indian Ocean is absolutely clear with regards to control of tuna stocks; in a recent report IOTC scientists noted that the yellowfin tuna fishery is unsustainably managed and there are no measures in place to control the harvest of this species, which is now in a seriously overfished state. It is hoped that the MSC will encourage all parties seeking certification in the Indian Ocean to participate in and support work to improve the management of tuna stocks, none of which yet are sustainably managed."

If our story stopped here, the outcome of the Echebastar objection would probably be held up as a brilliant example of how diligent stakeholder engagement is rewarded by the MSC System. WWF's years of sustained effort to address misapplication of the MSC Standard had finally materialized as a watershed moment that would promote greater rigor in assessing HCRs going forward. Echebastar was poised to set a precedent that would improve the basis of sustainability determinations in all MSC fishery assessments. An uplifting moral no doubt, this theme would have taken centre stage our retrospective if it were the endpoint.

Our story, however, does not stop here. The fascinating part of this account is what happened *after* the verdict was issued. MSC acted quickly in various ways to clarify the rules surrounding HCR assessment and to establish new procedures for harmonizing assessments of RFMO-managed tuna fisheries (MSC 2016a) and even to enact procedures for conducting simplified assessments¹⁸. Daniel Suddaby, at the time Deputy Leader WWF Smart Fishing Initiative, described the Echebastar objection as a journey that "…had been too long and too expensive, but at least had the positive result of clarifying the MSC standard." However Suddaby was very concerned about MSC activities which followed the verdict¹⁹. "Rather than accepting their Adjudicator's clarification which effectively addresses the poor application against the standard by the CABs, MSC has initiated a revision of the MSC Fisheries Standard using a process that does not conform to international requirements for environmental accreditation and labeling. This ultimately will not drive conservation change but instead further increase the misapplication of the standard seen in the Echebastar assessment."

As discussed in the next section, from outward appearances it seems that forces were set in motion to counteract any precedent that might have been set by Echebastar.

¹⁷ [from Greenberg 2015] Under Section 27.10.5.1 a of the CR, if any scoring element fails to achieve an SG 60, the fishery fails and is ineligible for certification.

¹⁸ Echebastar enrolled in a 2016 MSC pilot study for simplified assessments https://improvements.msc.org/database/simplification/pilots

¹⁹ WWF Press release, 18 November 2015.

4. MSC STANDARD SETTING PROCESS

Section 4 considers MSC's standard setting processes as they relate to HCRs and how those processes may have had potential to influence or be influenced by the aforementioned Indian Ocean tuna assessments. Additional background information on HCRs and a more detailed discussion of how the HCR concept has evolved within the context of the MSC Fisheries Standard is given in Appendices 2-4.

4.1 MSC Fisheries Standard Review

WWF was an active participant in the MSC Fisheries Standard Review (FSR) process. That involvement lasted almost two years (November of 2012 thru September of 2014). WWF dutifully engaged the FSR as a stakeholder because the initiative promised to revise and bring the standard up to date. Another goal of the FSR was to bring the standard revision process into alignment with ISEAL requirements for such revisions to be done minimally every five years (§4.1 R2 of ISEAL Code of Good Practice, v6.0, 2014).

From the outset of the FSR, WWF identified HCRs as a critical issue to be addressed during the standard revision process. This was made plain in WWF's first submission to MSC at an early scoping stage (see WWF comments on FSR; 2 November 2012).

"Currently we are seeing the MSC standard interpreted so as to give conditional/ unconditional passes to management systems with no determined actions (HCR and strategies) but that are simply lucky enough to be fishing on a resilient stock that is above a Bmsy level. We believe the MSC Standard, in the case of tuna fisheries, has not been applied robustly and consistently. As such we are left to challenge individual assessments and CABs, raising questions of conformity on the application of the standard. However MSC can and must provide clarity on interpreting its standard."

WWF's position regarding HCRs was that pre-agreed rules must be in place. Intrinsic to this assertion is the concept that a rule, in the context of fisheries management, has some obligatory standing. The alternative notion – that CABs could use a non-agreed arrangement to infer the existence of a rule - seems indefensible. From WWF's point of view, HCRs are rules which by definition are pre-agreed.

During the revision process, it became clear to WWF that the proposals being put forward in the FSR were not geared towards improving the rigor of fishery assessments to reflect best management practices surrounding HCRs, but rather a lowering of the bar in relation to what should constitute an acceptable HCR (i.e. the application). MSC called this proposal a "clarification" and it would give CABs much more discretion to decide on what type of arrangement could be said to meet the SG60 level. In the next round of comments, WWF responded more pointedly (22 April 2013):

"The inclusion 'or available' in the SG is ambiguous and undefined, it opens the door to broad interpretation. This seems to go against the aims of the MSC standard setting procedure (6.4.1 and 6.4.3). The term really has no meaning, anything is potentially available (given adequate resources and political good will) it therefore would allow certification of fisheries with no harvest control rules in place as long as by chance the stock is high. This would mean in fisheries that have the good fortune to have high biomass levels (>BMSY) (CB 2.6.2a), or a consistent catch (CB 2.6.2b) could get a pass with no management in place. The latter of which could simply be masking of stock decline through improved efficiency in catch or aggregation of stocks due to depletion.

What is proposed here represents a significant lowering of the current MSC standard and a clear and alarming departure from international best practice as well as the FAO Guidelines on Ecolabelling²⁰. WWF can see no evidence that international thinking has changed on this concept or why the MSC Standard being proposed is lower requirements for the management of the target stock.

WWF is fundamentally driven to improve the management of fisheries onto a sustainable footing. We are convinced that MSC is a useful tool to do so. Critical to this theory of change is that the MSC standard provides some form of threshold of performance expected by fisheries before they are rewarded with the blue tick. This threshold must include at the 60 scoring level HCRs in place in the management system."

In that same submission, WWF questioned whether the proposed revisions were introduced to reflect international best practice of which the FAO 1995 Code of Conduct for Responsible Fisheries is the key source. Interestingly, the proposed MSC clarification about inferring 'available' HCRs was made in parallel with a growing misapplication of the same HCR concept by some CABs who justified their giving passing scores to tuna HCRs based on promises of management action that, if not pre-agreed, would still presumably be taken if need (see Appendix 3 and 4).

Towards the close of the FSR and consultation, there was a persistent argument that some new fisheries with light exploitation footprints were not positioned to have clear cut rules. Although WWF was eventually forced to concede the point, it was insisted that the allowance for an "available" option would occur only under narrowly-defined circumstances: that the stocks had never been seriously impacted before (i.e. they were new to exploitation) and that there was no appreciable chance of reaching a limit reference point, and that the responsible management bodies had a proven track record showing their reliability to take action in the event of stock decline.

Despite WWF's concerns about 'available' HCRs and general opposition to associated proposals that would lower the bar, the idea that an 'available' HCR could meet the MSC Fisheries Standard was eventually codified into the final version of FCRv2.0. The new Fishery Standard was released on 1 October 2014. Considering the tremendous investment of WWF staff time to participate in meetings, review drafts documents, and provide technical comments, it is unclear whether such a meagre return can be called worthwhile. It certainly cannot be called a conservation victory. However WWF might take some solace in the notion that they prevented a back-slide that probably would have been even worse.

4.2 Post-Echebastar Verdict: MSC Scribbling

4.2.1 MSC Experts Workshop on HCRs

In late August of 2015, it appeared that the Echebastar verdict had set a strong precedent: henceforth the MSC Fisheries Standard will require fisheries to demonstrate that they have effective HCRs in place. To many, this verdict sent a very clear signal that misapplication of HCRs by CABs would no longer be tolerated within the MSC scheme. At long last, it seemed, there was evidence that the MSC System was capable of 'righting itself' to ensure that MSC certificates

²⁰ FAO (2005)

would give a credible assurance of sustainable fisheries management. Had this precedent been carried forward, it is likely that conservation gains would have been substantial and aligned with WWF expectations. However those potential gains were effectively erased by the concerted actions that were taken by MSC over the ensuing few months.

From September through December of 2015, there was a veritable flurry of activity from the MSC Standards Division concerning tuna HCRs and tuna harmonization (Table 5). It is self-evident that these activities were fallout from the Echebastar verdict. The first of these activities was the most conspicuous. On 14 October 2015, MSC convened a closed-door workshop in London to discuss HCRs. Workshop participants included four P1 experts, two TAB members and MSC staff. WWF was not allowed to participate but was informed of the conclusions afterwards. Only two of the names of attending P1 experts are known. Both have close associations with the tuna industry.

Table 5. MSC standard setting activities related to tuna HCRs arising just after the Echebastar verdict.

Date	Activity by the Standard Setting Body
14-Oct-	MSC convenes a workshop on tuna HCRs with P1 experts, MSC staff and
2015	TAB members
22-Oct-	MSC responds to WWF proposal to address outcomes of tuna HCR
2015	workshop
23-Oct-	MSC meets with WWF to discuss outcomes of workshop on tuna HCRs
2015	
30-Oct-	MSC begins 20-day targeted consultation on draft MSC Interpretations
2015	
30-Oct-	MSC begins 20-day targeted consultation on draft Pilot Harmonization
2015	Protocol
10-Dec-	Technical Advisory Board approves the MSC Interpretation on HCRs
2015	
10-Dec-	TAB confirms: MSC interpretation is not a change to the existing MSC
2015	Fisheries Standard
16-Dec-	MSC circulates the MSC Interpretation on HCRs for immediate use by
2015	CABs
18-Jan-	MSC releases final "Pilot Processes for Harmonization" Procedure
2016	

Key outcomes of this meeting were transcribed on two pages of notes (Appendix 5). Participants made a number of specific conclusions about the MSC definition of HCR and also regarding the application of MSC requirements and guidance for scoring HCRs. Reading the document it becomes clear, even to the uninitiated, that these experts were looking at the HCR arrangements of existing tuna fisheries and asking the question: how can one 'adjust' the threshold criteria of the standard to ensure a passing score (SG60 level) is attained. Thus, for example, paragraph #1 concludes by saying that the MSC definition of HCR does not apply at the SG60 level and "a

revised definition will be provided.²¹" Paragraph #1c concludes that "negative examples" (i.e. evidence of noncompliance) "...need not be exhaustively investigated (i.e. they should be ignored). Additionally, paragraph #5 concludes that "in place" HCRs can be fulfilled by arrangements that might not be binding upon fisheries for timeframes beyond one year. For example, "CMMs may thus be accepted as in place even if they might still be overturned by majority vote at some point in the future." This last point – the notion of an acceptable HCR being temporarily 'in place'- is new. It does not appear in FCR2.0. It was not discussed during FSR. The very nature of these conclusions implies that the experts were engaged in activity that looks a lot like standard 'tampering'.

Using the key conclusions as a starting point, MSC developed a variety of proposals which were initially shared with WWF in private. At this stage in the discussion, it was becoming increasingly difficult for WWF to understand how the proposals would clarify the application of HCRs: what must be 'in place' vs. 'available', when HCRs must be well-defined vs. generally understood, or when HCRs should be pre-agreed vs. not pre-agreed? The proposals started to look like MSC was revising the standard (after WWF had just completed engaging in a two-year process!). WWF requested MSC to make a "flow chart" (i.e. a dichotomous decision tree) so that the logic would be clear to all, and so that CABs could make unambiguous assessments of HCRs. However MSC rejected this proposal because "it would be extremely difficult to get absolutely right, and MSC would need to draft and exhaustively test such a system to make it work." Instead, MSC chose a faster pathway: they used conclusions from a closed-door workshop to prepare an 'interpretation' document.

4.2.2 MSC Interpretation on HCRs

MSC circulated a draft version of a document entitled "Harvest Control Rules – MSC Interpretation for CABs" (MSC; 30 October 2015) which had the stated aim of clarifying MSC's intent regarding the scoring of HCRs PI. The clarifications contained many of the key conclusions from the MSC Expert Workshop. On 16 November 2015, WWF responded to MSC by rejecting the consultation process for the draft MSC Interpretation on HCRs because it was "...an attempt at a substantive revision of the MSC Fisheries Standard using a process that does not conform to ISEAL requirements" (WWF 2015f). It strongly encouraged the TAB to consider WWF's views and not release the HCR interpretation as a document for use by CABs. Nonetheless, on 16 December 2015, MSC distributed the final approved document for immediate application by CABs in fishery assessments.

Having reviewed the interpretation document then and now, it is difficult to express just how poorly suited this document is for the purposes of standard setting. A normative document should establish unambiguous thresholds in simple, clear language. This is a principle elaborated by ISO and embraced by ISEAL. The MSC interpretations document does not clarify anything. In fact, it gives so many examples of exceptions and it uses nonsensical phrases (e.g. 'an implicit agreement') in such bizarre ways that nobody should be surprised when CABs use the Interpretation to justify almost any conceivable HCR arrangement as having met the SG60 level. To wit, here is an example passage where MSC explains what they mean by an HCR which is 'generally understood':

As explained in critical guidance, "generally understood" HCRs do not need to be well defined (e.g. with an explicit hockey stick rule) or explicitly agreed (Guidance to V2.0, section GSA2.5: HCRs should be regarded as only 'generally

 $^{^{21}}$ In an email to WWF after the workshop (22 October 2015), MSC explained that the HCR definition "…was written with the SG80 guidepost in mind. It was MSC's intent that HCRs are generally understood at SG60 and well-defined at SG80."

understood' as required to achieve a 60 score in cases where they can be shown to have been applied in some way in the past, but have not been explicitly defined or agreed), but there should be at least some implicit agreement supported by past management actions from which to understand that 'generally understood' rules exist, and there should be confidence that management will follow such generally understood rules in future and act to be responsive to changes in indicators of stock status with respect to explicit or implicit reference points. When determining whether there is a 'generally understood' HCR in place in the fishery under assessment, assessors need to determine whether the fishery will in future take appropriate management action in line with what they perceive as the 'generally understood' rule. Evidence that positive action has been taken in the past should be considered to be evidence that there is a generally understood rule in place."

Few stakeholders will be capable of grappling with this level of scheme idiosyncrasy. But perhaps worse than being merely unclear, the "interpretation" document has quite blatantly established loopholes for lapses in HCR application. For example, the document foresees that some arrangements will be overturned in the future and suggest that this should not affect scoring because "...teams should also not expect that 'in place' arrangements require formal *indefinite binding* agreement." This opens the door to all sort of insincere 'paper' HCRs. Is it possible that future MSC certified fisheries will have temporary HCRs – control rules whose very existence will fluctuate like indices of stock abundance?

As a closing remark, it is insightful to consider how MSC logs its 'interpretation' on HCRs in comparison to the level of transparency expected of an ISEAL member. MSC sees this document fitting properly within the framework of their certification scheme and MSC proposes to incorporate said document into the next revisions of FCRv3.0 likely sometime in 2018 (MSC email, 16 December 2015). For the next two years, while CABs use the interpretation as guidance for evaluating HCRs of tuna fisheries, the contents of the document will be invisible to stakeholders because it will be maintained on the MSC interpretations website (which is not accessible to stakeholders). Such opacity by MSC is not consistent with international norms or best practice for transparency or standard setting (ISEAL 2013, 2014).

4.2.3 MSC Proposal: Pilot Harmonization of Tuna Fisheries

Shortly after the Echebastar verdict (and in parallel to MSC's drafting of the HCR Interpretation document), the MSC Standards Division began work on a pilot procedure for annual harmonization of Highly Migratory Species. Their objective was to harmonise the 'challenging' scoring outcomes of fisheries that target HMS stocks managed by Regional Fisheries Management Organisations (RFMOs). A draft of this pilot procedure was circulated to a targeted group of stakeholders for a 20-day consultation period (MSC; 30 October 2015).

On 27 November 2015, WWF sent MSC a detailed critique of the pilot proposal (WWF 2015d). WWF urged MSC to reconsider their course of action saying they felt "...this approach is fundamentally flawed because it would compromise the independence of fisheries assessments." WWF detailed their key concerns about reduced independence in seven specific points, the last of which raised the most obvious question: why is MSC involved in this process at all? WWF asked, "Does this not present a risk to the credibility of MSC as an impartial standard setting body? All of this direct involvement will certainly undermine stakeholders' perceptions about MSC being independent of tuna certifications." Nonetheless, MSC moved ahead and the pilot harmonization document was distributed as a final version on 18 January 2016 (MSC 2016b).

MSC has long contended that they need to have a harmonization mechanism to ensure consistency of outcomes so as not to undermine the integrity of MSC fishery assessments (MSC TAB Directive D-015, July 2007). As owner of a private certification scheme, instituting a mandatory harmonization process is clearly within the scope of their prerogative. Although some would argue that consistency of certification outcomes would flow directly from clearly-written and logical standards, there is no point in re-opening a discussion about how the subjective nature of the MSC scheme tends to exacerbate its inconsistent application (see Jacquet et al. 2009 for a discussion). Still, there are two things about this harmonization proposal that were striking.

First, the proposal followed directly on the heels of the Echebastar objection. The timing strongly implies that MSC was acting to 'contain' any negative repercussions that might arise from Echebastar verdict in relation to existing MSC-certified tuna fisheries or in-assessment tuna fisheries.

Second, the proposal is ostensibly designed to address difficulties with all HMS species but the text, the strategy, and the proposed trial run all indicate that its real target is <u>tunas</u>. To wit, the foremost risk to be addressed is the problem that "...<u>tuna fisheries</u> are unable to force RFMOs to make rapid changes to their management measures, if for example, there are a lack of Harvest Control Rules (HCRs) in place. This can lead to fisheries being unable to meet conditions, leading to a loss of certificate and associated financial and reputational repercussions."

If these facts are considered alongside the observation that MSC is not concerned about inserting itself directly into the minutiae of tuna certification processes, it suggest that MSC is acting deliberately to secure access to one segment of the fishing industry. This sector, perhaps not coincidentally, is a potentially lucrative source of logo revenues that MSC are keen to grow (MSC Integrated Strategic Plan for 2012-2017; see discussion below).

4.2.4 Pitfalls of Clarifying and Interpreting the MSC Standard

MSC is a private scheme owner and, as noted previously, they have every right to adjust their certification standard as they see fit whether through a formal review process or by issuing small clarifications and interpretations. MSC, for their part, saw the interpretation as mere clarification of their intent – an action which did not represent a change to the standard. The Standards Division went so far as to request confirmation from the TAB that the document did not represent a change to the standard. But WWF's main issue of concern is not about whether MSC retains the authority to clarify/interpret their standard on an ad hoc basis.

WWF's main concern is this: if MSC manipulates the way its scheme requirements are interpreted using processes which fall outside of its standard development procedures (MSC 2016d), it can affect the way in which the standard is applied. This in turn can undermine the veracity of claims MSC makes about their certification scheme. For example, MSC makes the following claim on their website:

"We offer the world's only wild-capture seafood certification and eco-labelling program that is consistent with all of the following international norms:

The Code of Conduct for Responsible Fishing (FAO 1995)

Guidelines for the Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries (FAO)

The Code of Good Practice for Setting Social and Environmental Standards (ISEAL) World Trade Organisation Technical Barriers to Trade Agreement" (accessed: 20 September 2016)

It can also erode the trust and confidence of those organizations who have diligently participate in scheduled standard revision processes, or otherwise support the MSC certification scheme.

Impromptu clarifications by the standard setter can also act to compromise that body's independence from ongoing certification processes. For example, the clarification email from MSC (24 November 2014) regarding advance application of rules for 'available' HCRs had enormous repercussions for certification of Maldives YFT (as discussed above) and an ongoing complaint investigation thereof. MSC's action was so pivotal in advancing that certification determination that it led WWF to file a complaint against MSC, questioning whether the root cause of the incident might not have been sparked by an interest MSC had in the certification outcome (WWF 2015e).

In the case of the MSC Interpretation on HCRs (MSC 2016b), WWF sees this document as a thinly veiled effort by MSC to adjust scheme requirements so as to suit the particular arrangements of HCRs in some tuna fisheries (WWF 2015f). Were this not the case, MSC would have clarified these issues before the Echebastar verdict. For example, WWF informed MSC of problems with interpreting HCRs under FCR2.0 based on WWF's review of the ISSF pre-assessment of global tuna stocks (Medley and Powers 2015). At that time (c. March 2015), WWF sought MSC's interpretation regarding PIs 1.2.2 and 1.2.1. Although MSC participated in a conference call with WWF, ISSF, and the authors of the pre-assessment, MSC refused to provide advisement because the request did not originate from a CAB. In contrast, the rapidity of MSC's response *after* the Echebastar verdict was almost dizzying.

Following as it did on the heels of a two year FSR process for standard development, the obvious question about the MSC Interpretation on HCRs is: why didn't MSC manage to express their intent clearly the first time? Even more troubling, the Interpretation contains elements that are not present in the FCR or GFCR, and which were never discussed during FSR process. Notably the document introduces the idea that HCRs are not 'binding' on fisheries (Key Outcomes, paragraph 5 in Appendix 5). WWF is unaware of any improvement in scientific understanding or fishery management practice that would justify such a change (see MSC policy on changes to performance requirements; MSC 2012b). While it may be true that MSC didn't intend to change their intention, a literal reading shows they have done so. WWF will consider the implications of this situation very carefully.

4.3 Testing MSC Application: Surveillance of Maldives Tunas

Some five and a half months after the Echebastar verdict was issued, the next annual audit of the MSC certified Maldives fishery took place. DNV-GL conducted the on-site assessment on 9-11 February 2016. WWF attended and provided stakeholder input. The assessment team evaluated both certified units of the Maldives fishery: Yellowfin tuna (F-DNV-191224) and skipjack tuna (F-DNV-191232). At that time, the aforementioned document from MSC which clarified interpretation of HCRs had been "finalized" for use by CABs: MSC Interpretation on Harvest Control Rules (HCRs) (MSC 2016b).

As mentioned previously, it was during this surveillance audit that the DNV assessment team rescored YFT based on new information about stock status. Notably, that information included a recent summary from the IOTC Scientific Committee that change in YFT stock status determination is a direct result of the large and unsustainable catches of yellowfin tuna taken over the last three (3) years, and the relatively low recruitment levels estimated by the model in recent years. Additionally, the 2015 Working Party on Tropical Tunas, and the IOTC Scientific Committee, concluded that on the weight of evidence available, the yellowfin stock is both

overfished and subject to overfishing. The team considered this new information and, as a consequence of rescoring, determined that YFT no longer met the SG60 level of PI 1.2.2 (HCRs) or the SG80 level for overall score of Principle 1 (see Box 3 below).

Box 3. Re-scoring of PI 1.2.2 at Surveillance of Maldives KJ & YFT Text from p. 54 of DNV Surveillance Report (Kiseleva et al. 2016)

Scoring PI 1.2.2, si(a)

The latest stock assessment (see section 2.2 above) has substantially altered this perception [that YFT is above B_{MSY}] and the stock is now estimated to be well below Bmsy and to have been for a prolonged period of time. Condition SA2.5.2(a) is therefore no longer met and **PI 1.2.2 si(a) therefore no longer meets the SG60 requirements**.

Scoring PI 1.2.2, si(c)

With fishing mortality now estimated to be well above Fmsy (see GSA2.5.2-2.5.5, with reference to si(c)), SA 2.5.6 can no longer be used to support effectiveness of HCRs. **PI 1.2.2 si(c) therefore no longer meets the SG60 requirements**.

The change in status estimates for yellowfin tuna therefore no longer support SG60 scoring at PI1.2.2 si(a) or si(c).

This re-scoring led the team to recommend suspension of the certificate for Maldives YFT (Kiseleva et al. 2016). Based on the team's recommendation, DNV imposed immediate suspension of the YFT Unit of Certification which will be followed by withdrawal if MSPEA does not implement acceptable corrective actions to address the cause of suspension (DNV Notice of Suspension, 15 April 2016).

Up to this point, the surveillance audit looks to be a reassuring example of how the MSC system corrects itself: YFT was being managed without HCRs and was shown not to meet the MSC Fisheries Standard. Surveillance audits led to suspension. However the results are much more paradoxical than that. During the same on-site audit DNV also considered updated information about SKJ. The Maldives SKJ stock status continues in the green zone so no re-scoring of PI 1.1.1 or 1.2.2 was mandated. Nonetheless, IOTC had not yet enacted resolution 16/02 and so there was no HCR in place for Maldives SKJ at the time of audit. That stock should have been subjected to the same scrutiny as Echebastar SKJ (which was not certified per the verdict of the Echebastar objection). It was not because, the team asserted, there was an 'available' HCR (per FCR2.0) for Maldives SKJ.

WWF strongly questioned how the CAB could determine that SKJ should remain certified given the unequivocal verdict from the Echebastar objection (WWF Internal Update, April 2016) and recent declines in YFT stock status. These concerns were expressed in two WWF press releases (WWF 2016b, 2016c). Yet here was this incredibly paradoxical outcome: two different conclusions about a single stock under management by the same fishery agency (IOTC) reached by one CAB during a single audit.

In reality, however, it is very difficult for WWF to establish definitively whether or not DNV made an error in giving Maldives SKJ a pass at surveillance. This arises from ambiguities in applying MSC's new clauses relating to 'available' HCRs. Importantly, MSC requires (§SA2.5.3a) that teams shall only recognise 'available' HCRs as "*expected to reduce the exploitation rate as the* point of recruitment impairment is approached' in cases where: a. HCRs are effectively used in some other UoAs, that are under the control of the same management body and of a similar size and scale as the UoA." Clearly, IOTC does not fulfil SA2.5.3(a) anymore, as evidenced by the fact that DNV has scored Maldives YFT as not meeting PI 1.2.2 si(c) at the SG60 level.

On the other hand, if one relies on the MSC Interpretation on HCRs (MSC 2015b) then DNV might be encouraged to use their judgement in deciding to give Maldives SKJ a passing score. The MSC Interpretation document instructs CABs (at item #2, bullet point 4) that: "There may be both positive and negative examples of management action in the target stock or in associated stocks. Such negative examples need not be exhaustively investigated by the CAB, but clear and recent cases should be considered by the team alongside positive examples. In the case of 'available' HCRs, where there are some negative examples (such as evidence that actions have not been taken previously in other stocks), these should not be assumed to overrule positive evidence from the other species that HCRs are 'available', but this will ultimately be the judgement of the CAB and in cases of uncertainty and doubt, CABs should apply a precautionary judgement."

It is extraordinary given the clarity of all indications and evidence to the contrary that a CAB could conclude that Maldives SKJ had effective HCRs. But, in actuality, all the CAB has done is show that the fishery meets MSC Fishery Standard according to the newly revised MSC guidance and interpretations about HCRs. This should underscore a very disturbing message: a fishery with no HCRs operating under the management of an agency with an established public record of poor fishery management can meet the MSC Standard on a conditional basis. If anyone doubted whether MSC lowered the bar when they clarified their interpretation of HCRs, then those doubts should be long gone now. This paradoxical outcome highlights the fact that the MSC System is broken when it comes to assessing HCRs.

4.4 Unfulfilled Promises: Conditions as a Tool for Change

Up to this point, the retrospective has painted a bleak picture of the prospects for successful conservation gains through engagement in MSC fishery assessments. However it is still possible to take a more focused approach in using MSC to "effect change on the water." For example, WWF could try to use conditions are a lever for nudging fisheries towards improvement. This would enable WWF to take advantage of the fact that MSC has set a lower bar for HCRs (as it means that more fisheries will enter the program with attendant conditions to develop HCRs within the period of certification). Viewed from this angle, conditions might be the conservation tool of choice for the next five years of MSC assessments.

There are a number of problems with conditions though. One problem is that they may actually serve to impede the progress of a fishery towards sustainable practices. In a story which ran on National Public Radio (NPR 2013), Suzanne Fuller of the Ecology Action Center described how MSC conditions tend to erode the incentive structure for change. "It's kind of like saying to a child, well you've been really bad but I'll give you a lollipop and then I want you to show me how much better you can be. It just doesn't work. The child has already been given the lollipop." Awarding certification to a fishery before HCRs have been implemented can weaken the incentives which would otherwise drive implementation of sustainable practices.

A bigger problem may be ensuring that there is adequate follow-up on conditions relating to HCRs. "Although it sounds like a good idea in principle" says Suddaby, "the reality is that many fisheries don't meet the conditions within prescribed timeframes for one reason or another. And yet they retain their certified status." It may seem surprising that a fishery can leave a condition unfulfilled, especially given the rigidity of the language used by MSC to describe requirements for

conditions. For example, MSC says: "The CAB shall draft conditions to result in improved performance to at least the 80 level within a period set by the CAB but no longer than the term of the certification..." (§27.11.1.3 of CRv1.3) and "A CAB shall suspend a fishery certificate if a certificate holder has not made adequate progress towards addressing conditions" (§7.4.3.2 of CRv1.3). But MSC does allow for conditions to take longer to fulfil when there are "exceptional circumstances" (§27.11.8 of CRv1.3). MSC's recent interpretation on HCRs (MSC 2015) opens the door to even more broken promises about HCR development and implementation.

Suddaby points to the example of the North Pacific Albacore fishery. AAFA Albacore was the first tuna fishery to be certified to the MSC standard (Powers et al. 2007), well before MSC introduced the default fishery assessment tree or FAM (MSC 2008a). North Pacific Albacore was not managed according to an HCR in 2007 and no HCR was implemented during the first period of MSC certification. AAFA Albacore was re-certified in 2012 with a condition that, among other things, it must develop an HCR (Blyth-Skyrme et al. 2012). Yet as AAFA Albacore approaches its second re-certification, (i.e. what will be its eleventh year in the MSC program) the fishery still does not meet the minimum HCR requirements spelled out in the MSC Fisheries Standard. In fact, the most recent surveillance audit (Blyth-Skyrme and McLoughlin 2015) indicates that, although management has agreed a "timeframe" for developing the harvest strategy, the auditors conclude that adoption is unlikely within the prescribed timeframe (Box 4). Thus, it is very unlikely that AAFA Albacore, upon entering its third certification period in the MSC program, will be in full compliance with the requirements of PI 1.2.2 at the SG80 level.

Box 4. Status of Condition 2 (PI 1.2.2) for AAFA Albacore Text from 3rd Surveillance Audit Report, 2015

The WCPFC has committed to agreeing a timeframe for the development of a harvest strategy for North Pacific albacore tuna. This will include a management strategy evaluation (MSE) of the candidate reference points and harvest control rules for North Pacific albacore (WCPFC 2014a, WCPFC 2014b).

This is a key step for the management of North Pacific albacore tuna, but the full MSE process is likely to take several years, such that it appears very unlikely that a formal harvest strategy could be adopted before the end of the AAFA and WFOA fishery's existing certification period in December 2017.

If AAFA does not fulfil condition 2, can one reasonably expect that the fishery will fail reassessment and lose its MSC certification? Not necessarily. With the release of FCR2.0, MSC has introduced a provision which might be applied to the AFAA situation: "In particular, CABs should note that the v2.0 guidance recognizes that the timescales for closing out conditions may be relaxed in the case that stock abundance remains high (above BMSY levels, again with the expectation that it will not decline rapidly, i.e. F<FMSY) and HCRs are regarded as 'available' but not yet 'well defined' (see guidance in FCR section GSA2.5.2-2.5.5, page 397)." In effect, MSC allows a questionably managed fishery to obtain and maintain MSC certification until such a time as the lack of HCRs (or the inability to effectively implement them) causes stock abundance to decline below reference levels.

More recently, communications from MSC suggest that the standard setting body sees the problem of slow HCR development as a key risk area. In July 2015 the MSC Board of Directors recognized that the inability of RFMOs to rapidly deliver management measures represents a key risk area for the MSC tuna strategy. Regarding RFMOs, the document says "*Tuna fisheries are unable to force RFMOs into making rapid changes to their management measures, if, for example, there are a lack of Harvest Control Rules (HCR) in place. This can lead to fisheries*

being unable to meet conditions, leading to a loss of certificate and associated financial and reputational repercussions" (MSC 2016a).

It is not unreasonable for HCR development to require years of work. HCRs are clearly a big challenge, especially within the context of an RFMO, to get agreement on and implementation of a set of well-defined HCRs. WWF is prepared to take the long view – that effecting management change takes time. However the issue here is not the timeframe itself, but rather whether unsustainable fisheries practices should be rewarded with access to the MSC ecolabel while fundamental management deficiencies are still being resolved.

Wetjens Dimmlich, WWF's IO Tuna Coordinator, says that MSC certifications claiming effective management under the IOTC in fact "undermine" efforts to reform HCRs. He says that the incentive for progress has now all but disappeared, and the Maldives stands to lose the momentum it has worked towards in pushing the IOTC to adopt new HCRs at its next meeting. However, despite seemingly conflicting assessments of the IOTC's skipjack harvest control rules; which allowed Maldives to be certified but Echebastar not, the Maldives audit report does not ignore the fact that Echebastar, a fishery sharing the same resources in the same region, was denied MSC.

There are good reasons to doubt that conditions relating to HCRs will deliver the sorts of 'change on the water' that WWF may envision. Although the MSC process may have helped persuade IOTC to enact a harvest control rule for skipjack (IOTC Resolution 2016/02), its implementation remains untested. If IOTC's inadequate response to YFT status is any indicator, then WWF should maintain a dose of healthy scepticism about whether the tools used by IOTC will be effective at controlling skipjack harvest rate. As outlined above, WWF's limited experience with conditions relating to HCR development shows that: non-fulfilment of conditions according to set timelines was commonplace (e.g. AFAA); the terms of conditions may change due to shifts in MSC scheme requirements or priorities over time (e.g. new criteria elaborated in FCR2.0); and the requirements to harmonize conditions relating to HCR may be misapplied by CABs (e.g. nonharmonized conditions for YFT in the Maldives fishery). WWF does not have enough experience with new MSC programs for Pilot Harmonization or Simplified Assessments²² to gauge their effectiveness either. In sum, MSC conditions are unlikely to be a robust 'lever' for WWF to use to achieve conservation goals.

5. CONCLUSIONS

5.1 A Rigorous Standard, Perhaps, but its Application Fell Short

The somewhat inescapable conclusion from this retrospective is that there were significant shortcomings in the way that the MSC Fisheries Standard was applied to Indian Ocean tuna fisheries. Although the MSC Standard may itself be a rigorous instrument, our experience with its application to real-world fisheries in the IO showed that the MSC System can fall short. As applied, the MSC assessment process was simply not an accurate means for assessing the sustainability of IO tuna fisheries.

²² In September 2016, MSC introduced a simplified assessment process which is being run as a pilot study. Six fisheries have been selected to take part in this pilot process including the Western Indian Ocean skipjack purse seine (Pequerias Echebastar S.A.). https://improvements.msc.org/database/simplification/pilots

One of the most noted attributes of the MSC System is its complexity and this was conspicuously evident in IO tuna assessments. That complexity, however, did not contribute to robust certification decisions about IO tuna fisheries, and it did not prevent misapplication of the MSC Fisheries Standard. Indeed, WWF's experience showed that scheme complexity did the opposite, allowing for dubious decision-making to proceed kundetected or uncorrected.

Similarly, a prominent feature of the MSC System is protracted assessment timeframes. However, the lengthy IO tuna assessments did not lead to improved application of the Standard. Again, WWF's experience showed exactly the opposite: long duration tended to obscure misapplication of HCRs by CABs. It did not bring about resolution to known problems of misapplication nor did it enable other elements of the MSC system (e.g. external review processes like complaints) to correct these chronic errors. In one case (Maldives YFT), the long duration only exacerbated problematic actions by the standard setting body.

It was WWF's experience with application of MSC to IO tunas (during a period of more than five years) that duration and complexity acted synergistically to obscure the deeper, systemic problems with application of the Standard. Foremost among these were errors in applying MSC requirements for HCRs. But WWF's experience with IOTC tuna fishery assessments also showed that our feedback was not adequately addressed by elements of the MSC System. CABs tended to discount or even ignore the factual arguments presented by WWF regarding the absence of HCRs. It is probably safe to assume that dismissing stakeholder feedback is a more global feature of the MSC System. MSC itself has recognized that few stakeholder comments are ever actualized: between 2012 and 2015 only about 13% of stakeholder comments contributed to a change in a fishery assessment score (MSC 2016c). More troubling, WWF saw that the integral elements of the MSC System (CAB, AB, MSC) did not interact in a way that resolved problems of misapplication as identified by stakeholders²³. The singular exception was independent review of stakeholder contentions during the Echebastar Objection. In all other respects, WWF experienced a 'system' that does not right itself. Stakeholder input did not help.

To summarize, although in one instance (IO Maldives SKJ) WWF was able to use MSC as a lever to effect change in HCRs, it is doubtful that the MSC scheme will provide stakeholders with a consistent and transparent mechanism for delivering the kind of change that is envisioned by WWF for IO tuna fisheries management. Further, our experience with MSC in the Indian Ocean has revealed some troubling systemic flaws with the MSC scheme which should undermine WWF's confidence about the generality of MSC as a means for improving the fisheries sustainability. The experiences described in this account should inform WWF's strategy on how to engage with the MSC scheme going forward (see below).

5.2 MSC Independence and Impartiality?

The MSC website explains that "The Marine Stewardship Council (MSC) is an international nonprofit organization set up to promote solutions to the problem of unsustainable fishing." But over the past years, MSC has begun to reap very large sums from the fishing industry. Logo-licensing revenues now far exceed charitable donations as the main contributor to MSC's annual budget. According to the MSC website, annual income was 14 million pounds (about 22 million USD), and 75% of that income was derived from royalties from using the MSC blue tick logo (source: MSC website, accessed 19 May 2016).

²³ It is beyond the scope of this review to fully consider whether accreditation was an effective mechanism for resolving issues of CAB misapplying HCRs. It is noted that the Accreditation Body (AB) had made progress towards addressing WWF's concerns with misapplications in Indian Ocean tuna fisheries. However, owing to the long timeframes associated with AB processes, any progress that might have been realized via the accreditation mechanism was effectively erased through more rapid MSC actions for standard revision and standard clarification/interpretation.

For almost a decade, MSC has aggressively pursued global-scale growth as part of its institutional objectives. For example, the MSC Integrated Strategic Plan for 2012-2017 says that "The primary objective for this plan period is to reach 15 percent of global fisheries landings certified to the MSC standard by 2017, and 20 percent by 2020" (MSC 2012). Tuna fisheries are explicitly incorporated into this plan for growth. The ISP instructs MSC to "establish dedicated, cross-cutting teams focused on increasing the uptake of the MSC program by global tuna and small pelagic fisheries, regardless of geography."

Over recent years, MSC has started to attain some of these institutional goals. According to the MSC website, there are currently 17 tuna fisheries which are already certified or undergoing assessment (MSC Fisheries by Species; accessed 19 May 2016). They comprise three species, skipjack tuna, yellowfin tuna and albacore – being harvested from the Indian Ocean, Western & Central Pacific, and Eastern Pacific Ocean. It is unclear what percentage of the global tuna harvest this represents. Considered collectively, MSC certified fisheries currently represents close to 10% of the annual global harvest of all wild capture fisheries (source: MSC website; accessed 19 May 2016).

Does this portfolio represent a risk to MSC's independence and impartiality as a standard setter? It is currently unclear. Critics of the MSC scheme have been quick to point out the potential for financial conflicts to arise within CABs. For example, Jacquet et al. (2010) discussed their concern that "...the certification system creates a potential financial conflict of interest, because certifiers that leniently interpret existing criteria might expect to receive more work and profit from ongoing annual audits." As far as WWF is aware, however, no authors to date have suggested that the prospective financial gains by MSC itself could create a conflict of interest as a standard setting body. If such an interest were to exist, it might manifest itself as, for example, lenient interpretations or targeted harmonization protocols for special interest groups. As discussed above, there is growing circumstantial evidence for Conflict of Interest (CoI) within the standard setter WWF should examine the issue of CoI more carefully and, if the risk is found to be high, seek measures to mitigate those risks in future dealings with MSC or the broader MSC System.

5.3 The Future of WWF Engaging in MSC

Just how should WWF engage with MSC in the future? Such a question is beyond the scope of this account. But it does seem to be the right time to have that discussion. Some of the conclusions presented here could certainly inform that dialog. Extending from WWF's experiences with application of the MSC Fisheries Standard to HCRs in Indian Ocean tuna fisheries, the key conclusions are:

- the case is weak that WWF will see any substantial conservation gains from continued engagement as a participating stakeholder in individual MSC fishery assessments;
- it is apparent that WWF's extensive contributions to the latest round of FSR were largely ineffective (at least in respect to requirements for HCRs; possibly meaningful for Principle 2), and it is hard to believe that continuing to contribute to the MSC Standard Development process at current levels will yield meaningful improvement in the application of the Standard, particularly when the standard setter has a known penchant for adjusting interpretations of intent after completion of the revision process; and

- there is now a growing body of evidence to suggest that a conflict of interest exists within the standard setting body itself such that the MSC's objectivity and impartiality may be compromised in applying the MSC Fisheries Standard.

Going forward, perhaps the most important question is: How will WWF approach the 'big question' of potential CoI within MSC? If MSC does have a conflict of interest that compromises their impartiality in applying the Fisheries Standard, what are the ramifications? Does this pose a reputational risk for WWF? Can that risk be mitigated? If not, can WWF find another way to utilize the Fisheries Standard to leverage improvements and conservation gains?

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7. Apendices

Appendix 1.	Timeline of events relating to IO tuna HCRs
Appendix 2.	Background and Evolution of the HCR Concept in the MSC Fisheries Standard
Appendix 3.	Assessing HCRs according to the MSC System
Appendix 4.	Flow chart for PI 1.2.2
Appendix 5.	Key conclusions from MSC Workshop on HCRs, 14 October 2015

Appendix 1. Timeline of events relating to IO tuna HCRs

Date	Event or Milestone	Comment/Description	
1-Nov-02	MSC releases the Ps&Cs	Earlier draft versions were circulated internally and publicly from 1999.	
1-Sep-06	MSC releases FCMv6	The FCM achieves widespread usage among CABs as the number of CABs and fisheries increase rapidly.	
23-Aug- 07	First tuna fishery gets MSC certification	MML awards MSC certification to AAFA	
21-Jul-08	MSC releases FAMv1	The FAM (default tree) was a major outcome of MSC's quality and consistency project	
21-Jul-08	MSC introduces a definition of HCR	The HCR definition appears for the first time in the MSC scheme. It does not change at any point up to the present.	
14-Jul-09	The Maldives SKJ fishery enters assessment	The first Indian Ocean tuna fishery to enter full MSC assessment.	

	Γ		
31-Jul-09	MSC releases FAMv2 with RBF	MSC makes minor revisions to the tree and expands guidance relative to FAMv1.	
18-Nov- 09	Site visit held for Maldives SKJ	WWF's attendee was Bernice McLean, a consultant to WWF.	
1-May-10	MSC re-releases the Ps&Cs as version 1.1	Cs as There was no change to content of the Ps & Cs - only formatting, copyright, versioning etc.	
20-Oct- 10	Maldives SKJ: WWF submits comments on first PCDR	WWF flags concerns re PI 1.2.2 were tied to FADs. However ISSF and Nautilus both noted no HCRs in place	
1-Nov-10	External critique of MSC by Jacquet et al published in Nature	Note: this was largely a multi-author Op-Ed piece.	
24-May- 11	Maldives SKJ: MSC approves MML re-assessment	Variation was granted to use default tree, consider new info, repeat site visits and re-publish the PCDR.	
29-Sep-11	WWF tells MSC that RBF is not suited for P2 in Fiji tuna	WWF's main concern was about sharks and restricting RBF to the UoC rather than addressing cumulative impacts.	
1-Apr-12	Maldives SKJ: CAB does 2nd site visit, April 1-6, 2012	Didier Fourgon of WWF attends SICA workshop. Paul Medley also attends as consultant to WWF	
17-Apr-12	WWF submits comments to IMM on Maldives SKJ	Comments submitted following CAB's second site visit which included SICA.	
2-Aug-12	CAB publishes 2nd PCDR for Maldives SKJ	Among other things, IMM revised the PCDR to reflect use of the default assessment tree.	
3-Sep-12	WWF submits comments on 2nd PCDR for Maldives SKJ	Note: CAB responses to WWF comments appear in the Final Report.	
21-Sep-12	WWF writes to MSC requesting clarification for P1	Letter from Karen Bilo asks for MSC intent behind PI 1.1.2, 1.2.1, and 1.2.2.	
4-Oct-12	MSC responds to WWF query affirming the NGO's interpretation	Candidly, MSC acknowledges that there is "widespread misunderstanding" among CABs.	
15-Oct-12	MSC cannot help WWF to address CAB misapplication	MSC explains they cannot intervene. MSC suggests that WWF can complain to ASI or object to certification.	
18-Oct-12	CAB publishes Final Report for Maldives SKJ	IMM determined that the fishery should be certified.	
2-Nov-12	WWF submits comments during FSR early consultation	HCRs are identified by WWF as a key concern in the earliest stage of consultation on the FSR.	

9-Nov-12	WWF files notice of objection to Maldives SKJ	Numerous grounds for objection are cited, but primarily in relation to "the persistence of shortfalls" by the CAB	
15-Nov- 12	WWF negotiates conditions with MSPEA	WWF negotiates with Maldives fishery client rather tha pursuing adjudication. MSC acted as a "facilitator".	
23-Nov- 12	IA Final Decision on WWF objection to Maldives SKJ	WWF withdraws objection after negotiating the wording of conditions/milestones/actions with MSPEA.	
29-Nov- 12	Maldives SKJ is certified by IMM	Maldives Pole & Line Skipjack tuna becomes the first MSC certified Indian Ocean tuna fishery.	
14-Jan-13	MSC releases CRv1.3	CRv1.3 was released with an effective date = 2 months for CABs (i.e. March 14, 2013)	
29-Jan- 13	WWF lodges a formal complaint with IMM over Maldives SKJ	Note: this complaint went > three months without formal response from the CAB.	
22-Jan- 13	Echebastar tuna fishery enters full assessment	The Echebastar assessment was undertaken by FCI.	
22-Apr- 13	WWF submits additional comments on FSR	Still during early stage consultation, WWF expresses serious concerns about adding "available" clause to HCR issue	
6-May-13	IMM responds to WWF complaint	The CAB defends its fishery assessment in full. No corrective actions are proposed. WWF comes away dissatisfied.	
3-May-13	WWF submits complaint about Maldives SKJ to ASI	WWF raises the same issues about Maldives SKJ (as in IMM complaint) to ASI for an independent review.	
1-Aug-13	ASI concludes complaint investigation of IMM Maldives SKJ	ASI raised a major NC & a minor NC. The minor NC (# 11431) was explicitly linked to misapplication of HCR rules.	
13-Aug- 13	IMM requests a variation for expedited P1 asst of Maldives YFT	MSC initially considers and accepts the variation request.	
16-Sep-13	WWF letter to MSC about Maldives YFT Expedited P1 audit	WWF letter expresses serious concerns and notes lack of recourse to an objection under new procedures.	
30-Sep- 13	MSC responds to WWF by strengthening terms of variation to IMM	Strengthened terms include addl peer review, harmonizing to SKJ conditions, and outcomes from the SKJ objection.	
30-Sep- 13	MSC grants variation to IMM for expedited YFT	Note that MSC publishes the strengthened terms attached to accepting the variation request.	
30-Sep- 13	Expedited P1 assessment of Maldives YFT begins	IMM announces the expedited P1 assessment of YFT.	

8-Oct-13	WWF submits second letter of complaint to ASI about SKJ	WWF tried to clarify the basis of the original complaint. It is unclear if/how ASI followed-up on this clarification.	
7-Nov-13	FSR subgroup agrees on the outline of HCRs	The agreement about HCRs is recorded in the minutes produced by MSC Standards Director (dated 19-Nov-2013).	
19-Nov- 13	FSR subgroup approves and distributes minutes	Minutes of the subgroup are finalized and circulated.	
9-Jul-14	Post-Board Changes to FSR	MSC sends an email to WWF describing changes to, among others, the use of "available" clause for HCRs.	
1-Aug-14	Ongoing Fisheries Standard Review (FSR)	WWF engages heavily in a dialog with MSC about the revised MSC Fisheries Standard.	
26-Aug- 14	IFC publishes PCDR for Maldives YFT	The CAB publishes a draft report on the expedited P1 assessment of Maldives YFT.	
26-Sep- 14	WWF comments on PCDR for Maldives YFT	WWF comments were submitted by WD but the CAB did not record the exact date (it was within 30 d of 26-Aug- 14).	
1-Oct-14	MSC releases FCR2.0	MSC releases FCR2.0 as a result of the FSR process.	
8-Oct-14	ASI raises a major NC with IFC over HCRs for Maldives YFT	ASI action was prompted during follow up to the NC (#11431) from the WWF complaint investigation.	
14-Oct-14	SCS announces the expedited assessment of YFT	The CAB announces expedited P1 assessment of yellowfin tuna in the certified PNA tuna fishery.	
24-Nov- 14	MSC sends email to all CABs re Scoring 'available' HCRs	The MSC email indicates that early implementation by CABs should help to address misapplication of HCRs.	
2-Dec-14	ASI gives WWF update on complaint about SKJ	ASI cites the MSC email as providing WWF with more clarity on outstanding NCs over adequacy of harvest tools.	
5-Dec-14	FCI publishes PCDR for Echebastar	WD and KR prepare comments for WWF	
10-Dec- 14	IFC certifies Maldives YFT	Note: the certificate for the Maldives tuna fishery (MSPEA) was transferred from IFC to DNV on 9-Dec- 2015	
19-Jan-15	WWF submits notice of objection to Maldives YFT	The WWF cover letter gives a very good summary of all the problems surrounding relevant MSC requirements.	
26-Jan- 15	IA rejects WWF notice of objection	The Independent Adjudicator, Melanie Carter, says CRv1.3 does "not allow for an objection to this decision".	
20-Feb-	WWF complain to MSC about	MSC made an initial, informal response to WWF. But it	

15	MSC actions in the Maldives YFT	seems the whole matter was put on hold.		
10-Mar- 15	WWF asks MSC to clarify HCRs rules under FCR2.0	WWF reviews ISSF pre-assessment report for global tunas using FCR2.0 and sees problems with HCR interpretation		
24-Mar- 15	FCI publishes the Final Report for Echebastar	The CAB determined that free-set UoCs should be certified.		
1-Apr-15	Effective date of FCR2.0	Note that implementation timeframes are more complicated than indicated here.		
17-Apr-15	WWF submits notice of objection to Echebastar	WWF's notice was subsequently accepted by the IA.		
21-Aug- 15	WWF objection to Echebastar tuna is upheld	The IA issues his decision that the fishery should not be certified.		
14-Oct-15	MSC holds an Expert Workshop on HCRs	Attendees: 4 P1 experts (P. Medley, V. Restrepo, others), 2 TAB members, MSC staff. Document => Key Outcomes		
23-Oct-15	WWF meets with MSC to discuss HCRs	MSC presents the outcome of the expert workshop and how MSC wants HCRs to be interpreted going forward.		
30-Oct- 15	MSC starts consultation on "HCR Interpretation" document	The MSC undertook a consultation process with limited breadth of stakeholder involvement.		
30-Oct- 15	MSC starts consultation on "harmonization pilots for HMS"	The MSC proposal would be focused initially on tunas with the objective of harmonizing scoring of RFMOs.		
16-Nov- 15	WWF rejects MSC draft "HCR Interpretation"	WWF rejects the proposal because it was a substantive change to the MSC Standard done outside ISEAL processes.		
27-Nov- 15	WWF comments on draft of Harmonization pilots	WWF is highly critical of the proposal as it looks like an effort to favor/ensure certification of one industry segment.		
7-Dec-15	Maldives SKJ & YFT Certificate transfer: IFC to DNV-GL	Certificates transferred separately for SKJ & YFT. Scheduling of surveillance audits combined.		
16-Dec-15	MSC releases 'final' Interpretation on HCRs	Note: WWF had asserted that the HCR "interpretation" was a change to the Standard. MSC did not address this.		
22-Dec- 15	DNV schedules 1st surveillance audit of Maldives YFT & 3rd for SKJ	Due to offset of SKJ and YFT certifications, this audit was the 3rd surveillance audit in the cert cycle.		
18-Jan-16	MSC releases 'final' "Pilot Processes for Harmonization"	WWF's concerns about the process were not fully addressed by MSC in the final document.		
26-Jan-	MSC email to WWF re ISEAL	None. "We had some useful interactions with Amy but		

16	comments on process	nothing that adds significantly to the original email."	
4-Feb-16	PNA YFT certified after expedited P1 assessment	SCS certified PNA yellowfin tuna using an expedited P1 audit. Note that no objection was allowed.	
9-Feb-16	DNV on-site surveillance audit of Maldives YFT & SKJ	This audit ultimately triggered the suspension of YFT but not SKJ. See rationale in the CAB's surveillance report.	
15-Apr-16	DNV suspends YFT component of Maldives Fishery	YFT suspension by DNV coincides with publication of annual surveillance report for MSEA	
15-Apr-16	MSC Press releases: YFT suspended, SKJ still certified IOTC SC advice on stock status for YFT and SKJ		
19-Apr-16	WWF Press release: Industry baffled over Maldives MSC ruling	WWF press release points to a perplexing outcome from the application of MSC's rules for HCRs.	
21-Apr-16	First Tuna Harmonization Pilot Meeting	Convened by MSC, the first pilot harmonization meeting was held in Hong Kong on 21-22 April 2016.	
28-Apr- 16	WWF Press release: MSC defends Maldives decision on SKJ & YFT	MSC says it is logical and consistent that SKJ should continue being certified but YFT should not.	
30-Apr- 16	WWF Internal Update: Maldives SKJ should not be certified	WWF asserts that DNV should have suspended SKJ at the annual surveillance audit, as was done for YFT.	

Appendix 2. Background and Evolution of the HCR Concept in the MSC Fisheries Standard

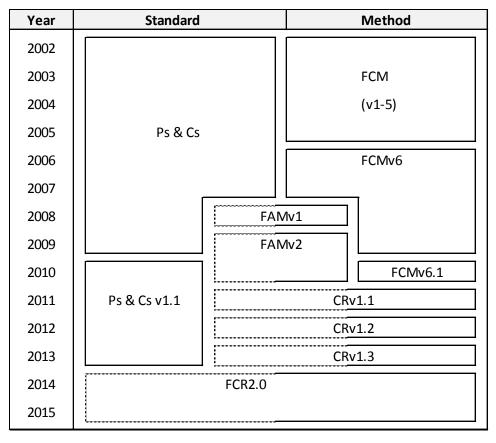
How did the HCR concept evolve during the development and modification of the MSC Fisheries Standard? And how have scheme changes influenced the way in which HCRs are assessed? This appendix gives background on HCRs in the context of the MSC scheme evolution and briefly considers the early years of the MSC standard and related methodologies for implementation.

The MSC Principles and Criteria for Sustainable Fishing, or the "Ps & Cs," were the original MSC Fisheries Standard. First drafted in 1999, the Ps & Cs arose from a collaborative effort between Unilever and WWF (see description at https://www.msc.org/). These two organizations partnered to develop, through a robust consultation process with scientists, managers and environmental groups, a sustainability standard to cover wild-capture fisheries. It was the most rigorous instrument ever developed for this purpose. Arguably it still is.

The Ps & Cs were formally published in early 2002. There were no changes to the standard during the first ten years of MSC's existence. Even after MSC republished the document as the "MSC environmental standard" in 2010 as version 1.1 (MSC 2010a), the Ps & Cs themselves went essentially unaltered. It wasn't until release of FCR2.0 in October 2014 that the Ps & Cs were formally superseded.

However, the Ps & Cs are not the whole story. Fisheries are evaluated against the standard according to a methodology which is and has been prescribed, to varying degrees, by MSC. Thus, fishery assessment methodology is inextricably part of the application of the MSC Fisheries Standard. During the course of MSC scheme development (Figure A2), MSC has published various documents describing the methods that must be used to assess fisheries against their standard. Sometimes the distinction between standard and methodology has been imprecise (dotted lines in Figure A2), and many would debate where those lines should be drawn. But with release of FCR2.0, it is now clear that the MSC Fisheries Standard is the FCR.

Figure A2. Summary of development of the MSC Fishery Standard and method of assessment.



* Dotted lines show documents that are not readily categorized as either standard or methodology. This figure does not show the numerous TAB Directives, Policy Advisories and other ad hoc 'tweaks' to the MSC Fisheries Standard. Abbreviations are as follows: Ps & Cs = MSC Principles and Criteria for Sustainable Fishing; FCM = Fisheries Certification Methodology; FAM = Fisheries Assessment Methodology; CR = Certification Requirements; FCR = Fisheries Certification Requirements.

The main point here is that the Ps & Cs have been an enduring and unwavering statement from MSC about what a sustainable fishery is supposed to look like.

What do the Ps & Cs say about HCRs? <u>There must be demonstrable control of exploitation via</u> <u>mechanisms which are in place to limit or close fisheries when designated catch limits are</u> <u>reached</u> (see Box A2). Given that the Ps & Cs were static from 2002 to 2014, it must be concluded that these HCR requirements have also been invariant. Thus, one can be confident that there were no changes in how HCRs were treated under the MSC 'Standard' (Ps & Cs) during this timeframe.

Box A2. Mapping HCR requirements from MSC Ps & Cs to Performance Indicator 1.2.2 MSC shows how PIs from the default assessment tree are mapped to the Principles & Criteria in Table GSA1in FCR2.0. In the case of HCRs (PI 1.2.2), the PI maps to Principle 3 management system criterion A10 which says:

A. Management System Criteria:

The management system shall:

10. specify measures and strategies that demonstrably control the degree of exploitation of the resource, including, but not limited to...

d) mechanisms in place to limit or close fisheries when designated catch limits are reached;

Appendix 3. HCR definitions and assessing HCRs according to the MSC System

1 HCR Concept and Definition

The concept of a harvest control rule (HCR) is really quite simple explains Wetjens Dimmlich, Indian Ocean Tuna Program Manager for WWF: "Management should take actions in response to the status of the stock. If stock abundance declines relative to reference levels, management would implement pre-defined and pre-agreed action to reduce harvest (e.g. by reducing effort or lowering total allowable catch; TAC). If stock abundance increases relative to reference levels, then management may take actions to increase harvesting. When the actions are agreed in writing, they represent 'rules' which control harvest. The rules can be very simple. Or, where there is a wealth of fishery information, managers can make more elaborate rules. But the basic premise doesn't change - managers should follow a set of rules for controlling harvest under different scenarios for stock abundance. The advantage of HCRs are simple: a stock decline results in necessary and timely management action instead of just initiating lengthy discussion."

The essential role of HCRs in responsible fisheries management has been widely acknowledged at an international level. Calls for adoption of such an approach have been featured in several agreements developed under the auspices of the United Nations, including the Code of Conduct for Responsible Fisheries prepared by the United Nations Food and Agriculture Organization (FAO 1995), the FAO Technical Consultation on the Precautionary Approach to Capture Fisheries, the Rio Declaration of the United Nations Conference on Environment and Development (UN 1992), and the United Nations Convention on the Law of the Sea Relating to the Conservation and Management of Straddling Stocks and Highly Migratory Fish Stocks (the "Straddling Stocks Agreement"; UN 1995). From WWF's perspective, HCRs are a cornerstone of responsible fisheries management and play an essential role in implementing the "precautionary approach".

2 MSC Definition of HCR

The simple and clear HCR description given by Dr. Dimmlich fits well with the concept that MSC has integrated into their certification scheme (Box 2). MSC adopted this HCR definition early on.

It was first promulgated in the Fishery Assessment Methodology or FAM in 2008. Importantly, MSC's formal adoption of HCR – both as a concept and as a strictly defined term - coincided with the first default assessment tree (MSC 2008). That same HCR definition appears verbatim in all subsequent versions of the MSC Fisheries Standard (or its accompanying methodologies), including FAMv2 (2009), CRv1.1 (MSC 2011), CRv1.2 (MSC 2012), CRv1.3 (MSC 2013a), and FCR2.0 (MSC 2014a). In other words, MSC has maintained its definition of HCR continuously from 2008 up to and including the current version of the MSC Fisheries Certification Requirements (see Appendix 2 for further background).

Box 2. Definition of HCR (From MSC-MSCI Vocabulary, 2014)

Harvest Control Rule A set of well-defined pre-agreed rules or actions used for determining a management action in response to changes in indicators of stock status with respect to reference points.

In general, as early fisheries entering the MSC were relatively well-managed and therefore they typically incorporated HCRs which fit the MSC definition. In effect, the MSC definition was rarely tested. However this situation changed markedly when fisheries such as tuna, which frequently lacked any effective management tools under their respective RFMOs began to seek certification.

What's so important about a definition? In the MSC scheme, definitions are not merely guidance; they are normative (i.e. binding) requirements that must be followed by fishery and CAB alike (MSC 2014c). These definitions become an integral part of the framework of the MSC Fisheries Standard. They are not to be ignored or trivialized when it comes to assessing the sustainability of fisheries.

Given the clarity of the definition formulated by MSC, it should be possible for any stakeholder to immediately understand whether or not an HCR exists for the fishery under assessment. Any presumed HCR must meet the five logical conditions stipulated in the definition (Box 2 and Table 3). Fail to attain any one of these conditions and the fisheries management framework should be judged to fall short of having an HCR, thus not meeting the MSC Standard. The logic is illustrated in Table 3 using information from Maldives SKJ (at the time of assessment) as an example. Based on available evidence, one should have concluded that the arrangement of management tools and actions currently in place for Maldives SKJ did not meet the MSC definition of an HCR.

Table 3. Logical test: Does HCR meet MSC definition.

Condition stipulated in MSC definition of HCR	Condition met by Maldives SKJ?
There are reference points (RPs) for the stock	No

There are indicators of stock status	Yes	
Actions or rules are triggered when indicators change in relation to	Inconsistent ²⁴	
RPs		
Those actions or rules are 'well-defined'	No	
Those actions or rules are 'pre-agreed' among all actors	No	
Conclusion: Maldives SKJ did not fulfil the MSC definition of HCR		

In reality, however, the process used to evaluate HCRs in an MSC assessment is not nearly so straightforward. For example, reference points are evaluated in another part of the default assessment tree (in CRv1.3 RPs are assessed under PI 1.1.2; in FCR2.0, RPs are assessed under PI 1.2.4 si(b)). Appendix 3 provides a more detailed look at how HCRs are assessed and Appendix 4 presents process diagrams (flow charts) to explain the logic used for HCR assessment.

The basics of assessing HCRs – Performance Indicator 1.2.2

In the MSC certification scheme, experts 'assess' the conformity of a fishery against the MSC Standard using a discrete set of performance indicators or PIs. The PIs themselves are comprised of one or more scoring issue (SI) statements that are set against scoring guideposts (SGs) at three levels: SG60, SG80 and SG100. The process for assigning scores is more complex than will be described here. In this account, the focus will be on the one performance indicator which is designed to assess HCRs –PI 1.2.2. The arrangement of PI 1.2.2 is shown in Figure A3-1.

²⁴ The evidence for IOTC taking action in response to stock declines is inconsistent. IOTC did take action when the IO bigeye tuna stock fell below reference levels (W.Dimlich, pers. comm.). But the BET example is also contradicted by evidence for IOTC <u>in</u>action when other stocks declined below reference points. For example, striped marlin, a species which is also under the management mandate of the IOTC has been overfished and subject to overfishing and in the red quadrant of the Kobe plot for a number of years (e.g. Report of the 16th Scientific IOTC Committee; Report of the 17th IOTC Scientific Committee) clearly demonstrates the inability of the IOTC, in the absence of any harvest strategy supported by defined harvest control rules to respond effectively to a stock under severe pressure (also see WWF comments on Echebastar PCDR).

Component	PI	Scoring issues	SG60	SG80	SG100
Harvest strategy		a. Harvest control rules design and application	Generally understood harvest control rules are in place that are consistent with the harvest strategy and which act to reduce the exploitation rate as limit reference points are approached.	Well defined harvest control rules are in place that are consistent with the harvest strategy and ensure that the exploitation rate is reduced as limit reference points are approached.	
		b. Harvest control rules account for uncertainty		The selection of the harvest control rules takes into account the main uncertainties.	The design of the harvest control rules take into account a wide range of uncertainties.
		c. Harvest control rules evaluation	There is some evidence that tools used to implement harvest control rules are appropriate and effective in controlling exploitation.	Available evidence indicates that the tools in use are appropriate and effective in achieving the exploitation levels required under the harvest control rules.	Evidence clearly shows that the tools in use are effective in achieving the exploitation levels required under the harvest control rules.

Figure A3-1. Arrangement of PI 1.2.2 in the MSC Certification Requirements, version 1.3.

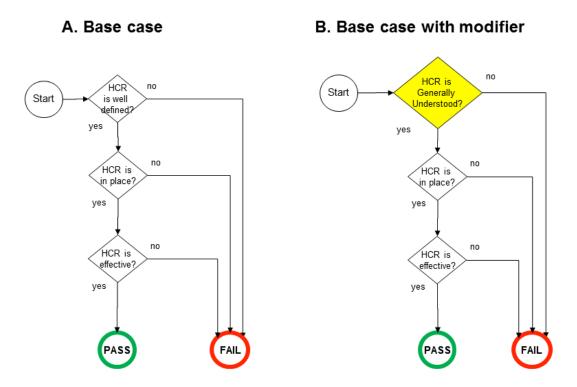
At the highest level, the indicator is represented by a clear statement of MSC intent: "There are well defined and effective harvest control rules in place." Like the HCR definition, the PI statement of intent is also straightforward. It could be evaluated, at least in principle, by answering three simple questions: Are there well defined HCRs? Are those HCRs in place? Are those HCRs effective? Using Maldives SKJ as a hypothetical example, answers to these questions are presented in Table A3-1 below. Note that the MSC definition of HCR and the HCR performance indicator are different. Therefore the logic test presented here is different from that shown in Table 3 (above). Nonetheless, despite the fact that the two 'logic tests' differ in their make-up, they both give the same result for the Maldives SKJ fishery: No HCRs are in place....at least according to the MSC concept.

Table A3-1. Logical test: HCR meets MSC statement of intent for PI 1.2.2.

Condition stipulated in HCR PI statement	Condition met by Maldives SKJ?
There are well defined HCRs	No
Those HCRs are in place	No
Those HCRs are effective at controlling exploitation	Unknown
Conclusion: Maldives SKJ does not fulfil logical condit Performance Indicator	ions of the HCR

The strikingly clear logic of the intent statement which defines performance indicator 1.2.2 implies that conformity of a fishery to HCR requirements could be determined through a simple

process involving only three decisions, as illustrated using a process flow chart (Figure A3-2). It involves a sequence of dichotomous decisions. This will be referred to this as 'the base case' for establishing conformity with an HCR as defined by MSC (Panel 'A' in Fig. A3-2).



PI 1.2.2 Harvest Control Rules and Tools

Figure A3-2. Assessing HCRs: Comparison of the base case which allows for a generally understood HCR (Panel B) to the base case without such an allowance (Panel A). Only SG60 level is shown.

Importantly, MSC includes a modifier' in SG60 scoring guidepost of PI 1.2.2a which allows for a "generally understood" HCR to pass, as opposed to requiring that the fishery has a "well defined HCR" be in place (SG80 level). This creates an internal inconsistency: a 'generally understood' (GU) HCR would pass according to the methodology whereas the same GU HCR would not meet the MSC definition (compare Panel A to Panel B in Fig. A3-2). Thus inclusion of a 'GU' modifier serves to contradict and undermine application of the MSC definition of HCR within the methodology.

Notwithstanding the abovementioned internal inconsistency, inclusion of "generally understood" as a modifier of HCR scoring has profound practical and theoretical implications for fishery assessments. On the practical side, it means that a fishery without any "well defined" HCR could still attain MSC certification (although presumably only if the fishery agreed to meet conditions). Consequently, a number of tuna fisheries that were deemed to have GU HCRs have been certified to date. The certificates carried conditions that the fisheries must put in place "well defined" HCRs within the period of certification. Notable examples include PNA western and central Pacific skipjack tuna fishery (Condition #2; Banks et al. 2011), Cook Island Albacore (Condition

#3; Gascoigne et al. 2014) and, of course, the Maldives skipjack tuna pole & line fishery (Condition #2; Anderson et al. 2012).

On the more theoretical side, inclusion of the GU modifier begged the question of what MSC meant by an HCR being "generally understood"? Prior to FCR2.0, MSC had not articulated any criteria²⁵ for distinguishing between Generally Understood (GU) HCRs, and not Generally Understood (non-GU) HCRs. Therefore attention focused on the only MSC guidance of relevance – section GCB2.6 Harvest Control Rules & Tools from CRv1.3²⁶ - which says:

"This PI assesses the control rules and actions that management takes in response to changes in the fishery and/or changes in status in relation to reference points. Teams should apply this PI as an assessment of the design and plausibility of HCRs and management tools to control exploitation of the whole stock(s) under assessment.

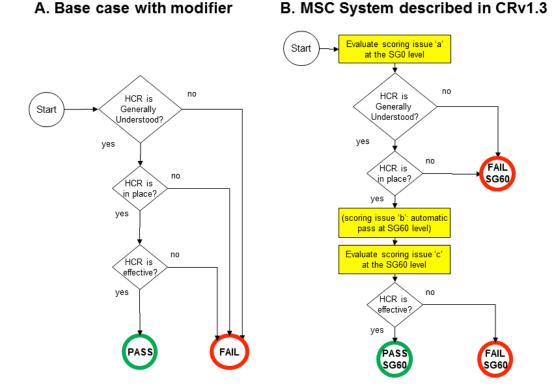
HCRs and/or management tools should be based on plausible hypotheses about resource dynamics and be reasonable and practical, meaning that those measures possess a substantial likelihood of success. The basis for plausibility and practicality of design should be considered in relation to the scale and intensity of the fishery, for instance utilising empirical information; relevant science; or model based approaches such as MP and MSE."

Note that the MSC guidance refers explicitly to assessing the "plausibility" of HCRs. Further, the language MSC uses to describe HCRs and tools suggests that management, or management action, is based on "plausible hypotheses." The guidance does not say, for example, that HCRs must be in place. Nor does it say that the tools to control harvest must have been shown to be effective for managing the subject fishery. Most conspicuously, the passage does not explain how to distinguish an HCR which is "generally understood" from one which is not (i.e. understood by whom and evidenced by what?).

Ambiguity surrounding the concept of GU gave way to a wide range of interpretations by CABs. To understand these interpretations, more detail must be brought into the process diagram to better reflect the actual MSC assessment process as prescribed by CRv1.3. Assessing HCRs at the pass/no pass level involves two scoring issues (a and c) under PI 1.2.2. These scoring issues (Figure A3-3) should still, at least in theory, provide answers to the three questions posed in the modified base case scenario (panel 'A' in Figure A3-3). Note: in this comparison, we are only concerned with SG60 -the minimum pass level. If we ignore the whole GU/non-GU problem for the moment, these two processes align well (Panel A and Panel B in Figure A3-3) and they should yield consistent answers.

²⁵ Criteria for distinguishing between "Well Defined" HCRs and "Generally Understood" are also abmiguous but are less material to these discussions which center on the threshold for pass or fail.

²⁶ Considers only MSC scoring rules according to CRv1.3.



PI 1.2.2 Harvest Control Rules and Tools

Figure A3-3. Assessing HCRs: Expansion of the modified base case (Panel A) to reflect the assessment process as prescribed in CRv1.3 (Panel B).

In practice, CABs have misapplied this logic by creating new modifiers in the process flow of HCR assessment. Foremost among these misapplications is the idea that an HCR, if not in place, might still be "accessible" to the fishery if its use were warranted. The typical argument that CABs have put forward for a fishery having an "accessible HCR" went something like this: the fishery has not needed to take actions in the past because existing management practices for controlling harvest have maintained stocks within reference levels, but that management *could* implement actions if they were needed. This is the "accessible" interpretation which is shown in panel 'B' of Figure A3-4 as compared to the MSC system prescribed by CRv1.3 shown in panel 'A'. Note that the term "accessible HCR" should not be confused with the term "available HCR" which was not introduced by MSC until release of FCR2.0²⁷.

²⁷ The terms "accessible HCR" and "available HCR" are conceptually similar and may have been used synonymously in some assessment. However latter term was not introduced into the MSC scheme until FCR2.0 and application of "available" HCRs follows explicit requirements. CAB usage of "accessible" HCRs, on the other hand, was a misapplication of MSC rules.

PI 1.2.2 Harvest Control Rules and Tools

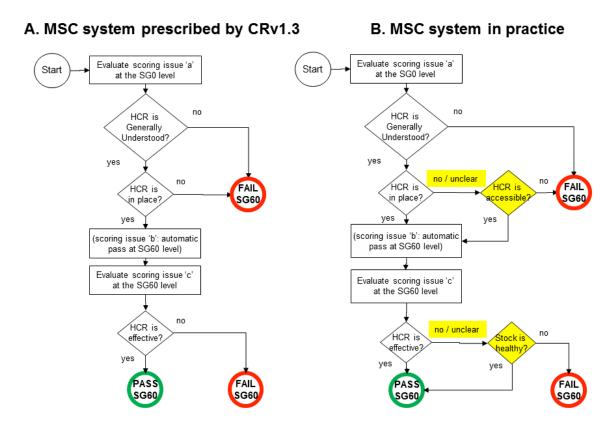


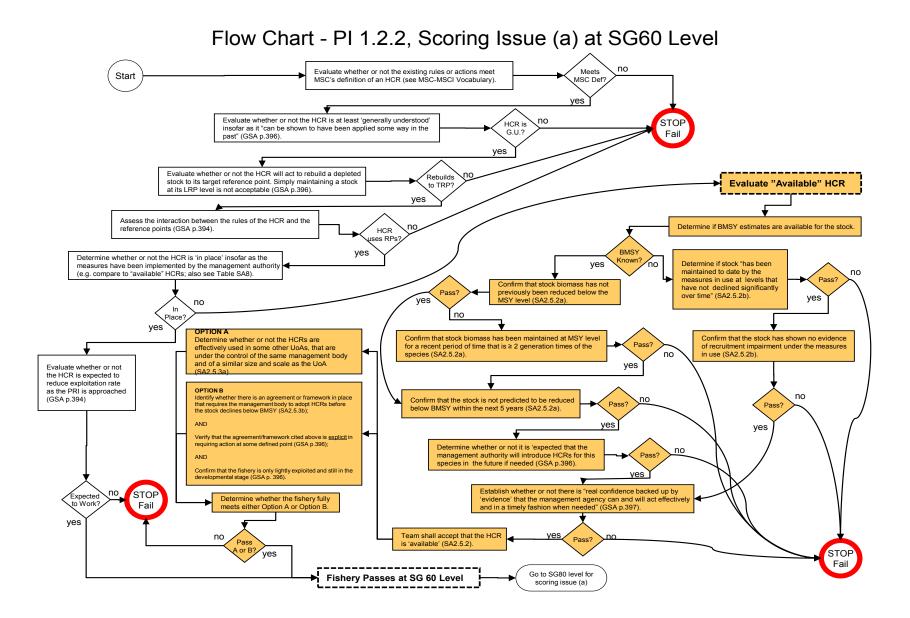
Figure A3-4. Assessing HCRs: Comparison of the process prescribed by CRv1.3 (Panel A) vs. misapplication by CABs in some tuna assessments (Panel B).

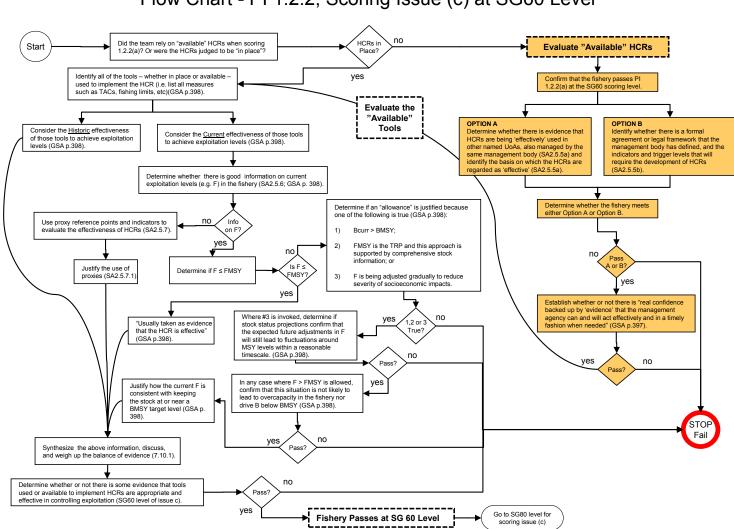
Another generous interpretation taken by CABs relates to evidence of HCR effectiveness. It became common practice, particularly in MSC assessments of tuna fisheries, for CABs to conclude that an untested HCR can be considered to be effective if it can be shown that the stock is currently healthy, had been healthy over some recent period of time, and was predicted to remain healthy. In other words, CABs would give fisheries a conditional pass on 1.2.2c in very low-risk situations – even if the HCR had never been tested in the subject fishery itself. The most relevant example is the rationale for Maldives skipjack, where the assessors concluded that "....The existing status of the stock provides the evidence that the approach used have been appropriate and effective in controlling the stock" (scoring rationale for PI 1.2.2c; Anderson et al. 2012).

To summarize the preceding sections, CRv1.3 presents a clear and logical flow process for assessing HCRs. There is some ambiguity as to how to delineate the SG60 threshold for the criterion of 'generally understood' HCR, but this does not impede application of MSC rules. We have also seen, however, that a number of CABs have taken liberty with that process, introducing two types of justification at the SG60 level which enabled fisheries to attain certification. One justification is the idea of an 'accessible' HCR. The other justification is the notion that HCR effectiveness is demonstrated by a stock which is currently in good health. Both of these justifications were incorporated, via the FSR process, into FCR2.0.

Up to this point, HCRs were considered from a relatively narrow perspective. For the sake of brevity we have ignored some concepts that are tightly linked to HCRs such as harvest strategy, stock status indicators, reference points, and tools to control harvest. Some of these issues are discussed under scheme development (in relation to FCR2.0) and presented in the accompanying flowcharts (given in Appendix 4) while others are simply outside the scope of this account.

Appendix 4. Flow charts for PI 1.2.2 according to FCR2.0 (excluding MSC Interpretation on HCRs)





Flow Chart - PI 1.2.2, Scoring Issue (c) at SG60 Level

Appendix 5. MSC Experts Workshop on HCRs, 14 October 2015

MSC Experts Workshop on HCRs - 14 October 2015 - Key Conclusions

- 1. HCR definition: the requirements of the existing definition of HCR do not apply fully at the SG60 level due to the additional effects of the "generally understood" term. A revised definition will be provided that is applicable at both SG60 and SG80. Existing guidance and requirements are clear that "generally understood" rules at SG60 require some concept of indicators and reference points, and also that management actions have previously been taken or are "available" that respond to changes in those indicators in relation to those reference points, such that declines in stock status are avoided. The existing definition of HCRs is only fully consistent with the "well defined" form, as required at SG80. When determining whether there is a "generally understood" HCR in place, assessors need to determine whether the fishery under assessment will in future take appropriate management action in line with what they perceive as the "generally understood" rule. This will be a matter ultimately for the judgement of the team based on evidence outlined below. Teams should be precautionary in their judgement: in other words, a lack of evidence that the management is clearly failing, or contradictory evidence, should not be assumed to be support for there being an appropriate "generally understood" rule. The following general principles should be applied when determining whether there is a generally understood rule either in the stock under consideration or in other "available" stocks.
 - a. If there are examples of action taken in response to changes in indicator/stock status, the rules do not need to be otherwise pre-agreed or well defined the examples of positive action are taken as evidence that these features exist.
 - b. If there are no examples of action taken and the allowance of SA2.5.3b is being used in scoring, then there is a need for some pre-agreement on rules (e.g. through a CMM stating that action will be taken if stock declines, but without a formal commitment of the specific action that will be taken) to pass at 60. If this is not in place (see below) the auditor should apply the precautionary approach as above and not award 60.
 - c. Negative examples (including evidence that actions have not been taken previously in other stocks, besides those quoted as evidence that HCRs are available) should not be assumed to overrule the evidence presented for the 'available' stocks and need not be exhaustively investigated.
- 2. If at SG60, generally understood rules are regarded as "in place" in the fishery, the evidence presented in scoring issue (c) should also relate to the application of such rules and any associated tools in the same fishery.
 - a. The option to present evidence that tools are "available" by reference to another fishery in scoring issue (c) applies where the same fishery is referred to in scoring issue (a) as an argument that HCRs are "available".
 - b. If "available" HCRs are proposed to be in place in scoring issue (a), it is not possible to score more than 60 for issue (c) since the SG80 refers to the tools "in use" not the tools "in use or available".

- In scoring issue (c), evidence that $F < F_{MSY}$ should not be the sole evidence used for 3. the existence of an effective harvest control rule in the absence of any other "generally understood" rule; this is not necessarily evidence that there is a generally understood rule. For instance, F could be lower than F_{MSY} because effort happens to be currently low, but there is no management commitment or tools to actually control effort at a level that would constrain F to F_{MSY}. However, in some circumstances – where F was being constrained at $F < F_{MSY}$ by controls on effort or catches, then this would be evidence for effective management action that is at least "generally understood". Particular care should be given in assessing the effectiveness of capacity limitations in fisheries, as opposed for example to well monitored effort controls and catch limits, in terms of their likely ability to meet management goals and target exploitation levels. Evidence for the effectiveness of a rule is the consistent achievement of the target exploitation level, which may be well below F_{MSY} if stocks are currently below B_{MSY} . If under scoring issue (a) the "available" language is used, the fact that F<F_{MSY} in the other fishery is, again, not sufficient evidence on its own that HCRs and tools are effective in that other fishery.
- 4. 2.5.3b.can be satisfied with two options: either there is a commitment in a CMM that says "HCR will be implemented before $B <= B_{MSY}$ " or "HCR will be implemented by 2020" and there is an associated projection that the stock will still likely be above B_{MSY} (with a probability >50%) at 2020". Lack of evidence is not acceptable in this latter case "e.g. there is no evidence that the stock will be below B_{MSY} at this point" positive evidence is required, or the precautionary approach applies.
- 5. Scientific recommendations that have not yet been adopted by the actual management agency should not yet be regarded as "in place". However, teams should also not expect that "in place" arrangements require formal *indefinite* binding agreement. CMMs may thus be accepted as in place even if they might still be overturned by majority vote at some point in the future. "In place" CMMs should at least be interpreted as binding in the year in which they are agreed, and there should be no current expectation that they will be removed in the near future or replaced by some less effective form of control. Indefinite promises such as "we agree to implement an HCR sometime" should not be considered "in place" nor binding.



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