Our Common Sea

Global Environmental Governance: The Marine Stewardship Council Story

Master’s Thesis

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Abstract

Fish. Why do fish matter? Fish are the main source of protein for three billion people on Earth (World Wildlife Fund, 2019), that is roughly 39 percent of the global population (United Nations, 2019, p. 11). Food, in particular, is essential to politics, as it literally fuels the brainpower of mankind. There is power in sustaining this essential resource for generations to come, it is a crucial aspect of the future of food. Power through Sustainability. Focusing on institutions and fishery politics, this research will try to uncover whether or not the Marine Stewardship Council (MSC), a non-state market-driven (NSMD) organization, holds power in global environmental governance by creating an effective international sustainable fishing regime.

The theories and frameworks utilized stretch across multiple disciplines, such as international relations, sociology, international political theory, economics, ecology, fisheries science, and environmental sciences. To better understand the Marine Stewardship Council this study will focus on the global political economy (GPE) and global environmental governance (GEG), international relations green theory and neoliberal theory, and Elinor Ostrom’s Institutional Analysis and Development (IAD), Social-Ecological Systems (SES), and beyond panacea frameworks. The research will try to discover if non-state market-driven governance systems, specifically the Marine Stewardship Council matter in international relations and global politics, employing achieving sustainable global environmental governance goals. Does the MSC influence civil society driven GEG by being an active, international sustainable fishing institution, or is the MSC merely the only feasible option for international fisheries governance?

Keywords: Global political economy, global environmental governance, non-state market-driven organization (NSMD), collective action, the Marine Stewardship Council (MSC), beyond panaceas, green theory, sustainability, eco-certification, ecolabelling schemes, common-pool resources, Institutional Analysis and Development (IAD), Social-Ecological Systems (SES)

Word Count: 25,293
“Little by little, bit by bit, family by family, so much good can be done on so many levels” - Elinor Ostrom
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ABSTRACT</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>GLOSSARY</strong></td>
<td>6</td>
</tr>
<tr>
<td>1. <strong>INTRODUCTION</strong></td>
<td>7</td>
</tr>
<tr>
<td>2. <strong>RESEARCH AIM</strong></td>
<td>9</td>
</tr>
<tr>
<td>RESEARCH QUESTIONS</td>
<td>9</td>
</tr>
<tr>
<td>3. <strong>LITERATURE REVIEW</strong></td>
<td>9</td>
</tr>
<tr>
<td>4. <strong>METHOD</strong></td>
<td>16</td>
</tr>
<tr>
<td>MATERIALS</td>
<td>18</td>
</tr>
<tr>
<td>LIMITATIONS</td>
<td>20</td>
</tr>
<tr>
<td>GROTIAN MOVEMENT?</td>
<td>21</td>
</tr>
<tr>
<td>5. <strong>THEORETICAL BACKBONE</strong></td>
<td>22</td>
</tr>
<tr>
<td>NEOLIBERALISM</td>
<td>22</td>
</tr>
<tr>
<td>BEYOND PANACEAS</td>
<td>23</td>
</tr>
<tr>
<td><strong>Institutional Analysis and Development (IAD)</strong></td>
<td>24</td>
</tr>
<tr>
<td>Figure 4.1 Design principles illustrated by long-enduring CPR institutions</td>
<td>26</td>
</tr>
<tr>
<td><strong>Social-Ecological Systems (SES)</strong></td>
<td>27</td>
</tr>
<tr>
<td>Figure 4.2. The core subsystems in a framework for analyzing social-ecological systems</td>
<td>27</td>
</tr>
<tr>
<td>Table 5.3. First &amp; second-tier variables of a social-ecological system.</td>
<td>28</td>
</tr>
<tr>
<td>Roving Bandits and Harbor Gangs</td>
<td>29</td>
</tr>
<tr>
<td><strong>Beyond Panaceas</strong></td>
<td>30</td>
</tr>
<tr>
<td><strong>GREEN THEORY</strong></td>
<td>30</td>
</tr>
<tr>
<td>Environmentalism in Green Theory</td>
<td>31</td>
</tr>
<tr>
<td>Ecologism in Green Theory</td>
<td>32</td>
</tr>
<tr>
<td><strong>SUMMARY OF THEORETICAL OVERVIEW</strong></td>
<td>33</td>
</tr>
<tr>
<td>6. <strong>GLOBAL ENVIRONMENTAL GOVERNANCE IN FISHERIES</strong></td>
<td>34</td>
</tr>
<tr>
<td><strong>INSTITUTIONAL FRAMEWORK</strong></td>
<td>34</td>
</tr>
<tr>
<td>United Nations Food and Agriculture Organization (FAO)</td>
<td>35</td>
</tr>
<tr>
<td>The Global Benchmark Tool &amp; GSSI</td>
<td>36</td>
</tr>
<tr>
<td>Sustainable Development Goal 14</td>
<td>37</td>
</tr>
<tr>
<td><strong>COMMON FISHERY ORGANIZATIONAL MODELS</strong></td>
<td>38</td>
</tr>
<tr>
<td>Individual Transferable Quotas (ITQs)</td>
<td>38</td>
</tr>
<tr>
<td>Marine Protected Areas (MPAs)</td>
<td>38</td>
</tr>
<tr>
<td>Community Based Management (CBM)</td>
<td>39</td>
</tr>
<tr>
<td>7. <strong>THE MARINE STEWARDSHIP COUNCIL</strong></td>
<td>40</td>
</tr>
<tr>
<td><strong>THE MSC FISHERIES STANDARD</strong></td>
<td>42</td>
</tr>
<tr>
<td><strong>THE MSC CHAIN-OF-CUSTODY STANDARD</strong></td>
<td>42</td>
</tr>
<tr>
<td><strong>THE MSC GOVERNANCE</strong></td>
<td>43</td>
</tr>
<tr>
<td><strong>THE MSC BOARD OF TRUSTEES</strong></td>
<td>44</td>
</tr>
<tr>
<td>Main Activities</td>
<td>44</td>
</tr>
<tr>
<td>Leadership</td>
<td>45</td>
</tr>
<tr>
<td>Appointments</td>
<td>45</td>
</tr>
<tr>
<td><strong>THE MSC TECHNICAL ADVISORY BOARD</strong></td>
<td>45</td>
</tr>
<tr>
<td>Main Activities</td>
<td>45</td>
</tr>
<tr>
<td>Leadership</td>
<td>46</td>
</tr>
<tr>
<td>Appointments</td>
<td>46</td>
</tr>
<tr>
<td><strong>THE MSC STAKEHOLDER ADVISORY COUNCIL</strong></td>
<td>46</td>
</tr>
<tr>
<td>Main Activities</td>
<td>46</td>
</tr>
<tr>
<td>Leadership</td>
<td>47</td>
</tr>
</tbody>
</table>
Appointments 47
THE MSC INTERNATIONAL BOARD 47
THE MSC GLOBAL ACCESSIBILITY PROGRAM 48
THE MSC, COMPARATIVELY 48
Best Aquaculture Practices 48
Iceland Responsible Fisheries Management Certification (IRFM) 49
Friend of the Sea 49
Figure 7.1 – World Sustainability Organization S.r.l. structure for FOS 50
MSC MONITORING AND EVALUATION (M&E) 50
Environmental Indicators 51
Program Indicators 51

8. ANALYSIS 52
Figure 8.1 - Key sustainability benchmarks (general scorecard) 53
Figure 8.2 – Average principle scores of MSC fisheries 54
Figure 8.3 – Governance and policy 58
Figure 8.4 – Program uptake in fisheries from developing countries 59
Figure 8.5 – Objections 60
Figure 8.6 – MSC ecolabelled products in the market 61
Figure 8.7 – Consumer recognition and recall of the MSC ecolabel 63
Figure 8.8 – Consumer purchasing of MSC ecolabeled products 64
Figure 8.9 – Proportion of large marine ecosystems (LME) catch that is MSC certified, 2006 - 2016 66
Figure 8.10- Improvements and Actions 67
Figure 8.11 – Number of fisheries in the MSC program as of December 31, 2016 68

RESEARCH QUESTIONS REFRESH 68

FURTHER THEORETICAL ANALYSIS 70
Overarching Neoliberalism 70
Institutional Analysis and Development Framework: MSC 70
Design principles illustrated by long-enduring CPR institutions and the MSC 71
Social-Ecological Systems Framework: MSC 74
Social-Ecological Systems and the MSC 74
Beyond Panaceas: MSC 77
MORE BLUE THAN ‘GREEN’ 78
Environmentalist Position 80
Ecologist Position 80

9. CONCLUSION 80

REFERENCES 83
Glossary

CAB Conformity Assessment Bodies
CBD Convention on Biological Diversity
CCRF Code of Conduct for Responsible Fisheries
CPR Common-pool resource
NSMD Non-state market-driven
FAO / UNFAO Food and Agriculture Organization of the United Nations
FMS Fisheries Management System
GEG Global environmental governance
GSSI Global Sustainable Seafood Initiative
IAD Institutional Analysis and Development
INGO International nongovernmental organizations
IMNC International multinational corporations
IPE International political economy
ISEAL International Social and Environmental Accreditation and Labelling
ISO International Organization for Standardization
ISSF International Seafood Sustainability Initiative
M&E MSC Monitoring and Evaluation
MSC Marine Stewardship Council
MSCI Marine Stewardship Council International
RBF Marine Stewardship Council Risk Based Framework
RFMO regional fisheries management organizations
SDG14 United Nations Sustainable Development Goal 14
SES Social-Ecological Systems
STAC MSC Stakeholder Advisory Council
TAB MSC Technical Advisory Board
WSO World Sustainability Organization
1. Introduction

And then, as never on land, he knows the truth that his world is a water world, a planet dominated by its covering mantle of ocean, in which the continents are but transient intrusions of land above the surface of the all encircling sea (Carson, 1951, p. 14).

Imagine a sunny summer day...the saltwater breeze brushing by, slurping down a salty, succulent oyster fresh from the shell with a sweaty glass of crisp Virginia Chardonnay. Looking out at the inlet, a shallow arm reaching out from the Chesapeake Bay, beneath the shimmering, glassy surface lies a vast network meticulously maintained reefs of oyster beds and marine ecosystems. The wine can be traced to local Albemarle grapes by year, just as the oysters are marketed on the menu to be traced back to the Lynnhaven Inlet, the same body of water with the restaurant shares the panoramic views. However, this is a rare and somewhat unique situation in which one can consume an oyster, and then chuck the shucked shell over the railing right back to where it came from, recycling the oyster skeleton to help rebuild the existing oyster reef. Many consumers are unaware of where their seafood is coming from. Until now global society has been able to eat the oceans with impunity, but now humanity runs the risk of exhaustively eating the oceans until there is nothing left but the "not-so-apocryphal jellyfish-and-chips" (Probyn, 2016, p. 2). While some local Virginia Beach restaurants have partnered with local scientific organizations to provide the end-user with sustainable, local oysters, the vast majority of fish consumed on the global scale is not within this institutional closed-loop cycle.

The global politics of fishing, in the absence of formal world government, is governed by a murky amalgam of local fishing communities, sovereign states, international nongovernmental organizations (INGOs), international multinational corporations (IMNC), non-state market-driven (NSMD) certification regimes, and illicit actors capitalizing on the ethereal setting of the high seas. The tides of sustainable seafood, and furthermore, the global environmental governance (GEG) of regulating fisheries are ebbing away from state control towards international non-state market-driven administrations in which consumers decide the fate of our common seas with their mighty fork.

The global seafood market operates with status-quo because of global governance. It is the sum of laws, norms, policies, and institutions that define, constitute, and mediate relations between
citizens, societies, markets, and states in the international system – the employers and articles of the exercise of international public power (Weiss & Thakur, 2010, p. 27). Rosenau (1992) has defined global governance as regulation and interdependent relations in the absence of overarching political administration, or "governance without government" (Rosenau, 1992, p.10), indicating a shift from statism to integration. Global environmental governance is a way of guiding society to a socially collected desirable outcome, for example, avoiding Garrett Hardin's Tragedy of the Commons (Hardin, 1968). Avoiding a collapse in global fisheries is of utter importance, as worldwide, approximately a billion people rely on fish as their main source of animal proteins (WHO, 2019). Moreover, the annual growth rate of food fish consumption has surpassed that of meat consumption from all terrestrial animals combined (FAO, 2018).

The specific case analyzed in this research is The Marine Stewardship Council (MSC), a non-state market-driven governance (NSMD) system for global fisheries, and one of the biggest names in ocean and fish sustainability (Probyn, 2016, p. 28). In Europe, consumers are making policy and governance calls with their forks, as supermarket chains are demanding sustainable-labeled products (Zwerdling & Williams, 2013).

Global environmental governance systems filter through many different lenses. The first theoretical approach employed in this research is neoliberal theory, and it falls into the liberal theory of international relations. Secondly, the case study will explore how and if the MSC is moving beyond simple fix-all solutions, such as current panaceas in global fisheries. Specifically, Elinor Ostrom's research on global commons and their institutions, looking beyond market failure and government regulation will serve as a backdrop for the MSC case study. Outside of the realm of traditional theory, the critical green theory has developed outside of international relations similar to the way feminist theory evolved in the periphery of traditional rational theories. Utilizing theoretical perspectives that focus on the socially-determined preferences of a state, and focusing in on the role and functions of MSC should allow for a better understanding of the global governance phenomenon occurring in international fisheries, and on the larger scale international global environmental governance. Is the Marine Stewardship Council a productive contributor to sustainable global environmental governance?
2. Research Aim

The aim of this project is to utilize a specific organization, the Marine Stewardship Council, as a case study in which to operationalize theory and practical frameworks to better understand how non-state market driven governance systems, specifically the MSC, function and operate within global environmental governance. More specifically, the research intends to discover whether the MSC matters in global environmental governance, with broad emphasis on whether the MSC functions as a suitable alternative to international regulation and state regulation.

So how can the ecolabel affect global environmental governance in a way that is different than the traditional solely market, or solely private institution? Can a Grotian inspired experience be occurring amongst civil society with the power of a sustainable future surpassing individual rational ideology to act in their own self-interest? While this question cannot be answered within this specific one organization case study, it is interesting to ponder and add a point of overall reflection to the research.

Research Questions

RQ1: How do non-state market-driven (NSMD) governance systems, specifically the MSC, gain rule-making authority and legitimacy?

RQ1.1: What policy functions does the MSC establish that help shape the contours of global environmental governance (GEG)? What challenges does the MSC face?

RQ2: How can theory (neoliberal theory, beyond panaceas, and green theory) offer insight into how the MSC implements policy and thus shapes the delineations of global environmental governance.

3. Literature Review

We study world politics not because it is easily amenable to scientific investigation, but because human welfare, the fate of our species, and the future of the fragile global ecology itself depend on the ability of human beings to cope
successfully with economic interdependence, nuclear weapons and the world environment (Keohane, 1989, p. 21).

Global environmental governance is an emerging field gaining much attention at the international level within the conversation of global governance and global political economy. The vastness of research on global governance proves that any research done will simply scratch the surface of the overall phenomenon. There are numerous theories associated with the topic of global governance, with the most common being the classical schools of thought, such as realism and liberalism. The theories presented in this research, liberal theory offers a liberal view of the Marine Stewardship Council, while a critical normative view is seen through green theory. Elinor Ostrom provides the political economist’s comprehensive take on the commons, which unsurprisingly is highly pragmatic and mechanical in design. The topic of GEG is relevant to IPE, with constructivist roots. The theories of global order are now less centered around talks of law and more of ‘governance’, governance is the management of global policies in the lack of a central world government (Nardin, 2013, p. 312). Attempts to govern the global commons, such as the high seas, have been futile and ineffective, leaving a gaping hole for global environmental governance to reign.

Neoclassical economists tend to take the position that environmental capital can decline as long as it is replaced with an alternative form of capital (i.e., replacing coal with solar energy) (Speth & Haas, 2013, p. 5). Within each theory there exist numerous approaches, which will be discussed in detail within the theoretical framework. GEG has been described and explained in detail within the book by (Speth & Haas, 2013). Haas and Speth define global environmental governance as the intersection of global governance and environmental affairs (2013, p. 3), placing the importance on the notion of global commons.

The earliest accounts of the global political character of the environmental problems have been comprehended as problems of collective action and of problems of security, reasonably the ‘founding metaphor’ for both of these is Garrett Hardin’s ‘Tragedy of the Commons’. Hardin’s (1968) article in Science suggests that there is a model-type village commons (fixed amount of land), open to all the herders from the village to for their cattle to graze freely. The land can only support a fixed number of cattle; the farmers have profit incentive to add another cow, and there is no legal indemnity for over-grazing the commons (Nardin, 2013, p. 268).
“Therein is the tragedy. Each man is locked into a system that compels him to increase his herd without limit – in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons” (Hardin, 1968, p. 1244).

A decade before Hardin’s article in Science (1968), H. Scott Gordon (1954) formulated a similar dynamic as Hardin:

“There appears then, to be some truth in the conservative dictum that everybody’s property is nobody’s property. Wealth that is free for all is valued by no one because he who is foolhardy enough to wait for its proper time of use will only find that it has been taken by another…. The fish in the sea are valueless to the fisherman, because there is no assurance that they will be there for him tomorrow if they are left behind today” (Gordon, 1954, p. 124).

Long before Hardin (1968) and Gordon (1954), Greek philosopher and father of western philosophy, Aristotle concluded that:

“what is common to the greatest number has the least care bestowed upon it. Men pay most attention to what is their own; they care less for what is common, or at any rate, they care for it only to the extent which each is individually concerned. Even when there is no other cause for inattention, men are more prone to neglect their duty when they think that another is attending to it” (Aristotle, 1948, p. 1261b).

Hardin’s solution to this shared problem was to either privatize the commons, selling it to individuals with their own interests to protect the property. The second option was to hand the commons over to the government who could then protect the environment by policing its use. Currently, there is an amalgam of policing the common pool resource of the ocean’s fish. The goal has to not just make common pool resources collectively fair and equal but to also ensure the sustainability of the fisheries themselves.

The roots of sustainability run deep, first coded in legal Roman law under the ecological usufruct principle.Usufruct is the “right to use property which is owned by others, as long as we leave it in just as good a condition as we found it” (Wall, 2017, p. 109). Global environmental governance’s relationship with sustainability can be traced back to the 1987

Both definitions of sustainability put emphasis on the future generations’ ability to enjoy a world with clean air and water, and oceans lush with sustainable seafood protein. Murray Gell-Mann, a Nobel Prize-winning physicist, defined sustainability as “living on nature’s income rather than its capital” (Gilman, et al., 2011, p. 189). Therefore, as a planet if society is consuming the world’s fish capital, as overfishing suggests that society is, everything society uses that is derived from fish is undervalued (2011, p. 189). To properly value fish resources would be too expensive, and consumers do not demand this of producers. An effort to accommodate stewardship of the environment also dates back to the 1970s with efforts of collective action rooting into place in Ward and Dubos’s (1972, p. xiii) *Only One Earth: The Care and Maintenance of a Small Planet*:

Now that mankind is in the process of completing the colonization of the planet, learning to manage it intelligently is an urgent, imperative. Man must accept responsibility for the stewardship of the earth. The word *stewardship* implies, of course, management for the sake of someone else…[I]n practice [our] charge was clearly to define what should be done to maintain the earth as a place suitable for human life not only now, but also for future generations.

The economist who pioneered the use of GDP as the basis for studying national economies, Colin Clark has pointed out, “the tragedy of the commons has proved particularly difficult to counteract in the case of marine fishery resources where the establishment of individual property rights is virtually out of the question” (Clark, cited in Ostrom, 2015, p. 13). Marine fisheries are therefore fugitive resources (2015, p. 13). How can governance reconcile fugitive resources? Diversity of rights, including but not limited to, individual’s rights to use certain types of equipment, limiting the scope of the CPR at a particular time and location, or to
withdrawal simply a limited quantity of a resource unit (RU) assist in reconciliation of a fugitive
resource (2015, p. 13). Or, potentially through the establishment of international norms and
customs such as an ecolabelling system establishing just those rules and norms, taking the
environmental governance responsibility of the state and international governmental
institutions and onto the forks of consumers, a more neoliberal approach.

Another one of the fundamental challenges of ocean global environmental governance is that
the high seas are outside of any sovereign nations authority, and the international law on the
books dates to the late 1970s and early 1980s with the Law of the Sea UN Conference (The
World Commission on Environment and Development, 1987, p. 25). The negotiations of the
Law of the Sea advocated that, “Fisheries agreements should be strengthened to prevent current
overexploitation, as should conventions to control and regulate the dumping of hazardous
wastes at sea.” (1987, p. 25). The international law principle, “the common heritage of human
kind”, states that resources are owned by all nations, not one; managed multilaterally, not
unilaterally, with the benefits of that management shared by everyone (Speth & Haas, 2013, p.
7).

Within the UN the only organ that deals with fisheries is the Food and Agriculture Organization
(FAO). The FAO figures act as a cornerstone for fisheries management in member states, but
it is important to note there is currently ‘no adequate understanding of what constitutes a
baseline for fish stocks’ (Pauly, cited in Probyn, 2016, p. 9). In fact, in 2001, Pauly and his
colleague Reg Watson testified that the People’s Republic of China systematically inflated its
catch numbers, leading those involved to believe the global fishing catches were fine. As a
consequence, the UN FAO no longer includes the Chinese catch numbers because it alters the
reality so considerably. (Waston and Pauly cited in Probyn, 2016, p. 9). The soft law structure
and flimsy global environmental governance of global fisheries have provided a unique
opportunity for sustainable private non-state market-driven fishery certification schemes, such
as the Marine Stewardship Council. It can be noted, however, institutions are ‘rarely either
private or public – “the market” or “the state”’ (Ostrom, 2015, p. 14). The successful CPR
regimes are rich mixtures of “private-like” and “public-like” institutions challenging the

The preliminary goal of sustainability certification, or ecolabelling, was to provide market-
based incentives for producers to employ in conscientious fishing or aquaculture practices in
order to obtain preferential access to the market and, in some cases, a lucrative price. Since the inception of the first scheme in 1999, the number of voluntary ecolabelling certification schemes has risen significantly, providing the principal sustainability and environmental concerns of consumers, major producers, and retailers of fish and fish products (FAO, 2018, p. 151). At the start, the schemes intended to represent internationally agreed fishery management norms, but they in reality developed different standards and assessment methodologies. As a result, UN Member Countries requested that the FAO develop relevant guidelines for ecolabelling. Between 2005 and 2011, the FAO published guidelines for certification schemes that closely aligned to the Code of Conduct for Responsible Fisheries (CCRF) (FAO, 2018, p. 152). The proliferation of sustainable certification schemes has led to an increase in confusion not only for consumers, but for producers and retailers. As the various schemes offer different extents of compliance with international reference documents, most importers and retailers are not in a position to assess the criteria, benefits, and equivalence of schemes. As a result, the FAO supported the development of a collective benchmark for fishery certification schemes. The Global Benchmark Tool, developed by the Global Sustainable Seafood Initiative (GSSI) with FAO technical support, includes requirements that certification schemes need to meet in order to prove they are based on the guiding regulatory principles and requirements of the main FAO mechanisms dealing with sustainability in fisheries (FAO, 2018). Institutions that are certified by this benchmark are analyzed comparatively to the MSC in part 4.2.

In regard to fishery biodiversity, the UN in 1992 adopted the Convention on Biological Diversity (CBD), which focuses on policies and actions for conserving threatened species and vulnerable habitats. Several regional fisheries management organizations (RFMOs) and national fishery authorities have updated their management instruments or replaced them with new ones incorporating increasingly preemptive management rules for species and habitats of particular conservation concern. RFMOs and national fishery authorities are increasingly working in close collaboration with environmental sector interests. The Sustainable Ocean Initiative, as an example, aims to ensure the convergence of actions by regional seas organizations and RFMOs by allowing partnerships to link various initiatives (FAO, 2018, p. 78).

Similar to how the theoretical approaches employed within the thesis emphasize the importance of interdisciplinary design, the design and implementation of voluntary environmental standards require collaboration among multiple, divergent actors. Voluntary environmental
standards often fill governance voids in the existence of weak governments in the country of production and transnational supply chains, both of which corrode the capacity to effectuate strict legislation (Baron & Lyon, 2012; Bartley, 2007; Kaufmann, Kraay, & Mastruzzi, 2007; Yaziji & Doh, 2009, cited in Wijen & Chiroleu-Assouline, 2019, p. 2).

One of the budding international institutions to help establish the playing field of NSMD eco-certification schemes was the International Organization for Standardization (ISO). In 1996, the International Organization for Standardization launched an ISO 14000 series, which provides a family of voluntary standards for environmental audits, performance evaluations, product life cycle assessment, and product labeling (Speth & Haas, 2013, p. 122). The ISO14001 went under revision in 2004, and subsequently published the current revision of ISO 14001 in September 2015 (American Society for Quality, 2019). These panoptic, omnipresent standards and practices can be applied to any organization, regardless of industry, location, or size. The most frequently used standard of the ISO 14000 family is the ISO 14001:2015 which encompasses the following standards:

- ISO 14015:2001 - Environmental Management - Environmental Assessment of Sites and Organizations (EASO)
- ISO 14020:2000 - Environmental Labels and Declarations - General Principles
- ISO 14050:2009 - Environmental Management - Vocabulary

(American Society for Quality, 2019)

The ISO was one of the nascent organizations that set the stage for ecolabelling to become popular and recognizable amongst consumers and within global environmental governance.
Where possible, definitions and concepts utilized by the Marine Stewardship Council are taken from or based on definitions from The International Organization for Standardization (ISO). Each of the ISO standards listed above relates to a specific aspect of the MSC, as the MSC was founded off their guidelines. When examining the MSC it is important to reflect on what management systems it was based off of, to understand better why the organizations motivations and methods were developed. Without the ISO set of rules and definitions, the MSC may not have had such precise language and successful organization, without the ISO standard, the MSC and other NSMD organizations may have never been successfully introduced to GEG. The MSC also utilizes the glossary of the Fisheries and Aquaculture Department of the Food and Agricultural Organization of the United Nations (FAO) and ISEAL Alliance’s Code of Good Practice for Setting Social and Environmental Standards – Implementation Manual. All of which have profound influence on global environmental governance, with ISO and ISEAL being particularly important for NSMD ecolabelling governance (Marine Stewardship Council, 2019).

4. Method

The Marine Stewardship Council (MSC) will be analyzed in a cross-discipline case study analysis concentrating on how the theoretical lenses and models can offer not only insight into the phenomenon of global environmental governance but specific certification schemes with the case being the MSC. The study will be cross-disciplined in that it involves theories from both international relations (neoliberal and green theory), as well as Elinor Ostrom’s theories that fall more in line within the general study of economics. By bridging together multiple disciplines, it is expected that a more complete overview of the organization can be developed. If the case study was strictly within IR theory, there would not be the chance to understand the vital economic side of the MSC aside from its neoliberal facets.

In regard to external validity, the Marine Stewardship Council was selected as the critical organization of study for this critical case study on the basis that it is one of the original, most well-known, and most comprehensive organization that is found within global environmental governance of the world’s fisheries. Well-developed theories such as neoliberalism, beyond panaceas, and green theory will allow for a better understanding of the organization. The MSC has name recognition, as well as numerous points of discovery, whether it be the economic
takes on the organization, or the specifically ecological viewpoints. Currently, there are studies on the MSC as a specific case, as well as public discourse through news and online sources. The case of the MSC was chosen under the motivation of the researchers love for seafood and the oceans. Additional motivation for choosing the Marine Stewardship Council as the thesis subject came from MSC being brought up as a stimulating point of analysis within the Linköping University’s Master’s of International and European Relations course taught by Professor Lindberg: International Law and European Law (Course 733A44). The case study is also intended to be a representative or typical case, with the objection to ‘capture the circumstances and conditions of an everyday situation’ (Yin 2009 cited in Bryman, 2016, pg. 62) (i.e., civil society wanting sustainable fish). Exemplifying case studies allow for the examination of key social processes (2016, pg. 62).

Utilizing the MSC as "the case as an object of interest in its own right," (Bryman, 2016, p. 61), will allow for an incredibly vast area of ocean, and the political and scientific data associated with being squeezed through the theoretical pipelines. Utilizing the MSC as the critical organization of a case study allows for the thesis to construct a model that can exemplify how the MSC falls into place within global environmental governance. The functions of the Council will be examined through the lenses of neoliberal theory, green theory, and Elinor Ostrom's Institutional Analysis and Development (IAD) theory, Social Ecological Systems (SES) theory, and her beyond panaceas approach. The study is both idiographic in that it intends to explore the unique features of the Marine Stewardship Council as an organization, as well as being nomothetic in that the statements generated apply regardless of time and place (Bryman, 2016, pg. 61).

The secondary analysis includes existing qualitative discourse on the topic via articles and news sources discussing the MSC, as well as quantitative analysis of data provided by the MSC’s CABs, in this case Truven Analytics as explained further in the materials section. Herein lies a limitation in itself, as the MSC, although a dynamic multi cross-structured organization, with a two-part multi-tiered second party analysis, inspection, authentication, maintenance, and compliance, still is the primary source of the thesis specific qualitative and quantitative data. There may be inherent bias within the data on behalf of favoring the MSC in a positive light. ‘Given the time and cost of most social research, secondary analysis is a sensible thing to do,’
The thesis structure will be (1) a general introduction to the concept of global governance and global environmental governance, (2) constructing a proper understanding of the organs and structure of the Marine Stewardship Council and the surrounding fisheries certification atmosphere, and finally, (3) analyzing through models and liberal and critical lenses the individual functions through which the Marine Stewardship Council gains relevance and legitimacy in creating measurable solutions and progress in global sustainable fishery politics. By analyzing the multiple functions and impacts of the Marine Stewardship Council on global environmental governance, there will hopefully be a broadening of theoretical understanding of global environmental governance as a whole.

Further, the thesis will argue off the defense of other scholars that a shift from state-centered international environmental governance to civil society via non-state market-driven governance systems is in motion. Elinor Ostrom points to this time in history as indeed a Grotian moment (1998, p. xiii), a paradigm-shifting development where the products consumers choose to put in their market baskets drive an increasingly complex set of production activities that impact the environment (1998, p. xiv). Finally, the research will try to discover if non-state market-driven governance systems, specifically the MSC, matter in international relations and global politics, employing achieving sustainable global environmental governance goals.

Materials

Previous case study analysis specific to the MSC has been explored across several disciplines including: global political economy (Constance & Bonanno, 2000) (Garcia and Newton, 1997), the NGO perspective in Terms for Endearment: Business, NGOs and Sustainable Development (Fowler & Heap, 2000), environmental governance (Wijen & Chiroleu-Assouline, 2019), and global governance (Busch and Benton, 2004). Pattberg (2005) highlights the neoliberal and regime aspect of private rule-making, as well as suggesting further exploration into normative theories and critical theories such as green theory and politics (Eckersley, 2013) (Paterson, 2013). Works by Eckersley (2013) and other green scholars will be used to fully understand the problem and phenomenon of global environmental governance in marine fisheries. Wijen and Chiroleu-Assouline (2019) analyze the MSC through economic and sociological points, with specific emphasis on the cross-discipline nature of global environmental governance and more explicitly, the world’s marine fauna. Wijen and Chiroleu-Assouline’s (2019) work pulls from the exhaustive research on governing the commons by Elinor Ostrom (2015) (2012).

In regard to quantitative data, a meta-analysis of existing polling and statistics will be provided by Truven Health Analytics (IBM Watson Health Company that provides healthcare data and analytics services) at the commission of the Marine Stewardship Council. There will be thoughtful dissection and analysis of the MSC’s first formal monitoring and evaluation (M&E) report, the Global Impact Report of 2013, as well as the subsequent yearly reports. The MSC Consumer survey 2016 summary (MSC, 2016), MSC Strategic Plan summary 2017-2020 (MSC, 2017), MSC Annual Report 2015-16 (MSC, 2016), 2016-17 (MSC, 2017), and 2017-2018 (MSC, 2019) will all contribute pertinent data and figures. Pertinent data and information on the MSC will be cross-analyzed against neoliberalism, Ostrom’s IAD and SES framework, and green theory.

The quantitative data selected and listed above is intended to shed light on how the MSC is impacting global environmental governance, each graph and data set was selected with the purpose of being able to provide a clearer picture of the MSC’s contributions to GEG under the lenses of the theories provided. The secondary analysis implies that the research will take the analysis in the form of graphs, tables, and figures of the data provided by Truven Health Analytics and take a second look and analyze the data in regard to the theories. The primary analysis of the information in the Analysis section can be found in the original reports listed in the previous paragraph. The secondary analysis is done by the researcher and specific to this project. The quantitative data that is analyzed was chosen on the basis that it offers a relatively broad timeline of the MSC as an organization (most of the statistics used span a time period from which the MSC was implemented in 2000 up until 2007). This method is a best choice scenario being that the data is already gathered, coded, presented, and analyze by the MSC –
leaving opportunity for a researcher to come and do secondary-analysis of the data already existing. The method saves time and resources.

**Limitations**

One of the significant limitations of this thesis will be the efforts to prohibit unbiased factually correct information, in that the case study itself (the Marine Stewardship Council) mainly provides the source of the quantitative material. The Marine Stewardship Council is the one directly responsible for much of the quantitative data, as well as qualitative data observed, although the raw statistics are collected and coded by independent Conformity Assessment Bodies (CABs). In order to provide a balanced account of the MSC’s story and how it relates to civil society and global environmental governance, included are other sources that criticize the MSC organization. Due to the nature of the topic, some of the critical responses to the MSC originate from news media sources, environmental INGOs, and peer-reviewed articles from environmental science disciplines.

Word count may prove to be a limitation, because of the thesis's employment of three different theoretical aspects, to fully develop each theory and expand upon their relevance to the MSC would require copious amounts of words. However, it is important to include all three theoretical aspects, as each of them offer insight into how the MSC is shaping the contours of GEG. Time will also be another constraint, one semester is nowhere near the number of hours necessary to devote proper dedication of resources, capital, and intellectual, to achieving the lofty research question goals presented in this thesis topic and the accompanying theories. Global governance is a broad, vast, global topic, with copious different channels and tunnels to go down. Each channel and division has an abundance of discourse. As a university Master's thesis, the lack of grant access and funding will prove challenging for obtaining sources and or more costly projects involving human capital and data collection means.

The lack of teamwork involved in undertaking this project presents a unique limitation. Elinor Ostrom believed teamwork was mostly more efficient than individual work in creating knowledge, which also stems from her interdisciplinary enthusiasm (Wall, 2017, p. 10). Given the context of this report, multiple authors would have allowed for
more comprehensive, less biased reporting. By having more brains working towards the common goal of answering the research questions, a more thorough analysis could be completed. Specifically, if there could have been an opportunity to cross-analyze the MSC as a case study with the help of fishery scientists, marine ecologist, and environmental scientists, more fruitfully academic reporting could have been carried out. Degnbol (et al., 2006, pg. 534) points out that fishery management incorporates a wide array of concerns, specifically the economic, biological, social and cultural aspects of fisheries.

Additionally, when using cross-discipline data and meta-data to study institutions, there is an issue of language and understanding. Institutions are 'fundamentally shared concepts; they exist in the minds of the participants and sometimes are shared as implicit knowledge…" (Ostrom, 2010) Economist, political scientists, international relations scholars, and fishery scientists all learn separate technical languages within their own disciplines. Meaningful communication bridging multiple subjects is difficult, but not impossible. Ostrom's generalized Beyond Panaceas framework attempts to overcome this limitation by offering a general, broad-spectrum of analysis with different types of variables to analyze all types of institutions across multiple disciplines.

Finally, and perhaps the most important limitation, is that case studies are inherently limited, no one study can be representative so that it might yield findings that can be applied more generally (Bryman, 2016, pg. 62). The Marine Stewardship Council is merely a minor portion of the global governance puzzle; however the case study is determined to at least provide insight into the organization and how it relates back to the theoretical framework and global environmental governance as a whole.

Grotian movement?

Recent tendencies in rule-making by private multi-stakeholder agendas and NSMD initiatives suggest a phenomenon arising in global environmental governance. By exploring just how much power and influence the MSC has institutionally in creating sustainable power, a clearer picture of a Grotian movement potentially can surface. The circumstances of global environmental governance imply that power is a connotation of sustainability. In GEG, governance power stems from the ability to produce sustainable results.
5. Theoretical Backbone

Like most of the vertebrate fish in the sea, apt research needs to have a solid theoretical backbone. In order to fully understand the Marine Stewardship Council, theory needs to be implemented and used as a backboard to bounce concepts and ideas off. The theories presented in this text will shed light on how the MSC implements policy and thus shaping the delineations of global environmental governance. The theories presented will be used as a framework for understanding the qualitative data provided by the CABs in the analysis portion of this text. A general overview of the theories used will be necessary to understand what is meant when the theories are brought up subsequently in the analysis and conclusion.

Neoliberalism

The classic liberal school of thought is important to explore, while going deeper into the core to neoliberalism. Utilizing a modern take on a classic theory, the MSC can be better understood. Neoliberals commonly extend advice on how to create and maintain incentive structures to induce inter-state cooperation (Eckersley, 2013, p. 248). Cremated with the corpse of communism was the idea that development was the responsibility of the state, an idea shared by both communists and liberals during the Cold War (Westad 2006, cited in Gilman, et al., 2011, p. 274). Emerging from this ideological collapse was the Reagan Thatcher era Washington Consensus that has led the global economy into a market-based capitalistic paradigm. Washington’s global leadership has contributed to the continued reign of unbridled capitalism. Unfortunately, with the corrosion of the state, deviant actors (in this case illegal fishing operators) emerge as opportunistic parasites who in the era of unbridled capitalist spirits tacitly reject what the liberal political economy defines a public good (2011, p. 274). The illegal fishing aspect of this case study will not be examined; however, it is important to recognize that global fish stocks are not only under threat from intensive legal fishing, but also illegal, unreported, and unregulated (IUU) fishing. In 2011, the estimates of the black market for fish ranged from 14 to 33 percent of the world’s legal catch, exact numbers are difficult to measure due to the illicit nature (World Ocean Review, 2013). The matter is of importance to the United Nations, with the new annual International Day for the Fight against Illegal, Unreported, and Unregulated Fishing on June fifth, starting in 2018. While the day of recognition is symbolic, it is merely that as of now (FAO, 2018, p. 76).
There are several reasons why the state alone cannot control and address environmental governance with unilateral actions, one of them being that sovereign state governments are going to act in their own self-interest to some extent. A government will rarely act in a manner that puts their economies and their corporations at a competitive disadvantage (Speth & Haas, 2013, p. 55). The problem of futility also presents a challenge. In many cases, the challenge of sustainability cannot be met by one country, or even a small group of countries acting alone (2013, p. 55). Why should one country act when their actions could be fruitless if only a small group of others follows suite. There exists some form of multilateral cooperation via hard and soft law, with hard laws often being formal treaties, or multilateral environmental agreements (MEA), and soft law is where a formal agreement is reached on what must be done but capturing that agreement in a non-binding text (2013, p. 55).

**Beyond Panaceas**

The world is a complex system, nothing is simple. Simple solutions for complex, multi-dimensional, international problems, such as global commons (fisheries), requires a dynamic and equally multifaceted solution. For many, going away from the market meant that governance should go to the government as the best way forward. However, it is paramount to move beyond very broad terms. In Ostrom’s view individuals construct politics rather than policy being made by just a few individuals in a privileged, evidently representative elite. She argues further that politics run through society and expand past the walls of parliaments and governments. Local councils and democracy where participation is the strongest was the mode of apparatus for developing her ideas (Wall, 2017, p. 11). The models and theories created by Elinor Ostrom reflect on the work of French liberal thinker Alexis de Tocqueville. Tocqueville toured the United States in the 1800s and remarked on American society in his august novel *Democracy in America*. His contribution highlighted the local township meetings where governance and policy was happening at the bottom. This reflected Ostrom’s ideal of participation based on associations comprised of local people rather than a head central governing body (2017, p. 11). Ostrom’s beyond panacea approach recognizes that the governance systems that have actually worked in practice fit the diversity of ecological conditions that exists in a fishery, as well as the social systems (Ostrom, 2012, p. 70). To sustain global fishery systems, it is vital to go beyond the often-suggested naive panacea. As Ostrom and Cox (2010, p. 1) so eloquently point out,
Disciplinary boundaries narrow the perspective of fisheries management, creating tunnel vision and standardized technical fixes to complex and diverse management problems…We claim that improvements in fisheries management will be realized not through the promotion of technical fixes but instead by embracing and responding to the complexity of the management problem.

Ostrom and her colleagues have examined numerous case studies of actual common-pool resource governance situations, finding that the tragedy of the commons is escapable through the development of an analytical framework for theorizing, concentrating, and resolving CPR problems uniquely. There are vast amounts of diversity out in the world’s oceans, and therefore the institutions prescribed to maintain these oceans must be equivalently diverse. Aligică and Sabetti (2014, p. 4) describe:

One of the most interesting aspects of the Ostrom’s efforts is the fact that they did not seem to be driven by a doctrinaire philosophy, a rigid code about how social and political science should be done ‘correctly’ in accordance with some philosophical or epistemological canons. They simply did it, following problems and puzzles they considered interesting or important – to know how things worked or do not work.

A vast amount of Ostrom and her husband Vincent’s work were not pragmatism disguised by a core underlying bias or assumption, their idea was pure problem solving rather than ‘fixed principle’ (Wall, 2017, p. 13).

**Institutional Analysis and Development (IAD)**

Elinor Ostrom was the first woman to receive the Nobel Peace prize in economics for her analysis of common-pool resources and designing the Institutional Analysis and Development (IAD) framework. Institutional Analysis and Development framework pulls from the classical institutional analysis of Hamilton, Madison, and Tocqueville, to the newly extended analysis by Donald Davidson, Richard Rorty, and Amarta Sen, as well as the sociological institutional analysis of Mary Brinton and Victor Nee, and Paul Di Maggio and Walter Powell (Ostrom, 2010, p. 2). The IAD framework is best described by Ostrom herself as:

A general language for analyzing and testing hypotheses about the behavior in diverse situations at multiple levels of analysis and concerns analyses of how rules, physical and material conditions, and attributes of community affect the structure of action
arenas, the incentives that individuals face, and the resulting outcomes. (Ostrom, 2010, p. 1)

Institutional analysis and development framework may help understand economic structures that promote collective ownership which is economically, ecologically, and socially beneficial (Wall, 2017, p. 109). Ostrom’s argument that a purely free-market idea that institutional development is essentially unnecessary since market forces work to promote efficiency (pure neoliberalism – Washington Consensus) can be rejected, as no one model works perfectly in all circumstances (2017, p. 110). Seeking alternatives beyond the market, Ostrom insists communities need to keep adapting and reinventing institutions (2017, p. 110).

Based on her extensive work, Ostrom offers eight guiding principles (Figure 4.1) for how commons can be governed sustainably and equitably in a community. In theory, if an institution or regime wanted to be long-enduring in handling common-pool resources, achieving sustainability in the CPR itself, they should try to follow all the prescribed design principles. It is important to understand who is who within the design principles themselves, so in order to fully understand the concept defined are resource system, resource unit, appropriation, providers, and producers:

- **Resource system** (RS) – Supply variables that are adept, under advantageous conditions, at producing a maximum capacity of a movement variable without ‘harming the stock or the resource system itself’ (Ostrom, 2015, p. 30).
- **Resource unit** (RU) – What individuals appropriate or utilize from a resource system (tons of fish)
- ** Appropriation** - The process of withdrawing resource units (tons of fish) from a resource system (the fishery)
- ** Appropriators** - Those who withdraw or appropriate resource units (tons of fish) from a resource system (the fishery) (Ostrom, 2015, p. 30).
- **Providers** - Those who arrange the provision of a CPR.
- ** Producers** - Those who actually repair, construct, or pursue actions to ensure the long-term stability and sustainability of the resource system itself. Often, producers and providers are the same individuals, but they do not have to be (Ostrom, 2015, p. 31)
1. Clearly defined boundaries  
   a. Individuals or households who have rights to withdraw resource units from the CPR must be clearly defined, as must the boundaries of the CPR itself

2. Congruence between appropriation and provision rules and local conditions  
   a. Appropriation rules restricting time, place, technology, and/or quantity of resource units are related to local conditions and to provision rules requiring labor, material, and/or money

3. Collective-choice arrangements  
   a. Most individuals affected by the operational rules can participate in modifying the operational rules

4. Monitoring  
   a. Monitors, who actively audit CPR conditions and appropriator behavior, are accountable to the appropriators or are the appropriators

5. Graduated sanctions  
   a. Appropriators who violate operational rules are likely to be assessed graduated sanctions (depending on the seriousness and context of the offense) by other appropriators, by officials accountable to these appropriators, or by both.

6. Conflict-resolution mechanisms  
   a. Appropriators and their officials have rapid access to low-cost local arenas to resolve conflicts among appropriators or between appropriators and officials

7. Minimal recognition of rights to organize  
   a. The rights of appropriators to devise their own institutions are not challenged by external governmental authorities

8. Nested enterprises  
   a. Appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are organized in multiple layers of nested enterprises

(Ostrom, 2015, p. 90)

Ostrom’s original thought and work on institutional development analysis led her to develop the IAD framework and design principles to be applied to institutions attempting to solve questions of sustainability within resource systems. One advantage of a strong institution, or eco-certification regime, is the cyclical aspect of it. For example, when multiple appropriators rely on a given resource system, improvements to the system are simultaneously available to all appropriators when they are made (Ostrom, 2015, p. 31). The more others follow rules, the more norms become institutionally established. Will an eco-certification for fish solve the
tragedy of our common ocean? It certainly is important when considering that when a CPR is a biological resource, as is an ocean fishery, encroaching on the ‘limit’ of resource units (fish) not only produces short-run crowding effects but can lead to the depletion of the RU all together.

Social-Ecological Systems (SES)

Traditional economic models presume that every human is acting in their own self-interests, thus appropriating rules and regulations must be done from the top down, from the states. However, frequently it can be determined how to sustainably manage a common-pool resource from a local community level. People are involved, people argue about it and discuss it. Imagine to New England local townships. Trust is grown amongst each other over years of local commune meetings and rule and norm establishment. Ostrom’s Social-Ecological Systems (SES) framework builds off of the IAD framework discussion, but places an importance on a more multi-tiered, holistic approach of analysis. Imagine IAD as a two-dimensional scale, and SES as a three-dimensional scale. A social-ecological system involves resource units (RU), resource systems (RS), governance systems (GS), users (U) and their interactions and outcomes. A social-ecological system is a cycle in itself, with each actor playing its own part that can then influence and decide other actors. The cycle can be better understood in Figure 4.2.2

Figure 4.2. The core subsystems in a framework for analyzing social-ecological systems
Within social-ecological systems, there are first and second-tier variables that all contribute as a piece of the puzzle. For a social-ecological system, or say a sustainable fishery governance regime to hypothetically maintain sustainable results, all or most of the variables need to be adequately satisfied. Ostrom’s SES first and second-tier variables are illustrated in Table 4.3.

**Table 5.3. First & second-tier variables of a social-ecological system.**

<table>
<thead>
<tr>
<th>First-tier variable</th>
<th>Second-tier variables</th>
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| Social, economic, and political settings (S) | S1 – Economic development  
S2 – Demographic trends  
S3 – Political stability  
S4 – Other governance systems  
S5 – Markets  
S6 – Media organizations  
S7 – Technology |
| Resource systems (RS) | RS1 – Sector (e.g., water, forests, pasture, fish)  
RS2 – Clarity of system boundaries  
RS3 – Size of resource system  
RS4 – Human-constructed facilities  
RS5 – Productivity of system  
RS6 – Equilibrium properties  
RS7 – Predictability of system dynamics  
RS8 – Storage characteristics  
RS9 – Location |
| Governance systems (GS) | GS1 – Government organizations  
GS2 – Nongovernment organizations  
GS3 – Network structure  
GS4 – Property-rights systems  
GS5 – Operational-choice rules  
GS6 – Collective-choice rules  
GS7 – Constitutional-choice rules  
GS8 – Monitoring and sanctioning rules |
| Resource units (RU) | RU1 – Resource unit mobility  
RU2 – Growth or replacement rate  
RU3 – Interaction among resource units  
RU4 – Economic value  
RU5 – Number of units  
RU6 – Distinctive characteristics  
RU7 – Spatial and temporal distribution |
| Actors (A) | A1 – Number of relevant actors  
A2 – Socioeconomic attributes  
A3 – History or past experiences  
A4 – Location |
Adapted from Ostrom (2009, p. 421)

Roving Bandits and Harbor Gangs

Unfortunately, in the global industrialized economy the global system is a breeding ground for deviant globalization, specifically the ‘roving bandits’ and ‘harbor gangs’ as Ostrom describes. Roving bandits, a term coined by Olson (Olson, cited in Ostrom, 2007, p. 15184), are fishing fleets that target valuable marine animals in coastal waters, exhaust the stocks, and then move on to exploit stocks located elsewhere (Ostrom, 2007, p. 15187). A harbor gang, on the other hand, is a congruence of resource users that are informally affiliated with each other (2007, p. 15187). Harbor gangs are fishers living in each harbor where they have a recognized, self-defined outer boundary of their territories over time. Their importance in self-organized monitoring and enforcement have repeatedly played significant roles in explaining efforts of collective action that works (Cardenas et al. cited in Ostrom, 2001, p. 15188).
Beyond Panaceas

Take all of what was said about Ostrom’s ideas, bundle it up together into a ball and then drop it from a high surface. What is left is an assortment of framework fragments that need to be recollected together from a more complete understanding of the picture, starting from the bottom most basic of understandings of a system, working its way up. That is the beyond panaceas approach. If IAD is a two-dimensional analysis of institutions and SES is the three-dimensional, then avoiding a panacea trap is accounting for the fourth-dimension\(^1\). Ostrom was critical of institutions and of her own work to the point where she realized that even with perfectly thought out theoretical designs to sustain environmental commons, there is never one panacea or framework that fits all. What works for one fishery in the North Atlantic may be disastrous for fishery policy in the Mediterranean. This exact over-simplification of fishery regulations is what led to the unsuccessful EU fisheries policy that prescribed the same solutions for the arctic Baltic as it did the warm seas of the Mediterranean. Ostrom would argue that a more comprehensive, custom framework with built in flexibility is a better solution than what seems to be the theoretical, logical framework in the lab. In reality, those contributing to global environmental governance should not write policy that is the equivalent of painting the floor with a hammer. In Ostrom and Cox’s (2010) article they argue to push beyond the IAD model and use a multi-level approach, something more closely aligned to SES. Ostrom has since moved even further beyond SES, suggesting that all of these models should be used in collaboration but never through the eyes of simply theory. This means that policy makers must be open to reality and paint the floor with a paint brush, not a hammer (Ostrom, 2009). The analysis portion of this research will combine all of Ostrom’s theories, starting with IAD moving forward to SES, and then finally the Beyond Panacea aspect.

Green Theory

Research on global environmental governance, and the particular case study of the NSMD Marine Stewardship Council would not be complete without addressing the inherently green aspects of it. Beginning from the 1960’s onward, environmental problems have been central to international relations (IR), as a result of the transboundary nature of ecological problems

\(^1\) In physics, many conclude the fourth dimension is time (Brodetsky, 1922, p. 475), in this institutional example the fourth dimension can be seen as simply an overarching wholesome look at the real picture, just as in reality one must account for time being a factor in physics.
The tragedy of the commons, the pesticides in the early 60s, the ‘population bomb’ and arguments on ‘limits of growth’ in the 70s were all catalysts in starting public recognition of the global environmental crisis (Paterson, 2013, p. 266). In the 1970s, the first United Nations conference on the subject was held, and by the 1980s green political parties and public policies emerged (Dyer, 2017, p. 85). In order to provide a balanced thematic approach, the critical normative approach of green theory of IR will be used to uncover knowledge about the MSC. Third and fourth debate theories can offer a critical, unapologetically normative view of specific ecological problems. Green theory has developed on the peripheral of classical IR theories, similarly to the way feminist theory of IR has developed in grassroots and non-traditional aspects (Eckersley, 2013, p. 248). The differing position of green IR theory from economic theories can offer an alternative analysis in the ecological arena of global fisheries and more broadly, global environmental governance. Scholars from the field of green politics and green theory can sometimes be understood as the contrast from existing liberal theoretical frameworks by challenging the state-centric framework, rationalist analysis, and the ecological blindness of orthodox theories. Green theory is drawn from neo-Marxist inspired international political economy (IPE) and normative IR theories of cosmopolitan origin (Eckersley, 2013, p. 248). Green theory offers a respite from the assumptions that the market and technological advances can fix environmental problems. Green theory offers a shift away from neoliberal thought that in turn promotes the widespread view that major corporations (neoliberal winners) are responsible. Rachel Carson’s *Silent Spring* which ultimately led to the establishment of the United States Environmental Protection Agency (EPA) to aid in counteracting negative environmental consequences of the Washington Consensus’s capitalism (Paull, 2013, p. 2). There are different levels of say radicalism for green theory, the most radical being the *ecologist* view, compared to the less radical *environmentalist* view.

**Environmentalism in Green Theory**

Environmentalism is mostly accepting of the existing framework of social, political, and economic structures of world politics and the global political economy. While there are of course established forms of critical thought, these address relations within and between human communities, rather than human relations with the nonhuman environment, e.g., liberalism highlights individual rights of choice and consumption, but is not fundamentally enamored with the environmental consequences of that consumption (Dyer, 2017, p. 84). An environmentalist
perspective, whereas recognizing environmental change as a concern, efforts to find space for the environment among our existing categories of other concerns, rather than cogitating it to be definitional or transformational (Dyer, 2017, p. 85). An environmentalist view of green theory would be more similar to say, neoliberalism and neoliberal institutionalism, which operate within existing frameworks and structures. However, part of the green playbook is to compartmentalize the role of the state away from the hands of the state to the local grassroots level, in green theory the state is ‘positively undesirable’ (Paterson, 2013, p. 282).

Ecologism in Green Theory

On the other hand, the ecological view of green theory offers a more radical, completely new framework and structure that flows against the Washington Consensus. Political ecology, stemming from the interdisciplinary science of ecology, allows an ecological perspective to enlighten political thought and theory, to allow for a political understanding of the environmental circumstances of international relations. The political-economic, neoliberal, circumstances the global system operates within depends on a development path of overconsumption of natural resources. Specially, the economic practices of production, distribution, and consumption that are intended to meet immediate human needs and desires with little focus on the ecological needs of the planet (2017, p. 85). The growth dependent global economy was and is not designed with ecological limits in mind or attaining sustainability. The ecological perspective has generally critiqued development and even apparently progressive sustainable development practices (2017, p. 85). The ecologist view is unapologetic when it suggests the global political economy needs an entire overhaul to reflect true values of resources. The well-known model of the ‘tragedy of the commons’ (Hardin, 1968), in which our short-term, individual, rational choices destroy our environmental resources, has thus been applied to the planet as a whole. It is tragic because we can see it coming, but we seem unable or unwilling to do anything about it. That inability is more than a practical problem; it is a profound theoretical challenge. Hardin pointed out that such issues cannot be solved by technical means, but require a change in human values. The commons depend on social and cultural norms that govern them (Paterson, 2013, p. 283), however these norms need to be organic, homegrown and not delivered from top down – local ecologies and people matter. Ecologists associate the commons with clear consistent arguments about the necessity to decentralize the power of the state in favor of grassroots democracy (2013, p. 284).
As a result of green theory being a grassroots theory and less centralized and mainstream, there is still debate on the formal structures of the theory, and thus the explanation of the distinguishing parts of green theory differs across scholars within the field of IR. Paterson (2013, p. 290), suggests that green theory ‘clearly has its own distinctive perspective’, and in agreeing with Mantle (Mantle cited in 2013, p. 290), argues that the nearest influences that green theory has to other international relations approaches are to feminism. Some green theorists advocate for the greening of politics, and becoming an ecological citizen (Dobson, cited in 2013, p. 285), in order to transform sovereignty away from the Hobbesian, dog-eat-dog capitalist Washington Consensus.

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<tr>
<th>Green Theory</th>
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<td>Environmentalist view</td>
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<td>• Utilize the environment sparingly, but put human needs above the needs of the environment</td>
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<tr>
<td>• Humans have the right to harvest the fish in the sea, as long as it is done so sustainably</td>
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**Summary of Theoretical Overview**

Each theoretical framework described above, neoliberalism, Ostrom’s framework of organizations, and green theory (both ecological and environmentalist view) will serve as a background against which the MSC quantitative data will be analyzed against. Neoliberal theory and green theory will be a more abstract set of generalizations in regard to the MSC. Ostrom’s IAD, SES, and beyond panacea approach will be employed practically as they are a more practical framework with specific units of measurements within the MSC. The qualitative data provided by MSC CAB’s involve a series of graphs, summaries, and factual graphics, all of which will be understood and thoughtfully examined against the previously explained theories. Hopefully, the theoretical understandings will lead to a relative understanding of why and how the Marine Stewardship Council contributes to global environmental governance.
6. Global Environmental Governance in Fisheries

Fisheries are remarkably complex. No two fisheries are strictly alike. Fish have tails; some fish migrate thousands of miles, some fish never leave their birth waters, and one of the world’s most popularly consumed fish (Trilling, 2017), the salmon, migrates each fall from the oceans to upper freshwater river reaches to spawn (Beauchamp, 2019). So how does global environmental governance shape fisheries? The answer is locally, regionally, and globally. Fishery governance is multi-scale, long-term, strategic planning as well as short-term operational management. Local fisheries are included as well as whole ecosystems. Modern fishery governance is a systemic concept relating to the economic, political, and governmental authority of fisheries. It can be characterized by guiding principle and goals (both operational and conceptual), the means and ways of organization and coordination, infrastructure of socio-political, legal institutions, and economic instruments, acts and their roles, policies and plans, and the outcomes of the policies. Fishery governance connects government with civil society, and legitimizes and balances stakeholder interaction. It also enforces decisions and regulations and maintains lucidity across multi-jurisdictional, space, and time (Food and Agriculture Organization of the United Nations, 2019). There are public, private, and hybrid components that work with each other to ensure regulation of the fisheries sector.

Institutional Framework

The sets of principle rules, conditions, agreements, processes, mechanisms, and organizations used for the management of fisheries encompass the institutional framework for fishery governance. The outcomes of fishery governance are influenced by values, ideas, beliefs, and assumptions under which the actors involved should operate. Since the latter half of the 1900s, the institutional framework of fisheries has benefited from an advantageous evolution of mentalities, expectations, and accumulation of experience (Food and Agriculture Organization of the United Nations, 2019).

Previously mentioned, the 1983 United Nations Convention on the Law of the Sea (UNCLOS), the 1995 United Nations Fish Stocks Agreement, and the 1995 FAO Code of Conduct for Responsible Fisheries all play an important part in institutionalizing sustainable fishing. There are a range of other agreements that do not directly relate to fisheries, but have a profound effect on the governance of fisheries, such as the 1992 Convention on Biological Diversity (Food and
The international set of governance for fisheries is heavily influenced by national governance of fisheries, in the form of national legislation, local regulations, as well as long-standing customary arrangements. Organizations that have been established to implement the norms of fishery standards on the global level are the UN General Assembly (UNGA), the UN Informal Consultative Process on the Law of the Sea (ICP), the International Tribunal of the Law of the Sea (ITLOS), and most importantly the Food and Agriculture Organizations (FAO) with the global mandate of fisheries policy through its Committee on Fisheries (COFI) (Food and Agriculture Organization of the United Nations, 2019).

**United Nations Food and Agriculture Organization (FAO)**

At present, the main international formal organization regulating the ocean’s fishery politics and aquaculture at the international global governance level, is the United Nations Food and Agriculture Organization, or FAO. With ecolabelling, the FAO understands the important challenges related to inclusiveness (particularly in regard to developing countries in the global south and smaller scale fishers and producers). As well as the willingness and ability of the consumer to pay more for certified products, the balancing effort of benefits and costs for certification seekers, and the most recent challenges is the expansion of eco-certification to include social standards (a dimension for which there are limited internationally agreed performance norms).

**The Committee on Fisheries (COFI)**

The Committee on Fisheries (COFI) is a subsidiary body of the United Nations FAO Council and was established by the FAO Conference at its Thirteenth Session in 1965 (COFI Secretariat, 2019). The COFI currently constitutes the only global intergovernmental forum where major international fisheries, aquaculture problems, and related issues are examined and recommendations are addressed to regional fishery bodies, NGOs, and national governments. The forum is where global agreements and non-binding instruments are negotiated. Membership is open to an FAO Member and non-Member qualified to be an observer. There is open communication from UN representatives, UN bodies and specialized agencies, regional fishery bodies, and international NGOs, such as the MSC, who is involved in the debate but do not have the right to vote. The two main functions of COFI are to review the FAO programs in
the field of fishery and aquaculture, as well as to report on international fishery and aquaculture problems. The organization supplements, rather than replaces, other organizations working in the field of fisheries and aquaculture.

The FAO continuously works with all actors involved, Member states, the private sector, NGOs, and other stakeholders to develop solutions to unique fishery problems. One solution has been the nested enterprise solution of the Global Benchmark Tool created by the Global Sustainable Seafood Initiative.

The Global Benchmark Tool & GSSI

The Global Sustainable Seafood Initiative is a public-private partnership on seafood sustainability comprised of ninety plus stakeholders industry-wide. The Initiative is governed by a Steering Board representing all aspects of the seafood value chain. One of the main institutions collaborating with the GSSI is the FAO.

The presence of multiple certification schemes not only confuses customers, it can distort trade costs (FAO, 2018). To level the playing field for all participants from consumer to producer, the Global Sustainable Seafood Initiative (GSSI), created the Global Benchmark Tool, a set of requirements that eco-certification schemes, for capture fisheries and aquaculture fisheries which they must meet in order to prove that their policies and practices are based on the founding principles and necessities of the principal FAO mechanisms dealing with the sustainability of fisheries. The GSSI Global Benchmark Tool development spanned three years, including contributions by NGOs, INGOs, MNCs, governmental and intergovernmental organizations, as well as two public consultations. A pilot test of the program was also performed during this three-year development phase. The mission of the GSSI was to set a bar that is both achievable in means and appropriate in nature (Alaska Seafood Marketing Institute, 2019).

The Global Benchmark Tool essentially operationalized the FAO Guidelines. Additionally, The Global Benchmark Tool includes markers that allow participants and stakeholders to understand the distinctions amongst the different eco-certification schemes (FAO, 2018).

As of August 2017, the Global Sustainable Seafood Initiative had successfully benchmarked three ecolabel certification schemes: Alaska Responsible Fisheries Management Certification
(RFM), Iceland Responsible Fisheries Management Certification (IRFM), and the Marine Stewardship Council (MSC). In addition to the fisheries one aquaculture eco-certification was also benchmarked: Best Aquaculture Practices Certification. The MSC eco-certification program meets all the fundamental components of the GSSI benchmark, and an additional 63 supplementary components relating to issues such as deep-sea fishing, VMEs, and data collection to establish impact (Marine Stewardship Council, 2017, p. 10). All GSSI benchmarked ecolabels are described comparatively to the MSC in section five, “The MSC, comparatively”. Other ecolabelling schemes from both sectors are in the pipeline for recognition (2018). This nested enterprise example provides insight into Ostrom’s last design principle of IAD. By layering policy and institutions within each other it provides strength and durability in the process.

Sustainable Development Goal 14

The United Nations is paying attention to the world’s oceans and recognizing its intrinsic value and significance through the Sustainable Development Goal 14 (SDG14). The goal is simple and broad:

SDG14: Conserve and sustainably use the oceans, seas, and marine resources for sustainable development.

In the most recent reporting on progress of SDG14, analyses revealed that the portion of world marine fish stocks that are within biologically sustainable levels declined from 90 percent in 1974 to just under 67 percent in 2015. At current levels of consumption and disregard for sustainability, roughly 33 percent, or one-third, of the world marine fish stocks are at biologically unstable levels (United Nations Secretary-General, 2019). Further analysis indicates that the expansion of protected areas and the existing policies and treaties that encourage sustainable ocean resource practices are still insufficient to combat the negative effects of overfishing (2019). Small-scale fisheries are present in almost every Member state and account for more than half of total production, both in terms of quantity and value. The UN has acknowledged the importance of promoting small-scale fishers’ access to service, markets, and production methods by developing institutional frameworks and targeted regulatory measures at the state level (United Nations Secretary-General, 2019, p. 11). However, as it stands, more than 20 percent of countries have a low to medium level of implementation of said
institutions, particularly South and Central Asia and Oceania (2019, p. 11). Could the MSC fill this void in state governance with their UN FAO developed sustainable ecolabel program? Potentially through the MSC Global Accessibility Program, but as seen through the criticism of the organization this may not be enough.

Common Fishery Organizational Models

Within fisheries governance, there are multiple management tools heralded by representatives of a single discipline and as fixes they generally see problems through the lens of a particular paradigm (Degnbol, et al., 2006, p. 535). This can sometimes lead to tunnel vision, or what some call painting the floor with a hammer, and what Ostrom would call a simple panacea. Hammers are effective on nails, but completely inappropriate to paint – yet both are needed to complete a house (2006, p. 535). Each management system offers weaknesses and strengths depending on which way they are examined.

Individual Transferable Quotas (ITQs)

Individual Transferable Quotas (ITQs) allocate shares of the Total Allowable Catch (TAC) amongst fishermen and women who are then allowed to buy, sell, or lease quota shares amongst themselves (Degnbol, et al., 2006, p. 538). ITQs are often promoted by economists and are derived from that specific discipline which focuses on economic efficiency (2006, p. 535). ITQs can be associated loosely with neoliberal thought. ITQs may be effective in reducing surplus capacities, but they have trouble addressing distributional equity and ecosystem protection (2006, p. 538).

Marine Protected Areas (MPAs)

Marine Protected Areas (MPAs) are protected areas of oceans, lakes, seas, and estuaries. Their functions can range from wildlife refuges to research facilities. MPAs are frequently the fishery governance choice of ecologists and biologists (Degnbol, et al., 2006, p. 535). MPAs are suitable for ecosystem protection, but offer little contribution to economic efficiency and equity (2006, p. 538). As recent as December 2018, about twenty-four million square kilometers of

2 The total allowable catch (TAC) is a catch limit set for a particular fishery, generally for a year or a fishing season.
water were covered under national jurisdiction (0-200 nautical miles from a state border), or roughly seventeen percent of national controlled waters (United Nations Secretary-General, 2019, p. 11). The international mean percentage of each marine biodiversity area that is covered by protected areas increased from 31.2 percent in 2000 to 44.7 percent in 2015 and to 45.7 percent in 2018 (United Nations Secretary-General, 2019, p. 11). This suggests that the socio-economic norms of MPAs are fairly widespread and their application and importance is being noted by the UNFAO (United Nations Secretary-General, 2019, p. 11). Non-market values, such as biodiversity and ecological value are difficult to determine, making it difficult to predict the socio-economic benefit of MPAs (Degnbol, et al., 2006).

**Community Based Management (CBM)**

Community Based Management (CBM) is a bottom up approach that aims to include local stakeholders in planning, formulating, researching, and developing fishery governance. CBM systems are favored by social anthropologists that deem them essential in the necessary empowerment of fishing people (Degnbol, et al., 2006, p. 535). CBM systems offer enhanced equity but provide little assurance that fisheries will be harvested efficiently or sustainably (2006, p. 538). However, one critique of the CBM is that communities and fisheries do not always align. For example, some communities do not have distinctive geographic boundaries and have a ‘shifting membership’ (2006, p. 40). Some communities are better equipped than others to handle their own community based systems (2006, p. 540), some have the assistance of local grants and some could have long, ancient standards of CBM that have been around for generations. Technology is not always widespread so this prescription does not always fix the sustainability problem of overfishing.

In order to combat a complex problem, with moving pieces and roving bandits, the solution must not just be a single prescription. The solution to overfishing needs to be a vast network of multiple actors across multiple sciences to create a web of solutions that together form a sustainable future for fish. To further examine the Marine Stewardship Council and how it acts in accordance to the “complex solution” and beyond panaceas approach, the organization must be understood within its setting.
7. The Marine Stewardship Council

Initiated in 1996, The Marine Stewardship Council was created as a joint effort between NGO, World Wildlife Fund (WWF), and a publicly traded multinational corporation (MNC), Unilever, a London-based MNC that consistently ranks as a global Fortune 500 company (Fortune, 2019). After years of unsuccessful “name and shame” campaigns targeting national and intergovernmental bodies to address the global fisheries crisis (Fowler & Heap, cited in Wijen & Chiroleu-Assouline, 2019, p. 4), the WWF preferred entering the corporate boardrooms to secure business support for restructuring the seafood industry’s catch practices (Yaziji & Doh, cited in Wijen & Chiroleu-Assouline, 2019, p. 4). This NSMD governance form intended to supplement and catalyze government legislation, not to replace it (Auld & Cashore cited in Wijen & Chiroleu-Assouline, 2019, p. 3). The Marine Stewardship Council’s objective was the long-term viability of fish stocks by certifying the sustainable performance of fisheries on a global scale (Gale & Haward, 2004, p. 22).
Unilever, based in London, UK, is one of the world’s largest consumer products conglomerate, controlling over twenty percent of the United States and European frozen fish markets (Mfodwo, cited in Gale & Haward, 2004, p. 22). Unilever is the largest buyer of frozen fish products in the world (Wijen & Chiroleu-Assouline, 2019, p. 3). The WWF is the world’s largest private, nonprofit conservation science-based organization that develops and implements environmental protection and resource conservation policy. Through the MSC, the WWF hopes to address declining global fish stocks and promote socio-economic incentives for sustainable fisheries (Gale & Haward, 2004, p. 22) (Wijen & Chiroleu-Assouline, 2019, p. 3). WWF was predominantly adamant on protecting biodiversity, while Unilever pushed for good governance (2019, p. 4). The global fishing sector is exceedingly dispersed, but some buyers are able to shape the market through their sheer volumes - Unilever being a potential game changer (Gulbransden, cited in Wijen & Chiroleu-Assouline, 2019, p. 3).

From the beginning, both Unilever and WWF vowed to transition the MSC within two years to an independent NGO, which happened in 1999. In order to establish credibility as a neutral standard-setting and accreditation body, as well as acceptance by Unilever’s competitors it was important to have an NGO in the equation (Wijen & Chiroleu-Assouline, 2019, p. 4). The Packard Foundation and other charities are now bankrolling the MSC, as the WWF and Unilever no longer finance the independent, nonprofit, international organization. The MSC has established an independent assessment, certification and promotion of sustainable fishing practices using a market-based eco certification approach (2004, p. 23). The MSC is the largest ecolabelling scheme for certified sustainable fisheries, with a yearly budget of roughly $20 million (US dollar (Christian, et al., 2013). Based on the FAO Code of Conduct for Responsible Fisheries, the MSC developed a standard that identifies fisheries that are fished in accordance to environmentally appropriate, socially beneficial, and economically viable practices (Marine Stewardship Council, 2002). The MSC is comprised of two types of standards, the 1998 MSC Fisheries Standard and the 2001 MSC Chain-of-Custody Standard. The requirements for the two Standards (Sustainable Fishing and Chain of Custody) are very different (MSC, 2015).
The MSC Fisheries Standard

The MSC Fisheries Standard comprises three core principles: 1) sustainable seafood stock, meaning that the current fishing activity cannot alter the fish availability of the future, 2) minimizing negative impacts on sea life, and 3) efficient management and compliance with existing predominant regulations (Gutierrez et al., 2012; Oosterveer & Spaargaren, cited in Wijen & Chiroleu-Assouline, 2019, p. 4). The sustainability aspect is intended to counter the tragedy of the sea commons, meaning that fisheries cannot catch more than the regeneration capacity of a certain species to avoid extinction (2019, p. 4). The sea life aspect counters the use of fishery practices that degrade a marine biotope or otherwise adversely affect marine biodiversity. The final component involves compliance with relevant legislation and the use of a prescribed environmental management system (EMS).

The MSC observes the most stringent international standards pertinent to certification programs, including the use of third parties to evaluate fisheries against the standard and decide whether or not to award certification. Whilst the MSC sets the standard, the assessments are done by independent, accredited Conformity Assessment Bodies (CABs). Accreditation Services International (ASI) holds CABs accountable by monitoring them (MSC, 2015). The process is exceedingly transparent to ensure impartiality and rigor by being open to the examination of any interested party. Related actors are notified of the assessment and frequently invited to provide commentary and information. The actual assessment is carried out by independent, highly-qualified scientists hired by the CAB. The suitability of the proposed scientific candidates is judged by the public and selection is not set until deemed suitable. Once a fishery is certified, they are subject to annual surveillance audits, and also required to re-assess every five years to ensure quality control.

The MSC Chain-of-Custody Standard

To complement the MSC Fisheries Standard, the MSC Chain-of-Custody Standard applies to the entire supply chain, from fisheries to processors to retailers (“from ocean to plate”) (2019, p. 4). The standard of traceability verifies that a specific product was caught and processed in accordance with MSC criteria by actors in the supply chain, and not substituted for non-MSC certified fish stock (Gale & Haward, 2004, p. 19). Fishery and processor compliance with the MSC standard is audited by independent, reputable third-party organizations. Standard assessment is performed against 28 performance indicators (from 2015 on), which are also
scored by independent and accredited third parties, the conformity assessment bodies (CABs) (Wijen & Chiroleu-Assouline, 2019, p. 4).

Integrity of the supply chain is essential to building trust amongst consumers, allowing them to know that the seafood they buy really does come from MSC certified fisheries. Random inspections of seafood products bearing the MSC ecolabel are conducted using DNA testing. In 2012, the most extensive DNA testing of MSC labelled products carried out to date was performed on 381 samples taken from retail packed products, fresh fish counters, and catering restaurants in fourteen different countries. Results showed that the mislabeling rate for MSC products was less than one percent, meaning only three mislabeled samples (MSC, 2015).

Over the fourteen years since the MSC’s inception in 1999, the number of MSC certified fisheries, products and companies has continued to grow. However, it can be noted that the MSC is no more than an impetus of this revolution. The fishers themselves, the organizations under which they operate, and their stakeholders are what makes change transpire. It is the supply chain and retailers who have made commitments to the MSC that provide the market driver that encourages fisheries to seek MSC certification (MSC, 2015).

**The MSC Governance**

The MSC is governed by a series of executive and delegated bodies presented in Figure 5.1 and then subsequently described in detail.
The MSC Board of Trustees

The MSC Board of Trustees is the governing body of the program. The Board sets the strategic direction, monitors progress, and ensures the MSC meets its objectives with advice from the Technical Advisory Board and Stakeholder Advisory Council. The Board meets four times a year and has a maximum of 15 members (MSC, 2019).

Main Activities

- Safeguarding the MSC meets its charitable goals
● Setting strategic direction
● Ensuring financial security
● Public accounting of expenditure and income
● Ensuring the organization operates in a legally compliant manner in all relevant jurisdictions
● Appointing new Board members and vital MSC staff, as well as appointing members to the Technical Advisory Board and Stakeholder Advisory Council (MSC, 2019).

Leadership
The Chair is elected for a three-year term and may serve up to three terms. Another trustee may be elected as Vice-Chair (MSC, 2019).

Appointments
Membership of the MSC consists of representatives across all sectors and geographical regions (as well as other pertinent demographic criteria) to replicate the diverse mix of stakeholders involved with the MSC. New Board member potentials are selected by existing members and after a review process the suitable individuals are approached for an interview. There must be a consensus amongst all Board members on the appointment of a new candidate. (MSC, 2019)

The MSC Technical Advisory Board
The MSC Technical Advisory Board (TAB) serves as the technical and scientific advisors to the MSC Board of Trustees. They are responsible for developing sound methodologies for certification and reviewing the progress of the fisheries certifications (MSC, 2019).

Main Activities
● Advising the MSC Board on the MSC Fisheries and Chain of Custody Standards.
● Maintaining documents relating to the Standards.
● Developing methodologies for accreditation.
● Reviewing the progress and advising fishery certifications (MSC, 2019)
Leadership
The Technical Advisory Board is appointed by the Board of Trustees. The Chair has an ex officio chair on the MSC Board of Trustees, so they can be present in all Board activities (MSC, 2019)

Appointments
Under the aim of bringing a range of experience, skills, and geographical representations the MSC Board of Trustees appoints new members to the Technical Advisory board. Members serve a 3-year term and may stand for reappointment. (MSC, 2019)

The MSC Stakeholder Advisory Council
Meeting at least once per year, the MSC Stakeholder Advisory Council (STAC) provides information to the MSC Board of Trustees and participation into the MSC’s evaluation processes. STAC includes representatives from the seafood/fishing industry, conservation community, corporate sector, and academia. STAC’s membership reflects a sundry of experiences, demographics, and interests in relation to the work of the MSC. The Stakeholder Advisory Council is also the formal channel over which all stakeholders, whether direct participants of the Stakeholder Advisory Council or not, can input their opinions to the MSC. Any formal communication sent directly to individual Stakeholder Advisory Council members or to the STAC collectively will be forwarded to MSC’s executive (currently Alene Wilton – MSC’s Chief Operating Officer) and copied to the Stakeholder Advisory Council Co-Chairs. With accordance to its public correspondence protocol, the Marine Stewardship Council will respond as appropriate. Transparency is key for legitimacy and power in sustainable NSMD regimes (MSC, 2019).

Main Activities
● Providing advice, recommendations, and conversant opinions to the MSC Board of Trustees on the MSC Fisheries and Chain of Custody Standards, their execution and function.
• Providing tactical advice on other functions of the MSC, including where applicable, commercial, development, outreach, and communications programs.
• Providing guidance and insights on existing and emergent issues which may affect the ability of the MSC to implement the program and achieve planned goals, as well as to bring to light new concerns that may affect the MSC’s ability to achieve its mission to the Board.
• Acting as the advice channel for the Board of Trustees when requested.
• Submitting the STACs views to the MSC Board of Trustees, which considers the input in decision making (MSC, 2019).

Leadership
The Stakeholder Advisory Council has two co-chairs, each serving three year terms. The terms are arranged so that the co-chairs have staggered appointments. Each co-chair serves as an ex-officio member of the MSC Board of Trustees (MSC, 2019).

Appointments
The STAC is comprised of up to seventeen members, two from the market sector, six from the conservation community, and six from the seafood industry (processing and harvesting) (MSC, 2019). The Council strives to ensure adequate representation from the developing world and small-scale fishery interests’, however the current STAC members are representatives from all developed countries and organizations (MSC, 2019).

The MSC International Board
Marine Stewardship Council International (MSCI) is a wholly owned trading subsidiary of the MSC. MSCI’s Board provides supervision of MSCI’s business and marketing undertakings. MSCI’s primary undertakings are ecolabelling licensing, supporting public education campaigns while growing awareness and understanding of sustainable seafood and the MSC ecolabel mission. Membership includes the Chair of the MSC Board of Trustees and the MSC’s Chief Executive. The Chair of the MSCI Board is an ex officio member of the Board of Trustees.
The MSC Global Accessibility Program

The MSC Global Accessibility Program was designed to help developing country fisheries to become more aware and able to implement MSC ecolabels. The MSC fisheries standard has been adjusted for some developing countries to include informal and traditional management programs. There is also a fund that was developed to help facilitate and fund developing fisheries who are making changes to become ecolabel certified.

The MSC, comparatively

Best Aquaculture Practices

Image: (Best Aquaculture Practices, 2019)

Established in 2002, the Best Aquaculture Practices (BAP) standards were developed by the Global Aquaculture Alliance to form the basis for BAP certification (Big Room Inc., 2019). The standards explicitly protect biodiversity and worker rights within a program that addresses environmental, social, food safety, and traceability issues throughout producers’ operations. The BAP eco-certification on retail packaging informs consumers that the seafood came from BAP certified aquaculture facilities. The certification is implemented through the Aquaculture Certification Council (ACC), an independent certifying agency that employs an international team of accredited evaluators to inspect facilities to the BAP standards through site inspections, sampling, and record reviews (2019). The BAP certification is currently available for shrimp farms and hatcheries and seafood processing plants (Best Aquaculture Practices, 2019).

Alaska Responsible Fisheries Management Certification (RFM)

The Alaska RFM ecolabeling program is a Global Sustainable Seafood Initiative recognized by the GSSI Steering Board similar to the MSC. Alaska RFM was the first fishery eco-certification to be approved by the GSSI board in 2016. The construction of the program is based on the
Responsible Fisheries Management (RFM) model based on the UN FAO Code and Guidelines – the highest benchmark for credible certification (Alaska Seafood Marketing Institute, 2019). The structure and organization is similar to that of the MSC, but less complex and on a smaller scale.

Iceland Responsible Fisheries Management Certification (IRFM)

The Iceland Responsible Fisheries Management Certification (IRFM) is based on the FAO Code and Guidelines, recognized by the GSSI, resulting in a model that is transparent and verifiable. The organization uses third-party certification through an organization that is accredited to the International Organization for Standardization (ISO), Global Trust Certification Ltd., an SAI GLOBAL company (IRFM, 2019). The institution prides itself on the ability to offer customers a choice in certification, and also promote a community consensus behind proper fisheries management (IRFM, 2019).

Friend of the Sea

Although not yet recognized by the Global Sustainable Seafood Initiative (GSSI) with the FAO, Friend of the Sea (FOS) has a recognizable to some name in ecolabelling that operates similarly, but more simply than the Marine Stewardship Council. Headquartered in Milan, Italy, Friend of the Sea was founded by Paolo Bray, Director of International Programs – Dolphin-Safe Project / Earth Island Institute. The Dolphin-Safe Project was responsible for saving millions of dolphins from death in tuna fishing nets, fitting right in to the narrative of sustainable seafood. Friend of the Sea is currently a project of the World Sustainability Organization (WSO), an international trademark registered with humanitarian and environmental conservation mission. The certification awards sustainable practices in fisheries, aquaculture, fishmeal, and omega 3 fish oil. Friend of the Sea also promotes pilot projects related to restaurants, sustainable shipping, whale and dolphin-watching, aquaria, ornamental fish, UV creams and others. Friend of the Sea is the only sustainable fisheries certification program recognized and supervised globally by a National Accreditation Body. The organization is one of the only seafood ecolabels that covers both farmed and fished seafood (World Sustainability Organization, 2019).
Yearly audits are carried out onsite by independent international certification bodies in consultation with stakeholders, against the exact Friend of the Sea environmental sustainability and social accountability criteria. Friend of the Sea also promotes conservation projects for protection of the ocean.

*Figure 7.1 – World Sustainability Organization S.r.l. structure for FOS*

The Board of Directors, composed of the director and the president, is the top governing body of Friend of the Sea. The Advisory Board provides the most beneficial strategies to reach Friend of the Sea project objectives to the Board of Directors, taking into account the input of the technical committee and stakeholders. The structure of the FOS is very similar to the structure of the MSC, but on a much smaller scale.

**MSC Monitoring and Evaluation (M&E)**

Formally established in 2013, the MSC monitoring and evaluation (M&E) team tracks the impacts of the program and evaluates how effectively the MSC is delivering their mission. To evaluate how well the MSC is achieving its goals, the M&E program collects empirical data, 22 specific performance indicators (PIs), that can be evaluated against the MSC’s sustainability and strategy outcome objectives. They are broken up into two categories, *environmental indicators* and *program indicators*. The 22 indicators were developed with stakeholder consultation; the indicators measure the quantity and quality of short, medium, and long-term
effects of the MSC program on certified fisheries, target resources, related ecosystems, and other areas of strategic undertakings (MSC, 2015, p. 6).

Environmental Indicators

The objective of the entire non-state market-driven fishery regime is to create a sustainable outcome for fishing people’s livelihood and the world’s craving for seafood. The environmental indicators are grouped beside the Marine Stewardship Council’s three core Principles: Principle 1: health of the target fish stock; Principle 2: impact of the fishery on the environment; and Principle 3: effective management of the fishery.

![Image](MSC, 2015, p. 10)

The environmental indicators track changes in the scores of MSC certification programs through fishery assessments, as well as continuous surveillance audits (MSC, 2015, p. 13). Positive transformations indicate the improvements in fishing practices and potentially the environmental, target species, non-target species, endangered, threatened, or protected (ETP) species, associated habitats and environment benefits. Data is compiled from third party Conformity Assessment Bodies (CABs).

Program Indicators

The Marine Stewardship Council program indicators are grouped under indispensable MSC assessment components: fisheries, chain of custody, certification process, ecolabelling, and consumer awareness. (MSC, 2015, p. 10). Each indicator relates back to the strategy outcome objectives and measure the performance, reach, and impact of the MSC program. Considered with these
indicators are the number of fisheries engaging with the Marine Stewardship Council. Additionally, it is a way to gauge how well each part of the sustainability assessment, certification process, and ecolabelling scheme as a whole are performing. Compilation of the studies relating to the empirical data is then published in the Global Impacts Report, the very first starting in 2013 promoting full transparency in leadership.

8. Analysis

In an effort to further understand the MSC and how its functions contribute to the overall picture of global environmental governance, analysis of the MSC Consumer Survey 2016 summary (MSC, 2016), MSC Strategic Plan summary 2017-2020 (MSC, 2017), MSC Annual Report 2015-16 (MSC, 2016), 2016-17 (MSC, 2017), and 2017-2018 (MSC, 2019) will be analyzed in conjunction with Ostrom’s IAD, SES, beyond panacea framework, neoliberalism, and both environmentalist and ecologist views of green theory. Discussion of pitfalls of the organization that lead to legitimacy and sustainable power issues will be explored against these theoretical lenses.

To further understand each data set, examine the difference between environmental indicators and program indicators explained above in MSC Monitoring and Evaluation (M&E). Both are necessary to understand as this project concentrates on both the sustainability and practical functions of the MSC. Not all indicators will be examined, only those pertaining to the research goal.
Figure 8.1 - Key sustainability benchmarks (general scorecard)

A score of 100 represents the performance expected from a 'near perfect' fisheries management system, one that has high levels of certainty about a fishery's performance and a very low risk that current operations will result in detrimental impacts to the target stocks, non-target species and supporting ecosystem.

A score of 80 conforms to the sustainability outcomes expected from fisheries management systems performing at global best practice levels and confers increased certainty about the fishery's long-term sustainability.

A score of 60 represents the minimum acceptable limit for sustainability practice that is established in the MSC's fisheries standard. This limit provides assurance that the basic biological and ecological processes of all components impacted by the fishery are not compromised now or into the future.

Image: (MSC, 2015)
Figure 8.2 – Average principle scores of MSC fisheries

(a) Principle 1: Sustainable fish stocks

Figure 8.2 (a) Principle 1: Sustainable fish stocks shows that between 2000 and 2010 Principle 1 average scores declined, but stabilized at around 85, just above global best practice. All fisheries from 2000 to 2014 were at least assigned a score in the 80s, meaning outcomes of the FMS are performing at global best practice levels. While there are some outliers that are operating at 100 score sustainability, the majority are doing enough according to the MSC to increase certainty that the fishery is sustainable in the long-term. Neoliberal takes on this would rejoice that a NSMD mechanism has produced such effective results, however the green ecological take would unearth the idea that the MSC standards for sustainability are rooted primarily in neoliberal, more environmentalist measures. Ecology green theories would probably state that this is not enough to achieve sustainability in global fisheries. From Ostrom’s view, this data represents the outcome of resource units (tons of fish) and resource systems (FMS, local and regional that fall into place with MSC governance) interacting with resource users (fishers and consumers) and resource governance systems (the MSC). As long
as the average rate of extraction does not surpass the average rate of replacement, a renewable resource (fish) is sustained over time (Ostrom, 2015, p. 30). Ostrom’s model would potentially suggest that the appropriators and producers are utilizing the resource systems provided by the providers (the MSC) and producers to an almost sustainable efficiency, but more could be done to improve. Also this one graph cannot explain the picture as a whole, one governance system and policy cannot be the simple panacea.

(b) Principle 2: Minimizing environmental impact

Figure 8.2 (b) Principle 2: Minimizing environmental impact average scores has shown a different trend with scores ascending from the low 80s recorded in 2000, to a stabilized point above 85 more recently. What is interesting is that no fishery submerges below a score of 80 for minimizing environmental impact, which suggests that the NSDM system is contributing to long-term sustainability. However, the long-term sustainability is not perfect, which if the equation is viewed from an environmentalist point of view it may suggest that the ecolabelling scheme will in fact effect global environmental governance sustainably. Whereas the ecologist
would suggest scores of 100 across the board would potentially mean sustainable results, but it is impossible to know because the governance system is still revolving within a traditional neoliberal capitalist society. The green ecologists suggest an entire system overhaul where the resource units are valued at their inherent intrinsic value to earth, instead of a fantasy currency system based off of speculation and ‘the market’ that places no real value on the true cost of resource units.

(c) Principle 3: Effective management

Figure 8.2 c) Principle 3: Effective management scores remain rather constant in the upper 80s since 2004, after decreasing from low 90s in the previous years. These trends can be attributed to changes in the MSC requirements since the start of the program, changes in attributes of the fisheries being certified and standardization of assessments (MSC, 2015). What these three principles offer is a glimpse at the MSC self-assessment structure. From the neoliberal market viewpoint, the system would be set up to ensure that the organization “looks good on paper” so to say. What is remarkable though is the steady increase in certified fisheries from inception in
2000 to 2013, showing that the organization managed to obtain NSMD governance power through their vision of sustainable seafood. With the exception of 2014, it appears as though the MSC is gaining traction and is at least on a positive trajectory forward, further establishing more legitimacy and rule-making authority in fish politics. The ecologist view would be hesitant to assume such success, as is pointed out in the later section Marine Stewardship Council, not so perfect, with green organizations such as Greenpeace criticising the lowering of standards of sustainability in an effort to push more prevalent and accessible governance. As a marine biologist with the Turtle Island Restoration Network, Chris Pincetich, puts it:

"The MSC has rushed to accept applications from hundreds of fisheries around the globe in order to grow their business and network. Many of those are actually viewed by scientists as unsustainable. They should really take a closer look before they even engage with those fisheries."

It must be noted, that the particular article (Smith, 2011) and this data set from (MSC, 2015) do not offer the more recent updated picture of how the MSC operates.
Fishery policy and environmental governance are key parts of the fishery management (FM) that are required to ensure that fisheries can be fruitful now and for years to come. The governance and policy indicator measures and records the performance of the fishery’s governance maintenance, legality, and the application of a positive incentive. The measurement can be used to help avoid negative incentives for sustainability, such as subsidies, and future objectives of the FM system (MSC, 2015, p. 30). Some form of incentive-based system is present within the neoliberal side of NSMD governance systems as corporations can charge a premium price from MSC labeled products nesting right into the Washington Consensus of capitalism taking care of the sustainability of FM. Ostrom’s IAD formula praises incentive-based systems, and encourages the use of them. Including governance as a key environmental indicator suggest the MSC recognizes the importance of the IPE global environmental governance in fisheries management and ocean conservation.
Overall, certified fisheries are getting better at achieving effective governance and policy, increasing from 83 percent in 2009 to 94 percent in 2013 and 2014 (MSC, 2015, p. 30). On the other hand, the number of fisheries required to make improvements in governance and policy has dropped from thirteen in 2013 to ten in 2014, with 29 action plans specifically relating to governance and policy being completed since 2008. With that an improvement in the incentives for sustainable behavior can be seen, as well as the promotion of improved consultation and co-management mechanisms (MSC, 2015, p. 31).

**Figure 8.4 – Program uptake in fisheries from developing countries**

In the developing world, fishing provides the basis for food security, economic activities, and community livelihood. To ensure that the goals of the MSC adequately impact the Global South, the MSC developed the MSC’s Developing World Fisheries Program, which seeks to increase
MSC certification of fisheries in developing countries. The MSC engages with fisheries in the Global South to provide information and guidance on the benefits of MSC certification, while simultaneously developing tools to improve the accessibility of the program to developing world and small-scale fisheries. The MSC aids governments and NGOs, the fishing industry, seafood businesses, and other stakeholders collaborate together to expand fishery participation of fisheries from developing countries. At present, only eight percent of the total number of MSC-certified fisheries are from developing countries.

The shrill percentage of eight does not allow for coherent representative from all involved parties in the system. The Figure 8.4 data set does not align with the MSC Sustainability and Strategy Outcome Object 1.2 – “The MSC system should be accessible to all fisheries worldwide.” (MSC, 2015)

**Figure 8.5 – Objections**

![Graph showing the proportion of fisheries that received an objection by year, expressed as a proportion of the total number of fisheries certified in that year.](Image: (MSC, 2015, p. 38))

The proportion of fisheries that received an objection by year, expressed as a proportion of the total number of fisheries certified in that year. Image: (MSC, 2015, p. 38)

Image: (MSC, 2015, p. 38)

**The Marine Stewardship Council Objections Procedure**
The MSC Objections Procedure is a vital component of the fisher assessment process, with intentions to provide robust dispute resolution mechanisms that are fair and transparent. The process allows stakeholders to file an objection to the final report produced by the CAB. The goal of the objections procedure is to provide an independent review of the CAB’s findings to make sure that decisions are not arbitrary or unreasonable. In addition, the process provides an orderly structured procedure in which parties’ problems regarding certification decisions can be tackled and solved transparently (MSC, 2015, p. 38). The proportion of fisheries receiving objections to the certification remains steady, with the exception of 2003, where only one fishery was certified and subsequently received an objection. Besides 2003, fewer than twenty percent of fisheries obtaining certification each year received formal objections (2015, p. 39).

Figure 8.6 – MSC ecolabelled products in the market

(a) The number of MSC logo licenses by country in 2013 and 2014; and (b) The global sum of MSC-certified products available in individual countries and weight (tons) of MSC ecolabelled products by year

Image: (MSC, 2015, p. 40)
The MSC is a business to consumer entity, and as a result it is important to track the consumer’s access to MSC certified seafood. The emblem of the MSC blue fish is the official logo and brand to be marketed. Though, not all MSC certified seafood is sold with the MSC ecolabel. The MSC also licenses the independent use of its ecolabel for use with promotional material for companies. Strict guidelines govern the display of the MSC ecolabel: only establishments that have signed a formal written agreement with the MSC, the Ecolabel License Agreement (ELA), are allowed to display the MSC ecolabel on seafood products, menu items, or associated promotional materials (MSC, 2015, p. 40).

Beginning in 2007, the Marine Stewardship Council saw a large period of growth as the result of support and active engagement of many partners (MSC, 2015, p. 40). As Ostrom’s IAD framework suggests, nested enterprises and cooperation across all aspects of the CPR problem can potentially help avoid Hardin’s Tragedy of the Commons. The Marine Stewardship Council’s success can be seen through the increase of MSC logo licenses from 1,133 in 2013 to 1,236 in 2014 (MSC, 2015, p. 40). From the period between January 2007 to December 2014, the global total of MSC ecolabeled products for sale in individual countries grew by a multiple of forty. By 2015, the global sum of 24,045 MSC ecolabeled products were available in 97 countries, including the Republic of Korea (MSC, 2015, p. 40). Neoliberals would rejoice this success of growth of the NSMD system, however Ostrom and Greens may argue it could be at the hands of the human aspect and NGO involvement, and not so much the markets.
Being a direct to consumer organization, the MSC measures consumer recognition and response to its brand. Overall, consumers react positively to environmental assertions, making ecolabeling an effective and credible way to communicate products’ sustainability credentials (MSC, 2015, p. 41). For an ecolabeling scheme to be successful, customers must not only recognize the label, but also have an appreciation for the sustainable message behind the label and trust the MSC.
To measure MSC brand recognition, the above indicator measures recognition of the MSC ecolabel by consumer familiarity with the debranded ecolabel (recognition: ‘Have you seen this logo before?’ when presented with a debranded ecolabel as shown in the figure on the right) and recall of the MSC ecolabel by consumer awareness of what the MSC logo stands for (recall: ‘What does it mean to you?’) (MSC, 2015, p. 41).

In 2014, an average of 35 percent of consumers surveyed who bought fish at least once every two months recognized the MSC debranded ecolabel as meaning sustainable and well-managed fisheries (MSC, 2015, p. 41). When respondents were shown the MSC ecolabel without text, between 20 and 58 percent of respondents (depending on the country surveyed) said they had seen it before (recognition). Of those same respondents, on average 11 percent were able to correctly describe what the MSC ecolabel stands for (recall) (2015, p. 41). Every country surveyed, with the exception of the Netherlands, has shown an increase in consumer recognition from the 2012 results. Australia, Sweden, and the United States show a considerable percentage change (at least 7 percent increase each) in consumer recognition of the MSC ecolabel between 2012 and 2014 (2015, p. 41). The Washington Consensus and neoliberals would argue that capitalism is working and propelling the NSMD MSC into not just growth, but into a recognizable marketable brand.

Figure 8.8 – Consumer purchasing of MSC ecolabeled products

Image: (MSC, 2015, p. 42)
Figure 8.8 – Consumer purchasing of MSC ecolabeled products as a key program indicator is important to measure the “overall health” of the institution (MSC, 2015, p. 41). Neoliberal market based systems like the MSC will only function and be sustained if they are profitable and functioning according to their shareholders’ vision. If consumers are not buying the MSC products, then the organization is missing its most integral cog in the machine. The consumer purchasing indicator measures consumers’ understanding and awareness of the MSC (MSC, 2015, p. 42). In 2014, on average, 40% of targeted seafood consumers across all surveyed countries have purchased MSC seafood products at least once or twice before. Neoliberals would argue that the trends clearly demonstrate an increasingly popular MSC ecolabeled product amongst consumers. Neoliberals can assume that there is “increased recognition and reward” (2015, p. 41) to seafood supply actors and sustainable resource systems pointing to a positive outlook for the organization.

The beyond panaceas approach to this market indicator would be to say that there are too many unknown factors in this equation. First of all, who is a targeted consumer? As well as there being many more factors in a healthy institution than simply is the consumer purchasing. For example is the institution actually hurting local indigenous communities? A question that cannot be answered by this indicator alone, however the MSC claims it as the overall health of the organization. Green theory would argue that the environmental take agrees with all of the above; conserve and keep the NSMD NGO hybrid MSC program running at full speed.... The ecologist view would stress the greater importance on the actual resource units at play and not the consumers’ opinion. Ecologists could potentially go as far as to say to eliminate seafood from diets as a whole and preserve with MPAs.

Unable to identify what MSC survey language means by “targeted” consumer.
The graph above helps solidify the second-tier variable under SES, RS5, productivity of a system. A clear increase in the percentage of large marine ecosystems’ catch can be seen to develop over the ten years included in the study. While the productivity seems to be isolated to the northern fisheries of the world, there are some certified fisheries in the global south.
Out of 185 MSC certified fisheries, 39 made at least one improvement to habitats’ management (MSC, 2016, p. 13). One of IADs design principles is gradual sanctions on appropriators who violate operational rules, by other appropriators, or by officials accountable, or a combination of both (Ostrom, 2015). The MSC has removed certifications if the fisheries did not follow the suggested guidelines for improvement. They are given a specific time frame to make improvements and take technical actions, research actions, impact assessments, or governance actions, or a combination of those actions. If the fishery does not comply within the prescribed time frame, they are removed of their MSC logo licensing ability.
Figure 8.11 – Number of fisheries in the MSC program as of December 31, 2016

Image: (MSC, 2016, p. 5)

Figure 8.11 demonstrates the growth in the organization from the MSC first initiation in 1999 to 2016. The number of those in assessment have fallen off as they have become accredited with the licensing ability of the blue logo. The ecologist would say that the MSC program is not handling the problem speedily enough, as the number of those in assessment seems to have leveled off. Could this be the result of the MSC only being a sustainable power and functioning institution in the colder waters of the north, where the flash freezing trawlers drain the sea to the sustainable allowed catch. How many fisheries must exist in Africa and Asia where the MSC model might help but would require an adjustment for local conditions.

Research Questions Refresh

RQ1: How do non-state market-driven (NSMD) governance systems, specifically the MSC, gain rule-making authority and legitimacy?

A: NSMD governance systems gain authority and legitimacy by high levels of accountability both of the organization and the individual leaders. NSDM systems also attract legitimacy through a proven track record of results, as well as sustainably
planning for a future that is even better. If consumers are purchasing more ecolabeled products, multinational corporations and their diverse set of shareholders are earning from the increased profit margins. The cycle of consumers purchasing sustainable options and thus fisheries being incentivized by the increase in potential profit, leads to a shift in norms on how civil society consumes. If society continues to vote with their forks, it could shift the tide from regulation from the state and UN organs, to NGOs and MNCs.

RQ1.1: What policy functions does the MSC establish that help shape the contours of global environmental governance (GEG)? What challenges does the MSC face?

The MSC helps shape global environmental governance through enabling solutions to complex, multi-interest problems, brokering knowledge, power, and norms among a wide range of stakeholders, and creating a learning and training network in environmental fishery governance and management. The more consumers choose ecolabeled products, the more the contours of global environmental governance bend in favor of policy and regulations being directed by NSMD institutions like the MSC. What is interesting, however, is that the Marine Stewardship Council has a series of embedded regulations and policies that rely directly on the regional and state crafted policy. So perhaps, instead of a shift from state to civil society, there is more of a layered inter-connected paradigm occurring. Even further in layering this concept, property rights assigned by states to the people, civil society. The process of governance from an individual person to the international global level can be understood perhaps as a set of Russian matryoshka dolls, the policy starts with the individual, the most miniscule of dolls, and layer by layer it is encapsulated by the overarching largest nesting doll; in this comparison that outer shell doll represents global environmental governance as a whole. The UN FAO could perhaps be the second largest of the stacking dolls, as most of the policy formulated at the FAO is then transcended into the founding principles of the MSC and other ecolabels of the like. Other dolls in the set would include regional fishery governance via NSMD devices, to national and federal level down to the local level, and finally to the smallest doll, the individual.

Image: (Anon., 2019)
Further Theoretical Analysis

RQ2: How can theory (neoliberal theory, beyond panaceas, and green theory) offer insight into how the MSC implements policy, and thus shaping the delineations of global environmental governance.

Overarching Neoliberalism

Julie Guthman in her food politics exploration noted “the extent to which food politics have been at the cutting edge of neoliberal regulatory transformations” (2007, p. 437), and to take stock the Marine Stewardship Council as a neoliberal institution would be simple. The MSC offers a particularly neoliberal approach to fishery governance, allowing for capitalism and the Washington consensus to steer environmental governance within fisheries. The entire ecolabelling scheme is a very neoliberal concept, it relies on the existing market structure and perpetuates the Washington consensus. It does not draw on anything particularly new, except perhaps the addition of sustainability as a purchase point, something that is becoming easier and easier to measure.

Institutional Analysis and Development Framework: MSC

How does the MSC hold up under the design principles presented within Ostrom’s institutional analysis and development framework? From the outside looking in, it seems as though the MSC tends to check many of the IAD design principles, but this is the exact tunnel vision Ostrom and her colleagues would have wanted to avoid. It is imperative to tie the MSC institutional functions and policies to not only IAD framework, but Social-Ecological Systems framework, as well as reaching beyond the panacea. The Institutional Analysis and Development framework is just a starting point to help form an institution that can be efficient in organizing collective action for common-pool resources, such as a fishery.
### Design principles illustrated by long-enduring CPR institutions and the MSC

1. Clearly defined boundaries
   
   a. Ostrom’s ideal framework suggests that individuals or households who have rights to withdraw resource units from the CPR must be clearly defined, and the boundaries of the resource itself must be set.

   i. One of the key qualifications to the MSC certification is having set boundaries to the fisheries. To become certified with the MSC blue fish logo, the fishery must own the rights to harvest an area with clear defined boundaries, whether from the federal, state, or local level. This can be particularly tricky in the global South where fishery property rights are less conclusive and implicit. As well as the high sea fisheries that are not easily definable in terms of boundaries, regarding less the political boundaries of states. For example, tuna can migrate across multiple oceans. At present, non-profit NGO International Seafood Sustainability Foundation (ISSF) have found that only five of the 19 major commercial tuna stocks are being managed successfully and earned a passing score for the MSC Principle One (Akroyd, et al., 2019). The MSC attempts to account for this through the MSC Sustainable Fishing Standard that is necessarily complex. The Standard is the involvement and communication amongst nations, continents, fishing organisations, producer organisations, different consumer markets, different wholesalers and retailers, and lastly the consumers themselves. However, there are still issues with the MSC harvesting strategy. Ostrom notes that for fugitive resources must be dealt with by establishing individual rights to use in particular types of equipment, using the resource at a time and place, and withdrawing a particular amount of resource units (lowering the Total Allowable Catch) (Ostrom, 2015, p. 13). It seems, though, that fugitive resources are particularly difficult and a more common ownership approach must be taken, which the MSC has not specifically designed.

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4 The MSC Principle 1 states: “A fishery must operate in a manner that does not lead to overfishing or depletion of the exploited populations and, for those populations that are depleted, the fishery must be conducted in a manner that demonstrably leads to their recovery.” (Akroyd, et al., 2019).
effectively yet based on the results analyzed by the ISSF (Akroyd, et al., 2019).

2. Congruence between appropriation and provision rules and local conditions

   a. Appropriation rules restricting time, place, technology, and/or quantity of resource units are related to local conditions and to provision rules requiring labor, material, and/or money

      i. The MSC Fisheries Standard was designed with the intentions to reach all types of fisheries. Though, its robust requirement for quantitative data can act as a barrier for some, involving small-scale and artisanal fisheries and those without access to stock assessments would be a best practice (Costello et al., cited in Marine Stewardship Council, 2017, p. 9). In response to this concern, the Marine Stewardship Council designed a set of preventative risk-based indicators for the evaluation of data-deficient fisheries – the Risk Based Framework (RBF). Initially developed by Australia’s Commonwealth Scientific and Industrial Research Organisation, the RBF was developed from its Ecological Risk Assessment for Effects of Fishing (Marine Stewardship Council, 2017, p. 9). First piloted in 2008 in seven pioneer fisheries around the world, the RBF became fully integrated into the MSC Fisheries Standard in July 2009. This effort is in place to address the challenge of sustaining global applicability without forgoing the scientific credibility of the Standard. As of 2017, 67 fisheries have been certified using the Risk Based Framework to evaluate fishery impacts on either target or bycatch stocks, with 24% of these fisheries being located in the Global South (Marine Stewardship Council, 2017, p. 9)

3. Collective-choice arrangements

   a. Most individuals affected by the operational rules can participate in modifying the operational rules

      i. “All MSC Standards and certification requirements are regularly reviewed through our policy development process, and incorporate valuable input from our stakeholders through targeted workshops, webinars, focus groups, and online consultation.” (Marine Stewardship Council, 2017, p. 10). For example, version 2.0 of the Fisheries
Standard, developed between 2012-2014, brought in a year-long consultation with over 80 stakeholders including fishing industry experts, scientists, non-profit organisations and a wide network of industry partners across the globe (2017, p. 10).

4. Monitoring
   a. Monitors, who actively audit CPR conditions and appropriator behavior, are accountable to the appropriators or are the appropriators

   i. The MSC monitors, who actively audit MSC certification conditions and appropriator behavior, are accountable to the appropriators to some extent as they are independent of the MSC itself. It can be noted the shift to a non-profit from Unilever’s original investment suggests a more transparent institution capable of self-monitoring. The MSC assigns CABs

5. Graduated sanctions
   a. Appropriators who violate operational rules are likely to be assessed graduated sanctions (depending on the seriousness and context of the offense) by other appropriators, by officials accountable to these appropriators, or by both.

   i. The MSC has removed certifications if the fisheries did not follow the suggested guidelines of improvement. They are given a specific time frame to make improvements and if they do not they get removed of their MSC logo licensing ability. See Figure 8.10–Improvements and Actions and Figure 8.11 – Number of fisheries in the MSC program as of December 31, 2016.

6. Conflict-resolution mechanisms
   a. Appropriators and stakeholders have access to low-cost local arenas to resolve conflicts among appropriators or between appropriators and officials

   i. Unfortunately, for the Marine Stewardship Council, there is no ICC, or really any low-cost local arenas to resolve conflicts among appropriators, like say at a public citizen town hall in New England. Appropriators and stakeholders do, however, have access to open communication between the officials via multiple channels (phone, email, mail, physical location).

7. Minimal recognition of rights to organize
   a. The rights of appropriators to devise their own institutions are not challenged by external governmental authorities

   i. Institutions arranged by the appropriators are not generally challenged by external governmental authorities, as they are founded on the principles of international ocean law and UN FAO guidelines, as well as being in conjunction with federal, regional, and local government regulatory schemes.

8. Nested enterprises
a. While the entire appropriation, provision, monitoring, enforcement, conflict resolution, and governance activities are not organized in multiple layers of nested enterprises, there are many aspects of the MSC that do include nested enterprises.

i. Global Ghost Gear Initiative (GGGI), an organization founded by World Animal Protection (Baker, 2016), designed to reduce plastics and ocean pollution is nested within the MSC. The World Animal Protection is working in conjunction with the WWF to expand the GGGI which is implemented into MSC standards; a suitable example of Ostrom’s “nested enterprises”.

Social-Ecological Systems Framework: MSC

The MSC has increasingly been criticized for its focus on larger fisheries and fisheries in Europe and North America, while assessing relatively few small-scale fisheries or fisheries in the developing world. The north/south divide aspect of the organization directly affects almost every first-tier variable in some way. Being that social-ecological systems are so highly reliant on the societies and ecologies, local and global, that they affect, it is relevant and important to highlight the North South divide that compromises the Marine Stewardship Council’s ability to create effective global environmental governance.

Social-Ecological Systems and the MSC

<table>
<thead>
<tr>
<th>First-tier variables</th>
<th>Second-tier variables</th>
<th>Marine Stewardship Council</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social, economic,</td>
<td>S1 – Economic development</td>
<td>S1 – Certifications drive the value of the product up, as consumers will generally pay more if they know they are helping the sustainable fishing cause. This in turn allows fisheries to charge more, and receive more in revenue from increased demand.</td>
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<tr>
<td>and political settings (S)</td>
<td>S2 – Demographic trends</td>
<td>S2 – <a href="https://example.com">Figure 8.7 – Consumer recognition and recall of the MSC ecolabel</a>, <a href="https://example.com">Figure 8.8 – Consumer purchasing of MSC-ecolabeled products</a>.</td>
</tr>
<tr>
<td></td>
<td>S3 – Political stability</td>
<td>S3 – The MSC requires that certification boundaries and practices be in line with local and regional political laws and practices.</td>
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<td>S4 – Other governance systems</td>
<td>S4 – <a href="https://example.com">The MSC, comparatively</a>.</td>
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<td></td>
<td>S5 – Markets</td>
<td>S5 – <a href="https://example.com">Markets</a>.</td>
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<td></td>
<td>S6 – Media organizations</td>
<td>S6 – <a href="https://example.com">Figure 8.7 – Consumer recognition and recall of the MSC ecolabel</a>.</td>
</tr>
<tr>
<td></td>
<td>S7 – Technology</td>
<td>S7 – Technology is of the uttermost forefront in conjunction with local species requirements and regional fisheries. For example, the MSC certification requires whitefish (cod, etc.) fisheries to freeze onboard the ship, a process that not only increases efficiency, but taste by preventing rigor mortis (FAO, 2019).</td>
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<tr>
<td>Resource systems (RS)</td>
<td>RS1 – Sector</td>
<td>RS1 – Fish.</td>
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<td></td>
<td>RS2 – Clarity of system boundaries</td>
<td>RS2 – Requirement of certification that the fishery operates within all regional, local, and state level fishing boundaries. Access to</td>
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<tr>
<td>Resource units (RU)</td>
<td>Governance systems (GS)</td>
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<tr>
<td>RU1 – Resource unit mobility</td>
<td>GS1 – UN FAO, local and regional governments, federal governments, ICC (transnational water disputes), UN, WEF, Indigenous peoples’ organizations.</td>
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<tr>
<td>RU2 – Growth or replacement rate</td>
<td>GS2 – Indigenous peoples’ organizations, WSO, ISO, ISSF, RFMO, GSSI, ISEAL, <em>The MSC, comparatively.</em></td>
<td></td>
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<tr>
<td>RU3 – Interaction among resource units</td>
<td>GS3 – The nested enterprises on each level of the MSC present an opportunity, and a challenge of communication. Many of the GS2 and GS1 organizations have existing communication patterns; many also present accessible information with contact emails for many experts and board members, not just within the MSC, but some of the GS2 organizations also.</td>
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<tr>
<td>RU4 – Economic value</td>
<td>GS4 – In conjunction with local, regional, and federal state FMS, many of which involve the use of property rights. To be certified, the MSC requires ownership and rights to harvest in the fishery in which they are to be certified.</td>
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<td>RU5 – Number of units</td>
<td>GS5 – <em>The MSC Technical Advisory Board.</em></td>
<td></td>
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<td>RU6 – Equilibrium properties</td>
<td>GS6 – <em>The MSC Board of Trustees.</em></td>
<td></td>
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<tr>
<td>RU7 – Predictability of system dynamics</td>
<td>GS7 – <em>The MSC Stakeholder Advisory Council</em> abide by the sustainable doctrine and goal of the MSC, but there are no democratic elections of representatives. Nor are there many representatives from the Global South.</td>
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<tr>
<td>RU8 – Storage characteristics</td>
<td>GS8 – <em>MSC Monitoring and Evaluation (M&amp;E).</em></td>
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<td>RU9 – Location</td>
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</tbody>
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RU6 – Distinctive characteristics
RU7 – Spatial and temporal distribution

<table>
<thead>
<tr>
<th>RU6 – Distinctive characteristics</th>
<th>percentage of the world’s population relies on fish as their protein source, driving its value up. RU5 – Depends on the fish, also relates to RU4 in terms of calculating value of the RU. RU6 – <em>Roving Bandits and Harbor Gangs</em>, as well as many different cultural indigenous relationships with fishing. RU7 – Depends on the fishery and fish.</th>
</tr>
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</table>

**Actors (A)**

| A1 – Number of relevant actors | A1 – 312 fisheries from 30 countries and 68 more are in assessment. |
| A2 – Socioeconomic attributes  | A2 – Varies, but mainly the MSC is concentrated in the northern global waters/fisheries, representing western views of fishing norms. |
| A3 – History or past experiences| A3 – Because of the relatively new nature of ecolabeling, there are no past predispositions to the systems as a whole. In the future, there may be. |
| A4 – Location                   | A4 – Global, but mainly concentrated in Global North. |
| A5 – Leadership/entrepreneurship| A5 – [The MSC Board of Trustees](#). |
| A6 – Norms (trust-reciprocity)/social capital | A6 – [Figure 8.10 - Improvements and Actions](#). |
| A7 – Knowledge of SES           | A7 – Unknown. |
| A8 – Importance of resource     | A8 – Very. |
| A9 – Technologies available     | A9 – Flash freezing trawlers technology, better assessment mechanisms, proper vessels, etc. |

**Action situations:**

<table>
<thead>
<tr>
<th>Interactions (I) → Outcomes (O)</th>
<th>I1 – Harvesting</th>
</tr>
</thead>
<tbody>
<tr>
<td>I2 – Information sharing</td>
<td>I2 – Negotiated by time and space.</td>
</tr>
<tr>
<td>I3 – Deliberation processes</td>
<td>I3 – Quarterly board meetings and annual technical meetings, plus the annual publishing of reports and information for the public.</td>
</tr>
<tr>
<td>I4 – Conflicts</td>
<td>I4 – <a href="#">Figure 8.5 – Objections</a>, <a href="#">Figure 8.10 - Improvements and Actions</a>.</td>
</tr>
<tr>
<td>I5 – Investment activities</td>
<td>I5 – Currently, the MSC is funded by donations, logo licensing, and NGO donations (Marine Stewardship Council, 2019). Previously the Global Fisheries Sustainability Fund, the one-million-pound Ocean Stewardship Fund is available to fisheries looking to become certified, but need a bit of help (MSC, 2018).</td>
</tr>
<tr>
<td>I6 – Lobbying activities</td>
<td>I6 – The MSC lobbies with the World Economic Forum’s Friends for Ocean Action, a group convened by the UN Secretary General’s Special Envoy for the Ocean, Peter Thomson, and the Deputy Prime Minister of Sweden, Isabella Lövin, to establish, expand and accelerate practical solutions to the most dire challenges facing the ocean (MSC, 2018).</td>
</tr>
<tr>
<td>I7 – Self-organizing activities</td>
<td>I7 – <a href="#">The MSC Governance</a>.</td>
</tr>
<tr>
<td>I8 – Networking activities</td>
<td>I8 – <a href="#">The MSC International Board</a>.</td>
</tr>
<tr>
<td>I9 – Monitoring activities</td>
<td>I9 – <a href="#">M&amp;E</a>.</td>
</tr>
<tr>
<td>I10 – Evaluative activities</td>
<td>I10 – <a href="#">M&amp;E</a>.</td>
</tr>
<tr>
<td>O1 – Social performance measures (e.g., efficiency, equity, accountability, sustainability)</td>
<td>O1 – <a href="#">Figure 8.1 - Key sustainability benchmarks (general scorecard)</a>, [Figure 8.3 – Governance and policy], [Figure 8.10 - Improvements and Actions], [Figure 8.2 – Average principle scores of MSC fisheries], [Figure 8.11 – Number of fisheries in the MSC].</td>
</tr>
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</table>
Beyond Panaceas: MSC

Elinor Ostrom’s idea that local communities with private property rights can manage common pool resources stemmed from the successful New England townships and how they managed their stocks. Particularly, the success of the Maine lobster fishing industry, where constitutional choices by the state government forcing lobster fishers to clip a triangle from female lobster tails, which led to a new norm on how female lobsters would be handled (Buck, 1998, p. 169). It is crucial to avoid tunnel vision when viewing CPR problems, and in order to achieve maximum results cross-disciplinary measures are a must. The MSC actively recruits a range of actors and stakeholders from all different backgrounds to enhance the GEG that comes forth. While the Marine Stewardship Council is not painting the floor with a hammer completely (Degnbol, et al, 2006), the organization may not be doing a good enough job of paint with a paint brush.

To avoid panaceas, one must look beyond government regulation and market failure (Ostrom, 2015) (Ostrom, 2012) (Ostrom, 2012) (Ostrom & Cox, 2010). To avoid a panacea in global fisheries, the solution lies not in solely neoliberal regimes, but within complex, multifaceted systems with knowledge and structure – most importantly the ability to move forward beyond a simple one problem solution. A complex structure of organizations made up of RFMS and FMS that involve a combination of ITQs, MPAs, and CBMs is the most ideal and institutionally sound way to achieve IAD, SES, and go beyond a panacea.
More Blue than ‘Green’

The Marine Stewardship Council has faced backlash since inauguration, calling into the legitimacy of the NSMD institution. Assessments, whether negative, neutral, and positive call into question all three-core strategic sustainable goals of the MSC. Reflecting, the MSC’s three-core principles: sustainability of the target fish stock, low impacts on the ecosystem, and effective, responsive management.

Each year over 300,000 whales, dolphins, and other cetaceans die from entanglement in nets and other fishing gear (Speth & Haas, 2013, p. 35). A 2018 study in Scientific Reports journal, found that at least 46 percent of the Great Pacific Garbage Patch (GPGP)’s plastic waste was abandoned fishing nets, also known as ghost nets (Lebreton, et al., p. 2). At present, the Marine Stewardship Council has no concrete regulations to prevent the further polluting of abandoned gear. At present, the closest thing to acknowledging the problem has been the MSC’s relationship with the Global Ghost Gear Initiative (GGGI), an organization founded by World Animal Protection (Baker, 2016). The World Animal Protection is working in conjunction with the WWF to expand the GGGI; a suitable example of Ostrom’s “nested enterprises”.

Unilever, the MSC’s founding corporation, has faced legitimacy challenges from some of those representing green theory ideology. Numerous environmental groups, including Greenpeace, have criticized the organization for its excessive catch of seafood in areas accessible to all and prone to overexploitation (Auld & Cashore, 2013; Gulbrandsen, 2010; Hardin, cited in Wijen & Chiroleu-Assouline, 2019, p. 3). This is not surprising due to the ecologist desire for marine protected areas, over market systems like total allowable catch that can be disrupted by human error in estimating the proper sustainable allowable catch in accordance to its biological ecosystem.

Greenpeace oceans campaigner, Richard Page, said that some fisheries being certified “seriously undermine” the MSC’s credibility (Smith, 2011), suggesting that some fisheries do not meet the standard of sustainability. Page blames this on a lack of available information, a problem that plagues much of the industry’s ability to be sustainable. Page said on the decision made by the MSC to certify a tooth fish fishery: “It should never have been up for certification in the first place. There just isn’t sufficient information to say whether it’s sustainable or not”

In the subtropical waters between California and Hawaii exists at least 79 (45-129) thousand tons of ocean plastic floating inside an area of 1.6 million km² (Lebreton, et al., 2018).
In order for the MSC to scale sustainably, more information needs to be transferred across all channels. While every effort the MSC is taking is great, there are still holes in the sustainable picture that have led Greenpeace to even suggest “consumers are being duped, thinking they are buying fish that is sustainable and eating them with a clean conscience” (Smith, 2011). This sentiment was echoed by Susanna Fuller, co-director of marine programs at Canada’s Ecology Action Center, who also suggests the MSC label is misleading (Williams & Zwerdling, 2013). Fuller’s ecologist view reminds the consumer that the MSC seafood products that are purchased are not “sustainable now” (2013), but that most will be sustainable in the future under the presumption they will meet preconditions. Figure 8.10- Improvements and Actions can help explain what the MSC is doing in relation to that sustainable rebuttal. Fuller believes, along with most ecologists that the MSC should have immediate sustainability standards, whereas Ostrom and neoliberals might argue institutions take time to develop. The MSC insisted all their CABs assessments were “scientifically robust” (2011), introducing better levels of protection to stock levels than might otherwise be found in fisheries. Green theorists and potentially beyond panacea notions would argue that just doing what might be better than business as usual will not cut it. More systematic and structural adaptations need to be done for the MSC to be able to wholesomely certify each fish species and fishery.

It is determined that the most extensive ecolabel, the Marine Stewardship Council (MSC), mainly addresses the fishing stage, in particular the unsustainable harvesting of marine resources (Thrane, et al., 2008, p. 416). Life-cycle assessment studies confirm that the fishing stage represents the most significant environmental burden, but energy consumption and emissions of anti-fouling agents at the fishing or harvesting stage contribute with significant impacts that are not being addressed by international labelling initiatives for wild-caught seafood (2008, p. 416). It is important to note that the study mentions that the most significant environmental burden occurs in the fishing stage, which the Marine Stewardship Council mainly addresses. So hypothetically maybe the organization is propelling in the right direction, for the greens maybe not fast enough.

6 Agent that constrains the growth of barnacles and other marine organisms on a vessel's hull (an antifouling paint or other coating), corrosion inhibitor (General Multilingual Environmental Thesaurus, 2019)
**Environmentalist Position**

Within green theory, it is often simplistic enough to go back to the seven generations rule. Does the MSC offer characteristics that allow it to operate sustainably, with the vision of seven generations from now receiving fisheries as they were? At this stage, this question is difficult to answer, as the facts are vast and spread out over multiple scientific disciplines and realities. For some environmentalists, the MSC may present a vital institution for successful sustainable fishery governance, while others may side with the more ecological role and believe the MSC is just another market tool. Or maybe the environmentalist view would align with Ostrom’s idea that institutions must move beyond markets and governments, beyond even NSMD. With the reliance on NGOs and other institutions and the nested enterprises, environmentalists would be hopeful of the Marine Stewardship Council’s global governance success in achieving sustainable fisheries.

**Ecologist Position**

The ecologist interpretation of the MSC would immediately point to the controversial evidence surrounding the MSC organization, whether it be because the MSC’s sustainable certifications are not in fact sustainable, or because the certifications are being given to non-sustainable fisheries. Ecologist could indeed point to a whole range of aspects that are not ecological enough. The view of the ecologist is much needed in respect to the entire picture. If the construction of the MSC were purely neoliberal and on the Washington Consensus band wagon, then society would have just another organization perpetuating the existing status quo.

**9. Conclusion**

*Ocean, n. A body of water occupying about two-thirds of a world made for man – who has no gills.*

- Ambrose Bierce, *The Devil’s Dictionary* (1906)

From the fifteenth century and on, jurists and governments have struggled to define ownership of the oceans’ waters and the riches beneath the surface (Buck, 1998, p. 75). Before that wars were fought over the ocean, and before that was the Asian and Arab general principle of freedom of the sea, freedom of navigation and trade (Anand cited in Buck, 1998, p. 75). The current political economy climate of the world’s oceans is governed by global environmental
governance. Governance of the seas is an unclear, but somewhat understood, set of expectations.

Combining theoretical approaches in a case study analysis of the MSC sheds a small amount of light on the current situation within global environmental governance, specifically the role civil society and private actors play in shaping the politics of the oceans, but in reality, it is only a tiny scratch on the surface of the deep ocean of research. Case studies are limited, no one study can be representative so that it might yield findings that can be applied more generally. The Marine Stewardship Council is merely a small piece of the global governance puzzle. People love the ocean, and Rachel Carson’s second most notable book *The Sea Around Us*, tries to pull at the romantic heart strings of the people living in connection with the ocean. The Ocean matters in international relations, and in the lives of people everywhere. The laws of the sea are codified in ancient traditions and connotations of power now remain loosely in the reigns of the United Nations and state governments… but that power is shifting. Civil society is demanding better solutions to problems bigger than themselves. Or perhaps it is all an illusion and the Marine Stewardship Council is just an extension of the Washington Consensus, neoliberal capitalist cycle that does not regard the Earth’s resources as the true inherent value they have. Ostrom would be hopeful in the Marine Stewardship Council’s ability to organize and breathe and function as an organism, but not full out optimistic because the MSC did not ‘pass’ all of her design principles and variables. Nevertheless, it is a start, and from the looks of it, it may be a running one. A Grotian moment might be in play when the dominance of the economic considerations in global environmental governance are taking into account the policy direction from the top, and the bottom. Non-state market-driven organizations, like the Marine Stewardship Council, offer a chance for the civil society, the people at the top of the food chain, to have a stronger position and impact on real global environmental governance.

Further studies on the Marine Stewardship Council, across all relating and those not directly relating scientific disciplines, would be indispensable in the terms of knowledge transmission across actors and stakeholders. The pan-discipline scholastic research that currently exists has yet to be fully developed hereto; more cross-study focus is needed. If a panacea trap is to be avoided, the MSC as an institution needs to rely heavily on all aspects of the institutional web it is weaving, including local disciplines and indigenous peoples. Specifically, the north/south divide that is critically present within the scope and scale of the institution creates a major problem for the MSC. The regions that rely on fish as the sole protein are particularly more at
risk for a disaster of the commons, these regions are often in the global south. It seems as though the institutions developed to fix global collective action problems, specifically eco-certification institutions, fail to address the global aspect in that the organizations ignore the southern hemisphere, or developing world, whether intentionally or not. The Marine Stewardship Council is truly a “western” regime and reflects the neoliberal foundation of which MNSD regimes function, the Washington Consensus functioning thoroughly in the economies that are the strongest. The economy is not the only aspect of global environmental governance, the environment – the ocean – and sustaining its sustenance - is what really matters.

For true economic and ecological preservation overall, a more radical option seems the only way to achieve an effective, truly global response. Ecologist in green theory would argue that the MSC is not going far enough, nor are any of the eco-certification labelling schemes. Every ecolabelling certification scheme is directly linked to the market, which is not based upon ecological views, but neoliberal, environmentalist views. A radical overhaul in which the entire global political economy is transformed from capitalism to a system that accounts for the environmental costs of transaction, literally putting a price on the real true value of resources is necessary. The planet is one living organism, complex and diverse, together with great efforts, real solutions, and not panaceas, can be institutionalized to hopefully keep the planet, and its biodiversity within alive for generations to come.
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