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PICTURE THIS: PROMOTING SUSTAINABLE FISHERIES THROUGH ECO-LABELING AND PRODUCT CERTIFICATION

Tracy Cooper*

INTRODUCTION

Since the dawn of humanity, fishing has been a major source of food and has provided jobs and economic benefits for a significant percentage of the world's population. That fact has not changed. Today, according to the 2002 State of World Fisheries and Aquaculture report of the United Nations Food and Agriculture Organization (FAO), the global population depends upon fisheries resources for fifteen percent of total animal protein supplies. In 2000, 22.8 million people were employed in marine capture fisheries and global production of fish and other aquatic products from capture fisheries totaled 94.8 million tons. The total sale value of world capture fisheries production in 2000 was estimated at $81 billion, while international trade in fish and aquatic products grossed $55.2 billion. These numbers reflect a lucrative industry, the health and continued

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* B.A., Florida State University (2001); J.D., Florida State University College of Law (2004). Special thanks to Professor Donna R. Christie for her assistance and encouragement, and to my family for their love and support.

1. FISHERIES DEPT., UNITED NATIONS FOOD AND AGRICULTURE ORGANIZATION, THE STATE OF WORLD FISHERIES AND AQUACULTURE 3 (2002), available at http://www.fao.org (last visited Sept. 9, 2003) [hereinafter THE STATE OF WORLD FISHERIES 2002]. This figure includes statistics for China that the FAO acknowledges may be somewhat higher than actual usage. Id. For more information about the sources and development of FAO fisheries statistics, see id. at 6-7.

2. Id. at 3. Sixty-five percent of 35 million is approximately 22.8 million persons.

3. Id. at 5, 8. Excluding China, global production of fish and other aquatic products from capture fisheries totals 78 million metric tons. Id. at 3, 8. China is the world's largest fisheries producer, responsible for approximately twenty percent of the total world capture production. Id.

4. Id. at 8.

5. Id. at 3.
viability of which is essential to feed and employ a sizeable portion of the world's population.

However, ocean resources, "although renewable, are not infinite and need to be properly managed, if their contribution to the nutritional, economic and social well-being of the growing world's population [is] to be sustained." Despite the adoption of the 1982 United Nations Convention on the Law of the Sea ("LOS Convention"), which was intended to provide a framework for fisheries management, by 1991 "[c]lear signs of over-exploitation of important fish stocks, modifications of ecosystems, significant economic losses, and international conflicts of management and fish trade threatened the long-term sustainability of fisheries and the contribution of fisheries to food supply . . . ." Consequently, there was a need for new approaches to fisheries management, which would take into account conservation, environmental, social and economic factors.

In response to this need, the FAO developed and adopted a voluntary Code of Conduct for Responsible Fisheries (Code of Conduct), with corresponding technical guidelines for its implementation. Likewise, individual nations and regional governmental organizations have instituted measures for the conservation of ocean resources, sometimes creating their own codes of conduct. Yet, due to structural and political difficulties, it appears that state and international legal efforts are unlikely to provide a sufficient means of turning the tide against fisheries depletion. Other potential resources and regimes must be explored as means of encouraging sustainable development.

Eco-labeling and product certification techniques have been suggested as a means of encouraging the development of sustainable fisheries through market-based incentives and supplementing national and international legal

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8. TECHNICAL GUIDELINES FOR RESPONSIBLE FISHERIES: FISHING OPERATIONS, supra note 6, at 1-2.


10. Id. at 74 ("Given the structural and political impediments to effective implementation and enforcement of conservation standards, environmental organizations seem rightly concerned that state or international action alone will not ensure sustainable fisheries.").
conservation efforts.\textsuperscript{11} Notably, the promotion of fisheries sustainability through eco-labeling and product certification techniques is endorsed by the FAO.\textsuperscript{12}

Generally, "eco-labeling"\textsuperscript{13} is the affixing of a label to a product indicating its superior environmental attributes, to inform the consumer of those attributes and encourage product sales, while creating economic incentives for the satisfaction of environmental and social criteria.\textsuperscript{14} Product certification, a subset of eco-labeling, involves the affixing of a label to a product indicating environmental assessment and product approval by a third party organization that consumers know and trust.\textsuperscript{15} Product certification is desirable over simple producer claims because of the additional credibility provided by the certification process.\textsuperscript{16} The term eco-labeling is commonly used to refer to both eco-labeling and product certification techniques.

Eco-labeling has specialized application in the marine fisheries context, where "[p]roduct certification is commonly a measure mandated by

\begin{footnotesize}
\begin{itemize}
\item[12.] See FAO TECHNICAL PAPER No. 422, supra note 11, at Part 2; see also STATE OF WORLD FISHERIES 2002, supra note 1, at 46 ("One possible alternative . . . is the consistent and persistent growth of market-based business strategies, such as ecolabeling schemes, which aim to harness market forces and create financial rewards for people working in fisheries and satisfying sustainability and various social criteria.").
\item[13.] Also spelled “ecolabeling” or “ecolabelling.”
\item[15.] See, e.g., FAO TECHNICAL PAPER No. 422, supra note 11, at 2.
\end{itemize}
\end{footnotesize}
governments, often mutually agreed upon by regional fisheries management organizations, in order to ensure that only legally harvested and reported fish landings can be traded and sold in domestic or international markets."\textsuperscript{17} The purpose of fisheries product certification is to "prevent, deter, and eliminate illegal, unreported and unregulated fishing" in order to comply with international law.\textsuperscript{18}

This Article explores the potential utility of eco-labeling in promoting marine fisheries sustainability. Part I of this Article describes the current status of marine fisheries management, discusses relevant international law, and explains the difficulties surrounding the creation of a sustainable marine fishery. Part II explains in greater detail the concept of eco-labeling, how it works, its relationship with international law, and its general advantages and disadvantages. Part III discusses the application of eco-labeling techniques to the promotion of sustainable marine fisheries, including the demand for "sustainably harvested" seafood, the current eco-labeling efforts underway by the Marine Stewardship Council (MSC) and other organizations, and the issues that may ultimately impact program effectiveness.

I. INTERNATIONAL LAW AND FISHERIES DEPLETION ISSUES

A. Global Fisheries Depletion

Research indicates that there is good reason to be concerned about global and regional fisheries depletion. According to the FAO, forty-seven percent of main fish stocks or species groups are fully exploited, eighteen percent are overexploited, and ten percent are "significantly depleted, or are recovering from depletion and are far less productive than they used to be, or than they could be if management can return them to the higher abundance levels commensurate with their pre-depletion catch levels."\textsuperscript{19}

Overexploitation can be disastrous, because "[r]ecovery usually implies drastic and long-lasting reductions in fishing pressure and/or the adoption of other management measures to remove conditions that contributed to the stock's overexploitation and depletion."\textsuperscript{20} Experts estimate that, as fishing pressure continues to increase around the globe, the number of underexploited and moderately exploited fisheries will continue to decline, the number of fully exploited fisheries will remain relatively stable, and the

\textsuperscript{17} FAO TECHNICAL PAPER NO. 422, supra note 11 at Abstract.
\textsuperscript{18} Id.
\textsuperscript{19} STATE OF WORLD FISHERIES 2002, supra note 1, at 23.
\textsuperscript{20} Id.
number of overexploited and depleted fisheries will continue to grow. \(^{21}\) The depletion of fisheries has social implications as serious as its environmental implications, because the loss of fishery resources impacts not only ecological health and species diversity but also global food supplies and employment. \(^{22}\)

The reasons for fisheries depletion are both multiple and complex. Causes include, but are not limited to, the overexploitation of fisheries through over-fishing and wasteful fishing practices, pollution, habitat destruction and depletion, the lack of effective fisheries management efforts, and natural causes, such as climate changes, weather, species fluctuation, and disease. \(^{23}\)

1. Overexploitation of Fisheries

Generally, overexploitation takes place when more fish are caught than can be replaced through natural reproduction. \(^{24}\) Overexploitation is a function of both the number of fishermen harvesting fisheries \(^{25}\) and of wasteful fishing practices common in the industry. \(^{26}\) As one commentator notes: "Often [overexploitation] is not only a matter of sheer numbers (catching too many fish) it is also a matter of catching (and often discarding as dead) fish that are too small to have even reached reproductive maturity. In this case, [over-fishing] depletes not just current population, but it makes it very difficult for the population to replenish itself over time." \(^{27}\)

a. The Number of Fishermen and Lack of Incentive to Conserve

Often fishery depletion is the result of too many fishermen trying to make a living off the same fishery.

\(^{21}\) Id. at 22-23.

\(^{22}\) Id.; see also Ian Harris & Brendan May, Sleeping with the Enemy, CHARITY TIMES (to access this article on the Internet, visit www.charitytimes.com and search "Sleeping with the Enemy").


\(^{25}\) See Carr & Scheiber, supra note 9, at 56; see also STATE OF WORLD FISHERIES 2002, supra note 1, at 23, 26.

\(^{26}\) The Marketplace for Sustainable Seafood, supra note 24, at 1.

\(^{27}\) Id. at 1.
The greatest problem facing fisheries today, as most commentators will assert, is that there are simply too many vessels chasing too few fish. National governments have fostered this overcapitalization crisis by extensively subsidizing fishing vessel construction. Most fishing vessel owners carry substantial debt on their vessels, and this debt can only be serviced by revenues from fishing operations. At the same time, fishing crews typically work for a "share" of the catch. So it should come as no surprise that owners and crew often feel compelled to argue for catch quotas that might exceed levels recommended by fisheries science.  

Accordingly, the livelihood of fishermen depends on the number of fish caught. Fisheries resources are common property until capture occurs. There is no incentive for fishermen to take less than the maximum allowable catch because fishery resource not taken by one crew may be taken by another. The sheer number of fishermen, combined with a "race for the commons" mentality, results in a tremendous burden on struggling fish populations.

b. Wasteful Fishing Practices

Fish populations are further burdened by wasteful fishing practices, such as the use of indiscriminate commercial fishing gear that catches fish regardless of size or type, resulting in large quantities of "bycatch." Examples of methods producing high bycatch are "long lining" and "bottom trawling." Long lining is a method of catching large migratory fish, like swordfish or tuna, that involves using miles of baited lines and which attracts non-target marine life such as sharks, sea turtles, fish and birds, which become hooked or entangled in the lines and drown. Bottom trawling involves dragging nets along the ocean floor to catch shrimp and other such species, destroying habitat and producing high levels of bycatch—usually between three and seven pounds of bycatch per one pound of shrimp harvested. Bycatch is usually considered "waste" and is thrown overboard, which causes further environmental problems.

28. Carr & Scheiber, supra note 9, at 56 (citations omitted).
29. The Marketplace for Sustainable Seafood, supra note 24, at 1.
30. Id.
31. Id.
32. Id.
B. International Law Governing Fisheries

1. The Law of the Sea Convention

Due to the common nature of ocean resources and the migratory nature of fish species, international agreement is required for effective fisheries management. The adoption of the LOS Convention was the first major step towards achieving international agreement. Intended as a "constitution" for ocean government, the LOS Convention is the result of nine years of negotiations in which over 160 nations participated. Adopted in 1982 and effective as of November of 1994, the LOS Convention addresses such issues as navigational rights, the limits of the territorial seas, economic jurisdiction, the legal status of high seas seabed resources, the protection of the marine environment, the management and conservation of living marine resources, and the institution of dispute resolution procedures. The LOS Convention is binding on all parties and ratification indicates agreement to adopt the document in its entirety without reservation.

The most important aspect of the LOS Convention from the perspective of fisheries conservation is the creation of exclusive economic zones (EEZs). EEZs provide to coastal states "the right to exploit, develop, manage and conserve all resources—fish or oil, gas or gravel, nodules or sulphur, to be found in the waters, on the ocean floor and in the subsoil of an area extending 200 miles from its shore." As result of EEZ designation, almost ninety-nine percent of the world's fisheries fall within the jurisdiction of some coastal nation.

While the LOS Convention provides some foundation for sustainable management, it has major gaps with regard to enforcement. To deal with the problems of continued over-fishing on the high seas and to fill gaps in the EEZ management regime, the Agreement for the Implementation of the Provisions of the United Nations Convention of the Law of the Sea of 10 December 1982 Relating to the Conservation and Management of

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35. Id.
36. Id. at Exclusive Economic Zones.
37. Id.
Straddling Fish Stocks and Highly Migratory Fish Stocks\textsuperscript{38} ("Fish Stocks Agreement") and the FAO Code of Conduct\textsuperscript{39} were developed.

2. U.N. Fish Stocks Agreement

The Fish Stocks Agreement, first opened for signature in 1995, is intended to foster the conservation and the management of "straddling" fish stocks (fish stocks that move across EEZ and high seas boundaries).\textsuperscript{40} The Fish Stocks Agreement is consistent with other international law.\textsuperscript{41} Signatory parties agree to:

\begin{itemize}
  \item Take measures to ensure "long-term sustainability" and "optimum utilization" of straddling and migratory fish stocks, using the "best scientific evidence available" and taking into account economic and environmental factors, the interdependence of fish stocks, and international minimum standards;
  \item Use a precautionary approach to fisheries issues;
  \item Assess the impacts of both environmental factors and human activities (including fishing) on fish stocks, interdependent stocks, and marine ecosystems;
  \item Conservation of interdependent species;
  \item Minimize pollution and the waste and discard of both gear and bycatch through the "development and use of selective, environmentally safe and cost-effective fishing gear and techniques";
  \item Protect biodiversity;
  \item Develop measures to address over-fishing and excess fishing capacity;
  \item Give consideration to the "interests of artisanal and subsistence fishers";
  \item Collect and share certain fisheries data, and participate in scientific research and technological development for the purposes of conservation and management;
\end{itemize}


\textsuperscript{39} CODE OF CONDUCT, \textit{supra} note 7.

\textsuperscript{40} Carr & Scheiber, \textit{supra} note 9, at 69.

\textsuperscript{41} U.N. Fish Stocks Agreement, \textit{supra} note 38, at arts. 4, 4.3, 4.4.
• Implement and enforce measures and policies "through effective monitoring, control and surveillance." 42

In addition to these general principles, the Fish Stocks Agreement sets out clear standards for the management of sustainable fisheries not included in the Code of Conduct. These standards pertain to conservation and management, with significant detail related to the application of a precautionary management approach, 43 the collection, reporting, and exchange of fisheries and other data, 44 participation by members and nonmembers, 45 dispute resolution, 46 compliance, and enforcement. 47 These standards take into account the special requirements of developing countries, 48 encourage the creation of regional and sub-regional organizations for conservation and management, 49 strengthen the power of such organizations to determine conservation measures, 50 and eliminate traditional flag state jurisdiction. 51

3. The FAO Code of Conduct for Responsible Fisheries and Technical Guidelines

The Code of Conduct was developed for the purpose of establishing global principles and standards for the management, conservation, and development of fisheries. 52 Adopted by the FAO Conference in October of 1995, the Code of Conduct is both voluntary and comprehensive, “cover[ing] the capture, processing and trade of fish and fishery products, fishing operations, aquaculture, fisheries research, and the integration of fisheries into coastal management.” 53 The Code of Conduct is often praised

42. Id. at art. 5.
43. Id. at art. 6, Annex II.
44. Id. at art. 14, Annex I.
45. Id. at arts. 17, 33, 46, 47.
46. U.N. Fish Stocks Agreement, supra note 38, at arts. 27-31.
47. Id. at arts. 19-23.
48. Id. at arts. 5, 24, 25.
49. Id. at arts. 8-16; see also Carr & Scheiber, supra note 9, at 71.
51. See U.N. Fish Stocks Agreement, supra note 38; see also Donna Christie, Class Lecture at Florida State University College of Law (Oct. 27, 2003). The Fish Stocks Agreement permits enforcement of conservation and management by the terms agreed upon by members. Id.
52. CODE OF CONDUCT, supra note 7.
53. Id. at §1.2.
for the breadth and inclusiveness of its approach, and for the extensive scientific study that went into its formation.\textsuperscript{54}

The Code of Conduct is consistent with international law, was developed for use by FAO members and nonmembers,\textsuperscript{55} and takes into account the special requirements of developing countries.\textsuperscript{56} Application and implementation of the Code of Conduct is monitored by the FAO, which reports its findings to the United Nations Committee on Fisheries (COFI).\textsuperscript{57} The FAO has the power to revise the Code of Conduct, an arrangement that provides flexibility to make adjustments to provisions as needed.\textsuperscript{58}

Although adoption is voluntary, an increasing number of nations and industries are drawing on the Code of Conduct in creating codes for domestic fisheries.\textsuperscript{59} These nations include the United States, Canada, the Australia Seafood Council, and the U.S. National Fisheries Institute.\textsuperscript{60}

The Code of Conduct's objectives are to:

a. establish principles, in accordance with the relevant rules of international law, for responsible fishing and fisheries activities, taking into account all their relevant biological, technological, economic, social, environmental, and commercial aspects;

b. establish principles and criteria for the elaboration and implementation of national policies for responsible conservation of fisheries resources and fisheries management and development;

c. serve as an instrument of reference to help States to establish or to improve the legal and institutional framework required for the exercise of responsible fisheries and in the formulation and implementation of appropriate measures;

d. provide guidance which may be used where appropriate in the formulation and implementation of international agreements and other legal instruments, both binding and voluntary;

e. facilitate and promote technical, financial, and other cooperation in conservation of fisheries resources and fisheries management and development;

\textsuperscript{54} Donna Christie, Class Lecture at Florida State University College of Law (Oct. 27, 2003).
\textsuperscript{55} CODE OF CONDUCT, supra note 7, at §§ 4, 5.
\textsuperscript{56} Id. at § 5.
\textsuperscript{57} Id. at § 4.2.
\textsuperscript{58} Id. at § 4.
\textsuperscript{59} Carr & Scheiber, supra note 9, at 72.
\textsuperscript{60} Id. at 73.
f. promote the contribution of fisheries to food security and food quality, giving priority to the nutritional needs of local communities;
g. promote protection of living aquatic resources and their environments and coastal areas;
h. promote the trade of fish and fishery products in conformity with relevant international rules and avoid the use of measures that constitute hidden barriers to such trade;
i. promote research on fisheries as well as on associated ecosystems and relevant environmental factors; and
j. provide standards of conduct for all persons involved in the fisheries sector.\(^6\)

In addition, the Code of Conduct provides clear standards and procedures for the sustainable management of fisheries that are not included in the LOS Convention.\(^6\) For example, under the heading of “Fisheries Management” appears a set of standards related to management objectives, management framework and procedures, data gathering and management advice, the use of a precautionary approach, adoption of management measures, implementation, and policy with regard to financial institutions.\(^6\) “Fishing Operations” outlines the duties of individual nations, flag states, and port states; indicates that nations should regulate the types of fishing activities allowed in their waters (including certain activities which should not be allowed); and specifies that states should regulate the types of fishing gear, and what states should take into account in doing so.\(^6\) Additionally, standards address energy optimization; protection of the marine environment and atmosphere; the design, structure and improvement of harbors; abandonment and removal of offshore structures, and artificial reefs and fish aggregation devices.\(^6\) Other areas discussed in detail include aquaculture development,\(^6\) the integration of fisheries into coastal area management,\(^6\) post-harvest practices,\(^6\) and trade and fisheries research.\(^6\)

\(^6\) CODE OF CONDUCT, supra note 7, at §10.
\(^6\) Id. at 7.
\(^6\) Id.
\(^6\) Id. at §§ 8.1-8.5.
\(^6\) Id. at §§ 8.6-8.11.
\(^6\) CODE OF CONDUCT, supra note 7, at § 9.
\(^6\) Id. at § 10.
\(^6\) Id.
\(^6\) Id. at § 11.
The general objectives and procedures outlined in the Code of Conduct have been supplemented by a series of Technical Guidelines for Responsible Fisheries, which facilitate and guide nations and regional fisheries bodies in its implementation.\textsuperscript{70}

C. Sustainable Fisheries Management

A "sustainable fishery" is a healthy fishery that is "managed in a way to preserve fish populations for future generations."\textsuperscript{71} As stated in the FAO Code of Conduct:

Fisheries management should promote the maintenance of the quality, diversity and availability of fishery resources in sufficient quantities for present and future generations in the context of food security, poverty alleviation and sustainable development... [and] should not only ensure the conservation of target species but also of species belonging to the same ecosystem or associated with or dependent upon the target species.\textsuperscript{72}

However, the very nature of fisheries makes implementation of sustainable fisheries management difficult. Some of the problems plaguing implementation are the difficulty of collecting data, scientific uncertainty, the influence of the fishing industry, the need to reduce the fishing fleet, and enforcement.

1. Data Collection and Scientific Uncertainty

The collection and analysis of fisheries information is necessary for the sustainable management of fisheries, both for the purpose of making management decisions and for tracking fisheries progress.\textsuperscript{73} Despite technological improvements, collection of fisheries data remains a difficult and inexact science.\textsuperscript{74} The sheer size of the ocean, the number of species, their mobility, the cost of data collection,\textsuperscript{75} changes in oceanic climate conditions,\textsuperscript{76} the potential for "deliberate misreporting or non-reporting" by

\textsuperscript{70} See, e.g., TECHNICAL GUIDELINES FOR RESPONSIBLE FISHERIES: FISHING OPERATIONS, supra note 6, at 2.
\textsuperscript{71} See, e.g., The Marketplace for Sustainable Seafood, supra note 24, at 2.
\textsuperscript{72} CODE OF CONDUCT, supra note 7, at § 6.2.
\textsuperscript{73} See, e.g., STATE OF WORLD FISHERIES 2002, supra note 1, at 61.
\textsuperscript{74} Carr & Scheiber, supra note 9, at 54.
\textsuperscript{75} See, e.g., STATE OF WORLD FISHERIES 2002, supra note 1, at 61.
\textsuperscript{76} Carr & Scheiber, supra note 9, at 54.
fishers, and a hundred other factors, make the comprehensive and accurate study of fish species and the collection of data on their life cycles, behavior, and numbers next to impossible. As one commentator states, "[t]he simple fact that fish cannot readily be observed and counted presents tremendous problems."  

Because of difficulties in collection, data on many species is incomplete. When data is available, computations are further complicated by additional variables, such as changes in the scientific theory underlying oceanic population studies that have taken place over the past few decades. The lack of accurate figures makes fisheries management somewhat of a guessing game.

The high level of scientific uncertainty in fisheries data, both for current and past populations, provides fuel for continuing debate among industry and governmental scientists who seek to influence the decisions of political leaders, especially with respect to determinations of total allowable catch. Since fisheries statistics are highly debatable, lawmakers have flexibility to relax catch limits, recovery times for depleted fisheries, and other fisheries management criteria, to satisfy fishing industry lobbyists.

2. Too Many Fishermen and Too Many Boats

In the United States and elsewhere, there are too many fishermen and fishing vessels compared to the estimated number of fish. As noted earlier, the number of fishermen and boats depending on individual fisheries is one of the major causes of over-fishing and depletion. Efforts to move fishermen into other sectors of the economy are proving much less productive than hoped, owing in part to the prevailing view that fishing is a way of life, not simply a job.
The U.S. government has sought to remedy its earlier overcapitalization of the fishing industry through boat buy-back programs and by encouraging fishermen to become engaged in work in other industries. But such efforts may be counterproductive; fishermen who sell their boats may use buy-back money to purchase new fishing equipment, and dormant license holders may reenter the market if they see the chance for profit.

Aquaculture is one alternative to capture fishing that may help to employ fishermen and increase fish populations. Fish farming—the “blue revolution”—has been advocated as a means of relieving pressures on marine fisheries while producing needed food stuffs. According to the FAO, aquaculture production is on the rise, with an average annual growth rate of 7.1 percent in the 1980s, and 5.3 percent in the 1990s. However, fish farming has a downside: it is not necessarily an environmentally friendly alternative, and sometimes results in habitat destruction, the escape of farmed fish (many of which are not native to the area in which they are farmed), and the spread of disease to wild populations.

Moving fishermen into different jobs and gaining fishing industry support in fisheries management are major hurdles to sustainable fisheries management.

3. The Fishing Industry’s Influence and Advocates of Fisheries Management

As already noted, a significant number of people rely on the world’s fisheries for their livelihood. Commercial fishermen are a “concentrated minority,” with the structure, financing, and motivation to lobby for issues that are important to the fishing industry. As such, they have significant political influence. In fact, in the United States and some other nations, the commercial fishermen’s constituency has secured a role in the decision-making process itself. Because of general reluctance of fishermen to let go of current profit for future gain, the participation of the fishing industry

87. Id. at 56.
89. The Marketplace for Sustainable Seafood, supra note 24, at 2.
90. STATE OF WORLD FISHERIES 2002, supra note 1, at 3. These numbers exclude China. Id.
91. The Marketplace for Sustainable Seafood, supra note 24, at 2.
92. Carr & Scheiber, supra note 9, at 58.
93. See id.
94. Id.
in management has slowed effective use of measures such as catch limits and gear requirements.\textsuperscript{95}

By contrast, until recently the advocates of fisheries management were largely unheard because they lacked the structure and money with which to influence law-makers. As the interest of environmental organizations in fisheries management and species conservation increases (especially with regard to "popular" marine species such as dolphins, whales, and sea turtles) advocates of sustainability are gaining increasing political influence.

4. Enforcement Difficulties

Enforcement of fisheries regulation is problematic. First, 

[t]he size of the ocean areas to be patrolled presents obvious problems, requiring high expenditures for effective enforcement. Even within EEZs, distances to be patrolled often pose an insuperable impediment to effective monitoring and surveillance. . . . Moreover, many fisheries are not of sufficient value, and their regulation is not as pressing a political issue to command the funding needed for effective monitoring, control, and surveillance—and to justify the political backlash that may occur if enforcement is too stringent.\textsuperscript{96}

Second, fisheries catch data may be incorrectly reported or falsified, and monitoring authorities may be evaded.\textsuperscript{97} Incorrect reporting may be caused by the deliberate acts of fishermen to evade authorities, or by a general uncooperativeness in the carrying out of regulations.\textsuperscript{98} It may also be the result of mistake, or the misunderstanding of regulations that have not been sufficiently explained.\textsuperscript{99}

Third, fish are mobile. They have no respect for boundaries drawn by man, and they may migrate through several different EEZs and/or the high seas. Management of fish in one EEZ is ineffectual if not harmonized with efforts in the other areas to which fish migrate. The U.N. Fish Stocks Agreement seeks to remedy this problem.

\textsuperscript{95} See discussion \textit{infra} Part I.A.1.
\textsuperscript{96} Id. at 61; see also Picard, \textit{supra} note 50, at 336-37.
\textsuperscript{97} Carr & Scheiber, \textit{supra} note 9, at 61-62; \textit{STATE OF WORLD FISHERIES 2002}, \textit{supra} note 1, at 61.
\textsuperscript{98} See Carr & Scheiber, \textit{supra} note 9, at 62.
\textsuperscript{99} See id. at 59.
Finally, the enforcement of fisheries laws is fraught with political tension and uncertainty. The U.N. Fish Stocks Agreement authorizes the creation of regional bodies for enforcement purposes, but the effectiveness of these bodies is, as yet, uncertain and appears to depend largely on the cooperation of member nations. The dispute resolution process is also new and relatively untried. The Code of Conduct, which is intended to set the management standards for marine fisheries, is voluntary.

5. Environmental Trade Measures Available for Enforcement

The General Agreement on Tariffs and Trade (GATT) has often been interpreted to prohibit nations from using quotas and other unilateral trade sanctions to enforce their fisheries management and conservation efforts. It appears, however, that multilateral trade sanctions may be allowed as a mechanism for enforcing compliance with management standards set forth by the regional and sub-regional fisheries organizations created under the U.N. Fish Stocks Agreement.

The International Commission for the Conservation of Atlantic Tunas (ICCAT) was the first international fisheries organization to authorize the use of multilateral sanctions against both non-member and member countries whose vessels contravened conservation. The United States, which has a strong interest in Atlantic Tuna conservation, is one of the major proponents of multilateral sanctions. Other fisheries organizations, such as the North Atlantic Fisheries Organization, are discussing the potential use of multilateral trade sanctions.

6. Seeking Other Solutions to Sustainable Fisheries Management

Widespread improvement in the state of fisheries has yet to be attained, despite the application of international law, regulations, and trade measures. Eco-labeling has been identified as a potentially valuable

100. See U.N. Fish Stocks Agreement, supra note 38, at arts. 8-16, 19-23.
101. See U.N. Fish Stocks Agreement, supra note 38, at arts. 27-32.
102. CODE OF CONDUCT, supra note 7, at §1.1.
103. See Carr & Scheiber, supra note 9, at 64; Subedi, supra note 16, at 386-90; Lind, supra note 14, at 114-15.
104. Carr & Scheiber, supra note 9, at 73.
105. Id.
106. Id.
107. Id. at 74.
108. See STATE OF WORLD FISHERIES 2002, supra note 1, at 3-5.
market-based mechanism for reinforcing current law and regulations, and for encouraging the development of sustainable fisheries.\textsuperscript{109}

II. \textbf{THE THEORY AND PRACTICE OF ECO-LABELING AND PRODUCT CERTIFICATION}

Eco-labeling and product certification are tools for providing purchasers with information about a product and the processes involved in making that product. The primary goal of both eco-labeling and product certification is to enable a purchaser to make purchasing decisions that take into account the environmental impacts of a product and its production, and to weigh those environmental impacts against other product attributes such as quality, source, and price.\textsuperscript{110}

As already stated, "eco-labeling" is the affixing of a label to a product, indicating that product's superior environmental attributes to the consumer to encourage sales. By contrast, "product certification" involves the affixing of a label to a product indicating that a third party has examined the product and its production process, and has determined that the product meets certain established environmental standards.

Product certification is a specialized subset of eco-labeling. Thus, the term "eco-label" is often used to refer to a certification mark, especially when it appears on products at the retail level. This article will use the term "eco-label" to refer to both producer and third-party certification eco-labels.

\textit{A. The Basic Theory of Producer Eco-Labeling}

The basic theory behind eco-labeling is simple. Consumers concerned about environmental issues often prefer to buy products that are better for the environment,\textsuperscript{111} but often lack the information they need to determine which products and manufacturers have fewer adverse impacts. Labels can be used to provide information about product impacts to consumers, so that

\footnotesize

\begin{itemize}
  \item \textsuperscript{109} Carr & Scheiber, \textit{supra} note 9, at 74; FAO TECHNICAL PAPER NO. 422, \textit{supra} note 11, at Part 2; US NEWSWIRE, \textit{supra} note 11; About MSC, \textit{supra} note, 11.
  \item \textsuperscript{110} See, e.g., Subedi, \textit{supra} note 16, at 375.
\end{itemize}
consumers may match their product choices with environmental preferences.\footnote{112}

The traditional use of labels has been to (1) inform consumers at the point of purchase of product contents, (2) enable brand recognition, and (3) draw consumer attention to positive product attributes that may influence purchase decisions. For example, a producer may try to increase sales of a product with a label that states “improved formula” (encouraging consumers who have tried the product to try it again), “33% more” (encouraging the consumer to take advantage of a bargain), or “low fat,” or “organic” (encouraging health-conscious consumers to purchase the product).

The use of labels to highlight product attributes has been carried into the environmental arena. Corresponding with increased awareness of the negative environmental impacts of products in the late 1980s and early 1990s, many producers began using labels indicating the positive environmental attributes of their products, such as “No CFCs,” “Dolphin Safe,” or “Environmentally Friendly.”\footnote{113} Today eco-labeling continues in popularity among producers as a means of highlighting the environmental attributes of products and encouraging sales.

When product eco-labels are accurate, they benefit both the producer and the consumer. The producer whose product’s attributes are of value to a significant number of consumers will benefit through increased product sales, market share, and corporate goodwill.\footnote{114} The “green consumer” benefits by receiving information that facilitates his or her ability to choose a product that has fewer adverse environmental impacts.\footnote{115} The environment may also benefit if consumers show enough favoritism towards eco-labeled products, both through a decrease in the production of environmentally-damaging products and through the adoption of better production methods industry-wide, as producers seek to access green consumers.\footnote{116}

As summarized by one commentator:

The main objective of environmental labeling or “eco-labeling” programs is to harness market forces and channel them towards promoting more environmentally friendly patterns of production. Since the labels provide consumers with an easily-recognizable symbol indicating that a product’s environmental friendliness has

\footnote{112. Subedi, supra note 16, at 375.}
\footnote{114. See Subedi, supra note 16, at 375.}
\footnote{115. Id.}
\footnote{116. E.g. Allison Torres, Stamps of Approval, ENVIRONMENT 44 (Sept. 1, 2002), available at 2002 WL 10543746.}
been assessed and approved by a credible body of experts, the label should improve the sales or image of a labeled product. It is hoped that by creating consumer awareness of less environmentally damaging products and helping the so-called "green consumers" to make informed purchasing decisions, labeling schemes will eventually encourage manufacturers to change their entire product development process into a more environmentally friendly process.\textsuperscript{117}

B. \textit{Consumer Demand for Environmentally Friendly Products, Green Marketing and Green Scam}

The prevalence of eco-labeling in today's markets is the result of consumer demand for better environmental products. Market research indicates that consumers, especially in industrialized nations such as the United States, Canada, and Europe, are increasingly aware of the environmental impacts of their product choices. Increased consumer awareness has transmitted into an increased demand for products that are better for the environment.\textsuperscript{118}

In the United States, a Market and Opinion Research International poll found that consumers who purchased an environmentally friendly product increased from nineteen percent to forty-two percent between 1988 and 1989.\textsuperscript{119} A 1990 poll by the J. Walter Thompson Advertising Agency found that eighty-two percent of consumers would be willing to pay up to five percent or more for an environmentally friendly product.\textsuperscript{120} In 1995, a Gallop Poll reported that "over ninety percent of consumers look for 'environmentally safe' products or packaging" while shopping, and indicated a consumer willingness to pay more for such products.\textsuperscript{121}

Today many companies engage in so-called "green marketing," including eco-labeling, to increase sales to environmentally concerned consumers, gain market share over competitors, and bolster corporate image and goodwill.\textsuperscript{122} Their success—and the success of green marketing and product labeling strategies generally—depends largely on consumer perception of the credibility of environmental claims.\textsuperscript{123}

\begin{footnotes}
\item[117] Subedi, \textit{supra} note 16, at 375.
\item[118] Raines, \textit{supra} note 113, at 689.
\item[119] Cason & Gangadharan, \textit{supra} note 111, at 114, n.3.
\item[120] \textit{Id}.
\item[121] Lind, \textit{supra} note 14, at 113; \textit{see also} Menell, \textit{supra} note 14, at 1435.
\item[122] \textit{See e.g.} Raines, \textit{supra} note 113, at 689.
\item[123] \textit{See Cason & Gangadharan, supra} note 111, at 113-115.
\end{footnotes}
Since the environmental quality of a product or service is not readily apparent to the average consumer upon purchase, consumers are highly vulnerable to false environmental claims, also known as "green scam." There are four key concerns that relate to green scam: First, false or misleading labeling directs consumers to make purchasing decisions based on information and assumptions about a product that are not true. Second, companies making false claims gain an unfair marketplace advantage over honest companies. Third, false claims keep consumers from demanding more environmentally safe products because they believe such products are already available. Fourth, false labeling subverts the purpose of eco-labeling and results in general consumer distrust of all eco-labels.

Green scam reached its zenith in 1990 when labels such as "Environmentally Friendly!" or "No Ozone-Depleting Chemicals!" were found on approximately ten percent of the new products introduced, accounting for $25 billion to $50 billion in sales. To combat green scam, several countries have increased their regulation of labeling claims. Many governmental and non-governmental organizations have also begun providing opportunities for companies desiring to advertise their products’ environmental superiority with standardized means of doing so through third-party product certification programs.

C. The Basic Theory of Product Certification Eco-Labeling

Product certification eco-labeling programs come in a variety of forms and are operated by a variety of organizations, including national and international government bodies, industry organizations and other non-governmental organizations. Most certification programs are voluntary, meaning that product examination and certification takes place only upon the submission of a product by a domestic or a foreign producer, along with a fee that covers the certifying organization’s costs.

124. In 1990 green scam was at an all time high and labels such as “Environmentally Friendly!” or “No Ozone-Depleting Chemicals!” were found on approximately ten percent of the new products introduced that year, accounting for $25 to $50 billion in sales. Raines, supra note 113, at 689.
125. Raines, supra note 113, at 690. The first three concerns listed are taken directly from the cited source; the fourth is implicit in the concept of green scam.
126. Id. at 689.
127. Id. at 690. In most developed countries today, including the United States, the contents of a product’s label are highly regulated. Menell, supra note 14, at 1436, 1140-1442, 1445-46.
128. See e.g., Subedi, supra note 16, at 375, 377.
When a product is submitted for certification, it is examined to determine whether it meets pre-determined requirements, established with expert input.\textsuperscript{129} If the product is determined to meet the pre-determined criteria, then the producer is allowed to use the eco-label of the certifying organization in its marketing and advertising of the product.\textsuperscript{130} The mark, or eco-label, indicates that the product is endorsed or approved by the certifying organization; when consumers see the eco-label of the third party certifier they know that the product has undergone certification procedures to ensure that it has decreased environmental impacts.\textsuperscript{131} The right to carry the eco-label is of limited duration, but may be renewed.

Certification programs generally operate by product category. Committees with broad representation (including members of government, consumer, industry and environmental interest groups) determine the scope of each product category and the minimum criteria against which products will be measured.\textsuperscript{132} If a product does not fit into one of the certifying organization's categories, or does not meet minimum criteria, it is not eligible for certification. Denial of certification to a product is not irreversible. If new product categories become available for certification or if a producer changes its practices, the producer may choose to resubmit the product and fee. If on reexamination the product meets the certifier's requirements it will receive the right to carry the eco-label.

The requirements for certification vary from certifier to certifier. Some certifying organizations focus on factors in addition to environmental impacts, such as human rights and labor rights.\textsuperscript{133} Certifiers often require products to go through life cycle evaluation (sometimes called a "cradle to grave" assessment) as part of the certification process.\textsuperscript{134}

\begin{flushleft}
\textsuperscript{129} Id.
\textsuperscript{130} Id.
\textsuperscript{131} See Cason & Gangadharan, \textit{supra} note 111, at 114-115.
\textsuperscript{132} Subedi, \textit{supra} note 16, at 377.
\textsuperscript{134} Subedi, \textit{supra} note 16, at 395.
\end{flushleft}
Sometimes product examination is conducted by an independent third-party certifier approved by the certifying organization (the organization whose name appears on the eco-label and which sets certification categories and criteria). Use of a third-party certifier helps to avoid claims of partiality or bias in certification determinations.

D. The Role of Cost

Eco-labeling imposes costs on both producers and consumers. If certification costs are too high, small businesses will be unable to participate, and if the costs of participation (i.e., changing production methods) are too high, large companies may be unwilling to participate. Certification costs may result in higher retail prices, as producers seek to pass on those costs to consumers.

E. Prevalence of Product Certification Eco-Labeling Programs

Product certification has become a popular means of "show[ing] that a product has met certain environmental or social standards—in production, packaging, use, or disposal." In 1999, positive environmental labeling programs of some form existed in twenty-two nations.

135. See, e.g., Meidinger, supra note 133, at 141-42 ("The [Forest Stewardship Council] does not certify forests. Rather, it certifies certifiers, who in turn certify forests and 'chains of custody' for the products that come from them."); SCIENTIFIC CERTIFICATION SYSTEMS, About SCS, available at http://www.scs1.com/aboutSCS (last visited Aug. 19, 2003) (indicating that SCS is a certifier for the U.S. National Organic Program, the Forest Stewardship Council, the Marine Stewardship Council, the U.S. NutriClean program and others, in addition to providing its own certification systems) [hereinafter About SCS]. There are many certification programs that utilize third party certifiers and many firms that serve as third party certifiers.


138. Torres, supra note 116.

139. Subedi, supra note 16, at 374. The form of these programs, the number and types of products involved, and the government's participation in regulation, varies from nation to nation. The term "positive labeling" describes the labeling programs currently in existence in most nations. See id. These programs are designed to allow the certifying product to positively endorse products and services that meet their established criteria. Positive labeling programs are voluntary in nature; companies may choose to submit their products or operations for examination and potential certification or labeling, but are not required to do so. Id.
these programs are similar in function, their scope, structure, and requirements vary. Recognizing the potential for consumer confusion, some efforts have been made towards harmonizing eco-labeling programs and/or the adoption of a unified system for granting labels in certain product areas.\footnote{140}

Some of the more well known international examples of product certification eco-labeling programs are the Forest Stewardship Council's certification of wood from sustainably managed forests,\footnote{141} certification of cocoa, banana, coffee and citrus farms by Rainforest Alliance's Conservation Agriculture Network and other fair trade groups,\footnote{142} European Blue Flag certification of beaches and marinas,\footnote{143} Scientific Certification Systems' various programs,\footnote{144} and the International Standardization Organization (ISO) 14000 program.\footnote{145} National programs exist in over twenty-four countries and include the German Blue Angel Program,\footnote{146} the Canadian Environmental Choice program,\footnote{147} the Nordic Stewardship Council's program,\footnote{148} and the European Community's program.\footnote{149}

F. Application of GATT and WTO Principles to Eco-Labeling Schemes

Eco-labeling programs have the potential to violate the General Agreement on Tariffs and Trade (GATT) and the Agreement on Technical Barriers to Trade (TBT Agreement).\footnote{150}

\begin{footnotesize}
\begin{enumerate}
\item Id.
\item Torres, supra note 116; see also Meidinger, supra note 133, at 130.
\item Id.
\item About SCS, supra note 135 (indicating that SCS is a certifier for the U.S. National Organic Program, the Forest Stewardship Council, the Marine Stewardship Council, the U.S. NutriClean program and others, in addition to providing its own certification systems).
\item See, e.g., Subedi, supra note 16, at 377-80.
\item Id. at 381.
\item Id.
\item Id. at 379-80.
\item See, e.g., Lind, supra note 14, at 120.
\end{enumerate}
\end{footnotesize}
1. Potential Violation of GATT

Government-sponsored labeling programs may violate GATT’s “most favored nation” (MFN) and “national treatment” principles, which apply to all domestic regulations, including labeling programs, that attach to imported products. These two principles are GATT’s major protection against the disadvantaging of, or discrimination against, imported products based on origin.

The MFN principle, embodied in Article I of GATT, requires nations to give similar advantages to all “like products” imported from member nations, thus preventing nations from discriminating against products that are similar in nature or function because of where they were produced.

Article III, which contains GATT’s national treatment principle, requires imported products to receive treatment that is “no less favorable” than the treatment of domestic products. Together, these principles limit the ability of one member nation to pressure the government of another member nation to adopt more sound environmental policies by placing restrictions on the importation of the foreign products. They also, quixotically, prevent member nations from limiting the importation of products produced by methods that the country has outlawed in its own borders and gives imports produced by cheaper methods unacceptable in that country a marketplace advantage.

2. Potential Violation of the TBT Agreement

GATT’s Agreement on Technical Barriers to Trade (TBT Agreement) requires that, where established international technical regulations exist

151. Id. at 121.
152. Id.
154. Id. at art. III; see also Lind, supra note 14, at 122.
155. See Lind, supra note 14, at 122. The inability of one member nation to use trade restrictions to influence other member countries was tested in relation to the “Tuna/Dolphin” controversy. See Robert Percival, et al., ENVIRONMENTAL REGULATION: LAW SCIENCE AND POLICY 1152-65 (3d ed. 2000).
156. Id. at 120.
157. “Technical regulations” are mandatory rules which “lay down product characteristics or their related processes and production method [PPMs].” Id. at 122 (quoting Agreement on Technical Barriers to Trade, Dec. 15, 1993, reprinted in Office of the U.S. Trade Representatives, Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Pt. II, Ch. 6, at Annex 1, para. 1 (1994)). “Packaging, marking or labeling requirements as they apply to a product, process or production method” are included
for product characteristics, member countries must use those technical regulations as a basis for their own regulations.\textsuperscript{158} A domestic government-sponsored labeling program with mandatory participation, where the label addresses product characteristics, or product production methods (PPMs), is considered a technical regulation.\textsuperscript{159}

The TBT Agreement allows for deviation where applicable international standards would be an "ineffective or inappropriate means for the fulfillment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems."\textsuperscript{160} However, departure from international standards requires that a nation meet the Agreement's notice and transparency requirements and "least trade restrictive test."\textsuperscript{161}

3. Mandatory v. Voluntary Eco-Labeling Programs

Mandatory labeling schemes that refer to product characteristics, thus regulating the product itself, generally comply with GATT and the TBT Agreement if they treat all like products the same.\textsuperscript{162} Mandatory labeling schemes that are not limited to the actual product characteristics, but also examine the manufacturing process (e.g. through life cycle analysis) generally violate GATT.\textsuperscript{163}

Voluntary labeling programs, even those that are government sponsored, do not have to comply with GATT because: 1) they do not directly put imported products at a disadvantage, and 2) they are not "technical regulations."\textsuperscript{164}

It is important to remember that most labeling programs receive support from national governments, either through direct governmental involvement or though program funding, and thus a program may violate GATT if the program is mandatory.\textsuperscript{165}

\begin{itemize}
\item in the definition of technical regulations. \textit{Id.}
\item 158. \textit{Id.}
\item 159. Lind, supra note 14, at 123.
\item 160. \textit{Id.} at 124.
\item 161. \textit{Id.} at 125.
\item 162. \textit{Id.} at 127.
\item 163. \textit{Id.}
\item 164. Lind, supra note 14, at 135.
\item 165. Governmental support of non-governmental organizations, including environmental organizations, is pervasive.
\end{itemize}
G. Constructive and Problematic Aspects of Labeling

Eco-labeling is useful because it provides consumers with environmental product information at the point of purchase, allowing consumers to take environmental impacts into account in their purchase decisions.\(^{166}\) Eco-labeling meets with the approval of industry and non-governmental organizations because it is a market-based control that does not involve direct government interference in the marketplace.\(^{167}\) Eco-labeling is also favored by governmental organizations seeking to influence production practices outside national borders in circumvention of international trade agreements.\(^{168}\)

However, there are drawbacks to eco-labeling. First, labels lack detail, making it difficult for a buyer to differentiate between two products that are both certified. Second, the absence of a label is not necessarily indicative of negative product impacts. Since certification of a product is voluntary, the failure of a product to carry a label may indicate that the product has negative impacts—but it may also indicate that the producer has declined to participate in the certification program, or that certification is not available for products in that category.

A third difficulty is that eco-labels placed on a product by a manufacturer lack consumer confidence.\(^{169}\) "Industry-conceived eco-labels are self-defeating in that they work against consumer confidence and are vulnerable to persuasive attacks by [non-governmental organization] activists."\(^{170}\) Labels received by certifying organizations may also be questioned with respect to any political affiliations the organizations may have and the potential for pay-offs, especially when no independent third-party certifier is used.\(^{171}\)

A fourth difficulty is that consumers may not notice product eco-labels or may have insufficient information about the certifying organization to understand the eco-label's significance. A recent in-store survey by The Food Alliance, an eco-labeling group based in Portland, Oregon, found that less than thirty percent of shoppers noticed and recognized the Alliance's

\(^{166}\) See Ladage, supra note 137; see also Lind supra note 14, at 116-117.

\(^{167}\) The principle of a free market economy discourages government regulation, preferring that consumer demand dictate the number and type of products available. See, e.g., Lind, supra note 14, at 116-117.

\(^{168}\) See Lind, supra note 14, at 114.

\(^{169}\) See discussion on "green" scam, infra Part II.B.


\(^{171}\) Id.
eco-labels on products. Recognition must be built through advertising and public relations efforts and is very expensive. Because of low recognition levels, some retailers are assuming the burden of educating consumers themselves, by alerting customers about the retailers' conservation and safety efforts.

Finally, product certification is expensive. "Certification programs can have prohibitively high costs for testing, certification and logo use associated with [eco-labeling] programs." These costs may be passed along the chain of distribution or may be placed primarily on the consumer, who will have to determine whether the product's environmental attributes justify its higher price.

III. APPLYING ECO-LABELING CONCEPTS TO THE PROMOTION OF SUSTAINABLE MARINE FISHERIES

There is increasing interest in the application of eco-labeling concepts to marine fisheries as a means of supplementing international and national law and of encouraging the sustainable management of fisheries. In 2001, use of eco-labeling to encourage sustainability was endorsed by the FAO in Technical Paper 422. The goal of eco-labeling and product certification in the marine fisheries context is to "create market-based incentives for better management of fisheries by creating consumer demand for seafood products for well-managed stocks." Voluntary eco-labeling provides one of the least coercive mechanisms for improving conservation outcomes. Private sector interest in eco-labeling for fisheries products is growing, especially given the business and export opportunities that eco-labeling has generated in other sectors. Furthermore, the potential for growth in the market share of eco-labeled products makes eco-labeling a compelling business choice. If fisheries management improves in response to efforts to comply with certification criteria, the potential benefits to fisheries in both industrial and developing countries could go far beyond higher revenues that eco-labeled products may generate.

There are three major requirements for a successful marine fisheries eco-labeling program. First, there must be one or more organizations or

172. Ladage, supra note 137.
173. Id.
174. Id.
175. See supra note 11.
176. FAO TECHNICAL PAPER NO. 422, supra note 11, at Part 2.
177. Id.
governmental bodies with the power to regulate and enforce fishing practices and limits. The most likely governmental bodies for this role are the regional fisheries management bodies created under the U.N. Fish Stocks Agreement. Regional management bodies and enforcement difficulties were discussed in Part I of this Article.\textsuperscript{178}

Second, there must be a market for sustainable fisheries products sufficient to encourage producers, retailers and others to incur the expenses of certification.\textsuperscript{179} The market for sustainable seafood will be discussed in Part III.A of this Article.

Third, there must be an effective marine fisheries eco-labeling program, with enforceable standards and guidelines for program implementation and chain-of-custody examination procedures. Part III.B. of this Article describes the current application of eco-labeling concepts to marine fisheries, including a detailed look at the Marine Stewardship Council’s (MSC’s) extensive eco-labeling program.

\textbf{A. The Market for Sustainable Fisheries Products}

Although some seafood processors, distributors and retailers will be influenced to buy products from sustainable fisheries because of sustainability concerns, few are likely to be willing to expend money in order to undergo certification unless there is a demonstrable opportunity for profit from certification. Thus, market demand is essential for the success of eco-labeling efforts.

Actual numbers on demand for sustainable fisheries products are both difficult to come by and generally conflicting. All sources seem to indicate that there is some consumer and retail interest in sustainable fisheries products. Consumer demand is expected to grow as consumer awareness of sustainability issues increases and as more sustainable fisheries products become available on the market. However, the extent of current market demand is uncertain.\textsuperscript{180}

\begin{thebibliography}{99}
\bibitem{179} See discussion \textit{supra} Part II.A, Part II.B.
\bibitem{180} See, \textit{e.g.}, FAO \textsc{Technical Paper No. 422}, \textit{supra} note 11, at Part 5.1. According to the author: In the future, consumer consciousness of environmental concerns is likely to grow in both North and South. This point is clearly recognized by many producers in both developed and developing countries. In both developed and developing countries, producers are working to comply with broad trends in environmental standards, such as ISO 14000, in order to become more competitive in international markets. \textit{Id.}
\end{thebibliography}
One British publisher reports that a “recent survey conducted in America showed that 70% of people would prefer to buy labeled sustainable seafood” and states that “[m]any British supermarkets are now racing each other to stock MSC labeled product” in an effort to “compete on environmental responsibility.” \(^\text{181}\) A 2002 survey by Seafood Choices Alliance (SCA) showed that, while only twenty-one percent of chefs and thirty-one percent of restaurant owners knew much about the environmental impacts associated with fishing, sixty-two percent of chefs and sixty percent of retail sellers were “interested in connecting with suppliers who can source environmentally responsible fish.” \(^\text{182}\) A 2001 survey by the SCA showed that regular seafood consumers in the U.S. “had low awareness of sustainability issues associated with the capture or production of seafood,” \(^\text{183}\) but that thirty-seven percent of the consumers surveyed stated that they had decided not to buy a certain kind of seafood in the past because of their understanding that the product had adverse ocean impacts. \(^\text{184}\)

Sources do, however, seem to agree that the major existing markets for sustainable fisheries products are in North America (mainly the U.S. and Canada) and Northern Europe. \(^\text{185}\) Members of these markets include individual consumers as well as retail sellers of seafood (such as grocery stores), chefs and restaurant owners. Efforts to stimulate demand for sustainable seafood among chefs and restaurants are especially strong in the U.S., where some two-thirds of seafood consumption takes place in restaurants. \(^\text{186}\) Environmental groups and retail sellers seek to increase demand among consumers through point-of-purchase fliers, information in newsletters and on websites and in newspaper and television.

Whatever the current size of the market, some distributors have indicated their certainty that seafood eco-labeling will be economically profitable. Margaret Whittenberg, the vice president of governmental and

\(^{181}\) Harris & May, supra note 22. This percentage, however, seems extremely high and the source of the survey was not provided by the authors.


\(^{183}\) Id.

\(^{184}\) Id.

\(^{185}\) Carr & Scheiber, supra note 9, at 75; FAO TECHNICAL PAPER NO. 422, supra note 11, at Part 5.1.

public affairs of Whole Foods Market, the U.S.'s largest grocery chain selling MSC products, said:

[Will consumers actually go beyond the rhetoric and buy sustainably managed fish and seafood? This was the same question that people had in the early days of the organic industry, an industry that has sustainability of the soil as its underlying principle. Twenty years later, it is a successful, thriving industry supported by consumers who are concerned about the earth and are willing to pay price premiums to farmers and producers who take the extra steps and are certified to follow the organic principles.

Given the overwhelming demand we already have from our consumers to provide them with fish and seafood that is sustainably managed and harvested, we know that if we are able to provide them with product[s] that are truly certified as such, our customers will buy them.187

Whether sales of eco-labeled seafood will be limited to a niche market remains to be seen. But, as one commentator notes, “[r]etailers from all ends of the spectrum—from natural food stores to mainstream supermarkets—are beginning to include natural, organic and eco-labeled products in their fresh meat and seafood departments.”188 Many retailers indicate that they believe consumer demand for sustainable seafood is tied to the availability of sustainably harvested, labeled seafood and will rise as the selection of sustainable seafood on the market increases.189

Currently, the most highly available and well-known seafood eco-labels are “dolphin-safe” tuna and “turtle-safe” shrimp.190 Perhaps because of this trend, there is some concern that practical use of eco-labeling will be limited to “popular” species and will be less successful when applied to species such as fish and mollusks.


189. King, supra note 186; Harris & May, supra note 22.

190. Ladage, supra note 137.
B. Current Eco-Labeling Programs

1. Dolphin-Safe Tuna & Turtle-Safe Shrimp

   a. Dolphin-Safe Tuna

   Much of the interest in eco-labeling as a tool for the management of marine fisheries stems from the successful use of "dolphin-safe" labels on tuna products.

   In the 1950s, fishers discovered that yellowfin tuna in the Eastern Tropical Pacific could be found beneath schools of dolphin. For years after the discovery, the predominant tuna fishing methods in the region involved encircling schools of dolphins with fishing nets to trap the tuna concentrated below. Hundreds of thousands of dolphins died because of this fishing method.\(^{191}\)

   Some six million dolphins in the Eastern Pacific died in seine nets from the 1950s to the 1990s, and two species of dolphins became listed under U.S. law as "depleted."\(^{192}\) In the late 1970s, public outcry against high dolphin mortality caused the U.S. fishing industry, the predominant culprit, to begin looking for methods to limit dolphin deaths, and mortality rates began to go down.\(^{193}\) In the 1980s, U.S. participation in Eastern Pacific Tuna fishing dropped, and participation by foreign vessels increased.\(^{194}\) Dolphin mortality rates increased again.\(^{195}\)

   In the late 1980s, deeply worried over the high levels of dolphin kills, environmental groups . . . began to pressure tuna companies to not purchase tuna from boats that had set nets on dolphins. Faced with a potentially disastrous boycott of their products, in April of 1990, the three largest [U.S.] tuna canners—StarKist, BumbleBee and Chicken of the Sea—announced that they would no longer buy tuna caught 'in association with dolphins.' This announcement was quickly followed by similar ones from tuna

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192. Whale and Dolphin Conservation Society, Introduction to the Tuna/Dolphin Issue, available at http://www.wdcs.org/dan/publishing.nsf.allweb/64F00E66D91BC97C802568FF0032071A (last visited July 2, 2003). The number of dolphin deaths is estimated (depending on the source) to be between six and seven million.
193. Id.
194. Id.
195. Id.
canners throughout Europe. In the [U.S.], the label the canners chose was “dolphin safe”, whilst the [U.K.] . . . opted to use “dolphin friendly.” 196

The result was a reduction in dolphin deaths resulting from tuna fishing from what was originally estimated to be hundreds of thousands to approximately 2,000 per year. 197 Public outcry also resulted in U.S. government trade embargoes designed to prevent importation of tuna caught by methods that were not “dolphin-safe.” 198

Ultimately, the “dolphin-safe” tuna story illustrates the impact that consumer demand and eco-labeling can have on fishing practices. Threats of consumer boycotts, urged by environmental groups, can force companies to act to improve their practices with unprecedented speed and success. There are, however, some lingering problems with the dolphin eco-labeling program.

First, the credibility of “dolphin-safe” labels continues to be at issue as a result of international law and policy tangles. 199 World Trade Organization (WTO) international trade tribunals have “ruled that the United States cannot legally impede tuna that is caught in ways that kill dolphins, as long as there is nothing wrong with the tuna itself when it reaches the American consumer.” 200 Unilateral embargoes against fishery practices were also determined to be contrary to the GATT, and foreign countries continue to use threats of GATT lawsuits to weaken the meaning of the U.S. Department of Commerce’s “dolphin-safe” label. 201

Second, according to some reports, depleted dolphin populations have not yet recovered, 202 indicating that an eco-label alone may not be enough to create sustainability. Finally, dolphin-safe tuna labeling encourages fishing methods that are better for dolphins, but allows for the continuation—and even the increased use—of fishing methods that are unsafe for other

196. Id.
200. Nesmith, supra note 197.
201. Lazaroff, supra note 191.
The "dolphin-safe" label fails entirely to protect or even to take into account the effect of fishing practices on other species.

b. Turtle-Safe Shrimp

Less well-known than their "dolphin-safe" counterparts, "turtle-safe" labels on shrimp are a part of efforts to make shrimp harvesting safer for endangered sea turtle populations. Sea turtles are often caught and drowned in shrimp nets in the Atlantic, Caribbean, Pacific and Gulf of Mexico. An estimated 50,000 sea turtles die this way each year. To combat this problem, the Earth Island Institute began a campaign to raise awareness of shrimp-turtle issues and began a voluntary "turtle-safe" shrimp eco-labeling program. In 1989, the U.S. began requiring U.S. shrimp trawlers to use turtle-excluder devices and placed an embargo on importation of shrimp on foreign producers who did not use turtle-safe harvesting methods.

2. The Marine Stewardship Council Program

The MSC sponsors the most extensive marine fisheries eco-labeling program currently in operation. Formed in 1997 through the combined efforts of the World Wildlife Fund environmental organization and Unilever, one of the world's largest buyers of ground fish, the MSC has since gained its independence and become a "global, nonprofit" organization that seeks to "harness consumer purchasing power" to "change and promote environmentally responsible stewardship of the world's most important renewable food source."

a. About the MSC

The MSC is based out of London and is comprised of twenty-nine employees and a chief executive who reports to a board of trustees. The board is made up of fourteen members nominated for a three-year term.

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203. Id.
204. Brooks & Jacobus, supra note 136.
205. Id.
206. Id.
207. Carr & Scheiber, supra note 9, at 74.
208. See, e.g., id.; About MSC, supra note 11.
209. Id.; See also McLaughlin, supra note 188.
210. About MSC, supra note 11.
Board members are representative of the environmental, political, food safety, and commercial fishing industry sectors. Additionally, there is a technical advisory board of eleven experts whose role is to assist the board in making technical determinations, such as those related to implementation of the MSC Principles and Criteria for Sustainable Fishing ("Principles and Criteria").

The MSC is a member of the International Social and Environmental Labeling Alliance, an association of international standard setting, certification and accreditation organizations that requires members to (1) use objective criteria in setting their standards; (2) make standards easily understood, measurable, and consistent with other certification programs; and (3) to participate in continuous improvement through internal peer reviews under ISO Guide 61.

b. Structure of the MSC Certification Program

The MSC certification program consists of two main parts: (1) "Fisheries Certification," which applies to fisheries, and (2) "Chain of Custody Certification," which applies to individual processors, distributors, and retailers. The fishery or company must meet the standards set forth by the MSC to be eligible for certification by an MSC approved third-party certifier. The MSC certification standards ensure consistency and transparency in the certification process. The certification process allows organizations opposed to certification an opportunity to make a formal objection to the certification of a fishery or an individual company, based either on an irregularity of procedure or the determination on the merits.

216. Id.
i. Fisheries Certification

The MSC Fisheries Certification program is open to all fisheries, regardless of their size, type, geographic location, or current status.218 The program’s standards, the Principles and Criteria, are based on the FAO Code of Conduct.219 The Principles and Criteria were developed following international consultation with stakeholders, and are “constantly reviewed by an independent group of fisheries experts (Technical Advisory Board) from around the world.”220 Independent third-party certifiers, approved by the MSC, assess fisheries that apply for MSC certification against the MSC Principles and Criteria and determine whether certification is appropriate.221

Thus far, seven fisheries have achieved MSC certification. These fisheries are: Alaskan salmon, Burry Inlet cockles, Lock Torrigon nephrops, New Zealand hoki, South West mackerel hand line fishery, Thames herring, and Western Australian rock lobster.222 Time required for certification of these fisheries ranged between twelve and eighteen months.223 Fisheries currently undergoing assessment are: Alaska pollock, Australian mackerel icefish, British Columbia salmon, Chilean hake, North Sea herring, Pacific halibut (Alaska, Washington, and Oregon), and Pacific halibut (British Columbia and Canada).224

The MSC has instituted measures to ensure that developing countries are not left behind, including an outreach program that focuses on non-governmental organizations, developing nations, and fisheries to ensure access to, and encourage participation in the MSC certification program.225


220. Id.; MSC Standard—Ps and Cs, supra note 219.

221. Id. These third-party certifiers are all organizations that have a professional reputation and have engaged in certification for other programs. Zeke Grader, et.al., Going Beyond Fish Eco-labeling: Is It Time for Fair Trade Certification Too?, FISHERMEN’S NEWS, Mar. 2003, available at http://www.pcffa.org/fn-mar03.htm (last visited Sept. 15, 2003).


223. Id.


ii. Chain of Custody Certification

The traceability of seafood carrying the MSC label to a certified fishery is guaranteed by requiring companies that want to use the label to undergo Chain of Custody Certification. A company or producer applying for Chain of Custody Certification is examined by an independent third-party certifier, approved by the MSC, to determine if the requirements of the MSC Chain of Custody Certification Standards are met. These standards require, among other things, that certified products are kept separate from non-certified products at every stage of the production process "from the boat to the plate." 

The MSC Principles and Criteria

The Principles and Criteria were developed by a collaboration of stakeholders and are based on the FAO Code of Conduct. The Principles and Criteria:

- 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 MSC defines a "sustainable fishery" 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;

227. *MSC Fisheries*, supra note 218.
228. See id.; see also *MSC Principles and Criteria*, supra note 133.
229. *MSC Principles and Criteria*, supra note 133.
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.\(^\text{230}\)

The criteria apply to all wild-capture marine fisheries activities until "the point at which fish are landed," and do not address the allocation of quotas or access to marine resources.\(^\text{231}\)

"Principle 1" focuses on eliminating over-fishing, as well as focusing on fisheries practices in areas that are highly exploited, with the goal of future conservation.\(^\text{232}\) "Principle 2" focuses on ecosystem preservation in fishery practices.\(^\text{233}\) "Principle 3" sets forth the framework for fishery

\(^{230}\) Id.
\(^{231}\) Id.
\(^{232}\) Id. Principle 1: A fishery must be conducted in a manner that does not lead to over-fishing or depletion of the exploited population and, of those populations that are depleted, the fishery must be conducted in a manner that demonstrably leads to their recovery.

\textbf{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 population 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.

\textbf{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.

\textit{Id.}

\(^{233}\) Id. 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.

\textbf{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.

\textbf{Criteria:}
management, requiring the management system to respect local, national
and international law in implementing Principles 1 and 2. Principle 3 requires

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.

Id.

Principle 3: The fishery is subject to an effective management system that
respects local, national and international law and standards and incorporates institutional and
operational frameworks that require use of the resource to be responsible and sustainable.

Intent:
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 Systems 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 system;
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
that fishery management systems:

- Adopt long-term objectives consistent with MSC Principles and Criteria through a transparent process involving consultation of interested parties (including fisheries-dependent groups);
- Tailor management programs to the fishery;
- Observe legal and customary rights of fishery-dependent groups;

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.

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. minimize operational waste such as lost fishing gear, oil spills, on-board spoilage and 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.

MSC PRINCIPLES AND CRITERIA, supra note 133.
• Set out methods for dispute resolution;
• Provide economic and social incentives for compliance and avoid subsidizing any practice that does not further sustainability;
• Act on the best available information, erring on the side of protectiveness;
• Incorporate a research plan to provide information to management and disseminate information to interested parties;
• Provide for periodic assessment of biological status and the impacts of fisheries practices;
• Set "measures and strategies that demonstrably control" resource exploitation, including designating sustainable catch levels, monitoring and reducing bycatch, reducing habitat destruction by setting "appropriate fishing methods," providing for recovery of depleted fisheries (including levels of recovery to be achieved in a set time frame), setting mechanisms for limiting/closing fisheries when catch levels are met, and designating "no-take zones"; and
• Set monitoring and enforcement mechanisms that ensure compliance.\textsuperscript{235}

Principle 3 compels management systems to require the use of fishing gear and practices that limit bycatch and waste and minimize harm to habitat.\textsuperscript{236} Management systems must also prohibit the use of poison and explosives in fishing and minimize operational waste.\textsuperscript{237} Additionally, management systems must be able to enforce management guidelines, compelling the cooperation of fishing operations with respect to information collection and implementation of the management system in fishing practices.\textsuperscript{238}

d. Market Prevalence of the MSC Eco-Label

The MSC label currently appears on products sold in ten countries,\textsuperscript{239} and more than 160 products\textsuperscript{240} in over twenty retail outlets and chains carry

\begin{itemize}
\item\textsuperscript{235} Id.
\item\textsuperscript{236} Id.
\item\textsuperscript{237} Id.
\item\textsuperscript{238} Id.
\end{itemize}
The major markets for MSC-labeled products are North America, Europe, and Australia/New Zealand. The growth of the MSC program is due largely to the support of retailers and increasing consumer knowledge of the MSC label and marine fisheries issues, generated through MSC educational materials. MSC communications director, Karen Tarica, said, "Clearly, we have seen a growing interest in organics and the organic stamp on food...[and now]...consumers are becoming interested in whether their seafood is wild caught or farmed, and if seafood suppliers are working towards sustainability." Some fishery leaders are beginning to see MSC certification as essential to maintaining market share, gaining access to new markets, and getting better prices for their fish. As one commentator notes:

[A]ccessibility to a number of markets [in Europe] is now dependent on MSC certification, and in the U.S., chains such as Whole Foods are looking to MSC certification, as well as some of the seafood guides such as the Monterey Bay Aquarium's where no MSC certification currently exists, to guide their decisions on what seafood to display. At the restaurant level, chefs and owners belonging to groups such as the Seafood Choices Alliance and the Chefs Collaborative are also emphasizing "sustainably-harvested" seafood, and those fish with MSC certification are accepted with virtually no debate.

EcoFish is the only national distributor in the United States that exclusively sells seafood from sustainable fisheries, but many local and national companies are beginning to sell at least some sustainably-managed seafood as market recognition and demand increases. For example, Whole Foods Market, the nation's leading natural foods grocer, carries MSC products in over 130 stores nationwide. Other sellers in the U.S. include Norm Thompson Outfitters (which has sold MSC Alaskan smoked salmon

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242. Roheim, supra note 239, at Part IV.
243. McLaughlin, supra note 188.
244. Id.
245. Grader, supra note 221.
246. Id.
247. Ladage, supra note 137.
248. Roheim, supra note 239, at Part III.A.
in its catalogs), Seabear, Vital Choice, Wild Oats, Xanterra Parks and Resorts, and Wegmans.\textsuperscript{249}

Internationally, Unilever, the world's largest seafood company, and one of the original founders of the MSC, sells MSC certified seafood and has pledged to buy only MSC certified fish by 2005.\textsuperscript{250} Other major seafood companies that support the MSC are the five largest Alaskan salmon producers (Ocean Beauty Seafoods, Ward Cove Seafoods, Trident Seafoods, Icicle Seafoods, and Peter Pan), Young's Bluecrest (the largest seafood producer in the U.K.), and Interocian Seafoods.\textsuperscript{251} European retailers include Migros (a Swiss grocery chain that claims the distinction of being the first to sell MSC products in Europe), Coop Schweitz (Swiss), Tesco (Belgian), Marks and Spencer (U.K.), Sainsbury's (a U.K. grocery chain, which has pledged to sell only MSC certified fish by 2010), Intermarche (French), Gottfried Friedrich's (German), and FRoSTA (a German company that has the distinction of being the first brand to exclusively source seafood from fisheries certified to the MSC standard).\textsuperscript{252}

Two U.K. restaurant chains, fish! and Little Chef also use the MSC logo.\textsuperscript{253}

In summary, consumer access to MSC-certified products is large and growing. Many seafood buyers for grocer corporations have indicated that they look forward to when there is a wider choice of MSC-certified products available so they can increase the range of offerings to their customers. To this point, it appears that there is a significant amount of receptiveness of the MSC products in the market, which bodes very well for the future of certified seafood.\textsuperscript{254}

e. Effects of MSC Certification

Thus far, there is no indication of the effects on certification on the actual health of fisheries. However, individual fisheries have reported positive economic effects from MSC certification. The Western Australian Rock Lobster Development Association reported a fifteen percent increase in inquiries into the fishery in the year following its certification. Thames

\begin{thebibliography}{99}
\bibitem{249} Id.
\bibitem{250} Id.; \textit{FAO TECHNICAL PAPER NO. 422, supra} note 11, at Part II.
\bibitem{251} See \textit{e.g.}, Roheim, \textit{supra} note 239, at Part III.A.
\bibitem{252} See \textit{e.g.}, \textit{id.}
\bibitem{254} Id. at Part III.A.
\bibitem{255} Id. at Part III.B.
\end{thebibliography}
herring fishermen reported that certification caused an immediate rise in the prices they received for their catch.\textsuperscript{256} The value of the New Zealand hoki fishery has seen an increase in fishermen's receipts and market stability, due at least in part to MSC certification.\textsuperscript{257}

\textit{f. Criticisms of the MSC Certification Program}

The MSC has received criticism for a number of reasons. First, early connections to Unilever and the World Wildlife Fund have caused some commentators to question the MSC's credibility.\textsuperscript{258} These concerns, however, appear adequately addressed in the certification process itself. Both fisheries certification and chain of custody certification are carried out by third-party certifiers, who already had a professional reputation prior to being chosen as certifiers for the MSC.\textsuperscript{259} The certification process is also highly transparent, and allows interested parties to challenge certification.\textsuperscript{260} Since the MSC gained independence in 1997, there has been "no evidence, to date, that either founder [Unilever or the World Wildlife Fund] is controlling or dictating which fisheries will be certified or how the process is to be managed."\textsuperscript{261}

Second, there has been a substantial amount of criticism regarding the costs of certification. Some commentators have voiced concern that MSC certification is "'legalized extortion,' that is, a fishery that [is] not certified [may] be viewed as 'unsustainable' and potentially hurt in the marketplace, but in order to gain certification a fishery would have to pay MSC.'\textsuperscript{262} But these concerns are addressed more to the concept of eco-labeling generally than to the MSC program (remember that the theory underlying eco-labeling is that products carrying the label will gain an advantage over those that do not, encouraging more environmentally conscious behavior across the board).\textsuperscript{263}

Third, there is some valid concern that the costs of certification may mean some fisheries, especially those in developing areas, will be unable to pay the costs of certification.\textsuperscript{264} The MSC has sought to remedy this

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256. Roheim, \textit{supra} note 239, at Part III.B.
257. \textit{Id.}
258. \textit{See e.g.}, Grader, \textit{supra} note 221.
259. \textit{See e.g.}, \textit{id.}
260. \textit{Id.}
261. \textit{Id.}
262. \textit{Id.}
263. Grader, \textit{supra} note 221.
}
problem by ensuring that the fees charged are directly related to the actual costs of certification and program operations, and by developing a community outreach program which provides grants to assist fisheries in paying for the certification process.

High certification costs also keep companies that process or sell seafood from seeking chain-of-custody certification. If the direct costs of certification are too high, small businesses will be unable to participate. If the costs of participation, such as making changes in production methods, are too high, some larger companies may be unwilling to participate.

Fourth, the cost of MSC certification may be passed on to consumers, resulting in higher prices for MSC products. If prices are too high, consumers may be unwilling or unable to pay for MSC certified products and, ultimately, the incentive for fisheries, processors, and retailers to participate in certification will be stripped away. There is, as yet, little data regarding price comparisons between MSC certified products and other seafood products. As one source noted, "it is too early to tell if MSC certification really results in better sales and/or higher prices."

In 2001, EcoFish sold uncertified products from sustainable fisheries for ten to twenty percent more than the market rate for other fishery products. If we take EcoFish’s prices as indicative and assume that MSC products will be ten to twenty percent higher in price than similar products (which is in no case certain), it is apparent that some consumers are still willing to pay these higher prices, as retailers continue to make sales and expand their inventory. The prices of sustainable seafood are likely to change significantly as more fisheries are certified, more products carrying the MSC label become available, and price competition takes effect.

Fifth, the success of the MSC program requires that consumers, retailers, fishermen, and others are educated on sustainability issues. Consumer awareness is currently low, but appears to be growing.

265. Id.
266. Id.; see also MSC Developing World, supra note 264.
268. See, e.g., Ladage, supra note 137.
271. See discussion supra Part II.B.
272. See id.
Sixth, the MSC offers certification to companies that promise to improve their methods, rather than waiting until improvements have been made to allow the producer to carry the MSC label. Critics say this makes the MSC label misleading.

Finally, while there is some indication that MSC certification may help fishermen by increasing the prices they can charge for fisheries products, there is no data showing MSC certification has a positive impact on fisheries sustainability. The MSC certification program is just too new for researchers to be able to tell how it will affect fisheries.

g. Comparison of the MSC Principles and Criteria for Sustaining Fishing and the Code of Conduct

The Principles and Criteria are a watered-down version of the Code of Conduct, intended to be easier for fisheries to comply with than the Code. Thus, if a fishery implements the Code of Conduct it will be eligible for MSC certification, but a fishery that is eligible for MSC certification is not necessarily in full compliance with the Code of Conduct.

The Principles and Criteria are not a substitute for the Code of Conduct. In fact, the Principles and Criteria specifically state that sustainable fishery management "should be based upon...[c]ompliance with relevant local and national local laws and standards and international understandings and agreements." Further, the adoption of MSC Principles and Criteria by a fishery is entirely voluntary.

The Principles and Criteria and the MSC certification program are merely tools for encouraging sustainability through market-based incentives. While the Principles and Criteria may not be the best solution to fisheries sustainability, they are a step in the right direction. It is hoped that fisheries that achieve MSC certification will eventually reach compliance with the Code of Conduct.

274. Id.
275. See discussion supra Part II.B.
276. See Donna Christie, Class Lecture at Florida State University College of Law (Oct. 27, 2003); see also MSC Principles and Criteria, supra note 133.
277. MSC Principles and Criteria, supra note 133.
278. Id.
3. Other Fisheries Certification Efforts

While the MSC’s privately organized certification system is seen by some as “the only game in town,” efforts are underway to increase the options available to fisheries seeking certification.

a. The National Fisheries Institute’s Certification Efforts

The National Fisheries Institute (NFI), the U.S. commercial fishing industry’s largest trade association, has created the Responsible Fisheries Society (RFS), which has as an objective the development of a fisheries certification program that will compete with the MSC. The RFS “Principles of Responsible Fisheries,” like the MSC’s Principles and Criteria, are based on the FAO Code of Conduct. Under the program, participating companies must submit annual reports and allow on-site inspections of their facilities.

Companies certified under the NFI’s program have only one choice of certifier: the Principles of Responsible Fisheries, as implemented by Ocean Trust, a conservation foundation that, as critics point out, is supported by the commercial fishing industry. Some environmentalists see the program as less-than credible due to the close ties between the RFS, Ocean Trust, and the commercial fishing industry.

b. Potential for a Fair Trade Fisheries Program

Since current eco-labeling programs such as the MSC certification program are primarily concerned with biological sustainability, rather than economic or social sustainability, some industry members have suggested the development of a fair trade fisheries initiative. There is currently no global fair trade association or certification program for fisheries management.

279. Grader, supra note 221.
280. Carr & Schieber, supra note 9, at 75.
281. Id.
283. Carr & Schieber, supra note 9, at 75.
284. Id.
285. Grader, supra note 221.
4. Calls for FAO to Intervene in Eco-Labeling

During the 2003 session of the FAO International Committee on Fisheries (COFI), a number of countries asked for the development of "voluntary, transparent and science based technical guidelines for eco-labeling schemes." Proponents of an FAO eco-labeling program cite the need for a single, consistent eco-labeling program that ensures fair treatment of all applicants and of developing countries. Whether these reasons are genuine is a subject of debate, since the major proponent of FAO labeling is the NFI. But critics say that eco-labeling guidelines developed by the FAO would, by necessity, be so weak as to qualify any fishery in compliance with national law for certification, thus making eco-labels essentially meaningless.

C. Benefits and Criticisms of Sustainable Fishery Eco-Labeling

Eco-labeling rewards responsible fishing through increased economic profit. Eco-labeling also informs consumers about fisheries products, and has the potential to cause positive environmental change. But there are also several potential problems with the use of eco-labeling in the marine fisheries context.

First, any organization that seeks to implement a product certification eco-labeling program must satisfy both industry and environmental sectors. As one commentator notes:

The MSC, for example, can only deliver its objectives if it bridges the gap between commerce and conservationists. This can be an uneasy position between the two, since for every conservationist who expresses caution about the organization's links with industry, there is a company who is reluctant to take part because of the MSC's green credentials. . . .

288. Grader, supra note 221.
289. Id.
290. FAO TECHNICAL PAPER 422, supra note 11, at 4.2.
Squaring this type of circle requires vision, thoughtful planning, diplomatic implementation and prompt evaluation of the results.\textsuperscript{291}

There are those who question whether the substantial disparity between the goals of corporate and environmental constituencies can ever be resolved by consensus and implemented through a market-based approach.

Second, under current international trade law, voluntary eco-labeling programs are not subject to GATT because of their small volume, but could conceivably become subject to GATT if sales volume increases substantially.\textsuperscript{292}

Finally, eco-labeling is still in its infancy; it is uncertain how effective eco-labeling will be and what changes will be needed to make programs more effective. The future of eco-labeling and the components of eco-labeling programs provide wide room for debate among factions.

CONCLUSION

The world's fisheries are in need of better management to combat overfishing and remedy fishery depletion. Eco-labeling is a market-based mechanism that may be used to supplement international legal efforts and those seeking to institute sustainable fisheries practices. Eco-labeling informs consumers of the environmental impacts of their product choices, allowing them to make choices indicative of their environmental preferences. If sales indicate sufficient demand, producers may seek to modify their products and their production practices to increase their environmental performance to attract "green" consumers. Product certification programs ensure the credibility of eco-labeling claims through examination of the product and production methods, and a comparison with pre-determined environmental standards.

The application of eco-labeling in the marine fisheries context is gaining increasing support from producers, national and international governmental entities, and from non-governmental and consumer organizations. The MSC's certification program is currently the most prevalent and well-established marine fisheries eco-labeling program. The MSC program uses independent third-party certifiers to determine whether fisheries meet the requirements of the Principles and Criteria (based on the FAO Code of

\textsuperscript{291} Harris & May, supra note 22. "The MSC has won the support of every sector with a stake in the future of seafood and is bridging this gap between environmentalists and commerce to bring about real change." \textit{Id.}

\textsuperscript{292} Victor Menotti, et al., supra note 287; \textit{see also} discussion infra Part II.F.
Conduct) or, in the case of processors, distributors, and retailers, the Chain of Custody certification requirements.

Currently, only seven fisheries have received MSC certification, but there are a number of applications pending. Products carrying the MSC label are internationally available and are carried by some supermarket chains, natural food stores, restaurants, and other outlets which have received chain of custody certification. In addition, some outlets have made a pledge to carry only MSC fish, presumably when the supply and variety of MSC seafood is expected to be sufficient to meet consumer demand. Recognition of the MSC label is currently low, but is expected to grow as more retail outlets carry the products, and as consumer awareness of sustainability issues grow. Presumably, advertising efforts will accompany the expansion of the MSC seafood availability.

Some countervailing or competing marine fisheries eco-labeling efforts—such as the RFS program—are underway and there have been calls for the FAO to develop standards or guidelines for marine fisheries eco-labeling. However, the potential for consumer confusion combined with the likelihood that the certification standards put forth by these efforts will be no stronger than those of the MSC (and may perhaps be weaker) means that these efforts are more likely to be disruptive than helpful.

Eco-labeling is still a new and relatively unproven concept. If eco-labeling schemes are to be used in the marine fisheries context, they must be given time to work. There must be time for products to achieve certification, for the label to achieve recognition, for product prices to stabilize, for consumer preference for the label to be determined, for the fisheries management programs instituted to receive the eco-label to take effect, and for fisheries populations to respond.

The MSC program is new, and it is unlikely that its effects on marine fisheries sustainability will be visible for several years, or even several decades. For this reason, it is important that patience be impressed upon consumers, producers, fishermen, industry organizations, governmental organizations, environmental groups, and other interested parties.

It is also important to remember that eco-labeling programs are based on, and in compliance with, international laws developed by experts. They are not intended to work entirely on their own, but rather to supplement law and other environmental efforts. While it is recognized that all mechanisms for environmental enforcement, including eco-labeling, contain some gaps and drawbacks, it is hoped that, by using a mix of enforcement mechanism, fisheries sustainability may be achieved and fisheries resources will be conserved for future generations.