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IR/PS CSR Case # 07-02

Sustainable Seafood Labeling:

An Analysis of the Marine Stewardship Council



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Abstract:

Public response to the crisis of over fishing and the resulting collapse of global fish stocks has led to the development of a consumer directed approach to sustainable fisheries¹ management. Many consumers, when educated about the source of a seafood product, will make purchases based on confidence that the seafood is safe to eat and comes from a sustainable source. The Marine Stewardship Council (MSC) promotes and responds to consumer awareness by supporting sustainable and responsible fishing practices through certifying fishermen and seafood companies. MSC certification is based on established principles and criteria for sustainable fisheries, and certified products have the right to use the MSC blue label. To demonstrate causes for consumer interest and confidence in the MSC label this report first provides a brief background on the seafood industry and the sustainable seafood movement before investigating MSC's organizational structure, certification process, and monitoring and evaluation tools. Relevant case studies will be applied in support of credibility arguments, but shortfalls of the organization and certification, such as the lack of developing world fisheries involvement, will also be addressed.

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I. Background

Seafood is the only naturally occurring food resource still hunted for consumption on a major international scale. A continuous increase in demand in conjunction with rapid population growth has resulted in extremely lucrative returns for the fishing industry. Unfortunately, the desire to maximize profits has overridden sustainable practices in most cases. Over fishing is not a recent phenomenon as demonstrated by well known examples of fisheries becoming economically unviable due to overexploitation, such as the Pacific Sardine and Atlantic Cod. However, the response to decreasing stocks has been increasing competition using improved technology to target dwindling resources with greater efficiency, as well as the transfer of pressure to species formerly considered unpalatable.

The results of over fishing are drastic and experts have concluded that as of 2003 29% of open sea fisheries were in a state of collapse and if current practices continue we will experience a total global collapse of international marine fisheries by 2050.ⁱⁱ

Furthermore, the UNFAO published startling statistics that 52% of the world's fish stocks are fully exploited (which means that they are being fished at their maximum biological capacity), 24% are over exploited, depleted, or recovering from depletion, 21% are moderately exploited, and only 3% are underexploited.ⁱⁱⁱ

These figures pose serious concern for a multitude of stakeholders including consumers, companies and individuals along the supply chain, and the fishermen themselves. In 2000 the global fish catch was valued at US\$81 billion, international fish trade was worth US\$55 billion,

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and an estimated 200 million people earned all or part of their income from fishing or related activities.^{iv} Due to the obvious importance of marine resources for a significant portion of the population, political institutions have attempted to manage fisheries in a more sustainable manner on national and international levels. However, legislation is notoriously difficult to establish with the variety of conflicting interests involved and has usually been in response to, rather in anticipation of, stock declines.

The UNFAO has made significant headway in establishing international standards for fisheries management such as the UN Law of the Sea Convention (1985) that established the global framework for the governance of capture fisheries, the Code of Conduct for Responsible Fisheries (1995) which provides a foundation for promoting sustainable fisheries, and the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (1995) for dealing with transnational issues. A more recent example of their efforts was the March 12, 2007 agreement in Rome of 131 countries to start a process leading to the adoption of a legally binding international agreement establishing control measures in ports where fish is landed, transshipped, or processed, in order to combat illegal fishing.^v Also, the UNFAO committee on fisheries (COFI) has also established the 'Guidelines for the ecolabeling of fish and fishery products from marine capture fisheries' which are adhered to by the MSC.

The fundamental problem with such UN policies is that responsibility for enforcement lies under the voluntary actions of national governments and participating institutions and groups. For most of the world's fisheries, particularly those in poorer nations who often sell fishing rights to foreign interests, the capacity and desire to adhere to the guidelines is lacking. Furthermore, the

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innate characteristics of the industry make enforcement incredibly difficult because many species targeted, like tuna, are highly migratory between international and national waters. Also, fishing fleets are often away from port for considerable periods, may fish several different species in one trip, and may transship and/or transform products for different markets at sea.^{vi}

Due largely to the failure of regulation by conventional politics to reverse the collapse of international marine fisheries, market based strategies have gained momentum. An informal alliance of conservation organizations, aquariums, fishermen, seafood processing and distribution companies, retailers, consumer groups, restaurant chains, and gourmet chefs have approached the problem from the demand side. Their strategy is that developing education and awareness about seafood sources through clear, science-based information will result in increased purchasing of sustainable products. This will then create increased demand for such products and producers will respond by sourcing them.^{vii} Ecolabeling has become the market-based economic instrument to direct consumers' purchasing behavior in this regard and its application to seafood products is growing rapidly.

II. Seafood Eco-labeling and Sustainable Seafood Awareness Campaigns

In response to the global fisheries crisis outlined above, several sustainable seafood advocacy and labeling efforts have emerged. In terms of consumer awareness, wallet cards to educate consumers on what fish are most sustainable and therefore best to buy have been popularized by the Monterey Bay Aquarium's Seafood Watch program. The Smithsonian Institution published

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a cookbook on sustainable seafood dishes, and advocacy groups such as Seafood Choices Alliance, The Blue Ocean Institute, and the Environmental Defense Fund have gained increased publicity.

Eco-labeling has become one of the primary tools in consumer awareness campaigns and is exemplified by mainstream examples such as fair trade, certified organic, or dolphin safe. From a policy perspective, an eco-label aims to educate consumers about the environmental and social effects of a products' production and consumption in order to catalyze change in purchasing behavior and ultimately reduce negative environmental and social impacts. From a business perspective, companies are induced to use environmentally and socially preferred production, distinguished by an eco-label, with the expectations of gaining a greater market share and higher profits.^{viii}

FishWise uses a labeling system of green (sustainable), yellow (somewhat sustainable), and red (not sustainable) similar to that of the Seafood Watch guide and has gained significant market share in natural foods markets of the San Francisco Bay Area. They are poised to expand via chain stores to a broader geographical range. In Europe, arguably the most aware consumer market, the regions' largest natural foods retailer, Natureland, has begun its own sustainable seafood labeling campaign. Ecofish, an independent American firm, labels their salmon and shrimp products as sustainable and targets domestic whole foods markets. However, each of these labels is limited in geographical scope and many don't have an obvious strategy for addressing broader, mainstream markets, giving them little impact on overall consumer behavior.

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The exception to this is the Marine Stewardship Council (MSC) whose blue label signifies that the seafood product is from a sustainable source. The organization is the only sustainable seafood certification body that is truly global in scope and thus poses the greatest chance to have a noticeable impact on the overall shape of international fisheries management by consumer driven devices.

III. The Marine Stewardship Council (MSC): Identity and Structure

The Marine Stewardship Council (MSC) is an independent, global, non-profit organization with offices in London, UK, Seattle, USA and Sydney, Australia. In a bid to reverse the continued decline in the world's fisheries, the MSC is seeking to harness consumer purchasing power to generate change and promote environmentally responsible stewardship of the world's most important renewable food source. The MSC has developed an environmental standard for sustainable and well-managed fisheries. It uses a product label to reward environmentally responsible fishery management and practices. Consumers, concerned about over fishing and its environmental and social consequences will increasingly be able to choose seafood products which have been independently assessed against the MSC Standard and labeled to prove it. This will assure them that the product has not contributed to the environmental problem of over fishing.

www.msc.org

The MSC was spawned from an interesting partnership, that of the World Wildlife Fund (WWF), a major international non-profit environmental organization, and Unilever, a multinational corporation who is one of the world's largest buyers of fish (supplying about 25% of the frozen fish in Europe and the United States).^{ix} An initiative was developed by the two organizations in 1997 which aimed to address the rapid depletion of fisheries resources via the creation of a sustainable seafood label. This was heralded by the organizations as a pioneering example of

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green-business partnership. In 1999, Unilever and WWF withdrew from all management of the new entity and it became an independently run non-profit organization.

Since its inception the MSC has grown rapidly and solidified its approach to promoting sustainable fisheries through establishing concrete principles and criteria for fisheries assessment and endorsing approved products as being sustainable via a label. In order to build credibility the organization is completely consistent with the 'UNFAO guidelines for the ecolabeling of fish and fishery products from marine capture fisheries' (See Appendix A). The role of MSC is largely that of a facilitator and accreditor whereby they provide the framework and guidelines of what a sustainable fishery is, the assessment requirements for each phase of production, and the label. They do not involve themselves in the physical process of certifying fisheries, but rather endorse a list of Accreditation Services International (ASI; www.accreditation-services.com) accredited companies deemed capable of completing the process. Those seeking certification must use a Certification Body (CB) from this list. The CB is the primary assessor while the MSC Board of Trustees and MSC Objections Panel make final decisions about endorsement and access to the MSC logo.

In 2003 MSC had a full time staff of 18 in 3 international offices. The organization is headed by the Chief Executive, Rupert Howes, who reports to the 15 member Board of Trustees. The board is comprised of global fisheries experts from the private, public, and non-profit sectors who approve plans, targets, strategies, financial accountability, and appoint chief board and committee members. Other MSC institutional branches include an independent group of fisheries experts who make up the Technical Advisory Board which advises the Board of

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Trustees on MSC standard recommendations and other technical matters. There is also the Approvals Committee who ratifies accreditation decisions, the Stakeholder Council who discusses MSC strategy and executive activities, as well as National and Regional Working Groups focusing on networking and outreach opportunities. Sub-committees are ad hoc except for the Finance Committee.^x (See Appendix B for governance structure and www.msc.org for lists of board and committee members.)

The MSC is a non-profit organization and their financial records are available for public view in their annual report. They are primarily dependent on donations from charitable trusts for their activities (75% of the budget) and do not derive income from the fisheries certified or undergoing certification for their operational costs. Concern that stakeholder companies provide significant contributions and therefore may seek special treatment may have some grounds as 9% of their £2,283,894 of donor funding in 2006 came from corporate sources including Unilever, Whole Foods (Vice President of Governmental and Public Affairs for Whole Foods is also on the Board of Trustees), and Oceanare Seafood. The organization is audited by Sobell Rhodes, Registered Auditors and Chartered Accountants. The majority of their budget is used for commercial and fisheries outreach (44%), policy and maintenance of standards (26%), and education and awareness (13%).^{xi}

IV. MSC Market Share

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By March of 2006, MSC labeled products numbered 332 and were available in 25 countries, making the MSC the world's largest sustainable seafood label. More than 50 fisheries are MSC certified or undergoing the process, more than 3 million tones of seafood comes from fisheries engaged in the program, and the global retail value of MSC-labeled seafood for 2005/2006 was approximately US\$235,661,285. About 6% of the worlds total edible wild capture fisheries are now engaged in the program.^{xii}

Several major retail chains and distributors in the United States now supply MSC labeled seafood products including Whole Foods, Wal-mart, Safeway, Wildcatch, Trident, Ocean Beauty, and Fishery Products International. Internationally, there are over 200 businesses trading MSC-labeled seafood products. In terms of the US market, Wal-Mart Stores Inc. has become the largest retailer of MSC labeled products and announced in August, 2006 that it had set a goal to procure all wild-caught seafood for North America from fisheries certified by the MSC within the next three to five years.^{xiii} This is a major development for MSC and the fisheries certified or undergoing certification.

Peter Redmond, vice president of Wal-mart Seafood and Deli was quoted as saying "this initiative is part of Wal-Mart's continued commitment to offering sustainable products at affordable prices to our customers."^{xiv} Although this move can be seen as part of Wal-Mart's ongoing efforts to create a more socially responsible corporate image, it can be argued that it is simply a logical business decision. This step provides Wal-Mart with a secure and consistent source of a valuable, profitable product to offer its customers into an assumable infinite future thus assuring the sustainability of their business. As global fish stocks collapse over the coming

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decades other retailers may struggle to obtain seafood products from dwindling supplies providing a distinct advantage to Wal-Mart and its secure source of sustainable caught seafood.

As the MSC breaks the former trend of sustainable seafood only reaching specialty whole foods markets by entering mainstream retail chains, the benefits of MSC certification become more apparent to the suppliers. This is vital because the fishery incurs the costs of certification and therefore must envision returns on their investment (see certification process below). Given MSC's significant and growing markets we can expect a greater number of fisheries to seek certification in order to access and profit from them. However, new questions are then raised regarding MSC credibility. Is it possible to meet the volume demands of larger markets with MSC labeled products or will the integrity of the label be compromised by rapid growth, thereby damaging consumer confidence? Also, given this scenario of MSC labeled products having access to new markets and presumably higher prices, why are there only 18 fisheries out of the thousands around the world undergoing the process of certification?

The following sections of this report will address these issues by first looking at the standards themselves and how they are applied.

V. MSC Principles and Criteria

The main focus of MSC has been developing guidelines for what a sustainable fishery is. To accomplish this goal the principles and criteria of MSC certification have been developed by an

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extensive, international consultative process. Expert fisheries scientists' recommendations in addition to the views of stakeholders in the fisheries industry from around the world were gathered and molded into a framework for appropriate standards. The three core components of *MSC's Principles and Criteria for Sustainable Fishing* are:

- 1. A fishery must be conducted in a manner that does not lead to over-fishing or depletion of the exploited populations and, for those populations that are depleted, the fishery must be conducted in a manner that demonstrably leads to their recovery.*
- 2. Fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and associated dependent and ecologically related species) on which the fishery depends.*
- 3. The fishery is subject to an effective management system that respects local, national and international laws and standards and incorporates institutional and operational frameworks that require use of the resource to be responsible and sustainable.^{xv}*

Each principle has an attached statement of intent and list of criteria. An example of this for the first principle is the intent of not sacrificing the productive capacity of a fish stock in favor of short term interests, and associated criteria being that fishing is conducted in a manner that does not alter the age or genetic structure or sex composition to a degree that impairs reproductive capacity. This is only one small example of the requirements placed on a fishery that wishes to become certified (see Appendix C for a full list of criteria) It is the responsibility of the certification body to cite the scientific evidence and corresponding suitable fishing practices that ensure the principles are met.

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These guidelines are extensive and are a solid basis for determining if a fishery is sustainable and should receive MSC certification and access to the logo. This is reinforced when we see how they are applied later in this report.

However, these guiding principles have not gone without scrutiny or modification. The MSC recognizes that the certification principles and process require refinement via practical experience and must be dynamic. As a result, systems, procedures, and approaches have been continuously updated. One of the contributors to the initial set principles underlying the work of the MSC, Tony Pitcher, Director and Professor of Fisheries at the University of British Columbia's (UBC) Fisheries Center, publicly criticized the MSC following a call by the organization for feedback regarding its governance in late 2000. He went as far as requesting that the name of the Fisheries Center be removed from the list of MSC supporters.

Mr. Pitcher stated that the MSC scoring process, part of the principles and criteria, lacked transparency because the UBC Fisheries Center had been unable to obtain scorings for the Alaskan salmon or Australian rock lobster fisheries. He also was critical of the blanket of approval of all species, localities, and gear types for Alaskan salmon in that it raised issues about the scoring system and how compliance would be monitored. Furthermore, Mr. Pitcher noted that comments by the independent reviews of each scoring process were not openly published.^{xvi}

The position of the UBC Fisheries Center has not been reversed for reasons that will be discussed later in this paper. However, the MSC addressed the concerns posed, and in 2002 it was required that fishery assessment reports must reveal the scores and weights assigned by the

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certification body. It is now possible for stakeholders, clients, and interested parties to voice concerns about the assessment hierarchy proposed which allows them greater input into the process. All preliminary documents, assessment reports, and audits are available for public view and scrutiny on the MSC website. The MSC also notes that blanket approval as applied to the Alaskan salmon fishery was a test case since the fishery was assessed in the early days of the MSC program, and has since been modified to encompass greater specificity.^{xvii}

These actions exemplify the responsive and flexible nature of the organization and add to the credibility of the logo. However, the scope of these modifications goes beyond the principles and criteria, reflecting the processes of how they are applied through the certification process. This process comprises the core of the MSC and is the means in which consumers can derive real confidence in the MSC label. We will take a detailed look at each aspect of certification here.

VI. Certification Overview and the Pre-Assessment Process

An MSC logo is placed on the seafood product the consumer sees at the retail level but also symbolizes the certification of a named species, fishing method, stock source, vessel, and company. The certification process is broken into two tiers, the certification of the fishery and the certification of the chain of custody. Evidence to support certification in both tiers is carried out by independent, third party, certification bodies that are firms deemed competent and capable of the process by the MSC and Accreditation Services International (ASI).

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The cost of the certification process is incurred by the fishery itself. Costs vary depending on the complexity of the fishery and have ranged from US\$35,000 to US\$500,000.^{xviii} The market aspects previously discussed provide the incentive for the fishery to pay these costs, but a cost-benefit analysis must be undertaken to determine if the presumed returns will outweigh the investments into certification. For example, Ruben Garcia of FEDECOOP (MSC client) noted that although the Baja Mexico Red Rock Lobster Fishery invested considerable resources in MSC certification, they have not seen matching returns since the market price in Ensenada is equivalent to, or greater than, the MSC labeled market price internationally. Furthermore, the US market requires volumes at set size consistencies beyond the capabilities of the fishery.^{xix}

For other fisheries there are obvious returns or incentives. Those undergoing re-certification provide evidence that the fishery thinks the process is worthwhile. For others undergoing the process, like the Pacific Albacore, access to pre-identified new markets like those in Europe, is the driving force behind undergoing certification.

Accredited certification bodies (CB's) are independent third parties that conduct the actual fishery assessments in accordance with the MSC's Fisheries Certification Methodology, and make certification decisions consistent with the MSC standard. CB's are closely monitored by the MSC and ASI through office visits and site visits while assessments are taking place. (For Certification Methodology see www.msc.org/html/content_505.htm)

The first step toward certification is selecting a CB. This decision may be based on their geographical region of focus (if any), expertise with particular fisheries, record with timeliness,

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cost estimates, etc. It is also crucial to determine who exactly the client of the CB will be, such as a fishing industry association (Association of Australian Rock Lobster Fishermen) or even governmental agency (Alaska Department of Fish and Wildlife). An example of this scenario is the American Albacore Fishing Association (AAFA), Inc., a client who is currently undergoing certification. A representative from the organization, Natalie Webster, noted that Moody Marine was chosen as their CB due to their good record and willingness to do quality work within a relatively short timeline.^{xx}

Once client and CB are established a pre-assessment becomes the first formal move toward certification. A CB pre-assessment is prepared for the client in order to provide a brief evaluation of the likelihood the fishery will meet the MSC standard based on the *MSC's Principles and Criteria for Sustainable Fishing*. The report will include identification of the strengths and weaknesses of the fishery and recommend whether or not the client should push forward to the full assessment stage with suggested modifications to practices if necessary. Jim Humphreys, the Regional Director for the MSC in the Americas, remarked that the pre-assessment is a filtering tool and several fisheries seeking certification have dropped out of the process after receiving this assessment, though they could not be identified due to confidentiality agreements.^{xxi} (To see a list of the minimum pre-assessment requirements see Appendix D.)

To continue the certification process beyond pre-assessment, the client must undergo full assessment by the CB which includes peer review of the CB's findings and a final report with determination of whether or not the fishery meets the MSC standard. This then goes through an objections procedure before a final decision on certification is made. If certification is granted,

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the chain of custody must then be assessed and certified before the MSC logo is allowed to be used by the product from the certified fishery. The entire certification process averages around 12-14 months, with the shortest having been 5 months and the longest 48 months.^{xxii}

(See Appendix E for a certification flow-chart.)

A. The Full Assessment Process

The full assessment is a lengthy, detailed process with 17 steps (See Appendix F) involving several meetings between the client, CB, MSC, and various other stakeholders. The MSC maintains the role of liaison throughout the full assessment to ensure that the steps are implemented accurately.

One of the primary components is the CB's determination of performance indicators and scoring guideposts. These form an "assessment tree" or assessment hierarchy which is specific to the fishery. The scoring guideposts for each performance indicator have score ranges from 60- the minimum acceptable mark in any given category, to 100- a theoretically 'perfect' fishery. The aggregate score must be 80 or more.^{xxiii} This core aspect of assessment is one of the primary points of contention with the UBC Fisheries Center. (Please see examples of performance indicators and scoring guideposts in any MSC certified fishery Final Report at msc.org, such as the N.Z. Hoki case used for section 7.2 of this report).

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The UBC Fisheries Center argues that “it was impossible to find information that had led to the scores for each factor considered by the MSC, and scoring issues and methods appeared, as far as could be discerned, to follow a completely different scheme for each fishery.”^{xxiv} The statement that each fishery has a different scheme makes sense however. Nearly every certified MSC fishery is in a different location with unique ecological traits and therefore scientific grounds for maximum allowable catch and ecosystem impact will differ. Also, catch methods used for each certified fishery vary. As a result, performance indicators and scoring guidepost must be tailored to each fishery in the context of the MSC principals and criteria. The fact that there is not a constant scheme does not hinder the legitimacy of the grading process but rather allows it to be more accurate for each specific scenario. The underlying standards still apply.

There has also been a response by the MSC to address this issue with the development of the Quality and Consistency Project under the Technical Advisory Board. This project is aimed to create better quality standards in CB assessment through measures to improve consistency in scoring and other areas. This will help deal with concerns such as the variations across fisheries and CB's. Furthermore, the process is open to public input until April of this year when steps toward implementation will occur.

In many cases conditions of certification with required improvements will be presented by the CB with an appropriate timescale for each. It is then the responsibility of the client to determine how to meet these conditions and agree to a timeline. However, and this one of my largest concerns with the certification process, a CB may issue a certificate with conditions pending under agreement that they will, eventually, be met. Furthermore, to date every fishery has been

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certified with conditions. This seems too lenient, but fears are dispelled by the fact that full assessment must still undergo a peer review and objections process which may deem these conditions too excessive. Even with conditions, the fishery must still receive passing scores on assessment. Furthermore, annual audits are required that serve as a tool to determine if conditions are met. The recertification process at the five year point also ensures conditionalities have been handled appropriately.

B. Peer Review

The peer review process is an important confidence building tool that adds credibility to the CB in their development of full assessments. Given that the CB holds the primary responsibility for the assessment process, devices such as this are critical to faith in the process and thus the certification and label. This takes place prior to the production of the final report which allows the CB and client to respond to concerns expressed by the peer review. The Peer Reviewers are proposed by the CB based on their experience with the fishery under assessment and their fishery management and ecology knowledge. The MSC then confirms or denies the suitability of these peer reviewers based on their credentials and the relevancy of these credentials to the fishery. Although it may seem that there is cause for concern in the CB selecting its own peer reviewers, the fact that the MSC must approve them allows some level of trust in the process.

In the case of the current assessment of the AAFA Pacific Albacore Tuna for MSC certification, Peer Reviewer Panayiota Apostolki exemplifies the credentials of those involved. She has

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significant experience with tuna biology and international tuna fisheries management, is completely independent of AAFA, Moody Marine, or the MSC, and a Fishery Scientist with the Center for Environment, Fisheries and Aquaculture Science, UK. She was a contributor to various tuna stock assessments internationally and constructed the “Framework for the Evaluation of Management Strategies” used as the evaluation process of the Blue Ocean Institute’s seafood ranking scheme.^{xxv} Most peer reviewers are of a similar mold being research scientists/academics with extensive experience and credentials.

Peer evaluations provide detailed feedback on the scientific evidence of sustainability, and the functional form of the report, such as format and clarity. The area of the report most closely scrutinized is the performance indicators and scoring guideposts based off the MSC principles and criteria. For example, in the case of the Baja California Red Rock Lobster Fishery, Peer Reviewer Dr. Pablo Arenas commented that the rationale for scoring in Principle 2 of the report was unclear and had inconsistencies with the references.^{xxvi} The language of the final report submitted was revised whereby it was stated clearly that “the scoring of this indicator was based on the following considerations:” followed by a detailed description of those considerations. Clarity between the rationale for scoring, the scores themselves, and the references provided was also improved.^{xxvii}

These examples, and other peer review cases investigated, provide evidence that the peer reviews are well based and constructive. The CB is responsive to the feedback and the necessary measures for improvement by the fishery, CB, or both, are undertaken. This provides much needed confidence in the CB given the scope of their responsibility in the certification process.

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Once the peer review is completed, the CB and fishery make necessary revisions, and the CB provides certification approval which takes into account stakeholder comments, a final report is submitted to the MSC where it is subject to an objections procedure.

C. Objections Procedure

The objections procedure is a 21 day period during which parties who wish to lodge complaint against the certification of a fishery may do so. If there is no objection, the prior determination of pass or fail becomes the final result. If there is a complaint submitted, the objections procedure commences under the guidance of an independent Objections Panel whose Chair, Michael Lodge, has an extensive marine law background.

No formal certificate or logo will be granted until this process has been completed and determination finalized. It is assumed that if objections are deemed relevant by the Panel and of a level of concern high enough to require suspension of the certification approval, it would be up to the CB and the fishery to make necessary corrections. Then the objector would remove their complaint if they are satisfied, or the Panel may deem the changes were sufficient for approval even if there is continued objection.

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The MSC Objections Procedure is set out in the MSC's Fishery Certification Methodology and demonstrated by a case of objection against the South Georgia Patagonian Toothfish Longline Fishery filed in 2004. The common name of the fish targeted in this case is 'Chilean Sea bass', an extremely popular consumer fish product. For example, a Whole Foods supermarket associate mentioned that they do carry MSC labeled Chilean Sea bass but are regularly sold out.^{xxviii} Due to this popularity the species has been seriously over fished. It is red listed by Seafood Watch (see section 2) and Tobias Aguire of FishWise considers it an unsustainable fishery under *any* commercial pressure based on biological grounds.^{xxix}

The Objection Panel noted that the objectors in the case (conservationist groups) raised serious, important, and relevant issues and there were some errors in the judgment of the Assessment Team and CB. The panel also stated that the peer reviewers raised several legitimate questions that were not dealt with accordingly in the final report. Furthermore, the panel judged that the Certification Body's response to the Initial Objections was 'terse' and deprived the objectors of full appreciation.

One of the primary issues of concern was the CB's assessment that the South Georgia toothfish population is a reproductively isolated, genetically distinct stock. This is a serious point of contention because it relates to the overall health of the species. Because this aspect of the assessment was denied by the Objection Panel it disallowed the fishery to make management decisions as if it were isolated, self-sustaining, and not connected to a larger ecosystem. A series of events stemmed from this resulting in extensive measures by the CB and fishery to rectify the situation. The end result was a conditionality placed on the certification that studies must be

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carried out to indicate whether or not locally implemented management measures alone will be sufficient to ensure the sustainability of the stock. This was completed within the year.^{xxx}

In March, 2005, Moody Marine, the CB, released its Addendum to the Certification Report and it was deemed to have sufficiently dealt with the issues raised. The fishery has been so heavily utilized (by 17 countries, legally and illegally, with year 2000 catches likely exceeding 90,000 metric tonnes)^{xxxii} in such a short period of time that the impacts are still pending. Although it is argued that commercial fishing of 'Chilean Sea bass' is unsustainable under any terms, the fishery in this particular area is attempting to act in a sustainable fashion and is the best alternative for consumers. In continuing audits we will be able to monitor the state of the fishery and assess its sustainability. This provides credence for the ongoing MSC certification issues outlined here as this process of scrutiny would not likely take place otherwise.

The objections procedure is paramount to the ability of stakeholders outside the client, CB, MSC triangle to have tangible influence in the certification process and adds further credibility to certification.

Once the objections process has been completed and a pass decision made, the fishery is MSC certified. However, the second tier of certification, one which is vital to consumer confidence is the MSC label, must now be carried out.

D. Chain of Custody Certification

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Traceability of MSC labeled products is crucial to consumer confidence and has led to the establishment of MSC Chain of Custody (CoC) Certification requirements. Seafood traders have an incentive to access lucrative, 'eco-friendly' markets through mislabeling. For example, tilapia is considered eco-friendly by seafood awareness campaigns and the Whitefish Association of Ecuador was found to be selling South Pacific Hake, often an unsustainable fishery, labeled as tilapia as a result of market interests.^{xxxii}

CoC certification ensures that the seafood product with the MSC logo at the retail level is actually from a MSC certified fishery. 'Chain' signifies the fact that there are multiple steps and businesses involved between the producer and the customer. 'Custody' reflects each business in the chain has taken receipt of MSC seafood and is responsible for keeping it separate from any other seafood product.

"Independent verification is carried out for every product bearing the MSC logo. This is to ensure that the product has originated from a fishery that has been certified to the MSC Standard. In order to achieve this, each relevant organization in the supply chain will be subject to a Chain of Custody (CoC) audit."^{xxxiii}

Any business wishing to produce, process, package, ship, and/or sell an MSC product must contract an MSC and ASI accredited CB to assess their compliance with the MSC CoC Standard. This standard is well based and detailed, including steps such as confirmation of inputs,

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separation and/or demarcation of certified and non-certified fish inputs, secure product labeling, identification of certified outputs, and recordkeeping.^{xxxiv}

The primary device of the CB is assessing CoC compliance is auditing. The audit requires the client to demonstrate actions in line with the standards. As mentioned, these include systems to ensure MSC fish is kept separate from other fish and that records show this is the case for every batch of MSC fish received. If requirements are met in the audit, the CoC is certified and application for the MSC logo can proceed.

CoC certificates are granted for three years but regular annual surveillance audits must be scheduled to ensure ongoing compliance.

The CoC standards are sound and the third party audits seem sufficient to ensure compliance. Given the amount of investment in certifying the fishery itself, there is a strong vested interest of stakeholders to ensure the CoC standards are complied with. Incentives to ‘cheat’ in accessing markets or price premiums by labeling non-MSC seafood as being MSC approved do not outweigh the risk involved in a negative audit. An audit demonstrating non-compliance would result in the loss of certification for the entire fishery and supply chain.

VII. Monitoring via annual audits

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The certification process is intensive and grounded in scientific principles that assure sustainable fishing practices are undertaken by the fishery seeking initial or ongoing certification. However, there is concern that these sustainable practices may not be maintained after the fishery and its supply chain are certified. Why wouldn't they revert to unsustainable practices after they have access to the logo so they can increase profits from catches beyond those set by the standards?

Annual audits are required by MSC and are carried out by an accredited CB. These audits ensure the basis of certification is still in place and the fishery is meeting any conditional requirements from the original certification. They are entirely transparent and available for public view on the MSC website.

An example of this process is the Baja California, Mexico Spiny Lobster Fisheries' second annual audit in 2006 which recommended the continued use of the MSC certificate through to the next annual surveillance audit. This was determined after office and site visits by the CB to the producer where catch records and general practices were reviewed to ensure compliance with the standards. It was noted that there were actually fewer vessels fishing and fewer traps used in 2006 than 2005.^{xxxv}

There is sufficient evidence from every MSC certified fishery that these audits are carried out. Their content and transparency provide assurances that they are accurate.

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VIII. Monitoring via re-assessment and the case of the New Zealand Hoki Fishery

The MSC requires an in-depth recertification report from an accredited CB after 5 years of certification for certification to be renewed for an additional 5 years (annual audits continue). This report mirrors that of the initial report with the same scope and depth, the same process of peer review, and same subjection to a 21 day objections procedure. It is a sound method given that the conditions of a fishery may change dramatically in a 5 year time frame due to a variety of reasons, whether attributable to the certified fishery or not.

Recertification is of extreme importance to the legitimacy of the MSC label as it demonstrates ongoing compliance and that the certification is benefiting the fishery (or they wouldn't incur the costs of another intensive assessment). It is also crucial to MSC credibility because several of the fisheries certified early in the organization's history that suffered skepticism (see section 5.2) are now undergoing the recertification process. One key example of this is New Zealand Hoki.

New Zealand Hoki is the nation's (N.Z.), and one of the worlds, most important fish species in terms of yield and economic value. N.Z. Hoki fillets and fish sticks are marketed in every major grocery store around the globe. Catch allowances were set at 100,000 tones a year in 2004 by the New Zealand Ministry of Fisheries and the catch in 1998 valued USD\$294 million.^{xxxvi}

MSC certification was awarded in March 2001 and the reassessment procedures that commenced in 2005 have still not been completed due to objections.

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Although it wasn't verified, Jim Humphreys of MSC stated that he thought the principle objector in this case is the Royal Forest and Bird Society. In the 305 page reassessment report by SGS, significant concerns were raised about the bycatch^{xxxvii} of seabirds and Southern Fur Seals, lending support that this organization did in fact file the objection. The reassessment document notes multiple objections by the World Wildlife Fund regarding this and other issues, and another potential objector is Greenpeace due to their well publicized documentation of deep sea habitat destruction from bottom trawling in New Zealand^{xxxviii} (N.Z. Hoki is a mid-water and bottom trawl fishery).

For time and space considerations I will only make note of one (there are several, such as the bycatch mentioned) fundamental flaw in the N.Z. Hoki fishery according to reports. Peer reviewer A stated that "the western stock (which is one of several this fishery targets) is assessed (2005) to be at or below the limit biomass reference point... While there have been reductions in catches of this stock in response to the decline, there is no explicit rebuilding plan in place... Two out of four stock projections in the 2005 assessment show the western stock failing to recover to the target level by the end of the next certification period."^{xxxix}

This is in direct conflict with MSC principle #1 (see section 5.2) and the CB seemed to be in agreement with the conclusion drawn. However, the CB remarked:

The overall score for Principle 1 exceeds 80 even though the scores for two key Performance Indicators were below 80. This reflects the nature of the MSC assessment process which assigns scores to a variety of aspects including knowledge, data collection and the assessment as well as outcomes. The MSC process does not permit any other

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form of judgment to be applied to determine if the fishery passes or fails on any Principle. The assessment team is acutely aware of the overall role of the assessment model structure in determining the priori considerations in an outcome, and all possible safeguards are taken in the assessment process to avoid bias, but recognizing that the MSC process applies constraints that the assessment team is bound to work within.^{xi}

The end result is that the validity of the current certificate has been extended until April 1, 2007 to cover an extended objections period. The case is still pending and represents the starkest controversy in MSC labeling uncovered in this research. Scientific evidence backed by the CB shows that a substantial area of the fishery does not meet the required MSC standard for allowing stock recovery in a depleted fishery, but the structure of scoring allowed other performance indicators to balance out this shortfall.

This case represents non-compliance with the MSC Standard. It also demonstrates that MSC certification is effective in identifying such situations. The re-certification process is obviously an important tool in legitimizing the MSC label and the N.Z. Hoki example provides an important case study in analyzing how compliance is ensured. If the N.Z. Hoki Fishery maintains certification without significant, short-term, binding conditionalities, confidence in the MSC label will be compromised.

IX. Critiques of MSC Certification

The 'shadow of the state' helps good, developed world fisheries get certified and bad 1st world fisheries to stay in business through subsidies^{xli}. There is a 'low hanging fruit' concept at play in

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this process. Fisheries that are already heavily regulated by effective national fisheries policies in countries that can afford to implement them are able to obtain certification much easier than those without heavily enforced regulations. Sometimes government agencies in richer nations are even the client paying for the certification, as is the case with Alaskan salmon. This puts poorer nations at a distinct disadvantage in obtaining certification.

Only two of the twenty two MSC certified fisheries are based in developing nations: the Baja Mexico Red Rock Lobster and the Patagonian Scallop (Argentina). This proves an obvious point that the majority of the world's fishermen (small-scale in developing nations) are not being reached by the MSC program. Although there has been the recent establishment of the 'Developing World Fisheries Program' by the MSC to address this issue through the goal of increasing developing countries' stakeholder awareness and involvement, no concrete results have yet surfaced.

This idea is related to the marketability of sustainable seafood outside of the United States and Europe. This is one of the most significant challenges for MSC: most of the world does not discriminate between products based on the environmental issues associated with them. Asia consumes over two thirds of the world's seafood, and most of the growth in demand for seafood stems from Asia, Latin America, and Africa. None of these areas is currently very responsive to eco-labeling.^{xlii}

There are also organizational components that compromise confidence in the organization. The fact that Unilever, a co-founder of the organization and one the largest buyers of MSC labeled

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seafood, makes significant contributions to the organization raises some concern. Contributions from Whole Foods and other companies with direct for profit interests in the organization also cause concern. Although these are on theoretical grounds only, it does seem possible that they could leverage their donations for decision making that would favor them.

Another questionable issue is the certification of bottom trawl fisheries, such as the Patagonian Scallop, N.Z. Hoki (mid-water and bottom trawl), and South African Hake. Bottom trawling is a very destructive fishing method to sea bottom ecosystems, acting like a sort of bulldozer along the bottom^{xliii}. This may compromise the sustainability of the fishery targeted by disrupting the food web it depends on. Trawling in general is also notorious for bycatch of unwanted species resulting in significant kills of sea birds, sea mammals, sea turtles, and fish species important to the health of the overall ecosystem that are not the target species. This reflects a single species vs. ecosystem focus in determining sustainability which may be a flawed approach.

There is also a startling lack of addressing aquaculture with MSC certification. About 40 percent of the seafood imported into the United States is farm raised, mostly consisting of salmon and shrimp. It is also a very important industry domestically with US produced aquaculture products worth about \$1 billion annually and estimates the Department of Commerce for growth to \$5 billion by 2025.^{xliv} Aquaculture has been regarded as a very important avenue toward reducing pressure on wild fish stocks, but recent health and environmental concerns have surfaced with its growing prevalence. This is particularly the case with the two most popular aquaculture products: salmon and shrimp due to ecosystem and other impacts of large scale operations. Given the potential for aquaculture to help meet increasing

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consumer demand while reducing pressure on wild fisheries, it is surprising that the MSC has not yet developed strategies to promote sustainable aquaculture practices.

Finally, there is a disturbing lack of publicly available evidence that MSC certified fisheries are making more money than they would had they not undergone the process. The same applies for the environmental gains of MSC certification, there is little to no data that demonstrates that MSC certification has improved a fishery or an ecosystem in an area of proximity with an MSC fishery. Potential causes for these shortcomings are fairly obvious, like stakeholders not making gains from the certification public to avoid additional competition. Also, in economic and environmental terms, the program is very young and therefore data collection is underway but has not been analyzed. None-the-less, this is an area of great importance for greater justification of MSC efforts.

X. Conclusion

Although there are several noteworthy criticisms of the organization, it is important to remember that the MSC is very young, having become an independent non-profit organization in 1999. In eight years they have made amazing headway in addressing the international fisheries crisis through a market based approach of ecolabeling sustainable seafood products (6% of the world's total edible seafood is now engaged in the program).

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The market response has been promising and the commitment of Wal-Mart to make all of its wild caught seafood products MSC certified in the next five years demonstrates how successful the sustainability movement can be in reaching a broad consumer base beyond boutique whole foods markets. With this highly visible increase in marketability, producers and distributors are able to see the tangible benefits of the high cost involved in becoming certified. The fact that every MSC fishery faced with the required 5 year recertification has completed, or is undergoing the process, is a testament to this.

The MSC organizational framework is large and well structured (see section 3), allowing it to comfortably handle its growth. Standards are comprehensive and grounded in scientific principles that dictate what is required for a fishery to be sustainable. Very importantly, systems are in place which allows the standards to be dynamic and respond to and accommodate new developments in science, policy, and economics.

Standards, however, are meaningless without sound evidence of their implementation, and this is where much of the confidence in the MSC label can be derived. The comprehensive nature of pre-certification, full certification including a peer review, an objections procedure, and supply chain certification provides a clear indication that the certified fisheries and distributors meet the guidelines. ASI and the MSC accredit the third party certification bodies who are then responsible for the wide ranging assessments that ensure the fishery is sustainable and the supply chain is free of false labeling.

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The CB is very important to the credibility of the label since there is the potential of corruption between them and the fishery. This makes controls crucial. The effectiveness of the peer review and objections processes as tools to ensure the CB is accurate in its work allows strong consumer confidence that the label does in fact indicate sustainability. The annual audits and in-depth 5 year re-assessment process ensure that conditionalities are met and that the fishery continues to meet the required standards over time.

However, the MSC certification fails to address developing world fisheries, the Asian market, or aquaculture. These and other shortcomings point to a fundamental issue that must be understood: MSC certification is not for everyone. Some consumers will want stricter standards while others might not care about sustainability and only want to pay the lowest price. Some fisheries will find the process too difficult, time consuming and/or costly, while others may be able to undergo the process but choose not to because they don't see it benefiting them. Therefore, the MSC alone will not be able to solve the world's fishery crisis and there is a need for a combined approach that goes beyond solely consumer driven methods. None-the-less, relative to other eco labels, MSC is remarkably sound and provides one of the best available choices for a seafood consumer concerned about sustainability.

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XI. Discussion Questions

1. Why is it difficult to establish international standards for fisheries management? How effective are private industry regulation organizations like the Marine Stewardship Council in addressing sustainable fisheries issues? Is private regulation more important than governmental regulation? Why or why not?
2. Evaluate the pros and cons of a MCS's "mainstream" blue label and FishWise and Natureland's geographic labels in promoting sustainable fisheries management. Do you feel geographic labels are more powerful than MCS's blue label within a given location? Does MCS's national scope dilute or strengthen the power of its label? Are competing labels good for the industry?
3. What about the Marine Stewardship's Council's history, organizational structure, financing, and purpose gives you confidence in its ability to address international marine fisheries issues? Which do not? How transparent is this organization? What should it do to strengthen its credibility and successfully establish itself as the predominant marine eco-label?
4. Evaluate MSC's fishery and chain of custody certification processes. Are there areas where "cheating" might occur? If so, how does MSC address or fail to address these issues? How should we evaluate the different scoring schemes for fisheries? Are there are other industries where different scoring schemes make sense?
5. How well-designed is the peer review process? The objections process procedures? How does MCS assure that its fishery and supply chains won't revert to unsustainable practices after they have been certified? Are there any "best-practices" that can be applied to other industries' private monitoring organizations? If not, what can the MSC do to strengthen these processes?
6. The author outlines various challenges and criticisms facing the Marine Stewardship Council. They include the difficulty of marketing sustainable seafood internationally, the problems of certifying bottom trawl fisheries, lack of strategies to promote sustainable aquaculture practices, and the lack evidence that MCS certification increases profits. Sketch out a strategy for MSC. Which of these issues should the MCS address in the next 10 years? What should be its goal?

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XII. Appendix

Appendix A

GUIDELINES FOR THE ECOLABELLING OF FISH AND FISHERY PRODUCTS FROM MARINE CAPTURE FISHERIES SCOPE

1. These guidelines are applicable to ecolabelling schemes that are designed to certify and promote labels for products from well-managed marine capture fisheries and focus on issues related to the sustainable use of fisheries resources.

PRINCIPLES

2. The following principles should apply to ecolabelling schemes for marine capture fisheries:

2.1 Be consistent with the 1982 United Nations Convention on the Law of the Sea and the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, the FAO Code of Conduct for Responsible Fisheries and the World Trade Organization (WTO) rules and other relevant international instruments.

2.2 Recognize the sovereign rights of States and comply with all relevant laws and regulations.

2.3 Be of a voluntary nature and market-driven.

2.4 Be transparent, including balanced and fair participation by all interested parties.

2.5 Be non-discriminatory, do not create unnecessary obstacles to trade¹ and allow for fair trade and competition.²

2.6 Provide the opportunity to enter international markets.²

2.7 Establish clear accountability for the owners of schemes and the certification bodies in conformity with international standards.

2.8 Incorporate reliable, independent auditing and verification procedures.

2.9 Be considered equivalent if consistent with these guidelines.

¹ Consistent with the WTO Agreement on Technical Barriers to Trade.

² See Code of Conduct for Responsible Fisheries para. 11.2.

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2.10 Be based on the best scientific evidence available, also taking into account traditional knowledge of the resources provided that its validity can be objectively verified.

2.11 Be practical, viable and verifiable.

2.12 Ensure that labels communicate truthful information.

2.13 Provide for clarity.

2.14 Be based, at a minimum, on the minimum substantive requirements, criteria and procedures outlined in these

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guidelines.

3. The principle of transparency should apply to all aspects of an ecolabelling scheme including its organizational structure and financial arrangements.

GENERAL CONSIDERATIONS

4. Ecolabelling schemes should take into account that principles, minimum substantive requirements, criteria and procedures set out in this document will apply equally for developed, transition and developing countries.

5. Bearing in mind that ecolabelling schemes relate to fisheries management, and rights and duties of States³, it is recognized that the involvement of States in ecolabelling schemes is desirable and should be encouraged. It is also recognized that States and, as appropriate, Regional Fisheries Management Organizations (RFMOs) may develop ecolabelling schemes in a manner consistent with these guidelines. Ecolabelling schemes should give full consideration to the recommendations and advice by States, and, as appropriate, RFMOs.

6. In accordance with Article 5 of the Code of Conduct for Responsible Fisheries, and recognizing that all countries should have the same opportunities, and in view of the special conditions applying to developing countries and countries in transition and their important contribution to international fish trade, it is acknowledged that in order to benefit from applying ecolabelling schemes, States, relevant intergovernmental and non-governmental organizations and financial institutions should provide developing countries and countries in transition with financial and technical assistance to develop and maintain appropriate management arrangements that will allow them to participate in such

³ In these Guidelines, the reference to States includes the European Community in matters within its competence.

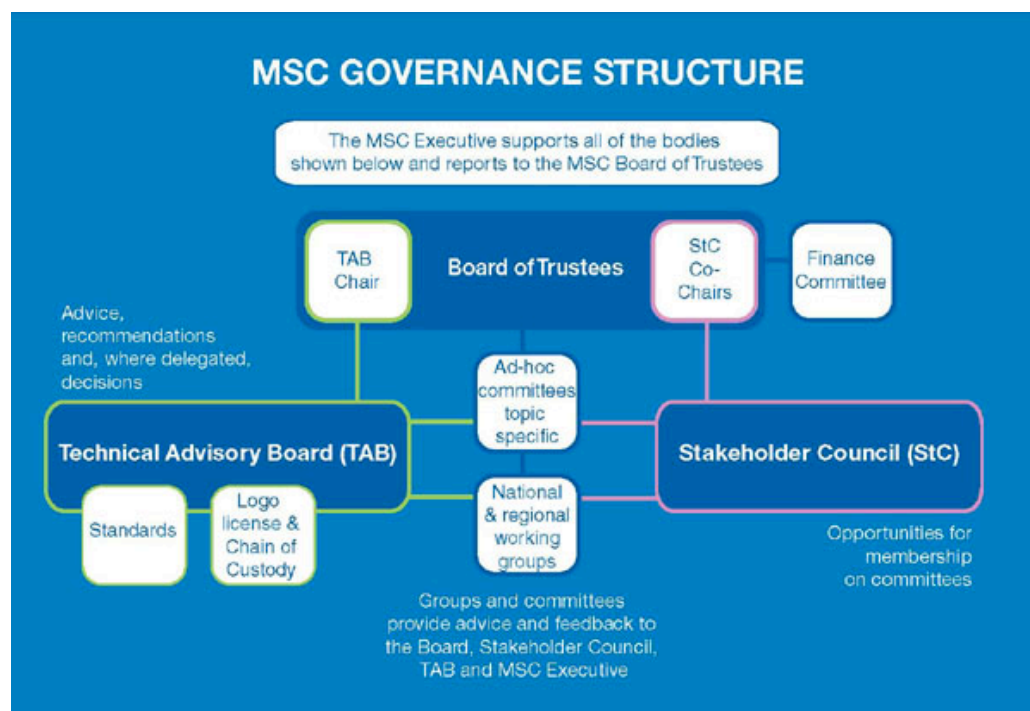
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schemes. Such assistance should also consider direct support towards the often high costs of accreditation and certification. Development agencies and donor institutions are encouraged to support FAO in facilitating financial and technical assistance to developing countries and countries in transition.

Appendix B

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Appendix C

MSC Principles and Criteria for Sustainable Fishing

At the centre of the MSC is a set of *Principles and Criteria for Sustainable Fishing* which are used as a standard in a third party, independent and voluntary certification programme. These were developed by means of an extensive, international consultative process through which the views of stakeholders in fisheries were gathered.

These Principles reflect a recognition that a sustainable fishery should be based upon:

- The maintenance and re-establishment of healthy populations of targeted species;
- The maintenance of the integrity of ecosystems;
- The development and maintenance of effective fisheries management systems, taking into account all relevant biological, technological, economic, social, environmental and commercial aspects; and
- Compliance with relevant local and national local laws and standards and international understandings and agreements

The Principles and Criteria are further designed to recognise and emphasise that management efforts are most likely to be successful in accomplishing the goals of conservation and sustainable use of marine resources when there is full co-operation among the full range of fisheries stakeholders, including those who are dependent on fishing for their food and livelihood.

On a voluntary basis, fisheries which conform to these Principles and Criteria will be eligible for certification by independent MSC-accredited certifiers. Fish processors, traders and retailers will be encouraged to make public commitments to purchase fish products only from certified sources. This will allow consumers to select fish products with the confidence that they come from sustainable, well managed sources. It will also benefit the fishers and the fishing industry who depend on the abundance of

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fish stocks, by providing market incentives to work towards sustainable practices. Fish processors, traders and retailers who buy from certified sustainable sources will in turn benefit from the assurance of continuity of future supply and hence sustainability of their own businesses.

The MSC promotes equal access to its certification programme irrespective of the scale of the fishing operation. The implications of the size, scale, type, location and intensity of the fishery, the uniqueness of the resources and the effects on other ecosystems will be considered in every certification.

The MSC further recognises the need to observe and respect the long-term interests of people dependent on fishing for food and livelihood to the extent that it is consistent with ecological sustainability, and also the importance of fisheries management and operations being conducted in a manner consistent with established local, national, and international rules and standards as well as in compliance with the MSC Principles and Criteria.

Preamble

The following Principles & Criteria are intended to guide the efforts of the Marine Stewardship Council towards the development of sustainable fisheries on a global basis. They were developed assuming that a sustainable fishery is defined, for the purposes of MSC certification, as one that is conducted in such a way that:

- it can be continued indefinitely at a reasonable level;
- it maintains and seeks to maximise, ecological health and abundance,
- it maintains the diversity, structure and function of the ecosystem on which it depends as well as the quality of its habitat, minimising the adverse effects that it causes;
- it is managed and operated in a responsible manner, in conformity with local, national and international laws and regulations;
- it maintains present and future economic and social options and benefits;
- it is conducted in a socially and economically fair and responsible manner.

The Principles represent the overarching philosophical basis for this initiative in stewardship of marine resources: the use of market forces to promote behaviour which helps achieve the goal of sustainable fisheries. They form the basis for detailed Criteria which will be used to evaluate each fishery seeking certification under the MSC programme. Although the primary focus is the ecological integrity of world fisheries, the principles also embrace the human and social elements of fisheries. Their successful implementation depends upon a system which is open, fair, based upon the best information available and which incorporates all relevant legal obligations. The certification programme in which these principles will be applied is intended to give any fishery the opportunity to demonstrate its commitment to sustainable fishing and ultimately benefit from this commitment in the market place.

Scope

The scope of the MSC Principles and Criteria relates to marine fisheries activities up to but not beyond the point at which the fish are landed. However, MSC-accredited certifiers may be informed of serious concerns associated with post-landing practices.¹

The MSC Principles and Criteria apply at this stage only to wildcapture fisheries (including, but not limited to shellfish, crustaceans and cephalopods). Aquaculture and the harvest of other species are not currently included.

Issues involving allocation of quotas and access to marine resources are considered to be beyond the scope of these Principles and Criteria.

PRINCIPLE 1

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A fishery must be conducted in a manner that does not lead to over-fishing or depletion of the exploited populations and, for those populations that are depleted, the fishery must be conducted in a manner that demonstrably leads to their recovery¹:

Intent:

The intent of this principle is to ensure that the productive capacities of resources are maintained at high levels and are not sacrificed in favour of short term interests. Thus, exploited populations would be maintained at high levels of abundance designed to retain their productivity, provide margins of safety for error and uncertainty, and restore and retain their capacities for yields over the long term.

Criteria:

1. The fishery shall be conducted at catch levels that continually maintain the high productivity of the target population(s) and associated ecological community relative to its potential productivity.
2. Where the exploited populations are depleted, the fishery will be executed such that recovery and rebuilding is allowed to occur to a specified level consistent with the precautionary approach and the ability of the populations to produce long-term potential yields within a specified time frame.
3. Fishing is conducted in a manner that does not alter the age or genetic structure or sex composition to a degree that impairs reproductive capacity.

PRINCIPLE 2:

Fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and associated dependent and ecologically related species) on which the fishery depends.

Intent:

The intent of this principle is to encourage the management of fisheries from an ecosystem perspective under a system designed to assess and restrain the impacts of the fishery on the ecosystem.

Criteria:

1. The fishery is conducted in a way that maintains natural functional relationships among species and should not lead to trophic cascades or ecosystem state changes.
2. The fishery is conducted in a manner that does not threaten biological diversity at the genetic, species or population levels and avoids or minimises mortality of, or injuries to endangered, threatened or protected species.
3. Where exploited populations are depleted, the fishery will be executed such that recovery and rebuilding is allowed to occur to a specified level within specified time frames, consistent with the precautionary approach and considering the ability of the population to produce long-term potential yields.

PRINCIPLE 3:

The fishery is subject to an effective management system that respects local, national and international laws and standards and incorporates institutional and operational frameworks that require use of the resource to be responsible and sustainable.

Intent:

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The intent of this principle is to ensure that there is an institutional and operational framework for implementing Principles 1 and 2, appropriate to the size and scale of the fishery.

A. Management System Criteria:

1. The fishery shall not be conducted under a controversial unilateral exemption to an international agreement.

The management system shall:

2. demonstrate clear long-term objectives consistent with MSC Principles and Criteria and contain a consultative process that is transparent and involves all interested and affected parties so as to consider all relevant information, including local knowledge. The impact of fishery management decisions on all those who depend on the fishery for their livelihoods, including, but not confined to subsistence, artisanal, and fishing-dependent communities shall be addressed as part of this process;
3. be appropriate to the cultural context, scale and intensity of the fishery – reflecting specific objectives, incorporating operational criteria, containing procedures for implementation and a process for monitoring and evaluating performance and acting on findings;
4. observe the legal and customary rights and long term interests of people dependent on fishing for food and livelihood, in a manner consistent with ecological sustainability;
5. incorporates an appropriate mechanism for the resolution of disputes arising within the system¹;
6. provide economic and social incentives that contribute to sustainable fishing and shall not operate with subsidies that contribute to unsustainable fishing;
7. act in a timely and adaptive fashion on the basis of the best available information using a precautionary approach particularly when dealing with scientific uncertainty;
8. incorporate a research plan – appropriate to the scale and intensity of the fishery – that addresses the information needs of management and provides for the dissemination of research results to all interested parties in a timely fashion;
9. require that assessments of the biological status of the resource and impacts of the fishery have been and are periodically conducted;
10. specify measures and strategies that demonstrably control the degree of exploitation of the resource, including, but not limited to:
 - a) setting catch levels that will maintain the target population and ecological community's high productivity relative to its potential productivity, and account for the non-target species (or size, age, sex) captured and landed in association with, or as a consequence of, fishing for target species;
 - b) identifying appropriate fishing methods that minimise adverse impacts on habitat, especially in critical or sensitive zones such as spawning and nursery areas;
 - c) providing for the recovery and rebuilding of depleted fish populations to specified levels within specified time frames;
 - d) mechanisms in place to limit or close fisheries when designated catch limits are reached;
 - e) establishing no-take zones where appropriate;
11. contains appropriate procedures for effective compliance, monitoring, control, surveillance and enforcement which ensure that established limits to exploitation are not exceeded and specifies corrective actions to be taken in the event that they are.

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B. Operational Criteria

Fishing operation shall:

12. make use of fishing gear and practices designed to avoid the capture of non-target species (and non-target size, age, and/or sex of the target species); minimise mortality of this catch where it cannot be avoided, and reduce discards of what cannot be released alive;
13. implement appropriate fishing methods designed to minimise adverse impacts on habitat, especially in critical or sensitive zones such as spawning and nursery areas;
14. not use destructive fishing practices such as fishing with poisons or explosives;
15. minimise operational waste such as lost fishing gear, oil spills, on-board spoilage of catch, etc.;
16. be conducted in compliance with the fishery management system and all legal and administrative requirements; and
17. assist and co-operate with management authorities in the collection of catch, discard, and other information of importance to effective management of the resources and the fishery.

Appendix D

9. The first stage – pre-assessment

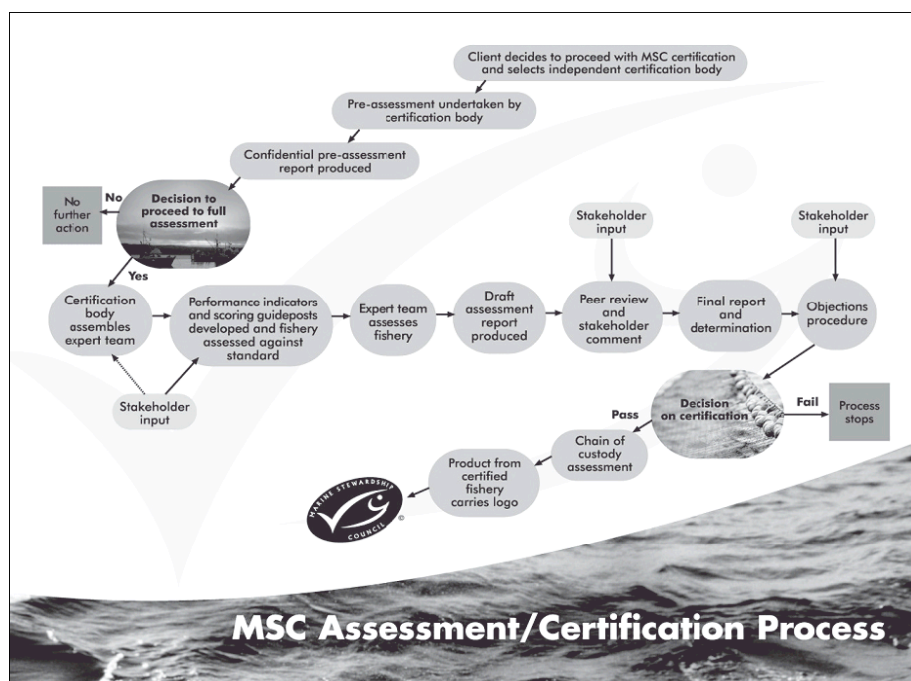
The pre-assessment is the first formal step performed by the certification body in the certification process. The fishery client first retains the services of an MSC accredited certification body to provide a brief evaluation of the likelihood of the fishery meeting the MSC standard, the *MSC's Principles and Criteria for Sustainable Fishing*. The certification body will identify the strengths and weaknesses of the fishery and recommend to you as the client whether or not the fishery should progress to the full assessment stage. The actual conduct of a pre-assessment and its outcomes are confidential unless you choose to make them public.

The pre-assessment will result a report by the independent certification body. At a minimum a pre-assessment must consist of:

- A substantive meeting between the client and certification body.
- Decisions with respect to potential field visits.
- A preliminary assessment of the extent to which the fishery is consistent with the *MSC's Principles and Criteria for Sustainable Fishing*.
- An evaluation of the clients' state of preparedness for assessment of their fishery.
- A review of the availability of required data and information.
- Identification of stakeholder interests who should be consulted in a full assessment.
- A determination of the overall scope of the full assessment.
- A description or agreement of the unit of certification.
- A description of potential obstacles or problems that may be a barrier to certification.
- Quotes for the full assessment (if relevant)

Appendix E

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Appendix F

10. The second stage – full assessment

The full assessment involves detailed evaluation and scoring of the fishery against the MSC standard. It is a public and open process that will lead to a decision about whether or not the fishery meets the *MSC's Principles and Criteria for Sustainable Fishing*. In order to come to a decision, the certification body will consult widely with relevant stakeholders (such as industry, government, scientific organisations and environmental groups). This stage also includes a formal process for lodging objections.

Briefly, the process involves the following steps:

1. *Public announcement and targeted stakeholder communications.*
2. *Assessment planning and team selection* – sometimes certification bodies consult with stakeholders about the members of the assessment team, however, this is not mandatory and is determined as much by the relationships in the fishery under assessment as anything else.
3. *Determining Performance Indicators and Scoring Guideposts* and their weighting prior to the assessment visit – these will form what is called an “assessment tree” or assessment hierarchy and are specific to the fishery being evaluated. Scoring Guideposts are produced for each of the Performance Indicators based on 60 – the minimum mark, 80 – as the unconditional ‘pass mark’ and 100 – upper boundary of scoring expected in a theoretically ‘perfect’ fishery.
4. *Consultation with the client, MSC and stakeholders about the draft assessment tree* – This is to obtain feedback about whether the assessment hierarchy is appropriate to the size, scale, ecology, geography and technology of the fishery, as well as consistent with the MSC standard. Based on this review, the assessment tree is finalised. See **Box 1**.
5. *Assessment visits and information collection* – at this stage client organisations must provide to the certification body as much information and data on their fishery as possible. This is used by the assessment team to inform the scoring process.
6. *Stakeholder visits and opportunity to submit views in writing* – this is the stakeholders’ opportunity to provide input into the evaluation process, along with any verifiable evidence relevant to the assessment.

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7. *Scoring the fishery* – the assessment team uses an analytical model designed to allow quantitative and qualitative evaluation of the fishery. For more information on this process contact the MSC or download the document ‘*Using AHP and Expert Choice to Support the MSC Fishery Assessment Process*’ from the MSC’s website.

8. *Interpreting the scores* – the fishery needs to obtain a score of 60 or more for each Performance Indicator and Criterion in order to be certified. If a fishery achieves a score of less than 60 on any Performance Indicator and Criterion certification will not be awarded. The fishery must have an aggregate score of 80 or more for each of the three Principles in order to be certified. Any passing scores for individual Performance Indicators less than 80 mean that conditions will be set.

9. *Conditions* – the certification body is likely to have identified some areas for improvement within the fishery. The certification body will specify an appropriate timescale for addressing each condition and should specify the outcomes that will meet the standard. The certification body cannot tell you what to do to address a particular problem, only the desired outcome, leaving the decision to you on how this is to be achieved. Before a certification body will issue a certificate, however, agreement must be reached between client and certification body that the conditions will be met and an indication of how they may be met. In some cases, the management agency may need to be consulted by the

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client and certification body if any conditions require their input or investment. To date every fishery has been certified with conditions.

10. *Consultation with the client, MSC and stakeholders about proposed peer reviewers.*

11. *Preliminary draft report produced* – review by client.

12. *Peer review draft report produced* – reviewed by chosen experts.

13. *Public Comment draft report produced* – stakeholders' review and comment period.

14. *Final Report produced* – once published on the website, anyone who has participated in the assessment process has 21 days in which to lodge a statement of intent to submit an objection. If no objections are lodged during this period the Determination in the Final Report becomes the certification decision.

15. *Objections procedure* (if required) – objection goes first to certification body then, if response not considered adequate, an objection can be directed to the MSC. If an objection is heard, additional process steps follow.

16. *Action plan* (if appropriate) – a plan developed by you as the client outlining activities aimed at meeting conditions of certification and time frames, submitted to certification body for approval.

17. *Certificate issued* (if appropriate) and *Public Certification Report* – produced by the certification body for the client and publication on the MSC website.

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XIII. References

ⁱ Fishery: This term is typically applied to a geographic region and species targeted eg. The Alaskan Salmon Fishery. The term also encompasses the methods used, volumes caught, as well as the fishermen and companies involved.

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^{iv} Recent Trends in U.S. Fisheries and Seafood Consumption By Tom Damassa on Monday, February 12, 2007. World Resources Institute.

^v Countries agree to strengthen controls in ports to combat illegal fishing
First steps taken toward binding international agreement
12 March 2007, Rome, George Kourous, Media Relations, FAO
<http://www.fao.org/newsroom/en/news/2007/1000508/index.html>

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^x www.msc.org

^{xi} MSC Annual Report 2005/06.

^{xii} Marine Stewardship Council Annual Report 2005/2006.

^{xiii} www.walmartfacts.com

^{xiv} *ibid*

^{xv} MSC Executive Summary, Principals and Guidelines. November, 2002.

^{xvi} University of British Columbia Fisheries Centre Newsletter. March/April 2001.

^{xvii} University of British Columbia Fisheries Centre Newsletter, November/December 2005

^{xviii} MSC Executive Statement. The MSC Fishery Assessment and Certification Process. Guidance to Clients, Information Sheet 4-Costs Explained. October, 2005

^{xix} Personal Interview with Ruben Garcia, FEDECOOP, Ensenada, 2/17/07.

^{xx} Telephone Interview with Natalie Webster of the AAFA, Bonita, CA, 3/6/07.

^{xxi} Telephone Interview with Jim Humphreys, MSC Regional Director, the Americas

^{xxii} Wellbelove, Alexia; Leadbitter, Duncan. Marine Stewardship Council Guidance to potential or actual clients: The MSC Fishery Assessment and Certification Process. October, 2005

^{xxiii} *ibid*

^{xxiv} University of British Columbia Fisheries Centre Newsletter, November/December 2005

^{xxv} Moody Marine. MSC Certification: Main Assessment. November 6, 2006.

^{xxvi} Arenas, Pablo, Ph.D. An Assessment of the Red Rock Lobster Fishery, Peer Review. November 18, 2003

^{xxvii} Scientific Certification Systems, Inc. An MSC Assessment of the Red Rock Lobster Fishery Final Report. April 27, 2004

^{xxviii} Personal Interview. Seafood counter attendant. Whole Foods Supermarket. February 28, 2007.

^{xxix} Personal Interview. Tobias Aguire. FishWise. February 21, 2007.

^{xxx} MSC Toothfish Objections Panel Summary Report and Decision. March 15, 2004.

^{xxx} MSC New Release. Objections Panel Concludes Review of South Georgia Patagonian Toothfish Assessment. March 2004.

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http://www.msc.org/assets/docs/Chain_of_custody/CoC_Standard_03_August_05_Version_2_Final.pdf

^{xxx} Chaffee, Chet. Annual Surveillance Report, Baja California, Mexico, Red Spiny Lobster. Scientific Certification Systems. April 25, 2006

^{xxx} http://www.msc.org/html/content_487.htm

^{xxx} Bycatch refers to the incidental catch of non-target species. Bycatch is often significant in volume and cast aside dead. There are numerous studies on fisheries bycatch, but I felt it beyond the scope of this work to analyze in great detail.

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^{xliii} See ^{xliii}

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