Balancing Market Access with Local Practice: Understanding harvester group motivations and experiences with Marine Stewardship Council certification

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A Thesis presented to
The University of Guelph

In partial fulfilment of the requirements for the degree of Master of Arts in Geography

Guelph, Ontario, Canada
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Abstract

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Many food retailers in North America and Europe have adopted and publicly promote corporate sustainable seafood commitments wherein they pledge to source their seafood from fisheries certified by the Marine Stewardship Council. Consequently, this has created a demand for the certification along the seafood supply chain, with much of the pressure to certify felt by harvester groups. This thesis draws from semi-structured interviews with harvester group representatives to describe how groups in three Atlantic Canada lobster fisheries navigate the complex certification landscape and to document influences that ultimately encouraged the pursuit of MSC certification. This paper argues that while market access for harvester groups is maintained by achieving certification, participation in MSC certification has resulted in various implications for these groups and tensions between externally-defined sustainability and locally-practiced sustainability are manifesting harvester dissatisfaction. This dissatisfaction may impact the perceived legitimacy and longevity of the MSC certification in Atlantic Canada.
Acknowledgements

I would first like to thank Dr. Jennifer Silver, whose passion for fisheries governance fostered my own interests in this research. I am extremely grateful for the unending support, patience, and skillful editing over the past years. This research also would not have been possible without the support of Dr. Ben Bradshaw, who has provided much encouragement and enthusiasm throughout my research at the University of Guelph.

I would also like to extend my gratitude to Dr. Paul Foley, who has enriched this thesis with his expert knowledge of the Atlantic seafood industry and his thoughtful guidance throughout the writing process.

My research would not have been possible without the thoughtful and enthusiastic contributions of my research participants. I would like to extend my thanks to the Atlantic lobster fishery representatives and other industry members who selflessly gave me their time and insight during the busy fishing season.

I am also eternally grateful for the encouragement I have received from my various support systems throughout this process. To my family, thank you for being a source of endless love and support. I would also like to thank my boyfriend, my peers in office 351, my research group, the NV lads, and everyone else in my cohort, as they have provided immeasurable encouragement, wisdom, and emotional support.

I also would like acknowledge the funding I received from the Ontario Graduate Scholarship and the University of Guelph’s Harshman Graduate Scholarship in Food Systems.

Finally, to the Geography department, thank you for the administrative and technical support, the many conversations in Hutt and the Grad Lounge, and your dedication to helping me complete my degree.
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Glossary of Case-Specific Terms

Client
A legal entity that applies for Marine Stewardship Council (MSC) certification and holds the MSC certificate.

Client Group
A legal entity that includes fishing operators within a unit of certification that applies for MSC certification and holds the MSC certificate. In addition to fishing operators, a client group may also include individuals or businesses that the client group has extended use of the certificate to, such as processors, dealers, shippers, and First Nations groups.

Client group representative
A representative of the client group, who may act as a member of the client group’s Executive or Board of Directors. The client group representative may formally hold the title of President, Executive Director, Executive Coordinator, Secretary, or those of other similar positions of authority.

Harvester
An independent owner-operator who harvests fish in a given fishing area and participates in the area’s harvester group.

Harvester group
An organization made up of harvesters participating in the fishery or fisheries within the fishing area. Harvester groups are used for locally-focused decision-making regarding largely the management of the fishery. One harvester group is generally established for the harvesters in a given fishing area. However, in the context of a fishing area shared between provinces with harvesters operating out of these provinces, there may be more than one harvester group for the harvesters in the fishing area.

Harvester group representative
A representative of the harvester group who participates in the harvester group’s activities and decisions. The representative is elected to speak for the harvester group and may communicate the opinions of the harvester group members to their client group. The harvester group representative may formally hold the title of President, Manager, Treasurer, Coordinator, or those of other similar positions of authority.

List of Abbreviations

AFN  Abegweit First Nation
BFSSSGSL  Bay of Fundy, Scotian Shelf, and Southern Gulf of St. Lawrence
CAB  Conformity Assessment Body
DFO  Fisheries and Oceans Canada
LCC  Lobster Council of Canada
LFA  Lobster Fishing Area
LIFN  Lennox Island First Nation
MSC  Marine Stewardship Council
NSNBLECS  Nova Scotia and New Brunswick Lobster Eco-Certification Society
PEI  Prince Edward Island
PEIFA  Prince Edward Island Fishermen’s Association
PEISPA  Prince Edward Island Seafood Processors Association
Chapter 1. Introduction

1.1 Practical Context

Many fish stocks worldwide exhibit impacts of intensive fishing practices. The proportion of fish stocks assessed to be within biologically sustainable limits has decreased from 90% in 1974 to 71.2% in 2011, with 28.8% of fish stocks estimated to be overfished (Food and Agriculture Organization of the United Nations [FAO], 2014, p. 37). Particularly in response to the 1992 collapse of the government-managed Northwest Atlantic cod stock, academics, non-governmental organizations, and industry stakeholders began to call for a more adaptive and responsible approach to fisheries management (Foley 2013; Schrank, 2005).

Numerous governance systems have emerged in response to this concern and garnered popularity over recent years. Among the various systems used to govern fisheries, one notable approach is what Cashore (2002) identifies more broadly as non-state market-driven (NSMD) governance systems that offer industries a way to voluntarily undergo assessment to verify compliance with sustainability standards through third-party assessment and certification. Third-party certification schemes are one important form of NSMD governance. These certification systems aim to recognize sustainable supply chains by setting responsible standards, offering producers the opportunity to certify their products against them, and use a third party to assess the supply chain against these standards (see section 2.1.1 for more information on third-party verification). By having certified seafood made visible in the marketplace through logos and marketing, the hope amongst proponents is that consumers will select, and perhaps pay a premium for, these seafood products (Foley, 2013). Furthermore, certification of seafood products provides a potential means for producers to maintain access to or enter the global marketplace and gain recognition among consumers for their management efforts by displaying a
certification logo on their products (Jacquet et al., 2010). Support for NSMD systems and certification schemes has increased within industries such as forestry and fisheries, representing a growing acceptance of alternative systems that mobilize large institutional buyers and concerned consumers to use environmental, social, or ethical criteria in purchasing decisions (Vanderveest, 2007). The argument is that for proponents, these systems are able to offer strong market incentives to sustain certain resources in ways that state-led governance systems cannot (Bernstein & Cashore, 2007; Cashore, 2002).

Among the numerous seafood certifications developed, the Marine Stewardship Council (MSC) certification in particular has gained significant popularity in the industry, resulting in the perception held by some that the MSC label is the “gold standard” of seafood certifications (Foley & Havice, 2016; Gulbrandsen, 2014). As of October 2016, MSC has certified 306 fisheries in 33 countries, with 83 fisheries currently in assessment (MSC, 2016b). Within Canada, 78% of Canadian catch by value is MSC certified (MSC, 2016a, p.9), and the proportion of global wild catch that is MSC certified has almost doubled from 5% in 2010 to 9.4% in 2015 (MSC, 2016a, p.18). The growing prominence and visibility of the MSC label is most evident in the acceptance of the label in key markets. Popular grocery retailers such as Walmart, Loblaws, Sainsbury’s, and Marks and Spencer have made public commitments to source their seafood from sustainable sources, some pledging to supply 100% MSC-certified seafood by a given date (Wal-Mart, 2006; Goyert, Sagarin, & Annala, 2010).

Given the retail movement towards demanding certified seafood for sale in stores, shippers, buyers, processors, and harvesters have had to respond accordingly by certifying their seafood supply, making commitments to certify their fisheries or risk losing access to markets. For many of these actors, gaining and maintaining access to these markets is of utmost
importance, thus demand is created for certification of seafood along the supply chain. Consequently, harvesters and their harvester groups—in the case of this research, inshore groups composed of independent owner-operators harvesting fish in a given Lobster Fishing Area—are encouraged to adapt to this evolving market by pursuing certification of their harvest.

Participating in MSC certification can provide various benefits to harvester groups, such as secured market access, increased product value, product differentiation, and the possibility of receiving a price premium (Bellchambers, Phillips, & Perez-Ramirez, 2015; Goyert, Sagarin, & Annala, 2010). However, there is some hesitation towards the certification among industry members because concrete benefits are not guaranteed and the costs of achieving certification can be relatively high. Primarily, there are concerns regarding the cost of certification imposed on client groups, which can range from $15,000—350,000 per fishery, with an additional cost of about $75,000 for annual audits (Bellchambers, Phillips, & Perez-Ramirez, 2015; Jacquet et al., 2010). Furthermore, other demands on client groups’ financial and human resources that surface after certification can be substantial and conditions are often imposed that can impose future costs and foster dissatisfaction with the certification (Foley & Hébert, 2013).

Decisions taken by harvester groups to participate in a MSC-certified supply chain are complicated and dependent on various pressures from powerful supply chain and industry actors (Foley & Hébert, 2013; Goyert, Sagarin, & Annala, 2010; Gulbrandsen, 2006). Thus, there is value in examining the complicated landscape that harvesters must navigate in their decision to pursue certification and the implications of their participation in this governance strategy, as this will provide insight for these harvester groups in making future governance decisions. To better understand the way in which decisions regarding certification are made among harvesters and their harvester groups, as well as how tensions may emerge after certification is achieved, this
research focuses on several cases of MSC-certified Atlantic lobster on the east coast of North America. Exploration of these decision-making processes, emergent tensions, and other outcomes of participation in MSC certification can provide practical lessons and insight for harvester groups in future decisions regarding governance of their fishery.

The certification of Atlantic lobster is interesting and appropriate for research into the local complexities driving certification decisions for a number of reasons. First, lobster fishing in the Northwest Atlantic is undertaken using traps and bait that have limited adverse habitat impacts and lobster stocks are generally understood to be stable (DFO, 2011; DFO, 2014b). Second, there are seven lobster fisheries certified in the Northwest Atlantic region—five in Atlantic Canada and two off the coast of Maine (see Figure 1). Of these seven certified lobster fisheries, all seven are certified under the MSC standard specifically. Some of these fisheries are very close to one another spatially, and there are different organizations that have applied for, and are responsible for, the certification. Third, Canada’s inshore fisheries, represented by locally-based organizations, harvest approximately 99% of the total volume of Atlantic Canada’s MSC-certified lobster, while the offshore fishery harvests about 1% of this total (MSC, 2016c).

It is interesting to consider harvester groups’ decisions to certify in the Northwest Atlantic region because the technology, scale, and place-based nature of harvesting more often receive public praise than face protest or environmental scrutiny.
Figure 1. Locations of the seven MSC-certified lobster fisheries in the Northwest Atlantic. Adapted from the MSC Track a Fishery website (MSC, 2016c).

1.2 Scholarly Context

In addition to practical motivations, this thesis draws from and contributes to scholarship. Specifically, this research is motivated by intersecting ideas and open questions in three bodies of literature: certification as a tool of environmental governance; certification as a tool of corporate social responsibility; and responses to certification in Northwest Atlantic fisheries.

Lemos and Agrawal (2006) define environmental governance as “the set of regulatory processes, mechanisms, and organizations through which political actors influence environmental actions and outcomes” (p. 298). Research focused on environmental governance explores changes in environmental incentives, knowledge, institutions, decision-making and behaviour resulting from the inclusion of state actors and other actors, such as communities.
businesses, and non-governmental organizations (NGOs) in environmental oversight (Lemos & Agrawal, 2006). The body of literature that explores environmental governance is extensive, and the literature on certification as a mechanism of environmental governance is similarly developed. Certification literature within this body of scholarship has begun to explore the dynamics of collective action fostered by environmental certifications (see Eden & Bear, 2010; Foley & McCay, 2014). Foley & McCay (2014) argue that use of the MSC certification and label allows for the creation of new institutions of collective action. Furthermore, the authors argue that MSC certification of fisheries requires the establishment of clients and client groups as governance institutions, which inherently puts a greater demand on its participants to engage in collective action. While there have been advancements within environmental governance literature in understanding the roles of collective action and collaboration in certification and resource governance, further examination of why certain overlooked actors such as fish harvesters choose to participate in these arrangements and the implications of their participation will be valuable.

This research also draws from literature that examines how certification is used as a business strategy. CSR is often described as “a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on a voluntary basis” (Dahlsrud, 2008, p. 7). This body of literature provides a thorough explanation of how and why businesses choose to engage in environmentally responsible practices and sustainability strategies. However, the CSR literature that employs the perspective of individual businesses to explore their motivations for pursuing and continuing to participate in environmental certifications specifically is often limited to large-scale business decisions rather than to smaller, independent owner-operator producers. Thus, further research is
necessary to advance this body of literature by exploring how and why producers decide that certification will be beneficial for their individual businesses, as well as the influence of other supply chain actors on producers’ decision-making.

The third body of literature that this research engages with is responses to MSC certification in the Northwest Atlantic region. Various case studies have been presented by authors that seek to understand how seafood industries in the northwest Atlantic respond to the changing landscape of resource governance and the dynamics involved in choosing to certify between industry, state, and non-state actors (see Foley, 2012; Foley, 2013; Goyert, Sagarin, & Annala, 2010). This body of literature begins to address some of the research gaps identified within the other two bodies of scholarship and provides some insight into how MSC certification is sometimes contested regarding the way it represents sustainability and conceals critical distinctions among fisheries (see Christian et al., 2013; Hadjimichael & Hegland, 2016). The case of the MSC certification is unique, as the certification requires the use of clients and client groups to legally hold the certificate, thus introducing a new institutional arrangement into the network of existing actors. Given the popularity and increasing uptake of MSC certification at a global scale, this research aims to further understand the implications of utilizing client groups in resource governance decisions, particularly in the context of Atlantic fisheries. Additionally, the limited literature available on how harvester groups specifically navigate this complex landscape highlights the importance of considering the views and perspectives of these actors.

While the three bodies of research described above have offered valuable knowledge for this paper, there are research gaps that exist between them. Most broadly, there is a research gap in the relevant literature on the unique responses and decision-making processes of harvesters and their harvester groups in the complex landscape of MSC certification. Thus, this research
calls for exploration of the influences faced by harvester groups in the certification process and how these groups respond to such influences. Additionally, this research provides insight into why harvester groups chose to participate in MSC certification specifically, as well as what the implications of this participation are on harvester groups’ practices and the structure of the network they participate in. This research also furthers the understanding of the tensions between locally experienced sustainability and externally defined sustainability for harvester groups pursuing MSC certification and what this tension implies for the longevity of the arrangement. Providing an understanding of these dynamics faced by harvester groups and their responses will also deepen the academic understanding of harvesters’ role in legitimizing and sustaining the MSC certification of their supply chain over the long term.

1.3 Research Aim and Objectives

The research aims to examine: how harvester groups participating in certified lobster fisheries on the east coast of North America navigate the complex certification landscape; the influences that shape their participation in MSC certification, and; how harvester groups experience changes resulting from MSC certification. Consistent with this aim, three research objectives are pursued:

1. Characterize the landscape of relevant events and participants involved in the certification of Northwest Atlantic lobster by describing the process of MSC certification and the various actors involved in the certification process for Atlantic lobster, with a particular focus on the harvester organizations and client groups that represent lobster harvesters in decision-making around certification.

2. Identify and understand how Atlantic lobster harvesting groups respond to certification uptake at the start of the supply chain, how decisions are made regarding choosing among
certifications, and the challenges and influences that affect certification selection and implementation.

3. Explore the changes that MSC certification imposes on the Atlantic lobster network’s structure, the degree to which tensions between externally-defined and locally-practiced sustainability arise, and the resulting implications for harvester groups and their participation in MSC certification.

1.4 Outline

The remainder of this thesis is presented in four chapters. Chapter 2 presents a review of the literature that is relevant to this thesis. Chapter 3 describes the research methods employed to address each of the research objectives outlined above. The following chapter develops a central manuscript based on three central themes of findings: harvester responses to MSC certification; changes to industry structure from MSC certification; and the tensions between local and external determinations of sustainability. The main body of the thesis concludes in Chapter 5, which summarizes the central findings, reviews the contributions and limitations of the research, and suggests directions for future research.

The analysis identifies three central themes of findings. Primarily, this research examines harvester groups’ certification experiences as it focuses on their responses to certification, their motivations to certify with the MSC, and the challenges encountered in the certification process. While literature has recognized that MSC certification is being used by producers as a means of market access (Bush & Oosterveer, 2015; Foley, 2012; Goyert, Sagarin, & Annala, 2010; Gulbrandsen, 2014; Stoll & Johnson, 2015), this research’s findings provide further insight into the weight of the influence that market-facing actors can hold over harvester groups’ decision-making. The second theme of findings explores how the introduction of MSC certification
influences the structure of the local industry’s network, as well as the implications of these changes on harvester groups. Existing literature highlights the ways that the introduction of client groups in particular can foster and be fostered by collective action and collaborative arrangements (Foley & McCay, 2014), and this research furthers this argument by illustrating the strengthened relationships and new arrangements of cost and information-sharing that can emerge from MSC certification. Lastly, this research highlights the tensions between externally-defined conceptualizations of sustainability and the way that sustainability is locally experienced. Extending the current literature on contested certifications and frustrations with the simplistic way that the MSC label represents sustainability (Christian et al., 2013; Hadjimichael & Hegland, 2016), this research provides evidence that harvester groups are seeking additional recognition for their sustainability efforts that go beyond the MSC requirements.

The collection of findings in this research furthers the understanding of how MSC certification is experienced by harvester groups and the dynamics that shape these experiences. These findings not only provide insight into the experiences of harvester groups—a perspective which is usually not addressed in certification literature—but also suggest how tensions within and among these groups can affect the longevity of the certification arrangement. Considering the constantly evolving nature of Canada’s seafood governance landscape (Schmidt, 2012), this research sheds light on factors that might affect the longevity of MSC certification in the Canadian lobster industry, and may provide valuable lessons in predicting MSC certification’s longevity in the landscape of alternative seafood governance approaches.
Chapter 2. Review of Relevant Scholarship

Non-state market-driven certification schemes—and certification in particular—have been explored through various approaches in different bodies of scholarship. This literature review examines certification (with a focus on MSC certification) according to three different bodies of scholarship. Literature exploring certification as a means of environmental governance is discussed, followed by a review of literature that approaches certification as a means of corporate social responsibility. This chapter also examines the literature that describes responses to certification in Atlantic fisheries. To preface these sections, a review of literature on the MSC certification is presented to provide a preliminary understanding of the certification.

2.1 MSC Certification

A foundational overview of MSC certification and the processes involved precedes the review of three bodies of scholarly literature in sections 2.2-2.4. This section is first presented in order to provide a foundational understanding of the growth and uptake of MSC certification, the certification’s standards and process, and the support and criticism for MSC certification within literature. This section concludes with a brief review of MSC-plus and MSC-minus initiatives as indicators of dissatisfaction with MSC certification among producers.

2.1.1 The Movement towards Third-Party Certification

In response to various concerns regarding the ability of the state to effectively manage the environment, there has been notable growth in the acceptance of alternative systems that mobilize large institutional buyers and concerned consumers to use environmental, social, or ethical criteria in purchasing decisions (Vandergeest, 2007). One of the most popular alternative systems includes non-governmental standard-setting organizations that administer third-party certification and eco-labeling initiatives. The collection of governance regimes—commonly
represented by the term non-state market-driven (NSMD) governance—obtain authority not from the state, but rather from alternative actors and decision-makers in the marketplace (Cashore, Egan, Auld, & Newsom, 2007). NSMD systems are designed to offer strong market incentives to sustain environmental resources in the wake of other failing, predominantly state-led, governance systems (Bernstein & Cashore, 2007; Cashore, 2002).

Third-party certification schemes have emerged as a notable NSMD governance mechanism. These systems aim to recognize sustainable supply chains by setting responsible standards and offering producers the opportunity to certify their products against them. By doing this, certified producers can gain recognition among consumers for their efforts and potentially receive a price premium from the product (Jacquet et al., 2009). In using a third party for the certification, the certification assessments are designed to be impartial, robust, and credible through the use of independent experts to conduct the certification assessment (MSC, n.d.-c).

Certification schemes began to increase in their uptake and support after numerous certifications were established in various markets. In particular, the development and successful initiation of the Forest Stewardship Council, established for certification of forest products in 1993, largely contributed to the support developed for firms’ uptake of certification strategies (Eden & Bear, 2010). Similarly, third-party certifications and eco-labels have been utilized in other industries such as those for apparel, coffee beans, minerals, organic foods, and seafood products (Bernstein & Cashore, 2007; Cashore, 2002).

2.1.2 Foundations of MSC Certification

With increasing concern about government’s ineffective fisheries management, the transnational environmental organization World Wildlife Fund (WWF) aimed to take responsibility for guiding international fisheries management and fostering sustainability in
global fish stocks. WWF formed a partnership in 1996 with Unilever—a transnational corporation and the world’s largest buyer of frozen fish (Constance & Bonanno, 2000). This partnership established the Marine Stewardship Council (MSC) as an independent, non-governmental body that rewards sustainable global fisheries with certification (Constance & Bonanno, 2000). The MSC certification program became fully established in 1999 and encourages fisheries to conform to MSC’s Principles and Criteria for sustainable fisheries.

The popularity and spread of the MSC certification is indisputable. Expansion of the MSC program is unusual compared to certifications for other resources, as the MSC has held a virtual monopoly in certifying fisheries at an international scale in the 2000s (Foley & Hébert, 2013). Furthermore, Foley and Hébert (2013) argue that the MSC “actively contributed to its own expansion by building demand, first through its cofounder Unilever’s commitment to source certified seafood, and then by persuading retailers in key European and US markets to commit to buying only MSC-certified seafood” (p.2738). MSC certification thus played a central role in creating demand for certified seafood and providing the supply for that demand in mainstream markets (Foley & Hébert, 2013). As of October 2016, MSC had certified over 306 fisheries in 33 countries, with 83 fisheries in assessment (MSC, 2016b).

2.1.3 MSC Standards and Certification Process

The MSC certification is composed of two different standards—both of which are necessary to achieve rights to using the MSC logo on a seafood product. The first standard is the MSC Fisheries Standard, which measures the sustainability of wild-capture fisheries. The MSC Fisheries Standard is a sustainability guideline for which a fishery can be assessed against and was developed with scientists, the fishing industry, and conservation groups (MSC, n.d.-b). This standard is composed of three assessment principles of sustainable fish stocks, minimal impacts
of fishing on the marine ecosystem, and effective management of the fishery. A total of 28 performance indicators were established for third-party assessment bodies to assess a fishery against these principles (MSC, n.d.-b). These indicators created the foundations for a metric-based evaluation of performance, with scoring guideposts of a “perfect” fishery obtaining a score of 100, a minimum score of 80 for acceptable and unconditional performance, and a minimum score of 60 for conditional compliance with the standard (Bush & Oosterveer, 2015). While the MSC Fisheries Standard provides guidelines for the fish harvesters to follow, the MSC Chain of Custody Standard focuses on outlining the principles that must be followed along the supply chain, from the certified fishery to the final sale of the seafood product. This standard is composed of five principles that all relevant participants must meet: the certified products must be purchased from a certified supplier; the products must be identifiable; the products must be segregated from non-certified products; the products must be traceable and have their volumes recorded; and the organization must have a management system (MSC, 2015b).

The certification process begins with a fishery client or client group applying for a fishery to be assessed and considered for certification by a certification body, or Conformity Assessment Body (CAB) (MSC, 2015a). A client is defined as “the legal entity applying to the CAB for certification or that holds valid MSC certificate” (MSC, 2013, p. 45). In contrast, a client group “includes fishing operators within a unit of certification that the client identifies as being covered by the certificate”, and may also include other entities that the client group has extended use of the certificate to (MSC, 2013, p. 45). Entities that have acted as clients or client group members include harvester organizations, producer organizations, co-operatives, private companies, non-governmental organizations, governments, and industry associations (Foley, 2012; MSC, 2015a). The CAB is an independent body hired by clients to conduct MSC assessments and determine
whether the fishery is suitable for certification (MSC, 2015a). After the CAB announces to stakeholders that a given fishery will undergo assessment, the fishery’s relevant data and information is collected and analyzed by an assessment team, which is usually composed of fisheries scientists selected by the CAB (MSC, 2015a). This assessment is followed by a client and peer review of a draft report that summarizes the fishery’s performance according to the MSC Fisheries Standard and outlines conditions that must be met to improve the fishery. After a public review process, the assessment team will make a final determination regarding whether the fishery should be certified. This process concludes with publication of the certification report and issuance of a five-year certificate to the fishery (MSC, 2015a).

Depending on the complexity of a fishery and its associated assessment, the total cost for fisheries to be assessed and certified can range from $15,000 to $350,000 per fishery, with an additional cost of about $75,000 for annual audits (Bellchambers, Phillips, & Perez-Ramirez, 2015; Jacquet et al., 2010). Certification is paid for by the fishery client; however, financial support for certification may come from stakeholders such as industry groups, governmental bodies, or other non-governmental organizations (MSC, 2015a). The assessment and audit costs can be a significant issue for some fisheries with limited financial resources, particularly in markets where there is no evidence of a MSC price premium (FAO, 2011). As a result, some fish harvesters see little incentive to participate in the certification process (Bellchambers, Phillips, & Perez-Ramirez, 2015).

2.1.4 Support and Criticism of MSC Certification’s Robustness

Much of the seafood industry’s growing commitment to MSC is likely due to the perception of MSC as the “gold standard” of seafood certifications. This determination of MSC is partly due to industry recognition of its characteristics that make it robust and credible. More
specifically, the MSC certification process requires third-party certification bodies, or conformity assessment bodies (CABs), to carry out assessments independent of the MSC direction. Furthermore, accreditation of the CABs is managed by Accreditation Services International—an additional third party organization (MSC, n.d.-c). The robustness of MSC is also demonstrated in its consistency with international best practice guidelines, which includes the UN FAO’s Code of Conduct for Responsible Fishing, the UN FAO’s Guidelines for the Ecolabelling of Fish and Fishery Products from Marine Fisheries, and the ISEAL Code of Good Practice for Setting Social and Environmental standards (MSC, n.d.-a).

While the MSC certification scheme is often regarded as the “gold standard” of seafood certification, there are also criticisms that are frequent in literature. For example, MSC’s claim that it is fully compliant with the UN FAO’s Code of Conduct for Responsible Fisheries is contested. Christian et al. (2013) highlight the MSC’s inconsistencies in meeting certain components within the Code, such as the Articles outlining that priority should be given to the nutritional needs of local communities and states should encourage the use of fish for human consumption wherever possible (Christian et al., 2013; FAO, 1995). However, several MSC-certified fisheries catch seafood for the purpose of industrial fishmeal, which is ultimately an unsustainable and wasteful use for seafood (Christian et al., 2013; Duarte et al., 2009). Criticisms that MSC assessments are carried out through highly subjective third-party scoring processes, where certifiers have been incentivized to inflate scores and use discretion in their evaluations, also demonstrate shortcomings in the certification process (Christian et al., 2013; Jacquet et al., 2010). MSC certification is also largely criticized for certifying overfished stocks and not demonstrating a measurable reduction in fish stock decline despite increased uptake of MSC certification (Bush & Oosterveer, 2015; Jacquet & Pauly, 2007).
2.1.5 MSC-plus and MSC-minus Initiatives as Indicators of Harvester Dissatisfaction

An analytical approach employed in this research concerns the growth of MSC-plus and MSC-minus initiatives in various fisheries worldwide, how these initiatives can develop from industry actors’ dissatisfaction with MSC’s limitations, and the effects that these initiatives have on how sustainability is conceptualized and communicated. These initiatives are emergent approaches that expand the definition of fisheries’ suitability for MSC certification through supplementary programs and labelling initiatives. MSC-minus strategies typically concern fisheries participating in Fisheries Improvement Projects under NGO and/or private sponsorship, which provide a potential alternative route to global markets for fisheries that are unable to meet the MSC standards but hope to gain recognition for improvements to sustainability (Bush & Oosterveer, 2015). In comparison, MSC-plus strategies seek further symbolic and market value from sustainability efforts that go beyond the requirements of MSC certification (Bush et al., 2013, Bush & Oosterveer, 2015). An example of an MSC-plus strategy driven by harvesters is the MSC-certified Dutch plaice fishery that established self-imposed no-take zones to improve sustainability beyond what was required under the MSC certification. Given that the MSC label could not provide additional recognition for these efforts, this fishery proposed to use the World Wildlife Fund (WWF) logo next to the MSC logo on their products. However, the WWF rejected this as it may undermine the legitimacy of the MSC logo; instead the WWF released a statement highlighting fishery’s sustainability measures and it’s “premium” status (Bush et al., 2013).

The emerging MSC-plus strategies in particular demonstrate some industry actors’ dissatisfaction with how the MSC label communicates sustainability, which has led to the pursuit of initiatives that provide additional or different recognition for their efforts. While the dominance of the MSC label and its representation of sustainability are evident within the seafood industry, the case of MSC-plus and MSC-minus fisheries highlights the growing
recognition of a non-binary conceptualization of sustainability among industry actors. The MSC eco-label is used to signal either the presence or absence of sustainable practices within a fishery (Agnew et al., 2014; Patala et al., 2015), yet it can conceal critical distinctions in different degrees of sustainability between fisheries. Consequently, MSC-plus and MSC-minus initiatives reflect a newer understanding of sustainability emerging in the seafood industry that may be able to more accurately depict locally-practiced sustainability to consumers. In the thesis to follow, similar MSC-plus initiatives are explored, as they have emerged among several Atlantic lobster harvester groups under MSC certification.

2.2 Certification as a Means of Environmental Governance

MSC certification, among other certification schemes, has been explored extensively within environmental governance literature as certification can be approached as a tool of environmental governance. This body of literature explores how the environment is governed through various processes and mechanisms employed by market, state, and non-state actors in different combinations (Lemos & Agrawal, 2006). This section explores environmental governance’s emergence, its cross-sectoral approach, and how certification schemes can be understood as a tool of environmental governance. Following this, a framework used to understand the development of a given non-state market-driven system’s (such as certification) legitimacy is discussed.

2.2.1 Emergence of Environmental Governance

Lemos and Agrawal define environmental governance as “the set of regulatory processes, mechanisms, and organizations through which political actors influence environmental actions and outcomes” (2006, p. 298). This observable phenomenon explores changes in environmental incentives, knowledge, institutions, decision-making and behaviour resulting from the inclusion
of state actors and other actors, such as communities, businesses, and non-governmental organizations (NGOs) in environmental oversight (Lemos & Agrawal, 2006). Rather than applying one management technique to all environmental issues, environmental governance describes the wide variety of emerging alternatives, such as certification schemes, that employ different stakeholders to responsibly manage the environment.

Among the various conceptualizations of the concept of environmental governance within literature (see Davidson & Frickel, 2004), Bryant and Wilson’s (1998) conceptualization describes environmental governance as a departure from a state-led environmental management approach. Environmental management is traditionally equated with state-centered practices of environmental oversight and regulation. State-centered environmental management can be characterized as an approach that assumes the environment can be divided into discrete entities for management, uses a “top-down” approach, and applies a technocentric perspective that relies on the use of technology in problem-solving (Bryant & Wilson, 1998).

The traditional environmental management approach has been criticized for various reasons, such as its failure to think holistically, the incompatibility of “top-down” management with the interests of grassroots actors, and the lack of integration of environmental problems into their broader political, economic, and social context (Bryant and Wilson, 1998). Consistent with these criticisms, one notable driver of the transition away from environmental management towards environmental governance has been a growing recognition that communities and local institutions can play a valuable role in governance, and that no single actor is best suited for addressing environmental problems (Lemos & Agrawal, 2006). While the centralized role of the state in conventional environmental management has been critiqued, scholars note that environmental governance continues to utilize the power of the state in conjunction with the
power of markets and local communities. Through this, participating actors can participate in collaborative decision-making and distribute responsibility in a more balanced manner.

2.2.2 Cross-Sectoral Approach of Environmental Governance

Environmental governance’s roots in various bodies of knowledge have created a foundation upon which a cross-sectoral approach to environmental oversight has developed. Environmental governance represents “the collective results from the exercise of authority and control through multiple governmental and other organizations, each following their own decision-making processes” (Francis, 1996, p. 303). It is important to note that environmental governance is not a prescribed approach, but rather an outcome that has developed from the extension beyond “government” towards inclusion of other market and non-governmental actors in management of the environment (Francis, 1996; Lemos & Agrawal, 2006). As a result of environmental governance, hybrid forms of collaboration have emerged between state, NGO, and market actors (depicted in Figure 2).

**Figure 2.** Mechanisms and strategies of environmental governance. Retrieved from Lemos & Agrawal (2006).
A central indicator of environmental governance, as demonstrated in Lemos and Agrawal’s (2006) depiction, is the network of relationships and partnerships that can be built between diverse and often contesting actors who may not typically collaborate in decision-making (Eden, 2009). Much of the support for this depiction comes from the understanding that no single actor possesses the full capacity to address the dynamic and multi-scalar environmental issues that are prevalent today. By encouraging relationships between different actors, collaborative and hybrid strategies that draw on the respective strengths of its state, community, and market actors can be developed (Lemos & Agrawal, 2006).

2.2.3 Certification and Environmental Governance

Certification schemes in particular represent a hybrid environmental governance approach that utilizes the support of a variety of actors, depending on the certification program being examined. Certification programs are typically developed by non-governmental organizations (NGOs) and industry associations in response to environmental and ethical concerns in fishing, forestry, mining, and farming industries, among others (Gulbrandsen, 2006). These initiatives aim to recognize sustainable supply chains by setting responsible standards and offering producers the opportunity to certify their products against them. By doing this, certified producers can enter or remain in the global marketplace and gain recognition among consumers through displaying a certification logo on their products (Jacquet et al., 2010). These initiatives are typically driven by support from NGOs and market actors (Eden, 2009; Goyert, Sagarin, & Annala, 2010), although governmental bodies may also publically advocate for regional or third-party certification of its fisheries (Standing Committee on Fisheries and Oceans, 2009).

Through collaborative arrangements, certification systems are able to utilize the strengths of various actors to further their development of sustainable supply chains (Eden & Bear, 2010).
NGOs will often play a dominant role in the development of a certification initiative as they can represent the concerns of the general public, assist in monitoring implementation and compliance of initiatives, and provide scientific and technical knowledge (Lemos & Agrawal, 2006). Similarly, market actors become involved in supporting such initiatives as they can encourage environmental compliance and mobilize individual incentives in favour of environmentally positive outcomes (Eden & Bear, 2010). If there is involvement of state agencies in certification, these actors may assist in developing the political legitimacy and effectiveness of these voluntary governance mechanisms, in addition to providing financial support (Gulbrandsen, 2006).

Environmental governance scholarship that examines MSC certification has recognized the significance of international market access as an incentive for industry members and governmental bodies to participate in and/or support MSC certification (see Bush & Oosterveer, 2015; Foley, 2013; Goyert, Sagarin, & Annala, 2010; Gulbrandsen, 2014; Stoll & Johnson, 2015). While the motivation to certify a fishery to secure market access is particularly prevalent, there is evidence that MSC certification is used by industry actors for additional purposes. For example, Foley’s (2012) depiction of a Canadian shrimp fishery reveals how MSC certification was used by clients to control resource access and production relations. Other cases demonstrate different motivations, such as using MSC as a means of addressing uneven power relations within the global food chain (Ponte, 2008) or gaining political recognition for improvements to sustainability (Pérez-Ramírez, Castrejón, Gutiérrez, & Defeo, 2016).

2.2.4 Certification Legitimacy in Environmental Governance

Some environmental governance literature explores the role of legitimacy in furthering the success of various governance mechanisms (Auld & Gulbrandsen, 2010; Bernauer & Gampfer, 2013; Washington & Ababouch, 2011). Legitimacy is a central concern in evaluating
non-state market-driven (NSMD) governance approaches, as authority is derived in a different way compared to state-led environmental management approaches. While state management systems by definition possess legitimate authority, NSMD systems must actively work towards achieving political legitimacy in order to hold rule-making authority (Bernstein & Cashore, 2007). NSMD governance systems derive their authority not from the state, but rather through manipulation of the market in a way that is evaluated by external actors and the actors that the NSMD system seeks to regulate (Cashore, 2002). Political legitimacy is sought out by these systems for their validation, whereby businesses, social actors, and other stakeholders participate in a system that views shared governance as appropriate and justified (Bernstein & Cashore, 2007).

Society’s shift towards newer and unconventional governance strategies, such as NSMD systems, has encouraged academics to re-examine the ways in which legitimacy can be assessed. In particular, Bernstein and Cashore (2007) have developed a three-phase framework to evaluate the legitimacy of NSMD systems. As depicted in Figure 3, the first phase of this framework represents initiation of the system, where any early support by firms and environmental groups is captured before the development of NGO efforts to change company evaluations and therefore perceived legitimacy. Following this, the next phase of the legitimacy framework is the building of support, where pressure must be applied to attract firms who face higher compliance costs to join. Phase two can lead to an increase in pressure placed on the state to take over regulation, resistance towards accepting the system, or the ideal outcome of institutionalization of NSMD governance through widespread support. If NSMD governance is institutionalized, phase three is achieved, where stakeholders recognize their membership in a community that grants governing
power to the NSMD system. It is at this stage of development that an NSMD system will be seen as politically legitimate at a broad scale (Bernstein & Cashore, 2007).

![Diagram of NSMD system development phases](image)

**Figure 3.** The three phases of non-state market-driven governance. Retrieved from Bernstein & Cashore (2007).

### 2.3 Certification as a Means of Corporate Social Responsibility

Similar to the way that certification can be contextualized and understood by examining environmental governance literature, it can also be understood by exploring the way it is presented in corporate social responsibility (CSR) literature. This body of literature approaches certification through the lens of businesses’ development and use of environmental and social responsibility strategies to obtain a certain objective and reap the benefits of engaging in CSR practices. The following section will therefore explore: the foundations of CSR; the benefits that can be acquired by businesses in pursuing CSR practices; how certification is a tool of CSR; and how CSR literature frames the development of certification’s legitimacy. The section will conclude with a brief review of an analytical approach used in this thesis which provides guidance in understanding businesses’ internal and external motivations to engage in corporate sustainability practices.
2.3.1 Foundations of CSR

The idea that businesses have some degree of responsibility to society beyond the need to generate profits for shareholders has existed for decades. However, practitioners and scholars began to note the emergence and prevalence of corporate social responsibility (CSR) within supply chains in the 1960s (Carroll & Shabana, 2010). CSR has been the focus of a variety of academic studies (Carroll, 1991; Hoejmose, Brammer & Millington, 2013; Smith 2003), but it has only recently gained attention as an independent field of research (Mueller, dos Santos, & Seuring, 2009).

Despite the pervasiveness of CSR studies, there is little agreement on one concrete definition of CSR employed by researchers. Dahlsrud (2008) argues that the confusion around CSR does not come from how CSR is defined, but rather how CSR is constructed in a specific context. Mueller, dos Santos, & Seuring’s (2009) suggest that CSR is best understood by deconstructing CSR into its three elements: corporate, social, and responsibility. The term “corporate” refers to all kinds of enterprises, rather than solely multinational businesses in industrialized countries. Furthermore, “social” refers to social responsibility and societal impacts, which implies ecological responsibility and sustainable development. “ Responsibility” concerns the question of which basic function and purpose the enterprise fulfils in society. Drawing from the understanding of these distinct terms, CSR can be defined as the responsibility of companies towards their social and ecological environment (Mueller et al., 2009).

Businesses typically embrace CSR logic after being put under pressure by stakeholders, such as regulators, customers, shareholders, and NGOs, to incorporate responsible supply chain practices in their business strategies (Hoejmose et al., 2013). NGOs in particular are known for exposing a business’ lack of acceptable work conditions and environmental protection practices by publishing information about these practices or leading public shaming campaigns (Mueller et
Firms’ growing embrace of CSR is partly demonstrated in the increased adoption of product certification along firms’ supply chains. Certification appeals to businesses because certification schemes, designed and assessed by a third party, are constructed in a way that support improvement of firms’ supply chain and provides recognition and support of CSR efforts through a logo that consumers can see. CSR logic thus argues that businesses are able to gain numerous benefits from securing product or supply chain certification (Auld, Bernstein, & Cashore, 2008).

Similar to Bernstein and Cashore’s (2007) model previously discussed, other academics in CSR scholarship have modeled how sustainable practices emerge and are accepted by industry actors. Lozano (2015) proposes that corporate sustainability is not only achieved through changes to raw materials, processes, and products, but also through changes to corporate culture, attitudes, and organizational structure. Lozano’s (2015) model, depicted in Figure 4, shows that a more sustainability oriented state (MSOS) can be achieved through organizational changes towards sustainability, thus moving away from an unsustainable status quo (SQ) to a new equilibrium. To be successful, this process must address individuals, groups, the broader organization, and their respective attitudes towards the change. Throughout this period of change, the system passes through a transitional period, where the different forces adjust to each other to reach the MSOS. Only once the forces are balanced and new structure and goals are established, the MSOS becomes the new status quo (SQN) (Lozano, 2015).
2.3.2 Benefits Acquired through CSR Practices

Firms’ attention to their social responsibilities can generate various benefits. CSR practices can reduce costs and risks to the firm by mitigating any threats within the demands of stakeholders. Addressing demands, such as development of environmentally responsible commitments or strategies that support worker well-being, can lower costs of complying with regulation and address lawsuits before they happen (Carroll & Shabana, 2010). A second benefit concerns the competitive advantage firms can gain by using CSR to set themselves apart from their competitors. This competitive advantage can be created by developing a unique and socially responsible business strategy that gains public recognition and respect (Carroll & Shabana, 2010; Mueller et al., 2009).

Reputation and legitimacy can also be strengthened with CSR practices, as firms can create an improved reputation for themselves by correcting socially or environmentally harmful practices. Consumers often report that their purchasing decisions are influenced by the reputation
of the firms (Smith, 2003). Similarly, consumers respond in a positive manner to firms that engage in philanthropic activities and disclose information on performance (Carroll & Shabana, 2010). A positive corporate image and reputation can therefore attract customers, investors, and employees, ultimately strengthening the legitimacy of the firm’s activities (Boehe & Cruz, 2010). Adopting CSR practices can also lead to win-win outcomes that provide benefits for the firm, stakeholders, consumers, and portions of the environment and society. According to Kurucz et al. (as cited in Carroll & Shabana, 2010), win-win outcomes can be fostered by reconciling differing stakeholder demands through “connecting stakeholder interests, and creating pluralistic definitions of value for multiple stakeholders simultaneously” (p. 100). These win-win outcomes not only engage stakeholders and satisfy their demands, but also allow firms to pursue their interests with the support of stakeholders (Carroll & Shabana, 2010).

2.3.3 Certification and CSR

While certification schemes are largely described and conceptualized in a similar way between CSR literature and environmental governance literature, CSR literature offers a slightly different approach to understanding certifications. In CSR scholarship, certification schemes are considered to be private global governance and business regulation mechanisms, as they are often established without direct involvement of governmental bodies (Von Geibler, 2013). Certification schemes are also framed in CSR literature as an outcome of stakeholders turning to firms, rather than governments, to address environmental problems (Auld, Bernstein, & Cashore, 2008). Certification schemes thus represent a non-state market-driven effort to establish environmentally, socially, and ethically responsible standards for supply chains to demonstrate their compliance to these standards and verify this compliance through a third party. Additionally, these schemes represent a means of rewarding businesses participating in a
certified supply chain for their efforts in improving sustainability or social responsibility (Mueller, dos Santos, & Seuring, 2009; Von Geibler, 2013). Thus, these initiatives can act as a market instrument that provides solutions to unsustainable resource use in supply chains within a given industry (Von Geibler, 2013).

2.3.4 Certification Legitimacy in CSR Literature

Within the CSR scholarship, there is some exploration of how to measure the legitimacy of CSR initiatives. One approach to understanding the legitimacy of environmental standards systems (such as those used in seafood certifications) is proposed by Mueller, dos Santos, & Seuring (2009). These authors argue that legitimacy can be developed at three distinct system stages: input, throughput, and output. Primarily, input legitimacy requires the approval of all addressees, whether directly or indirectly, and ideally includes all stakeholders who are concerned with the development process in decision-making. Throughput legitimacy is achieved if decisions are determined to be made according to a fair procedure. Determination of throughput legitimacy requires examination of how and to what extent stakeholders are involved in the development or extension of a standard, which indicates whether procedural fairness can be guaranteed. Legitimacy at this stage will be especially difficult to develop if the stakeholders involved in the system differ in their agendas or ignore certain discourses. Lastly, output legitimacy is determined by examining which degree of legitimacy the standard directly achieves and whether all the relevant claims have been fulfilled (regarding, for example, ecological and social effects). At this stage, legitimacy is not automatically guaranteed for the future, but rather it must be routinely renewed to ensure its longevity (Mueller, dos Santos, & Seuring, 2009).

Working under this input, throughput, and output approach to understanding legitimacy, Mueller, dos Santos, & Seuring (2009) developed five criteria that help to determine the degree
of legitimacy within a standards system. These criteria are: inclusion of all concerned stakeholders; integration of all supply chain participants; development of the standards’ criteria through stakeholder discourse; control by certification and accreditation criteria; and transparency of the process’ results (Mueller, dos Santos, & Seuring, 2009). The two criteria regarding inclusion of stakeholders and integration of all supply chain participants are particularly noteworthy, as consideration of stakeholders and supply chain actors’ influence on system legitimacy is comparatively absent in the model of NSMD systems’ legitimacy presented by Bernstein and Cashore (2007).

2.3.5 Internal and External Motivators for Harvesters’ Participation in Sustainability Strategies

A deeper understanding of actors’ motivations to pursue CSR-driven sustainability strategies, such as certification schemes, can be achieved by employing Lozano’s (2015) internal and external categorization of sustainability motivations as an analytical approach. Lozano (2015) seeks to understand businesses’ central rationales for pursuing corporate sustainability efforts. Lozano (2015) argues that the motivations for such efforts can be organized according to internal and external motivations. Internal motivations are described as more proactive in nature and concern processes and relationships inside the organization. In contrast, external motivations tend to result in reactive measures that concern processes and relationships outside of the organization, and have been argued to be less likely to help the organization move towards sustainability, according to DeSimone and Popoff (as cited in Lozano, 2015).

Using the division of internal and external rationales to participate in CSR mechanisms, various rationales traditionally found in firms’ sustainability decision-making can be identified and organized. Some of the most common internal motivations identified by Lozano (2015) include ethical leadership, risk management, increased product quality, and improved profits and
growth. In contrast, external motivations play a different role in encouraging sustainable change, as they exist outside of the “black box” of an organization’s internal elements and processes while interacting with these elements and processes. Such motivations can include governmental or industry regulations, stakeholder expectations, improved access to markets and customers, protection of reputation and public image, and pressures from NGOs (Lozano, 2015).

2.4 Responses to Certification in Atlantic Fisheries: A Review of Case Studies

To understand how MSC certification is experienced in northwest Atlantic fisheries specifically, a review of literature that explores case studies of MSC certification uptake in these fisheries is presented. Examination of certain case studies not only provides some context into how various industry groups respond to MSC certification, but it also introduces various themes that are relevant to this thesis research. The first case study described is a Newfoundland and Labrador inshore shrimp fishery, which highlights how a certified fishery’s client can influence industry collaboration, competition, and other dynamics of collective action. Following this, the case of the Maine lobster trap fishery is presented, which provides insight into how understanding the perspectives of, and gaining support from, various supply chain actors can influence the success of the MSC certification’s implementation in a fishery. The section concludes with a case study on Atlantic Canada’s MSC-certified longline swordfish fishery, which has raised concerns among swordfish harvesters who use harpoon methods and other industry members regarding destructive longline practices, leading to confusion regarding how accurately the MSC label is able to represent sustainability.

2.4.1 Client Influence in the Newfoundland and Labrador Inshore Shrimp Fishery

Foley (2012) and Foley and McCay (2014) explore the dynamics of certification uptake by fish harvesters and organizations representing fish harvesters in a Newfoundland and
Labrador inshore shrimp fishery, and find that certification is not just a market tool employed to ensure sustainability. Instead, it is revealed that certification was used centrally by fishery “clients” to control resource access and production. Fishery clients are the central actors involved in contracting third-party certification companies to assess the fishery against the certification standard. However, aside from examination of particular case studies and certification guidelines, it is unclear who these fishery clients typically are or should be. These clients are broadly defined by the MSC as an “individual, organization, or group of organizations” who apply for assessment of the fishery (Foley, 2012, p. 437). More specifically, fishery clients are typically producer organizations, fishers’ associations, co-operatives, fish processors’ associations, exports’ associations, private companies, NGOs, and governments (Foley, 2012).

The variety of fishery clients that can participate in decisions over certification selection, as described by Foley (2012) and Foley & McCay (2014), highlights the complexity in understanding how and why certification decisions are made by these clients. Foley & McCay (2014) in particular argues that the creation of clients and client groups creates new institutions of collective action, which can influence the dynamics of how these actors are able to participate in the governance of the fishery. Thus, harvester groups’ decisions to certify should not be considered as independent of the decisions and actions of other industry groups, but rather as an influence on, and influenced by, these other groups. To navigate this complexity, research must aim to consider how the variety and uniqueness of influences and collaborative arrangements involved at the level of production affects certification selection. Examination of fisheries’ acquisition of certification must not only consider the fisheries being certified, but also the dynamics within (and between) the fisheries’ client groups (Foley, 2012; Foley & McCay, 2014).
2.4.2 Industry Responses to MSC in the Maine Lobster Trap Fishery

A study conducted by Goyert, Sagarin, & Annala (2010) examines the responses of Maine lobster fishing groups, among other industry members, to MSC certification. The authors point out that a central feature in successful implementation of fishery certification or other fishery management systems is understanding the attitudes, values, and preferences of the various supply chain actors—namely the harvesters, producers, managers, and consumers. For a certification program to be successful there must be considerable support from: seafood marketers, who must preferentially select certified seafood; consumers, who also must preferentially select the certified product; and producers and managers, who must maintain certifiable practices (Goyert et al., 2010). Given certification’s dependence on continued involvement and support of various actors, Goyert et al. (2010) sought to understand the attitudes and concerns of consumers, producers, and managers of the Maine lobster fishery.

One central concern identified within Goyert et al.’s (2010) research is the weak involvement of core industry members at the level of resource production. Interviews conducted with Maine lobster harvesters, fishing organizations, and license holders demonstrated that there was limited awareness and understanding of what the MSC certification process actually entails, the challenges and benefits associated with the certification, and information on the process of acquiring it. Industry members interviewed in the study recommended that this gap in information transferred should be overcome by urging inclusion of industry representatives at all levels—namely harvesters, dealers, processors, and distributors—in the certification process (Goyert et al., 2010). Future research must therefore further explore why these key fishing industry actors are excluded from access to information and decision-making for certification, how to encourage their inclusion, and how to facilitate seamless decision-making with stakeholders who may have differing attitudes, values, and preferences.
2.4.3 Contested Certification of the Atlantic Longline Swordfish Fishery

A particularly notable example of contested certification of a fishery is the longline swordfish fishery in Northwest Atlantic Canada. The MSC’s certification of the longline swordfish fishery was described by Christian et al. (2013) as prompting perhaps one of the most strenuous objections under Principle 2 (minimizing environmental impacts) of the MSC Fisheries Standard. The fishery is noted to have high levels of bycatch of sharks and turtles in particular, some of which include endangered or threatened species such as blue and porbeagle sharks and leatherback sea turtles. Although a formal objection against the fishery was filed in 2011 by the David Suzuki Foundation, Ecology Action Centre, Sea Turtle Conservancy, and Oceana, the certification was upheld for the fishery (Christian et al., 2013).

The case of the Atlantic longline swordfish fishery provides insight into some industry confusion around how the MSC label is used and what it represents. The “overly generous certifier interpretations of sustainability” for fisheries such as the swordfish longline fishery, as described by Christian et al. (2013, p. 14), can provide conflicting messages regarding how the MSC label recognizes and rewards sustainable fisheries. Consequently, fisheries with contested MSC certification can foster confusion within the marketplace and eliminate market advantages for truly sustainable fisheries (Christian et al., 2013). In contrast to the longline swordfish fishery, a smaller and arguably more sustainable harpoon swordfish fishery is also operating in the same area and has received MSC certification. However, the two fisheries that differ significantly in their sustainability practices carry the same sustainability label, and consequently the harpoon swordfish harvesters may not be rewarded for their sustainability efforts (Christian et al., 2013). Ironically, the harpoon swordfish harvesters initially sought out MSC certification to demonstrate their superior sustainability to consumers and to possibly convince the government to expand their portion of the Canadian swordfish quota (Rigney, 2008).
Chapter 3. Research Methods

This chapter serves to outline the research methods used to conduct this research. The research methods chapter first outlines the research orientation and scope, followed by a summary of the Atlantic lobster fisheries study area. This chapter then presents a description of the different methods used to fulfil the three research objectives and concludes with a review of the methodological challenges and limitations encountered during the research process.

3.1 Research Orientation and Scope

This empirical project is oriented towards the east coast fisheries of North America and, more specifically, the certified lobster fisheries in that area. Lobster harvesting plays a central role in the economies and cultures of these coastal areas, particularly in Canada’s Atlantic provinces and Maine (DFO, 2015a; Goyert, Sagarin & Annala, 2010; Theriault, Hanlon, & Creed, 2013). Similarly, many of these fisheries have recently been assessed by various sustainable seafood organizations—the MSC has recently granted certification to seven lobster fisheries in this area, while sustainable seafood organizations such as Ocean Wise and SeaChoice have also released mixed evaluations of these fisheries (Marine Stewardship Council, 2014; ThisFish, 2013). The three fisheries examined in this research (the Bay of Fundy, Scotian Shelf, and Southern Gulf of St. Lawrence lobster fishery, the PEI lobster fishery, and the Eastern Canada Offshore lobster fishery) have all selected MSC certification from the available certification alternatives. Given the prevalence of MSC certification among east coast lobster fisheries, this research also explores why these fisheries have adopted the MSC in a context where alternatives exist, and if alternative certifications or initiatives have been pursued.

Harvester groups and elected harvester group leaders, rather than individual lobster harvesters, were the central unit of study in the project. Harvester groups have largely been used
as the site for locally-focused discussion and decision-making among harvesters, as decisions made in harvester group meetings regarding the fishery’s activities can be passed on by representatives to the client group or other actors. These representatives of the harvester groups are used to communicate the opinions of its internal harvesters and maintain a central role in decision-making processes for relevant debates, such as the decision to certify. In addition to interviews with harvester group representatives, interviews with client group representatives were also conducted to understand decision-making at the scale of the client group. Therefore, this research sampled and engaged harvester group and client group representatives to understand the groups’ internal decision-making processes and rationales for pursuing certification.

3.2 Study Area

The Atlantic lobster case study makes relevant a particular study area: the DFO delineated Lobster Fishing Areas (LFAs) off the coasts of Prince Edward Island, Nova Scotia, and New Brunswick, as well as the coastal communities the harvests help to support. This area is shown in Figure 5, which illustrates the totality of Canadian LFAs. The LFAs covered by the three fisheries’ MSC certificates are LFAs 23-38 and LFA 41.
Lobster is Canada’s most valuable seafood export and is one of Canada’s most iconic species exported worldwide. Canada’s lobster landings are at one of the highest levels in 100 years, and have been continuing to increase over recent decades (DFO, 2015a). In the last decade, lobster landings have nearly doubled, and the landed value of lobster has increased by 86% since 2009 (The Lobster Node, 2016, p.1). These trends are depicted in Figure 6 below.

Figure 5. Canadian Lobster Fishing Areas. Retrieved from Fisheries and Oceans Canada (DFO) (2015b).

Considerations of community well-being and local economic sustainability also feature in the Northwest Atlantic lobster fishery. Specifically, lobster fishing represents a third of the value of all Canada’s fisheries combined and supports about 40,000 jobs in small communities throughout the Atlantic and Quebec (The Lobster Node, 2016, p.1-2). Furthermore, DFO regulations on lobster licenses under the Atlantic Lobster Sustainability Measures program encourage harvesters to buy out existing licenses and combine them with their own. Through buying out retired licenses, harvesters were able to reduce the number of lobster traps rather than selling them to corporate or foreign interests (DFO, 2013b); this stems from the stated desire to protect the inshore fisheries and their ecosystems for generations to come. Similarly, the LFA licensing system has been established in a way that largely supports local and non-corporate ownership of harvester licenses. Of the 6,300 licensed harvesters in the Maritimes (Theriault, Hanlon, & Creed, 2013, p.83), eight licenses are allocated for the offshore LFA 41 and all eight of these licenses are held by Clearwater Seafoods—a fish processing and exporting company based out of Nova Scotia (Blyth-Skyrme, Addison, & Angel, 2015). Although some harvesters’ licenses are rumoured to be bought by American companies (Theriault, Hanlon, & Creed, 2013), the large majority of lobster harvesting licenses are held by local and non-corporate entities—mainly individual owner-operator fish harvesters.

As previously mentioned, the study area includes one offshore LFA. Referred to in this thesis as the “offshore lobster fishery”, this fishery is granted a total allowable catch of 720 tonnes (DFO, 2015a; MSC, 2016c). In comparison, approximately 71,000 tonnes of lobster is caught annually between the PEI fishery and the Nova Scotia and New Brunswick fishery (MSC, 2016c). To supplement Clearwater Seafoods’ moderate lobster harvest offshore, the large
majority of Clearwater’s retailed lobster is purchased from inshore harvesters operating in MSC-certified lobster fisheries (Clearwater Seafoods, 2015).

Lobster fisheries in all LFAs considered in this thesis are certified against the MSC standard. Furthermore, the inshore LFAs generally have been perceived as sustainable for generations (LCC, n.d.-b; Withers, 2014). Lobster is abundant in the Lobster Fishing Areas (LFA) examined in this research, as evidenced by the increase in lobster landings in recent decades (lobster landings are a primary indicator of stock abundance) (DFO, 2015a).

3.3 Methods Used to Address Objectives

3.3.1 Objective One: Characterize the certification landscape and participants involved

A targeted review of secondary data and literature was conducted to meet the first research objective. This information was utilized within the background section on Atlantic lobster certification (formatted as Appendix A) and the thesis manuscript. The background section on the history of certification uptake along east coast lobster fisheries and the current state of these fisheries was developed from a variety of sources. This review gathered and organized information from the Marine Stewardship Council, the Government of Canada’s Fisheries and Oceans Canada, relevant journal articles, and other industry resources. Writing this background section was necessary to develop an understanding of the landscape in which various industry actors participate in decision-making regarding the certification of lobster.

Next, an extensive search meant to identify and help characterize the harvester groups, client groups, and fisheries to be involved in the case study was conducted. This review initially returned six Northwest Atlantic lobster fisheries certified by the MSC (MSC, 2016c). However, two Quebec fisheries were excluded due to their remoteness from the study area and the researcher’s inability to incorporate language translation in the research, and the Maine lobster
trap fishery was excluded because the central representative for the Maine lobster trap fishery declined to participate. An additional lobster fishery in Maine obtained full MSC certification in December 2016 (MSC, 2016c); however, certification occurred after commencement of this research. Objective one’s research process thus established the foundations for the subsequent research objectives, as it established the research’s case study area of three certified Canadian lobster fisheries and their harvester organizations that represent lobster harvesters. The three fisheries and client groups that are the focus of this research are outlined in Table 1 below:

<table>
<thead>
<tr>
<th>Fishery</th>
<th>Certificate Held by Client or Client Group?</th>
<th>Organization(s) Holding Certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bay of Fundy, Scotian Shelf, and Southern Gulf of St. Lawrence (BFSSSGSL) lobster trap fishery</td>
<td>Client Group</td>
<td>Nova Scotia and New Brunswick Lobster Eco-Certification Society (NSNBLECS). This group is composed of various harvester, processor, buyer, and shipper associations.</td>
</tr>
<tr>
<td>The Prince Edward Island (PEI) lobster trap fishery</td>
<td>Client Group</td>
<td>Prince Edward Island Fishermen’s Association (PEIFA), Prince Edward Island Seafood Processors Association (PEISPA), Lennox Island First Nation (LIFN), and Abegweit First Nation (AFN)</td>
</tr>
<tr>
<td>Eastern Canada Offshore lobster fishery</td>
<td>Client</td>
<td>Clearwater Seafoods Ltd.</td>
</tr>
</tbody>
</table>

Table 1. Fisheries and client groups participating in the research

Following the initial scoping review, the researcher retrieved information on the fisheries’ certification status, certification date, harvesting area, client group, and Conformity Assessment Body (CAB). Information was largely retrieved from MSC resources using their “Track a Fishery” online database of MSC-certified fisheries (MSC, 2016c). The output for this process is a table (Table 6 in Appendix A) that identifies these fisheries and their client groups, as well as provides information on the defining characteristics of the three fisheries. Further information was collected regarding the composition of the three client groups and the harvester groups within the respective client groups. Given the focus on harvester groups in this research, data collection was focused on the harvester groups within a given client group as well as the
client group more broadly, thus excluding the buyers, processors, and shippers within the client groups from participation.

The first objective concluded with application of purposive sampling criteria that identified harvester group interview candidates for the second research objective. The purposive sampling criteria involved seeking out participants who are:

- a member of a harvester association in the PEI or NSNBLECS client groups, an executive member of one of these two client groups, or a representative of the Clearwater Seafoods client;
- listed as a central contact for the client, client group, or one of the client group’s harvester associations in MSC or client group online resources; and
- in a position of authority to discuss the opinions and positions of their client’s, client group’s, or harvester association’s members.

Other relevant industry actors were also considered for participation in interviews. Namely, a representative for the Lobster Council of Canada (who also participates in the leadership of one of the client groups) was included in the interview process due to the substantial role that the organization held in the process of certifying lobster fisheries in Atlantic Canada. Consideration was also given to representatives of Fisheries and Oceans Canada (DFO), given the government’s role in managing fisheries, providing funding for management and research (DFO, 2013a; DFO, 2013b), and facilitating meetings with client groups. However, the DFO representative suggested by participants declined to participate as the representative felt they were unable to speak on behalf of the DFO’s position regarding MSC certification.

A variety of online resources were used to generate a contact list of intended interview participants for the research. Use of harvester association websites and MSC certification
resources was central to this objective, as participants were generally recruited based on who was listed as the central representative for the organization. The recruitment process involved contacting at least one of the identified representatives per harvester group and client group for participation. The central contact listed through these resources was typically the harvester association’s president, manager, director, or coordinator. Additional contacts for the client groups were selected by identifying and contacting the central representative of each client group. This recruitment process was supplemented with snowball sampling throughout interviews to include as many relevant participants possible in the research.

Initial emails were sent to the intended research participants in June and July 2016. After reaching out to at least one representative per client, client group and harvester organization for the three fisheries, 14 representatives agreed to participate in interviews. The majority of interview participants were involved in the Prince Edward Island Fishermen’s Association client group and the Nova Scotia and New Brunswick Lobster Eco-Certification Society client group, as there are many harvester associations participating in these two client groups. A representative from the Clearwater Seafoods client was also recruited to discuss the client group and its lobster harvesting activities in an interview as there are no harvester associations linked to Clearwater’s lobster fishery in public documents. The participant recruitment letter and consent form included in the initial contact emails to participants are found in Appendices B and C respectively. Tables 2 and 3 (below) summarize the researcher’s decision-making in the recruitment process.

<table>
<thead>
<tr>
<th>Decision-making criteria</th>
<th>BFSSSGL lobster trap fishery</th>
<th>Eastern Canada Offshore lobster fishery</th>
<th>Gaspésie lobster trap fishery</th>
<th>Gulf of Maine lobster fishery</th>
<th>Iles-de-la-Madeleine lobster fishery</th>
<th>PEI lobster trap fishery</th>
<th>Maine lobster trap fishery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified?</td>
<td>Yes (MSC)</td>
<td>Yes (MSC)</td>
<td>Yes (MSC)</td>
<td>Not at time of research’s initiation (May 2016)</td>
<td>Yes (MSC)</td>
<td>Yes (MSC)</td>
<td>Yes (MSC)</td>
</tr>
<tr>
<td>Language barriers?</td>
<td>No</td>
<td>No</td>
<td>Yes (French)</td>
<td>Yes (French)</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>----</td>
<td>----</td>
<td>-------------</td>
<td>-------------</td>
<td>----</td>
<td>----</td>
<td></td>
</tr>
<tr>
<td>Willing to participate in interview?</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Interviews conducted with group rep.?</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Recruitment process for representatives from certified Northwest Atlantic lobster fisheries

<table>
<thead>
<tr>
<th>BFSSSGSL lobster trap</th>
<th>Eastern Canada Offshore lobster fishery</th>
<th>PEI lobster trap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of harvester groups in client group</td>
<td>11 harvester groups participating in the NSNBLECS client group</td>
<td>None</td>
</tr>
<tr>
<td>Number of harvester group representatives willing to participate</td>
<td>7 harvester group representatives</td>
<td>None</td>
</tr>
<tr>
<td>Client group representatives or other relevant members willing to participate</td>
<td>1 person sharing representation of the client group and Lobster Council of Canada</td>
<td>1 Clearwater representative speaking on behalf of the organization</td>
</tr>
<tr>
<td>Total number of representatives participating in interviews</td>
<td>8 participants</td>
<td>1 participant</td>
</tr>
<tr>
<td>Total number of research participants</td>
<td>14 participants total</td>
<td>5 participants</td>
</tr>
</tbody>
</table>

Table 3. Summary of the proportion of the three fisheries' participating representatives

3.3.2 Objective Two: Understand how Atlantic lobster harvesting groups respond to and make decisions about MSC certification

The second research objective focused on using the research participant list generated from the processes involved in objective one to collect data through semi-structured interviews. Semi-structured interviews are a more flexible and conversational version of structured interviews, as this method maintains a degree of structure in the interview but also allows for flexibility in the way that issues can be addressed by the participant (Dunn, 2005; Longhurst,
This research method is valuable to this thesis as it allows the researcher to gain insight on the complex (and sometimes unexpected) opinions, perspectives, and experiences of the participant (Longhurst, 2010). Objective two is characterized by interviews with harvester group and client group representatives, in addition to one representative from the Clearwater client as the Offshore lobster fishery does not have harvester groups but rather employees on a corporate vessel. Interviews with these representatives were the most appropriate approach as these representatives were able to provide the case-specific information necessary for this research.

The research’s interview process focused on five central lines of questioning: decision-making and certification selection strategy; consideration of certification alternatives; rationale for pursuing certification, and MSC certification in particular; experiences with MSC; and perspectives on the rise and utility of MSC certification. Among these topics, the central focus of the interviews was the discussion on the harvester group’s rationale for pursuing certification. This process involved asking participants to describe the various rationales that motivated them to pursue MSC certification of their harvested lobster and identify the primary and secondary factors that were considered to be important their decision to participate in certification. Furthermore, academics have stressed the presence of external certification pressures from buyers such as processors, retailers, and consumers, and other market or political actors (see Foley & Hébert, 2013; Goyert, Sagarin, & Annala, 2010; Gulbrandsen, 2006); thus, this research examines whether and to what extent pressure from such actors is identified by participants as a central rationale for pursuing certification.

The amount of data collected during the interview process was dependent on a variety of factors. Primarily, the number of potential participants was limited to those in three of the seven certified lobster fisheries in the Northwest Atlantic. Participants were also limited to those
representing a client group or harvester association—the buyers, processors, and shippers in the
client groups were excluded from participation to maintain focus on harvester decision-making.
The number of participants also depended on the participants’ availability and willingness to
participate. Interviews were generally restricted to the summer months in order to proceed with
the research in a timely manner. However, this occasionally coincided with harvesters’ fishing
seasons which increased the difficulty of scheduling interviews with harvesters. Lastly, some
participants’ willingness to release information or their interpretation of the interview questions
at times may have influenced the amount and quality of answers obtained in interviews.

To prepare for analysis, interview audio was first manually transcribed, followed by
coding of interview data using NVivo software. Central themes relevant to understanding
harvester concerns, challenges and motivations in certification, perspectives on MSC, and other
themes were extracted from transcripts and assigned to a particular node or sub-node. This
process allowed for the researcher to examine each of the various themes involved in the
research and identify important information, perspectives, and participant quotes expressed in the
interviews.

3.3.3 Objective Three: Explore implications on harvester groups from changes to industry
structure and tensions in communicating sustainability

This thesis will explore the meanings and interpretations of certain social phenomena and
processes, which calls for the use of qualitative research approaches (Jupp, 2006). The final
research objective therefore required review and qualitative analysis of interview data and
secondary data. Several processes were employed to address objective three. Primarily, data was
extracted from interview transcripts and coded using NVivo software to help identify the most
prevalent trends and relationships within the data. The coding process, as done in qualitative
studies, involves using a word or short phrase to assign a representative attribute to a portion of
language-based or visual data. As a result of the coding process, themes are able to be identified that help to derive meaning from seemingly scattered perspectives, phenomena, and processes (Saldana, 2009).

Data was also collected from secondary sources, such as industry websites and news reports, to help describe the changes to the Canadian lobster industry’s network from MSC certification. Given that thoroughly describing the state of the network prior to certification is not central to this research, the review of information on the recent state of the network and any changes undergone since MSC certification was more substantial than that for the longer-term prior state. Using this information, various informal diagrams were created to understand the structure of decision-making within each client group, the structure of the network, and the recent changes that characterize the network. From this, the central changes to the network’s structure, processes, and relationships that emerged from the introduction of MSC certification are visualized in Section 4.4.3.

The final research objective also explored the tensions between locally-experienced sustainability and external determinations of this sustainability. This portion of the analysis involves a review of DFO-mandated sustainability practices of these fisheries and the independent sustainability measures implemented by the harvester groups to understand how sustainability is characterized at a local level. This review was pursued by extracting and coding the relevant data from interview transcripts, in addition to exploring DFO documents, news reports, and other relevant secondary literature. To understand differences in how sustainability of these fisheries is conceptualized externally under the MSC standard, MSC documents and CAB assessment literature were also reviewed for comparison against participants’ perceptions of sustainability within the fisheries.
3.3.4 Methodological Challenges and Limitations

Certain challenges and limitations in scope, validity of information, and accurate representation emerged in this research. Most notably, the scope of this research was limited in two ways. First, the scope was limited by selecting three of the seven certified lobster fisheries in the Northwest Atlantic region. To effectively utilize this research’s available time and resources, some fisheries were eliminated from consideration, while others declined to participate. The influence of the two Maine fisheries on the Canadian lobster industry is undeniable; as such, interviews with representatives for the two Maine fisheries might have furthered the existing literature on these fisheries (see Goyert, Sagarin, & Annala, 2010). Additionally, the number of interview participants was also limited, as interviews were conducted during the summer months and many representatives were unavailable due to conflicts with their fishing seasons. While the quantity of interviews was lower than anticipated, the quality of information obtained in the interviews was valuable enough that additional interviews were not necessary.

While the interviews for this sample of participants may reflect the views of each participant’s respective fishery, these three fisheries cannot be wholly representative of the other four MSC-certified Northwest Atlantic lobster fisheries. Representation cannot be properly extended to these other fisheries given that the other fisheries’ fishing environment, decision-making structures and processes, and other factors may differ. However, the lessons learned from the three fisheries can provide valuable lessons for future research in other similar fisheries.

Use of harvester group representatives as the interview participants may have also imposed a limitation on the research. While these representatives are best positioned to describe the processes, opinions, and values of the harvester group members, the representatives may not be able to accurately capture the diversity of perspectives among the harvesters. Similarly, the representatives may hold strong opinions independent of those held by the harvesters, which may
have resulted in some inaccurate depictions of the harvesters’ perspectives on the issues at hand. Incorporation of harvesters in the interview process would have added value to the data; however, this would affect the ability to utilize the available time and resources efficiently.

Lastly, this research may not thoroughly reflect Clearwater’s Offshore Lobster fishery activities compared to those of the BFSSSGSL and PEI fisheries. The offshore lobster fishery is significantly different from these two inshore fisheries in its structure, the degree of its harvesting activities, and the industrialized culture of its harvesting activities. Only one interview was able to be conducted with a Clearwater representative, limiting the breadth of available information on Clearwater’s decision-making. Additionally, in the discussion of certification motivations during this interview, the representative noted that they would not discuss their internally-motivated rationales in order to protect company information. Given these limitations, the findings in this research are more relevant to the BFSSSGSL and PEI lobster trap fisheries.

This research aimed to be reflexive throughout the research design, data collection, and analysis. Most centrally, concerns regarding threats to validity (such as accurate representation of harvesters and their opinions) and the legitimacy of any representatives’ exaggerated claims and speculations arose in this research. While these threats could not be mitigated through research design, their impact was likely lessened by pursuing various proactive and reactive measures. Proactive measures involved ensuring that the representative contacted was in a position of authority to speak on behalf of their organization, and encouraging participants before and during interviews to identify if they were discussing their personal position rather than their organization’s position. Reactive measures involved fact-checking any quantitative information or exaggerated claims provided by participants in interviews and verifying any claims through legitimate resources (e.g. DFO documents, certification assessment reports).
Chapter 4. Manuscript

Abstract

Many food retailers in North America and Europe have adopted and publicly promote corporate sustainable seafood commitments wherein they pledge to source their seafood from fisheries certified by the Marine Stewardship Council. Consequently, this has created a demand for the certification along the seafood supply chain, with much of the pressure to certify felt by harvester groups. This thesis draws from semi-structured interviews with harvester group representatives to describe how groups in three Atlantic Canada lobster fisheries navigate the complex certification landscape and to document influences that ultimately encouraged the pursuit of MSC certification. This paper argues that while market access for harvester groups is maintained by achieving certification, participation in MSC certification has resulted in various implications for these groups and tensions between externally-defined sustainability and locally-practiced sustainability are manifesting harvester dissatisfaction. This dissatisfaction may impact the perceived legitimacy and longevity of the MSC certification in Atlantic Canada.

4.1 Introduction

In recent years, third-party certification schemes have begun to proliferate in their number and spread within various industries. Third-party seafood certifications in particular have gained prominence in markets, the most notable of which is the Marine Stewardship Council (MSC) certification. The MSC certification offers seafood supply chain actors the opportunity to certify their products through a third party against the MSC standard. By achieving certification, producers are provided a potential means of accessing key markets and gaining recognition for their sustainability efforts (Jacquet et al., 2010). The MSC certification in particular has gained significant popularity in the industry, as it has been recognized by some as the “gold standard” of seafood certifications (Foley, 2013). Furthermore, major retailers have increasingly made public commitments to source their seafood from MSC-certified sources (Goyert, Sagarin, & Annala, 2010; Schmidt, 2012), thus creating demand along the supply chain for MSC certification. However, the motivations of various supply chain actors to participate in this certification and the implications of their participation may not be evident within this complex landscape.
The way in which the seafood industry has adapted to the increasing pressure to certify under MSC has been explored throughout literature. Academics in the field of environmental governance have begun to examine the dynamics between industry actors that underlie this movement, noting the emergent relationships and collaborative arrangements that shape this industry (see Bernstein & Cashore, 2007; Bush et al., 2013; Foley & McCay, 2014). Similarly, literature that utilizes Corporate Social Responsibility (CSR) as an approach to understanding certification schemes has contributed an understanding of various actors’ motivations to pursue and continue certification as a business strategy (see Gulbrandsen, 2006; Lozano, 2015; Mueller, dos Santos, & Seuring, 2009). Lastly, literature that utilizes various perspectives and frameworks to understand MSC certification uptake in the specific context of Atlantic fisheries also provides valuable information on the way in which certification is embraced by different industry actors (see Christian et al., 2013; Foley, 2012; Goyert, Sagarin, & Annala, 2010). Despite these insights, a research gap remains regarding the unique responses and decision-making processes of harvesters and their harvester groups in the landscape of MSC certification pressures.

This paper addresses this gap and answers several related questions. What motivates harvester groups to certify with MSC specifically? How do the various challenges and influences that harvester groups face shape their decision to certify? And what are the implications of participating in this certification for the industry’s structure and the way that sustainability is demonstrated? This research aims to answers these questions through the study of three Canadian MSC-certified Atlantic lobster fisheries. The three fisheries—two inshore and one offshore—were each awarded MSC certification in recent years (MSC, 2016c). The case of Atlantic lobster is particularly interesting and appropriate for research into the dynamics that drive certification for various reasons. Primarily, lobster harvesting is undertaken using traps that
have limited adverse effects on the natural environment (DFO, 2011; DFO, 2014b), and many of the groups harvesting this lobster take pride in their additional sustainability efforts. Furthermore, the large majority of lobster harvesting in Atlantic Canada is undertaken by inshore fisheries that are not often the subject of public scrutiny or protest. Lastly, all seven certified Atlantic lobster fisheries hold MSC certification, rather than an alternative certification standard.

This research presented herein examines how harvester groups participating in certified lobster fisheries on the east coast of North America navigate the complex certification landscape. It also explores the influences that shape harvester groups’ participation in MSC certification and how these groups experience changes resulting from MSC certification. The empirical support for this research stems from 14 semi-structured interviews with harvester group and client group representatives, coupled with a variety of secondary literature that supports and challenges the interview data.

Two interrelated arguments are advanced in this manuscript. First, this paper argues that while market access for harvester groups is maintained by achieving certification, participation in MSC certification has led to various implications for harvester groups and tensions between externally-defined sustainability and locally-practiced sustainability are manifesting harvester dissatisfaction. Furthermore, this research contends that this dissatisfaction may impact the perceived legitimacy and longevity of the MSC certification in Atlantic Canada.

The remainder of this manuscript is organized as follows. Section 4.2 outlines the approach to this research. The following sections (4.3-4.5) present research findings in three parts: harvester groups’ responses to MSC certification; changes to industry structure, processes, and relationships that resulted from the introduction of MSC certification to the Atlantic lobster industry; and tensions between locally-practiced sustainability and MSC’s external
determinations of sustainability. The implications of these changes on harvester groups and on the legitimacy and longevity of the certification arrangement are then discussed in Section 4.6. The concluding section (4.7) summarizes the central arguments and findings of the paper.

4.2 Methods

The Atlantic lobster case study uses a particular study area: the DFO delineated Lobster Fishing Areas (LFAs) off the coasts of Prince Edward Island, Nova Scotia, and New Brunswick, as well as the coastal communities the harvests help to support. This area is shown in Figure 5 (below, previously included in Section 3.2), which illustrates Canada’s LFAs. The LFAs covered by the three fisheries’ MSC certificates include LFAs 23-38 and LFA 41.

![Figure 5. Canadian Lobster Fishing Areas. Retrieved from Fisheries and Oceans Canada (DFO) (2015b).](image)

Lobster holds significance in Canada’s economy and culture, as it is Canada’s most valuable seafood export and one of its most iconic species demanded worldwide. In the last
decade, lobster landings have nearly doubled, and the landed value of lobster has increased by 86% since 2009 (The Lobster Node, 2016, p.1). The lobster industry also supports approximately 40,000 jobs in small communities throughout Atlantic Canada and Quebec, and when combined with the associated supply chain activities, the industry is the region’s largest single private sector employer (The Lobster Node, 2016, p.1-2). Furthermore, the Canadian lobster industry is established in a way that largely protects community interests, as DFO regulations on lobster licenses encourages harvesters to buy out existing licenses and thus reduce the number of lobster traps (DFO, 2013b). Therefore, harvesters are working towards improvements to their fisheries’ sustainability while avoiding buyout from corporate or foreign interests.

The study area covered by this research includes two inshore fishing areas and one offshore LFA. While there are thousands of license holders in the inshore fishing areas, the offshore fishing area is allocated only eight licenses—all of which are held by Clearwater Seafoods Ltd. (Blyth-Skyrme, Addison, & Angel, 2015; Theriault, Hanlon, & Creed, 2013). The offshore lobster fishery is granted a total allowable catch (TAC) of 720 tonnes (DFO, 2015a); thus, Clearwater Seafoods supplements its moderate harvest by purchasing lobster harvested from MSC-certified inshore fisheries (Clearwater Seafoods, 2015; DFO, 2015a). While various sustainability measures are imposed on inshore fisheries by the DFO, no TAC is established for the approximately 71,000 tonnes of lobster caught annually by the PEI, Nova Scotia, and New Brunswick fisheries (MSC, 2016c). Despite the differences in DFO management approaches between the inshore and offshore fisheries, lobster in these fisheries is deemed to be abundant by DFO and the CABs, as evidenced by the increase in lobster landings in recent decades (Blyth-Skyrme et al., 2015; Criquet et al., 2014; Criquet et al., 2015; DFO, 2015a;).
To characterize the foundational landscape of the Northwest Atlantic lobster fisheries and its participants, this thesis first reviewed the relevant literature that identifies and characterizes the groups involved in MSC certification in the region. Descriptive information was retrieved on the six Atlantic lobster fisheries that held certification at the time of the research’s initiation (one Maine fishery obtained certification after in December 2016). Using the available information, the fisheries intended to be included in the research were narrowed down from six to four on the basis of potential language barriers (see Table 2). Further information was then collected on the remaining four fisheries, their client or client groups, and their associated harvester groups. The information was retrieved from secondary sources, such as the MSC website and harvester group websites. Representatives for these clients, client groups, and harvester groups were identified and contact information for these representatives was organized. The outcome of this process was a database of potential participants and their contact information to be used in the second research objective. After contact was made with representatives from all fisheries, the Maine lobster fishery declined to participate, thus securing the research’s case study area of three certified Canadian lobster fisheries—the PEI lobster trap, the Bay of Fundy, Scotian Shelf, and Southern Gulf of St. Lawrence lobster trap, and the Offshore Lobster Fishery. Of the 31 representatives contacted, 14 representatives agreed to participate in interviews.

The second research objective focused on conducting semi-structured interviews with the representatives willing to participate in the research. Given the focus of the research on harvester group activities and decision-making, most participants were representatives of harvester groups, while some were representatives of a client or client group. Five central lines of questioning were used in the interviews: decision-making and certification selection strategy; consideration of certification alternatives; rationale for pursuing certification, and MSC certification in
particular; experiences with MSC; and perspectives of the rise and utility of MSC certification. Participants were encouraged to freely discuss these topics in interviews, and were also asked to identify and rank their harvester groups’ primary and secondary motivations to certify. If the ranking results were not clearly identified during the interview, the participant was contacted after their interview for further clarification.

After interviews were conducted, interview audio was manually transcribed, followed by coding of these transcripts using NVivo software. The coding process, as done in qualitative studies, involves using a word or short phrase to assign a representative attribute to a portion of language-based or visual data. As a result of the coding process, themes were able to be identified that derive meaning from various perspectives, phenomena, and processes evident in the interviews (Saldana, 2009). Central themes relevant to this research were extracted from transcripts and assigned to a particular node or sub-node, allowing for clarification of the data and interpretation of the importance and prevalence of certain trends, relationships, and perspectives.

The third and final research objective was fulfilled by advancing two separate arguments. The first portion of this research objective explored the changes in the structure of the Atlantic Canada lobster network resulting from MSC certification. Relevant data was collected from interview transcripts and secondary sources on the state of the network before and after MSC certification. The relationships and processes that emerged within the network as a result of MSC certification were then visualized in Figure 8. The final research objective also explored tensions or differences that emerged within the industry as a result of MSC certification. To understand these tensions, academic literature on the differences in conceptualizing sustainability at local and institutional levels was examined and supported with other secondary resources, such as
MSC documents and assessments from the Conformity Assessment Bodies. Drawing lessons from secondary sources and interviews, the longevity of Atlantic Canada’s lobster certification arrangement was then hypothesized with respect to harvester groups’ acceptance of the structural changes brought about by MSC and their frustrations with MSC’s representation and conceptualization of sustainability.

4.3 Research Findings: Harvester Group Responses to MSC Certification

The central findings of this research are organized according to three themes, the first of which concerns the responses of harvester groups to the introduction of MSC certification. This section begins with an examination of harvester groups’ various rationales for pursuing MSC certification in particular, and a review of participants’ consideration of other certification alternatives. This discussion in particular utilizes Lozano’s (2015) analytical approach that organizes rationales by internal and external motivators (outlined in Section 2.3.5). Participants’ perspectives on MSC and its certification are then explored, which is done by exploring representatives’ support and criticisms, as well as elaborating on whether any certification alternatives were considered or pursued. The section concludes with a summary of the central challenges and concerns identified by participants regarding the MSC certification process.

4.3.1 Harvester Groups’ Certification Rationales

A central component of this research involves deconstructing the rationales identified by harvester group and client group representatives for choosing to certify their lobster with MSC. While there is some literature that explores different supply chain actors’ motivations to pursue MSC certification for a given fishery (see Foley, 2012; Foley, 2013; Goyert, Sagarin & Annala, 2010), this research’s focus on harvester groups’ motivations contributes a new perspective to this scholarship. The focus on rationales to certify with MSC, as opposed to the rationales to
certify generally, was necessary in order to understand the landscape of the lobster industry that tends to favour MSC certification specifically. During interviews with research participants, the range of rationales that influenced their decision-making was discussed. Participants were asked to provide only one primary and secondary rationale and rank the relative importance of the rationales if this ranking was not previously stated in their responses. After interviews, the rationales identified as important were organized according to whether the rationale was an internal or external influence, as done by Lozano (2015). This analytical framework is used in corporate social responsibility literature to understand organizations’ motivations for pursuing sustainability strategies. Internal motivations concern processes and relationships inside the organization, while external motivations concern processes and relationships outside of the organization (Lozano, 2013; Lozano, 2015). This distinction between internal and external is used for analytical purposes, recognizing that the distinction may be blurred in reality.

A tally was produced of the number of participants identifying a particular rationale as having primary or secondary importance in their decision-making, which is summarized in Figure 7 (below). According to the data collected and visualized in Figure 7, two participants identified only one internal motivation as a primary rationale for pursuing MSC certification: to maintain current levels of sustainability in the fishery. In contrast, all participants identified different external rationales as a primary or secondary motivation to pursue MSC certification. The external rationales referenced by participants include harvester groups’ or client groups’ desire to: maintain/improve market access and remain competitive; meet demands of buyers and retailers; contribute to consistency in decision-making across the client group; meet the demands of other industry stakeholders; meet the demands of consumers, and; improve the perceived market value of the lobster product.
Participants’ rationales are categorized according to this manner based on the way they were framed and discussed in interviews. Most notably, market access and competitiveness were typically discussed together and explicitly identified by many participants as a single motivator for pursuing MSC certification. Participants generally discussed market access and competition in a manner where the two motivations were connected—improving market access was framed as a means of staying competitive, and harvester groups’ competitiveness was described as a way to improve market access. To reflect how these rationales were discussed in interviews, market access and competitiveness are noted in Figure 7 as a single rationale. Additionally, while the pressure to remain competitive and maintain/improve market access is linked to other supply
chain pressures, such as demands from buyers and retailers, these two categories of rationales were generally approached as separate motivators by participants.

Rationales to certify that were discussed in interviews largely concerned actors or processes external to the harvester organizations or client groups. While internal rationales were only identified as important twice during interviews, external rationales were largely the focus of conversations. Similarly, the range of external rationales discussed was much larger than those that were internal, as only one internal rationale was identified as important compared to the six external rationales identified as important.

Given the number and diversity of influences discussed by interview participants, this research focuses on exploring only the most prevalent influences that were identified as important in decision-making. The following section examines the role of internal rationales in decision-making. Afterwards, this thesis discusses the external rationales that were frequently identified as the most important by participants: maintaining client group relationships, meeting buyer and retailer demands, and maintaining and/or improving competitiveness and market access. Given that buyer and retailer demands are reflective of the influences that motivate competitiveness and market access, these two rationales are discussed together.

**Internal Rationales**

As previously mentioned, discussions of external rationales dominated conversations, compared to the internal rationales involved in decision-making. Harvester group representatives generally did not identify internal motivations such as improvements to profits, product quality, or even sustainability as central to decision-making. This was not because the internal considerations lacked importance, but rather because representatives recognized the existing public trust, product quality, and sustainability of their products and fisheries prior to certification.
While improvements to sustainability was not identified as the first or second most important factor in the decision to certify with MSC, some interview participants stressed the importance of maintaining current levels of sustainability. Furthermore, two participants identified maintaining this sustainability as the primary influence in their groups’ decision-making. Conversations on the importance of using MSC certification to maintain sustainability were generally rooted in concerns of ensuring the stability of the fishery for future generations of harvesters. For instance, Participant A11 explained the importance of sustainability in community-based fisheries on the shores of PEI:

Our bottom line is community. And yes we’re interested in money too, but there’s a generation coming up behind us. Like I build all my own fishing boats and help my son build his boat, there’s a whole generation coming up behind me right now, and there’s a generation behind that, so you have to have a stable fishery. If you’re in corporate business and the fishery collapses, [...] you just move to another sector. If we don’t [have a stable fishery], the whole community is gone. (Participant A11)

Among the various uses of the MSC certification, MSC certification can be used by harvester groups to not only guide improvements to the fishery’s sustainability, but also to gain recognition for sustainable fishing practices (MSC, 2011). While some participants described their desire for MSC certification to provide recognition for sustainable efforts, participants rarely discussed MSC’s ability to help further the fishery’s sustainability. One participant identified a notable irregularity in their harvester group’s initial discussions on whether to certify: although the MSC certification concerns the sustainability of a fishery, the concept of sustainability did not surface in their harvester group’s decision-making process. This contradiction was described as follows:

[The topic of] increasing sustainability, that’s not… jeez that never entered into anything. I mean it is a sustainable fishery, and to think that MSC would actually help it become more sustainable… I never would have thought. [...] Yeah, it was purely a market focus. (Participant A08)
The limited attention on using MSC certification as a means of improving sustainability in this harvester groups’ decision-making (among others) is likely reflective of the fisheries’ commendable history of sustainable management and the influence of other external motivations in decision-making. Thus, it seems that Canada’s Atlantic lobster fisheries are generally secure in their sustainability and are obtaining certification for other motivations.

**External Rationale: Maintain Client Group Relations**

Given the success and longevity of the Atlantic lobster industry, extensive relationships have been created and fostered between the harvesters, buyers, processors, distributors, and other industry actors involved in the client group. To maintain these relationships, a degree of consistency is necessary in decision-making regarding the fisheries, particularly with respect to their certification. As a result, pursing MSC certification—as per the demands of various client group members—is critical to the maintenance of these relationships. Fears of fragmentation and exclusion from the industry’s network motivated some harvester group representatives to pursue certification, as the decision to not participate in the certification and the client group would impose a new set of challenges on a harvester group. More specifically, abstaining from certification and participation in the certified supply chain would affect harvesters’ ability to sell lobster to buyers covered by the MSC certificate and thus exclude harvester groups from access to certified seafood markets. The risk of exclusion has therefore encouraged some harvester groups to participate in client groups and consequently governance through collective action.

Certain harvester group representatives also noted that they felt that their harvester group had little power in the client group’s decision to certify, which has encouraged them to simply abide by the decisions made by the other client group members. One harvester group representative brought attention to the pressure from external client group actors to participate in the certification while having a limited voice in the process:
[Our harvester group is] so watered down—we’re just really a small fry. So we just have to accept what people tell us to do and just work with it. I mean […] it’s not us that want the certification, it’s really the processors and the buyers that want the certification, yet they expect us to not only contribute to paying the certification, but then we have to fix whatever we’re told to fix. (Participant A08)

This finding is particularly noteworthy given that some harvester group representatives described their fishermen as independent small business owners who are sometimes in a position where they have limited control over the certification of their business compared to other external decision-makers in the supply chain.

An extension of this motivation was described by one participant, as their harvester group’s decision to participate in MSC certification was motivated by the dominance of other harvester groups with more resources and influence in the client group’s decision making. Additionally, this group chose to participate in the certification and the client group as a means of continuing relationships with other harvester groups that act as support systems for their harvester group. As such, this decision was driven by the desire to maintain consistency in decision-making with neighbouring harvester groups in the Cape Breton region and thus receive continued support from these harvester groups, who often share information and resources:

I probably have the least to say about everything because we’re such a small group, and we’re not really enough to have a big impact when it comes to decision-making, so we kind of follow with our two neighbours […]. One of our biggest issues is because our group is so small and we’re non-profit, so we don’t have a lot of money to… not to waste, but to send me to attend all these meetings and there are so many meetings that you could attend. So I kind of just piggy-back off of them, they give me a lot of feedback. So when it came to the MSC, we just kind of gathered some of the information from the other groups. […] I brought it back to the membership and it was discussed, and it was decided that basically we don’t have a choice, cause even though we would have voted against it, the majority would have just… you know. (Participant A07)

Although this participant alluded to hesitation within their harvester group to certify, this participant and their harvester group was motivated to pursue certification as a means of maintaining relationships with certain client group members and ensuring that they do not
contradict the client group’s consensus in decision-making. While these influences exist within both the PEI and the NSNBLECS client groups, they were more prevalent in the decision-making of smaller harvester groups that have limited resources, as these participants recognized that separation from the network in which they participate eliminates the benefits gained from participating in the client group. Thus, while participating in a client group may highlight the distinctions between the relative powers of some groups over others, it can also act as a means of support for groups that may otherwise have a limited voice in collective decision-making.

**External Rationales: Supply Chain and Market Pressures**

Many participants reflected in interviews on the realities of international seafood markets and its increasing commitments to certified seafood. Quite often, harvester groups felt the pressure to certify in order to meet the commitments of several major retailers to supply their seafood solely from MSC-certified sources, which consequentially put pressure on intermediate buyers to demand certification of their suppliers. In North American markets, retailers such as Walmart and Loblaw’s have announced and pursued commitments to MSC-certified seafood (Schmidt, 2012; Wal-Mart, 2006). Similar trends are evident in European markets, where the number of retailers committing to supplying only MSC-certified seafood has grown significantly. Major European retailers such as Sainsbury’s, Marks & Spencer, and Lidl have made commitments to source their frozen fish products from MSC-certified suppliers, and retailer associations such as the Dutch Food Retail Association have made similar commitments across an entire region (Goyert, Sagarin, & Annala, 2010; Kalfagianni & Pattberg, 2013; MSC, 2007; Pinckaers, 2009).

Although the motivation behind retailer commitments to supplying certified seafood is complex and dependent on the seafood network in which they participate (Schmidt, 2012), participants hypothesized that retailers’ central motivations to supply certified seafood are to
meet consumer demands and to remain competitive in the marketplace. Some participants claimed that consumers were driving supply chains’ decision-making through their purchasing decisions, thus encouraging the retailer to meet any demands for certified products. Participants also argued that retailers’ push for certification of their lobster supply was influenced by the increasing popularity of certification and the pressure on retailers to maintain a competitive position and make public commitments to responsible seafood.

Following the commitments of major retailers to source their seafood from certified supply chains, participants also noted pressure to certify from buyers who were acting on behalf of the retailers that product is sold to. One interview participant noted: “there were specific requests coming from pretty big buyers of our lobster, saying ‘we have to be in a [certification] program, and our preference is MSC’.” (Participant A03). This participant continued to explain that their buyers received many retailer requests to provide certified product, particularly from their European retail customers where MSC is “very high profile”. However, some harvesters groups noted distinctions between their markets—a small number of participants claimed that their buyers largely ship lobster to certain Asian markets where retailers are not making commitments to MSC-certified seafood and buyers therefore do not need the lobster to be certified to sell it to those retailers. Consequently, demands for harvesters to participate in certified lobster fisheries were likely stronger among some buyers than others.

With respect to harvester groups’ motivation to certify as a means of remaining competitive at an international scale, participants emphasized the need to stay competitive with lobster harvesting in European and Maine fisheries. While certified European lobster does have a place in international markets, there is only one European lobster fishery certified with the MSC—the Normandy and Jersey lobster fishery (MSC, 2016c). As a result, the limited supply of
certified European lobster creates a competitive environment for certified lobster from Eastern Canada and Maine. Maine was identified by many participants as a major competitor for many reasons, one reason being that the number of Maine’s certified lobster fisheries has grown from one to two as of December 2016 (MSC, 2016c), thus increasing the availability of certified Maine lobster for markets. The competitive nature between Maine and Canadian lobster fisheries to become certified is effectively summarized by one participant:

One of the major motivators was what Maine was doing. [...] There were a couple of entities in Maine that had decided to advance the Maine lobster fishery forward with MSC certification. So that was certainly a big push, because we didn’t want to be found in a place where Maine was able to offer MSC certified lobster and Canada was not, [...] we certainly didn’t want to be left behind in that respect. And we certainly didn’t want to create the perception that in some way Maine lobster was more sustainable than Canadian lobster, which is certainly not the case. (Participant A12)

Consistent with the drive to remain competitive with Maine’s lobster industry, almost all interview participants referenced market access as a central motivator to obtaining MSC certification. For harvester groups participating in this research, pursuing MSC certification for the purpose of market access represents increased access to new markets that may or may not only accept certified products, secured access to markets that their products are already sold in, or a combination of both. Furthermore, using MSC certification to maintain or improve market access implies preservation of existing industry relationships and adherence to any demands to certify from buyers and retailers.

As reflected in Figure 7, motivations regarding market access, competition, and meeting buyer and retailer demands were central to harvester groups’ decision making. Securing market access and maintaining industry relationships is critical to the survival of the harvesters’ businesses—without a market, harvesters have no outlet for their harvested product. Participant references to the pressures concerning obtaining/securing market access and adhering to the retailer commitments that shape market demands reflect harvesters’ need to adapt to the seafood
industry’s evolution towards certified products. One participant summarized these external pressures imposed on harvester groups and the realities of the industry by explaining:

Some [harvester group members] realized that they might not agree with certification or think it has got the value that it should have, but at the end of the day that’s why I think we were quite accurate in saying “we’re not going into this because it might not even add a cent to the value of lobster, but we don’t want doors closing on us” (Participant A03).

**MSC as a Sustainability Improvement Tool versus Market Access Tool**

In the case of Atlantic lobster in Canada, improving and securing market access was found to be the central motivator for harvester groups to certify lobster under MSC. Although this finding was derived from this research’s case study of MSC-certified Atlantic lobster, research and discussions across the seafood industry have echoed this as well. For example, a 2009 article in the magazine *National Fisherman* describes frustrations among some seafood industry members regarding the change in what the MSC logo means, as the certification is increasingly being perceived as a marketing label rather than an environmental symbol representative of sustainability (Bedrosian, 2009). Similarly, academic literature has recognized that instead of being motivated by improvements to sustainability, industry members and governmental bodies have identified international market access as the central motivator for choosing to certify seafood under MSC (see Bush & Oosterveer, 2015; Foley, 2012; Goyert, Sagarin, & Annala, 2010; Gulbrandsen, 2014; Stoll & Johnson, 2015).

Such perspectives regarding the change in what MSC certification represents were evident in interviews when participants raised concerns that MSC has lowered its sustainability standards in order to certify more fisheries worldwide and stay competitive within the saturated landscape of seafood certifications. Consequently, some interview participants noted the effect that this discourse has on harvesters’ perception of what the MSC certification represents:

[MSC certification] should have been a sustainability tool that you as the consumer could put some trust in, that you’re getting a traceable food source, a sustainable food source. [...] When some of the fisheries got certified that are a joke—even to us harvesters—then
they lost a lot of credibility, they lost a lot of... the jig was up. Then more people realized that this is a retail marketing tool. (Participant A04)

The harvester groups involved in this research recognize and pride themselves on their fisheries’ existing sustainability—this sentiment is evident in their websites, social media pages, and the interviews conducted with representatives. However, some participants discussed confusion within their harvester groups regarding MSC’s determination of sustainability and the market demands to certify lobster as sustainable when the harvester groups and other industry actors have acknowledged this sustainability for decades. Participants discussing this redundancy recognized that while they are confident with their fisheries’ sustainability, ultimately the market demands that fisheries demonstrate this sustainability by acquiring and using the MSC label.

Many interview participants referenced a new understanding of what MSC certification represents in the lobster industry. Broadly, the harvester groups chose to certify their lobster under MSC not because of the certification’s ability to support improvements to sustainability, but rather for its capacity to help harvester groups secure buyers in competitive markets. This newer understanding is also evident in the realizations of some participants that their harvester groups’ initial discussions on MSC were focused on the certification’s potential to help secure existing or new markets, while the topic of MSC’s ability to support sustainability was rarely discussed. Participant acknowledgement of the certification’s value as a market access tool—and likely the most reliable means of market access—thus highlights the perception of MSC certification as the new standard of what is needed to participate in the international seafood market.

4.3.2 Consideration of Certification Alternatives

Interviews with participants proved to be particularly valuable in learning about any alternative certifications or governance approaches previously considered by harvester groups, as
their consideration of these alternatives is not evident in online literature or other resources. Some participants explained that they were initially interested in a country-based certification and waited for the development of a Canadian seafood certification scheme. However, the proposed Canadian certification scheme did not develop beyond discussions among the Canadian government and its Standing Committee on Fisheries and Oceans (Standing Committee on Fisheries and Oceans, 2009). Consequently, some representatives identified that their only feasible certification alternative seemed to be the MSC certification, given its industry acceptance and popularity.

Other participants mentioned that their harvester groups considered or additionally pursued the use of the ThisFish management tool. ThisFish is an online traceability system that allows harvesters to tag their catch with a code and upload information about the harvest of that fish. Using the code, consumers can access this information through the website (ThisFish, 2013). This traceability system can be used in conjunction with seafood certification; however, of the east coast lobster harvesters operating under an MSC-certified fishery, only a small number of these harvesters are using it.

4.3.3 Perspectives on MSC and its Certification

Although the prevalence of MSC certification selection among Northwest Atlantic lobster fisheries suggests consistent support of the certification, the value and effectiveness of MSC certification is often contested in literature (see Christian et al., 2013; Foley, 2013; Gulbrandsen, 2009; Kalfagianni & Pattberg, 2013). Following a brief review of popular support and criticisms found in literature, a discussion of the participants’ support for the certification and its perceived long term benefits, as well as their criticisms of the certification and its perceived long term costs, is written below.
Support of MSC certification and perceived long term benefits

Much of the growing commitment to MSC is likely due to the perception of MSC as the “gold standard” of seafood certifications. This determination of MSC is partly due to industry recognition of its characteristics that make it robust. Most notably, MSC has earned industry recognition for its use of third-party certification bodies to conduct assessments, the accreditation of these bodies through Accreditation Services International, and its compliance with international best practice guidelines (as previously discussed in Section 2.1).

MSC certification is also respected by industry actors given the growing market acceptance of the label. Consumer buying behaviour contributes to this popularity and acceptance to an extent; however, the proliferation of MSC seems to largely be driven by growth in retail commitments to sustainable seafood (Gulbrandsen, 2006; Hadjimichael & Hegland, 2016). One of the most significant and well-known developments in market acceptance of seafood certification was the Walmart Stores Inc. (and its Sam’s Club subsidiary) commitment to sourcing 100% of their seafood from MSC-certified fisheries by 2012 (Wal-Mart, 2006; Schmidt, 2012). This commitment, however, was not met within the designated timeframe and has since been modified to include seafood sourced from fisheries managing a program in accordance with the Principles of Credible Sustainable Programs developed by the Sustainability Consortium (Undercurrent News, 2014). Other retailers have reflected similar MSC commitments, such as those by Loblaw’s, Sainsbury’s, Marks & Spencer, and Lidl, who have committed to sourcing their frozen fish products from suppliers under the MSC label (Goyert, Sagarin, & Annala, 2010; Kalfagianni & Pattberg, 2013; Schmidt, 2012; World Wildlife Fund, 2015).

With respect to the perceived value of MSC certification among actors in the lobster industry, research participants noted that the industry’s perceived value of MSC certification is
partially rooted in the noted similarities between DFO and MSC goals. One participant described the existing DFO management measures as a means of supporting fisheries in their pursuit towards achieving and maintaining MSC certification, and argued that the shared goals and interests allow the DFO’s reach to be extended. Similarly, participants also suggested some alignment between the sustainability goals and measures of MSC and those pursued independently by the fisheries. Consequently, some participants noted that the conditions and changes being imposed on the fishery were manageable and valuable.

Some participants also noted the value in MSC certification for its ability to provide a common goal to pursue among differing industry groups. Especially considering the fragmented nature of the inshore lobster fishery noted by certain participants, the ability for MSC certification to encourage collective action and collaborative arrangements in resource governance is valuable. The convening power of MSC certification was summarized by one participant as follows:

I’ve seen people come together around MSC certifications that would not have come together to solve problems in any other forum. And the fact that those folks are coming together and talking to one another is an achievement of itself. (Participant A12)

**Criticism of MSC certification and perceived long term costs**

Criticisms of MSC among interview participants included concerns of lowered or changing MSC standards, the certification’s narrow focus on solely the biological aspects of the fishery, and issues with communication and limited resources provided by the MSC. Primarily, many interview participants brought attention to concerns within the industry that the MSC and the CABs are being more flexible and interpretive with the standards set. One interview participant described concerns among lobster fisheries regarding unsustainable fisheries securing certification and the consequential effect on the appeal of the certification:

[W]hen the MSC program was just established, it was really hard to get certified, and now to me and to a lot of the fishing industry, it’s lost a lot of luster. A lot of fisheries
that we believed would never achieve MSC certification have, so I guess on our end it’s lost luster, but maybe not on the other end—on the consumer end, it probably has that same luster, probably because they don’t realize maybe the whole process and how some of these guys have achieved their MSC approval. (Participant A05)

In various interview discussions on this topic, participants questioned whether the MSC Fisheries Standard had actually changed or if this was simply the perception among their harvester groups. While these assertions cannot be verified, some literature does support the concern that MSC makes some unfounded claims and is incentivized to certify larger—and potentially more destructive—industrial fisheries to obtain more clients and secure their market position (Hadjimichael & Hegland, 2016). Consequently, interview participants noted that awareness of such cases has reduced the perceived credibility of the MSC certification within the industry.

Although the concern regarding the biological focus of the MSC certification was not raised by many participants, the concern is legitimate in a landscape of proliferating certifications for responsible social and ethical standards. One example of such a standard is the Responsible Fishing Scheme certification by Seafish, which uses a third-party auditor to communicate a fishery’s compliance to criteria based on crew welfare and responsible catching practices on fishing boats, thus allowing it to be used as a compliment to other sustainability certifications (Seafish, 2016). Given that the MSC’s Fisheries Standard is based on the three assessment principles of sustainable fish stocks, minimal impacts of fishing on the marine ecosystem, and effective management of the fishery (MSC, n.d.-b), some harvester representatives expressed concern that MSC’s Fisheries Standard is not addressing ethical concerns such as the slave labour hired by some certified fisheries overseas.

Another criticism of the MSC among many interview participants was the limited communication between the harvester group and MSC after the certificate and the conditions are passed on to the fishery. According to multiple interview participants, communication after
certification and the dictation of conditions is generally limited to annual updates from the CAB and from MSC. Participant A03 explained, “There’s no ongoing interaction with MSC. I know I can pick up the phone, but they’re kind of focused on moving onto the next guy, […] I mean it’s a big machine and it’s got to be fed, right?”

Concerns about limited communication were furthered by participants who felt that guidance provided by MSC to the harvester groups specifically was inadequate. Participants were critical of the certification resources being written in a way that focuses on processing and retail operations, as well as the absence of templates and support from MSC. Although local MSC representatives were provided to the client groups for assistance in the certification process and were described by participants as a useful resource, some interview participants argued that greater engagement with MSC was expected in certain contexts.

With respect to expected long term costs of MSC certification, there were overall two topics of concern. Primarily, harvester group representatives expressed concern with the high costs to obtain and maintain the certification. The total cost for fisheries to be assessed and certified can range from $15,000—350,000 per fishery, with an additional cost of about $75,000 for annual audits (Bellchambers, Phillips, & Perez-Ramirez, 2015; Jacquet et al., 2010). Complimentary to these costs are those associated with hiring additional personnel within the client group to manage the certificate. Although the high cost of certification was viewed by some participants as simply the cost of doing business, other participants expressed frustration with the way in which money is being used for the certification rather than being used for other necessities such as more extensive data collection for fisheries.

Other future long term costs anticipated by representatives concerned the costs involved in responding to the conditions imposed on harvester groups by the CAB. For the PEI
BFSSSGSL fisheries, a central financial concern was adapting to two conditions concerning the Canadian mackerel stock’s recovery, as some LFAs rely on using mackerel as lobster bait (Criquet, Brêthes, & Allain, 2014; Criquet, Brêthes, & Allain, 2015). With respect to the mackerel conditions, many participants urged that the onus of planning and financing is put on the harvester groups. One participant explained how harvesters are the ones required to prove what bait is being used, thus placing the associated financial costs and labour burdens of improving data collection systems on the harvesters and their harvester groups. For harvester groups that are not as organized or financially secure as other harvester groups in the client group, this will not be an easy feat—some interview participants saw this as a significant challenge in terms of assembling the financial resources and training the necessary personnel to collect the data in a manner consistent to the more organized and wealthy harvester groups.

4.3.4 Challenges and Concerns throughout the Certification Process

Various challenges in the certification process were identified by harvester group and client group representatives. The challenge most frequently identified in interviews with participants in the PEI and NSNBLECS client groups was difficulties in understanding, supporting, and implementing the two imposed conditions concerning the Canadian mackerel stock’s recovery, as some lobster fisheries rely on mackerel as lobster bait (Criquet, Brêthes, & Allain, 2014; Criquet, Brêthes, & Allain, 2015). Many interview participants argued that they do not understand why the mackerel conditions were being imposed, as the conditions place responsibility on lobster harvesters to improve conditions in Canada’s mackerel fishery. One participant described the challenges in understanding and supporting this shared responsibility:

Some of the stuff at the end of the process that we got stuck with as far as conditions, like the mackerel condition… we never dreamed about having. […] I think that’s one of the problems with this ecosystem-based management. It’s a good system, the only problem is… when there’s a problem with the [mackerel] fishery […] because everything’s
intertwined with this kind of a system, [our lobster fishery is] getting kind of entrapped in trying to do something for the mackerel fishery. And it’s a great idea, but what we can do is so limited and so minute, it’s just causing us problems here. (Participant A05)

In addition, participants noted the challenges in coordinating harvester groups’ efforts to address these conditions. Discrepancies between harvester groups’ financial and organizational resources, professional staff, and reliance on mackerel as bait were cited as barriers to effectively addressing the conditions.

A second challenge cited by some harvester group representatives was the difficulty of educating harvesters on their MSC certificate. This challenge is thoughtfully described by one harvester group representative in particular:

[W]e have 950 license holders in our district. If you went and pulled those 950 license holders, and I’m being very very realistic here, 500 of them wouldn’t know we were certified. That’s how disconnected this is. […] Seriously half the guys don’t even know that we’re MSC approved, and there’s another portion that don’t care. So there’s a lot of education to be done at the ground floor here. […] [The harvesters] are making a good living, they don’t want to be bothered, but as these conditions come to fruition, it’s going to be entertaining to see… there will be some backlash. (Participant A05)

This description of the limited awareness of harvesters involved in the certificate is interesting for numerous reasons. Some harvesters’ lack of knowledge or awareness may suggest weak organizational and communication structures within the fragmented inshore lobster harvesting areas. Thus, some harvesters may not be aware of the conditions being imposed and generally may be disconnected from changes to their fisheries’ management. However, perhaps a greater concern is some harvester group representatives’ suggestions that their fishermen may not see themselves as needing to be concerned with the certification they are participating in— one interview participant in particular suggested that some harvesters in their harvester group view certification as an issue that centrally involves the buyers or other actors in the client group.

Concerns regarding involvement of the MSC itself in the lobster fisheries and unfamiliarity of the certification have also led to a certain degree of cynicism among harvesters
and harvester group representatives. Harvester group representatives who have rarely worked with international organizations discussed their concerns about working with MSC (although this is typically an indirect relationship, as the CAB works more closely with the harvester groups) and echoed fears that “there’s a boogeyman in every closet” (Participant A01). This cynicism is reflective of a broader concern that the harvester groups are relinquishing control over their fisheries, which some participants identified as a potential motivator for harvesters to hopefully take on a more active role in decision-making processes.

A final issue—albeit one that was not frequently raised in interviews—concerns some harvesters’ dependence on financing from buyers and the consequential pressure created by this relationship. In cases where harvesters are being heavily financed by buyers, there is concern that these harvesters are not representing their own interests while participating in group decision-making but rather those of the buyer that they are financed by:

>[The harvesters] more or less take their direction from the buyer to some degree, I just don’t know the effect of that working relationship and it may vary. But in any case, they don’t see themselves as totally independent business people—they see themselves as part of an operation, they have a loyalty to the buyer so they work with the buyer, they give up a certain part of [their] role […] to the buyer that they work with, for better or for worse. (Participant A09)

The extent to which this relationship has influenced the decision-making process for harvester groups choosing to certify likely depends on the number of harvesters who are heavily financed by buyers and the nature of the relationships between these actors. Although this participant described the issue as growing in prevalence, further information on this issue and its impact on decision-making in the study area is not publically available.

**4.4 Research Findings: Changes to Industry Structure from MSC Certification**

This research also revealed several interesting findings concerning changes to the structure, relationships, and responsibilities of the groups participating in Atlantic Canada’s
lobster industry as a result of MSC certification. A notable outcome of the certification of Atlantic lobster fisheries is that new groups have been created to support the evolving structure of this network. Consequently, the pre-existing groups participating in this industry have had to adapt some of their structures, practices, and responsibilities to varying extents in order to accommodate the introduction of MSC certification.

A central change to the Atlantic lobster network’s structure is the formation and introduction of clients and client groups. MSC certification of any fishery requires a legal entity to apply for the certification—this entity is termed a client or client group by MSC, depending on if the applicant is a single organization or a group of organizations (Foley & Hébert, 2013). Clients and client groups are formed to establish a sole actor or group that provides funding for certification, consults the necessary stakeholders, provides data and information for assessment, holds the fishery’s MSC certificate, and ensures that group members adapt to any conditions imposed (MSC, 2015a). Another change to the structure of the certified lobster network is the introduction of the Lobster Council of Canada (LCC). The LCC was initiated in 2009 following governmental recommendations to address a lobster industry crisis through various support and marketing initiatives, including support for MSC certification in the Atlantic lobster industry (Standing Committee on Fisheries and Oceans, 2009).

Table 4 summarizes the relevant industry groups that existed prior to the certification of Atlantic lobster and those that were created to accommodate the certification. For the purpose of simplicity in this research, the certification process for the Atlantic lobster fisheries is determined to have begun in 2008. This period of time is relevant in the initiation of MSC certification of Atlantic lobster, as the certification assessment for the Eastern Canada Offshore Lobster fishery began at this time (MSC, 2016c). Following this, in 2009 the Government of Canada’s Standing
Committee on Fisheries and Oceans officially recommended that Fisheries and Oceans Canada (DFO) supports the MSC certification of Atlantic lobster (Standing Committee on Fisheries and Oceans, 2009).

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<tr>
<th>Groups Existing Before Certification Process</th>
<th>Groups Created During Certification Process</th>
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<tr>
<td>- Marine Stewardship Council</td>
<td>- NSNBLECS Client Group, PEI Client Group, Clearwater Client (however, the internal members of the two client groups and Clearwater Seafoods Ltd. existed prior to the certification process)</td>
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<tr>
<td>- Various lobster industry actors (i.e. harvester groups, processor associations, buyers, shippers, First Nations groups)</td>
<td>- Lobster Council of Canada (however, not created exclusively to assist in the certification processes)</td>
</tr>
<tr>
<td>- Governmental institutions (i.e. provincial governments, federal government, DFO)</td>
<td></td>
</tr>
<tr>
<td>- Third-party actors involved in certification (i.e. CABs and peer reviewers)</td>
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<td>- Other stakeholders</td>
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Table 4. List of lobster industry groups created before and during the process of MSC certification of Canadian lobster

This section explores the changes to industry structure and processes that occurred in the certified Atlantic lobster network as a result of MSC certification. The changes imposed on Atlantic Canada’s lobster industry structure and processes from the creation of these new groups are first discussed. This section will largely focus on the effect that the creation of client groups and the Lobster Council of Canada (LCC) has had on Atlantic Canada’s harvester groups. The subsequent section outlines the structure of the three client groups and their internal processes to provide a foundational understanding of the way that decisions are made under the Atlantic lobster client and client group structures. Following this, a visualization of the evolving Atlantic lobster landscape is presented, which highlights both the pre-existing and new actors and relationships.

4.4.1 Changes to Industry Structure, Processes, and Relationships

A notable outcome from the pursuit of MSC certification in Atlantic Canada’s lobster industry is the creation of new industry relationships and organizations. More specifically, introduction of client groups and the Lobster Council of Canada (LCC) altered the structure of
the industry network and influenced harvester groups’ actions and decision-making. The discussion first explores the impacts on harvester groups resulting from the creation of client groups, and the following section examines the impacts from the introduction of the LCC.

Creation of Client Groups

With respect to the Atlantic lobster, one of the most notable changes to the industry’s network was the creation of the NSNBLECS and PEI client groups from the existing clusters of harvester associations, processor associations, buyers, and shippers. To obtain MSC certification for a fishery, the groups who wished to participate in the certified supply chain were required to become a member of the client group applying for the certification. Given the need for consensus by the client group overall in governance decisions, the groups of actors in the client group must engage in collective action and collaborative decision-making processes.

Participation in an MSC certified fishery can have a range of implications on the structure of the client group’s actors and the relationships between them. As referenced by some representatives, one consequence of participating in a client group is that client group members must forfeit some autonomy in decisions. However, participation in the PEI and NSNBLECS client groups generated more positive than negative implications. In the PEI and BFSSSGSL fisheries, the creation of client groups and collaborative arrangements fostered positive influences on the interactions and relationships between harvester groups. According to participant interviews, recognition that all harvester groups within a client group are working toward the same certification encouraged an environment of information sharing, cost sharing, and reduced competition. Participants also suggested that the increased collaboration and strengthened relationships between harvester groups helped to accelerate the certification process, and will likely continue to be valuable in the future.
Collaborative relationships were particularly evident in Nova Scotia’s Cape Breton region, where a cluster of neighbouring harvester groups with limited resources worked together to share costs and information between the groups in order to meet MSC requirements and improve on the fishery’s conditions. Although the harvester groups in this region noted that they had utilized collaborative arrangements between them prior to MSC certification, these harvester group representatives argued that their existing collaborative network was a valuable structure that allowed for further sharing of information and costs while pursuing MSC certification.

At a broader scale, MSC certification also modified the relationships within and between client groups. With respect to the relationships within the client group, some participants noted that information and cost sharing was expanded to incorporate the processors, buyers, and shippers, as all groups must work towards meeting the MSC standards and ensuring the longevity of the fishery and its access to markets. Similarly, although some inherent competition between client groups was evident in interviews, many harvester group representatives also noted the collaboration between the NSNBLECS and the PEI client groups during the certification process. The joint effort between these groups involved sharing some of the costs involved in the fisheries’ audits and sharing information to more effectively address both client groups’ conditions. As a result, networks and relationships involved in sharing information between the NSNBLECS and PEI client group were created and strengthened.

Creation of the Lobster Council of Canada

The LCC was introduced to the lobster industry as part of the Canadian government’s endorsement of MSC certification for Atlantic fisheries (Standing Committee on Fisheries and Oceans, 2009). The LCC was established to improve the value of the Canadian lobster sector by addressing issues in branding and marketing, product quality, market access, and various other topics of concern (LCC, n.d.-a). The creation of this council influenced the structure and
processes of the Atlantic lobster industry’s network and, more specifically, harvester group’s decision-making in the certification process. The LCC plays a central role in supporting the communication between various lobster industry participants by creating a space for discussion and decision-making. These activities are largely done through the executive team and the LCC Board of Directors, which is made up of 20 people from the industry, including processors, shippers, harvesters, and First Nations in Atlantic Canada. Furthermore, members of the council—which includes a similar diversity of supply chain actors and industry members—meet twice a year to raise issues for the Board to decide upon and respond to. According to an interview with an LCC representative, the LCC acts as a central means of communicating among industry members, and is currently the only forum that brings representatives from various parts of the value chain together on a regular basis.

The creation of the LCC was noted by several participants as central to the process of certifying the various Atlantic lobster fisheries. Conflicting accounts emerged in interviews regarding the LCC’s involvement in decision-making and the nature of its influence over the industry. Some participants noted that the LCC was valuable in moving the lobster industry forward and acting as a central communication hub for industry actors to participate in collaborative decision-making. In contrast, other participants described several criticisms of the LCC that arise within the harvester groups. Primarily, some representatives criticized the LCC for their ties to certain buyers and other industry actors, which convinced some harvester group representatives that the LCC prioritized other actors over the harvesters and fisheries in their decisions. Other representatives were critical of the executive team and Board of Directors, as they supposedly “took the bull by the horns” (Participant A05) in making certification decisions and announcements on behalf of harvester groups without adequate consultation, thus creating
tension in the industry. While criticism of the LCC is not consistent across all harvester groups, criticisms such as these are likely most prevalent among harvester groups who view the LCC as out of touch with the lobster harvesters and their needs (“Lobster Levy to get Review”, 2015). As a result of some harvester groups’ hesitation towards the LCC, information sharing with the LCC may be inconsistent across harvester groups. Examination of the effects resulting from the introduction of the LCC thus demonstrates the potential for external industry groups to alter the direction of supply chains’ decision-making and the outcome of their sustainability initiatives.

4.4.2 Client/Client Group Structure and Decision-making

The way in which decisions regarding certification of lobster were made among harvester groups varied according to the structure of actors involved in the client/client groups and the local industry. The three client and client groups reviewed in this research—the PEI lobster client group, the NSNBLECS client group, and the Clearwater Seafoods client—utilized different decision-making structures and processes in certifying with MSC, which are elaborated upon below. The decision-making structures and processes of the NSNBLECS and PEI client groups are discussed simultaneously, as there was little difference between participant descriptions of how decisions were made in these two client groups.

NSNBLECS and PEI Client Group Decision-Making Structures

The NSNBLECS and PEI client groups were developed to bring together the region’s lobster supply chain actors as a legal entity that holds the MSC certificate. Some interview participants pointed out that initially there was consideration of using one client group to represent both fishing areas given their similar management; however, differences between the fisheries’ geographies and intended timing of certification led to the creation of two distinct client groups. While the two client groups were established as legally constituted bodies during
the certification process for the purpose of representing the fishery on the MSC contract, the associations within these client groups existed before the fisheries obtained certification. For example, the PEIFA—the body representing the totality of harvester associations in the PEI client group—was established in the early 1950s to act as a forum for discussing issues relevant to PEI fishing industry (PEIFA, 2017a), and was later incorporated into the PEI client group along with the PEISPA, LIFN, and AFN. Similarly, the NSNBLECS was formed by bringing together the collection of existing harvesters, processors, buyers, and shippers that were interested in securing certification for Nova Scotia and New Brunswick lobster (MSC, 2014).

Discussions with representatives from the PEI client group and the NSNBLECS client group have revealed a similar decision-making structure between these two groups regarding certification. Generally, these client groups were developed separately by those participating in the two fisheries. The PEIFA and NSNBLECS utilized their harvester groups’ existing executive committees and Boards of Directors during the certification process. Similarly, higher-level decision-making for the PEI client group’s lobster certification was largely done by the PEIFA’s existing Board of Directors, while the NSNBLECS created an executive committee for higher-level decision-making for similar topics of debate. The client groups also consulted their regional and local lobster advisory committees during discussions regarding lobster certification under the MSC standard.

The harvester organizations must follow the governance system and administrative rules that each organization operates under, which provide structure to how decisions are debated and finalized (Criquet et al., 2015). Participants stated that their harvester groups typically followed a voting system for their certification decisions that is similar to their approach for general decision-making, as harvesters voted in the certification debates and the harvester group’s
president and/or central leadership brought those decisions to their client group’s Board of Directors or executive committee for final approval. The certification-related decisions made by these upper-level groups followed the information and decisions provided to them by the harvester groups and their leadership.

The PEIFA and NSNBLECS leadership both utilized local and regional lobster advisory committees in their decision to certify. Local lobster advisory committees existed prior to certification, and with the exception of LFA 38, all LFAs for the two fisheries have local committees (Criquet et al., 2014; Criquet et al., 2015). The local committees generally consist of representation from DFO, harvesters, Aboriginal communities, and provincial government (Criquet et al., 2015). During the time that the fisheries were debating MSC certification, these local committees reviewed MSC data, created reports on their findings, and assisted in providing location-specific information for their regional lobster advisory committee to consider. Two regional lobster advisory committees were established for the Maritimes region and the Southern Gulf of St. Lawrence region, and were used to collect and review input from the local advisory committees regarding local positions on MSC certification and advise the DFO on the fishery’s management and certification (Criquet et al., 2014; Criquet et al., 2015).

Client groups’ decisions to pursue MSC certification also incorporated the positions of the buyer, shipper, and processor associations participating in the client group. These groups largely existed prior to certification, and have their own distinct internal decision-making processes. With respect to the NSNBLECS client group, it must be noted that Clearwater Seafoods Ltd. participates as a shipper in the client group—consequently, Clearwater Seafoods’ interests may have influenced the decision-making of the NSNBLECS client group.
Outside of the client groups, various external industry stakeholders also influenced these groups’ decision-making regarding lobster certification. Primarily, both the NSNBLECS and PEI client groups noted that their decision to certify was influenced by the other client group. Benefits such as sharing information and audit costs encouraged shared decision-making between the two client groups. Each of the two client groups also saw the other client group’s decision to pursue MSC certification as a motivation to remain competitive by pursuing certification of their own lobster fishery. Additionally, the DFO and the provincial governments of Prince Edward Island, Nova Scotia, and New Brunswick may have influenced the client groups’ decisions to certify, as they participated in meetings with the client group, provided guidance, and ensured that the harvester groups were meeting provincial and federal regulations. Financial support for certification was also provided by the provincial governments, given that the provincial governments benefit from improvements to the local lobster industries (MSC, 2014). Two other prominent external bodies that influenced the certification process include the Conformity Assessment Body (CAB)—which is SAI Global Assurance Services for both client groups—and the Lobster Council of Canada. These two bodies were involved in meetings and information sharing with each of the client groups, thus contributing to each client group’s certification and the discussions that supported this decision.

**Clearwater Seafoods Limited Partnership Decision-Making Structure**

With respect to its structure and decision-making processes, the Clearwater Seafoods Ltd. client differs significantly from that of the PEI and NSNBLECS client groups. Clearwater was established in 1976 and “carries on the business of, and the ownership, operation and lease of assets and property in connection with, the harvesting, processing, distribution, and marketing of seafood” (Clearwater Seafoods, 2015, p.9). Clearwater Seafoods was announced as the client representing Canada’s offshore lobster fishery in 2008, which achieved full certification in 2010.
and recertification in 2016 (MSC, 2016c). The MSC certification for Clearwater’s lobster covers
the lobster harvested by Clearwater’s offshore industrial vessel operating in LFA 41, where all
of the eight Canadian offshore lobster harvesting licenses are held by Clearwater (Clearwater
Seafoods, 2015; MSC, 2016c; Theriault, Hanlon, & Creed, 2013). The offshore catch obtained in
LFA41 must not exceed the total allowable catch of 720 tonnes established by the DFO (DFO,
2015a); however, Clearwater’s lobster harvesting has exceeded this limit, as 746 tonnes of
lobster was harvested from the area in 2013 (MSC, 2016c).

While examining the certification process for Clearwater’s offshore lobster fishery is
necessary for understanding the landscape of MSC certification of Canadian lobster, the offshore
fishery is not central to this landscape as the majority of Clearwater’s retailed lobster is sourced
from inshore fisheries. To supplement the moderate harvest from the offshore fishery, Clearwater
purchases about 3175 tonnes of lobster for retail from the Nova Scotia and New Brunswick
inshore lobster fishery, operated by the NSNBLECS client group (Clearwater Seafoods, 2015,
p.13). Given that this research focuses on inshore harvester group activities and decisions,
discussions involving Clearwater will address their offshore harvesting activities, as the inshore
lobster harvesters that Clearwater purchases from are separate from the Clearwater offshore
lobster client group and its decision-making processes.

Compared to the NSNBLECS and PEI client groups’ reliance on harvesters and harvester
groups to make decisions, Clearwater Seafoods utilizes a different set of resources that reflects
the market-facing nature of the company. The decision to certify the offshore fishery was largely
rooted in the discussions of Clearwater’s corporate decision-makers, as Clearwater is the sole
client and actor for the fishery. Decisions regarding the certification of Clearwater’s lobster
products began in their Sustainability and Public Affairs Department, which oversees all the
intersections with government on fisheries science and management. The department researched and evaluated the MSC certification and its applicability, given the identified consumer and stakeholder interest in the certification. Recommendations made by the Sustainability and Public Affairs department were sent to Clearwater’s executive, which made the decision to budget the funds necessary for certification of the offshore lobster fishery.

After the decision was made to pursue MSC certification, Clearwater Seafoods Ltd. legally established itself as the fishery’s sole client with elected executive members and a Board of Directors. Funds were also collected from those wanting to be engaged as stakeholders in the certification process. To facilitate information sharing among the relevant groups in the certification process, conversations were held with the DFO, the CAB and assessors, and other industry organizations.

4.4.3 Network Map: Changes to Industry Network from Certification

The network map presented below (Figure 8) visualizes the pre-existing and new actors, processes, and relationships in the lobster network, as outlined in the previous sections. The network map largely utilizes information from interviews and supplements this information with publically-available secondary sources. This network map is predominantly representative of the new processes and relationships experienced by the NSNBLECS and PEI client groups that were created for the purpose of MSC certification. This narrow focus was established because Clearwater Seafoods existed prior to the certification of the offshore lobster fishery (which may imply a different network arrangement), and the research data regarding Clearwater’s processes may be limited as only one interview was secured with a Clearwater representative. It must also be noted that this map may present an incomplete representation of the relationships among other
actors who are not central to this research, such as governmental bodies, the MSC, and stakeholders, as this research focuses on harvester groups and client groups.

Figure 8. Atlantic lobster industry network map, highlighting changes from the introduction of MSC

4.5 Research Findings: Disconnect between Sustainability Determinations

The last theme of findings that emerged from this research concerns tensions between how the sustainability of the lobster fisheries is conceptualized by MSC and experienced by harvester groups. A brief review of the three fisheries’ sustainability is first presented in this section. This review demonstrates that the fisheries generally are deemed by the DFO as
sustainable and self-identify as sustainable, particularly in the BFSSSGSL and PEI lobster fisheries. The following section explores the conditions imposed on these fisheries and harvester groups’ responses to the difference in how sustainability is experienced locally and determined externally.

### 4.5.1 Lobster Fisheries’ Current Management and Sustainability

Improvements to the lobster fisheries’ sustainability primarily stem from the efforts of both the DFO and the harvester groups themselves. With respect to the foundational sustainability efforts established by the Canadian government, Integrated Fisheries Management Plans have been created by the DFO and utilized by harvesters in the lobster fishing areas in order to establish rules on sustainable harvesting practices (DFO, 2011; DFO, 2014b; DFO 2015a). These plans outline management measures for specific LFAs to follow, which can include limits on total allowable catch (for the offshore fishery), fishing season length, number of licenses, landing of V-notched and egg-bearing females, and minimum landing size (DFO; 2015a; Pezzack, Denton, Cassista-Da Ros, & Tremblay, 2015). In addition to the DFO management measures, voluntary efforts have been developed and implemented by harvesters and harvester groups prior to MSC certification. These efforts include conducting research in conjunction with local universities, trap reductions, requests to DFO for further increases to minimum carapace length in shared fishing areas, independent V-notching efforts, and data collection on mutilation and buried lobster.

Lobster harvesting in these fisheries is largely referred to as sustainably managed according to fishers, the DFO, and some industry and environmental groups (LCC, n.d.-b; Theriault, Hanlon, & Creed, 2013; Withers, 2014). However, support for the certification of these lobster fisheries is not necessarily consistent across all industry and environmental groups.
As evidenced in stakeholder feedback submitted as part of the fisheries’ assessment reports, groups such as the New England Aquarium, the Ecology Action Center, and WWF Canada identified and commented on various issues in the assessments (Bannister et al., 2010; Criquet et al., 2015). Stakeholder comments were responded to by the assessment teams by answering questions, clarifying information, and sometimes changing scores and conditions. While stakeholder submissions have identified concerns for these fisheries to address, the comparative support for these fisheries’ certifications demonstrates a general acknowledgement of the fisheries’ sustainable practices.

4.5.2 Conditions Imposed on Atlantic Canada Lobster Fisheries

**BFSSSGSL and PEI Lobster Trap Fisheries**

With respect to the MSC certification assessments conducted for both the PEI and the BFSSSGSL lobster trap fisheries, SAI Global (the Conformity Assessment Body, or CAB) raised no significant concerns regarding the sustainability of the fisheries. Data used in the assessments on lobster landings in 2011 indicates that the stock is within the “healthy” zone for both fisheries (Criquet et al., 2014; Criquet et al., 2015). The assessments reviewed the fishery’s stability, recognized the existing DFO measures and some formal sustainability initiatives pursued by industry groups, and evaluated the fishery’s compliance with MSC’s three principles. During the two evaluations, both fisheries had five performance indicators that scored under the mark required for an unconditional pass, meaning that certain conditions must be addressed within a designated timeframe (Criquet et al., 2014; Criquet et al., 2015). The conditions outlined, which were the same between the two fisheries, concerned harvest control rules, development and implementation of a Canadian mackerel stock recovery strategy, data on bycatch levels, and a research plan supporting these conditions (Criquet et al., 2014; Criquet et al., 2015).
The conditions established for the two fisheries by the CAB indicate no pressing concerns regarding the health or sustainability of the fishery. Instead, these conditions provide additional guidance to secure the fishery’s and ecosystem’s sustainability in the future. Overall, no significant concerns were raised in the assessment literature regarding the sustainability of the fishery or the health of the lobster stock.

**Eastern Canada Offshore Lobster Fishery**

The offshore fishery considered in this research is the Eastern Canada Offshore lobster fishery in LFA 41. The certification assessment of the offshore lobster fishery, conducted by Intertek Fisheries Certification in 2010 and 2015, did not reveal any concerns regarding the sustainability of the fishery. Scientific review of the fishery has demonstrated that all indicators (abundance, number of large females, and size structure of the population) are within the “healthy” zone, as of the fishery’s 2013 assessment. In Intertek’s first assessment of the fishery in 2010, four conditions were placed on the fishery and MSC certification of the fishery was approved. These conditions concerned: data collection on lobster discards and bycatch species; precautionary reference points; interactions with protected, endangered, or threatened species; and use of a precautionary approach (Bannister et al., 2010). The four conditions set in the 2010 assessment were addressed and closed before the second certification in 2015 (Blyth-Skyrme et al., 2015). Intertek’s recertification assessment of the offshore fishery’s in 2015 placed only one condition on the fishery concerning harvest control rules (Blyth-Skyrme et al., 2015).

Review of the assessment results for the offshore fishery reveals no significant concerns in the sustainability of the fishery under Clearwater’s management. Furthermore, a reduction in the number of conditions established for the fishery in the 2015 recertification suggests that the sustainability of the offshore fishery is improving, according to the MSC standards.
Harvester Group Responses to MSC Conditions

Harvester group responses to the imposed conditions differed according to the specific condition being discussed. When the topic of the imposed conditions arose in interview discussions, representatives attested that they understand and support the three conditions on harvest control rules, bycatch levels, and creation of a research plan. However, some representatives criticized the mackerel conditions in particular for putting the responsibility on lobster harvesters to address issues in Canadian mackerel stocks. One participant’s comments summarizes the concerns over supporting the mackerel conditions, particularly for harvester groups who have limited resources, use mackerel from international waters, or do not use mackerel at all:

When the mackerel issue gets looked at, it’s data deficient—they don’t know how much mackerel we’re using. In fact, most areas don’t even use mackerel, they use herring […]. The other thing is a large portion of this mackerel [bait] isn’t Atlantic mackerel, which is the species that is of concern—a lot of it is from Japan or some other country. But MSC doesn’t have that separated because our lobster fishery is data deficient in their bait usage. We may be able to say “we use this much bait”, but it’s not broken down by what kind of bait we use, where the bait comes from… it’s all listed maybe as mackerel. So the onus is on industry to show what bait we’re using and where it comes from. Who’s going to pay to have that done? Industry, the harvesters, cause we’re the ones that require [the MSC certification]. […] And is that cost equivalent to, less than, or more than, the cost of losing the markets that demand they want MSC? […] Because it’s certainly not doing anything to keep us more sustainable—we already are sustainable. (Participant A04)

Issues in understanding the mackerel conditions’ role in helping the fisheries meet the criteria in MSC’s principle 2 (ecosystem impacts) and secure MSC certification were also discussed by participants. Although responses varied between participants, many representatives did not consider the two mackerel bait conditions as having a direct impact on the sustainability of the lobster fisheries specifically. The disconnected nature between the mackerel conditions and the lobster fisheries’ sustainability was discussed by Participant A05:

[Lobster is] one of the least intrusive fisheries there is, and yet we have to jump through all these hoops that really have nothing to do with our fisheries. Some of the conditions that are imposed on us with the mackerel fishery, I think it’d be a lot easier if they
imposed things to improve the lobster fishery. Are there better ways to improve our fishery, make it more sustainable, do this-this-and-this, as opposed to trying to help out… and I don’t mean this in a bad way, but help out another fishery, cause we’re so far out on the periphery of it that we’re never going to have any impact. (Participant A05)

Confusion regarding MSC’s use of conditions to communicate shortcomings in a fishery’s sustainability was further explored by this participant:

A lot of the conditions—not just in our fishery—are not doing anything to enhance that particular fishery. So can you actually say in five years’ time when you go for a renewal… yes you met the conditions … but have you actually improved your fishery? […] Has our fishery on the shore improved any from five years ago? That’s the way we like to look at it. And some of the conditions I just don’t see how they’re going to improve the fishery, I mean moving forward the sustainability of the fishery. (Participant A05)

Generally, the arguments of Participant A05, as stated above, are representative of a sizeable portion of participants’ interview responses to the mackerel conditions. While no participants referenced to any refusal from themselves or other harvester group representatives to meet the mackerel conditions, the confusion and varying support for the conditions and the way these conditions imply shortcomings in their fisheries’ sustainability highlights some dissatisfaction manifested among harvester groups. In examining this dissatisfaction regarding the mackerel conditions, it is unclear if the participants’ criticisms indicate an incomplete understanding of MSC’s Principle 2 concerning environmental and ecosystem impacts, or if the participants are contesting the application of this principle. Nonetheless, such responses to the mackerel conditions suggest some tension between how sustainability is conceptualized externally by the MSC and how it is experienced and practiced by the lobster harvesters.

4.6 Discussion

The following discussion puts the various findings of this thesis into conversation with one another. This discussion first explores how the new groups and relationships resulting from MSC certification have strengthened and imposed stresses on the lobster industry’s network.
Following this, the tensions emerging between MSC’s external determinations of sustainability and local sustainability practices are examined. This subsection explores the power of the MSC label in concealing critical distinctions between fisheries and monopolizing of the concept of sustainability in the seafood industry, and reviews the existing and potential future responses of harvester groups to these frustrations. The legitimacy and longevity of MSC certification in Atlantic lobster fisheries is then proposed. In this discussion, legitimacy is framed as an indicator of longevity, which is explored using the environmental governance and CSR literature. The longevity of MSC certification’s ability to satisfy harvester groups’ interests is then hypothesized, followed by a review of the implications of this research.

4.6.1 The Changing Structure of the Certified Lobster Industry Network

One of the most notable findings in this research is that MSC certification of Atlantic lobster fisheries has led to structural and procedural changes to the industry’s network, particularly for the BFSSSGSL and PEI lobster trap fisheries. These changes have largely resulted from the creation of client groups and the LCC. This section of the discussion will examine the ways in which the Canadian lobster network is affected by the creation of new groups (and consequently new relationships) resulting from MSC’s initiation.

Positive Impacts on Network Structure from MSC Certification

The introduction of new groups of actors to the industry network for certified lobster has strengthened the network in several ways. Primarily, creation of the client groups and the LCC has fostered new relationships based on information and cost sharing between groups that may not have participated in these activities prior to certification. With respect to the relationship between client groups and the LCC, although full client groups are not members of the LCC, various members and representatives within the client groups participate in LCC meetings and
share information with the council. Information is also shared by client groups and the LCC with other network actors, such as the DFO and provincial governments and other stakeholders. Furthermore, given the high costs associated with MSC certification and the assessment conditions, sharing initial assessment costs within and between client groups can be valuable. Costs are also shared between harvester groups within the client groups and the LCC in the form of a lobster levy imposed on harvesters and onshore actors, which is used to fund marketing and market research efforts for the lobster industry (LCC, 2016). As a result of these various forms of cost and information sharing, trust and support within the network may be strengthened.

Introduction of MSC certification in Atlantic Canada’s lobster network has also fostered teamwork and collective action within a typically competitive industry. Given that the MSC certificate is shared among all harvester groups within the client groups, and unsuccessful management of the lobster supply chain will impact all participating actors, client group members are incentivized to work together. Consequently, relationships within these client groups are strengthened through collective action. Interview participants noted the motivation to work collectively and support other client group members as an effect of MSC certification, which was described by one representative as follows:

[T]his MSC process is the most beautiful example of this industry working together, despite its dysfunctional structure. The inshore fishery has a dysfunctional structure because you can’t vertically integrate it. So this little microcosm is a beautiful example of how it can work, because the exporters and shippers and processors need MSC certification. But they need the harvesters to make changes to keep the certification. So they have to work together and they are. (Participant A10)

The description of the collaborative environment fostered through MSC certification is particularly noteworthy, given that the inshore fisheries were sometimes described by participants as a fragmented industry. As a result, MSC may be viewed as a means of setting standards and goals that various client group members and other industry members can come
together to collectively work towards. Foley & McCay (2014) in particular argue that collective action is encouraged within the structure of the certification rules and methodology because most fisheries include a variety of fishing entities and actors pursuing the same stock and the MSC’s focus on the sustainability of stocks scales up the unit of certification to include the entire fishery. Consequently, MSC certification can foster industry collaboration and collective action by introducing clients and client groups into the network structure, which then contribute to new relationships and systems of support within the network.

**Negative Impacts on Network Structure from MSC Certification**

Despite the positive impacts on the lobster network’s structure resulting from the introduction of MSC certification, some stresses on the network’s structure are evident as well. Primarily, the use of client groups as the broad decision-making body creates an environment where individual groups, such as harvester groups, are disadvantaged if they do not reflect the decision-making of the client group. If harvester groups are hesitant about participating in the client group and MSC certification, they may opt out of the certificate and risk elimination from certain processing, distribution, and retail networks. As a result, a number of harvester group representatives noted the pressure to participate as a means of continuing relationships with other client group actors—this was most prevalent among participants representing smaller-scale fishing operations with limited resources. One participant (A07) in Nova Scotia highlighted this by saying: “since the other two provinces and probably the majority of Nova Scotia was going forward with [MSC certification], we all just kind of decided that this was something we had to do”. This comment suggests that their harvester group felt obligated to adhere to the decisions of the rest of the client group in pursuing certification, which may reduce the autonomy of individual actors within the client group.
Introduction of the LCC has similarly imposed stresses on network actors. Most centrally, creation of the lobster levy by the LCC has added a financial stress for harvester groups, as the one cent per pound levy is imposed on harvester groups. Consequently, certain harvester groups are resentful towards the LCC, which may impede the health of their relationship. Establishment of the LCC has also fostered concerns regarding public representation of harvesters and their harvester groups. The LCC was partly created for the purpose of representing the industry internationally, meaning that the LCC speaks on behalf of harvesters and harvester groups at times. Various harvester group representatives noted in interviews that while there is value in the LCC holding this role, the boundaries of the LCC’s responsibilities are sometimes unclear. One representative from the PEI fishery discussed this concern as follows:

You get people speaking for you who have no business speaking for you because you’re signed up to MSC certification, or they’re from the LCC or something like that. So they’re making decisions and speaking for you. And it’s not always in your best interest. And the LCC did that a couple times […] made statements in the public and the press they had no business doing because they didn’t consult with the fishermen of Prince Edward Island. And we called them over […] going “listen, you can’t speak on behalf of the fishermen of Prince Edward Island, it’s not your job. Your job is to market lobsters. You job is not to tell the people of Prince Edward Island, the people of Canada, how the fishery is run in PEI. That’s not your job, that’s our job.” So the lines are getting skewed.

(Participant A11)

While harvester group representatives’ stance on the LCC varied, the concern raised regarding representation is noteworthy. For representation at an international scale and for organization of industry-wide discussions, use of a central body such as the LCC is certainly valuable. However, some participants’ concerns regarding the appropriateness of a body such as the LCC to represent the collection of lobster fisheries and harvesting activities suggest that the legitimacy of the LCC may be contested among harvester groups.
4.6.2 Tensions between External Determinations of Sustainability and Local Practice

As previously described in this paper, a significant finding in this research is the frustration surrounding conditions imposed on the fisheries by MSC. Particularly for the PEI lobster trap fishery and the BFSSSGSL lobster trap fishery, harvester group representatives expressed a variety of responses to the conditions imposed. The conditions requiring implementation of harvest control rules, data collection on bycatch levels, and creation of a research plan were largely accepted among the representatives; however, the two conditions on the development and implementation of a mackerel strategy were often contested. Furthermore, in the CAB assessments, some acknowledgment was provided to harvester groups’ management measures under DFO initiatives and other formal programs (such as research initiatives and broad conservation programs), but the assessments largely did not recognize many of the small-scale or informal initiatives implemented by harvester groups. The criticism and confusion surrounding the mackerel conditions and the limited recognition of harvester groups’ additional sustainability efforts are reflective of a broader issue regarding discrepancies in how sustainability is conceptualized and communicated between MSC and harvester groups.

Particularly in the context of MSC certification, the distinctions between locally-practiced and externally-defined sustainability are concealed through the use of the MSC label. The power of the MSC label and its ability to conceal these critical distinctions is described by Hadjimichael and Hegland (2016) as follows:

[W]hen a label becomes so strong that it dominates the market, there is also the danger that the concept that the label is meant to be certifying (in the case of the MSC, sustainable fisheries), is appropriated by the label itself, thus the label becoming synonymous to this concept. The consequence of this is that the label can result in the monopolization of the concept of sustainability. (p. 133)

As a result of the power of the MSC label and its monopolization of “sustainability” in the seafood industry, harvester groups may be unable to utilize the MSC label to communicate (and
capture added market value for) their fishery’s additional sustainability efforts. Furthermore, due
to the MSC’s market dominance and the label’s simplistic representation of all certified fisheries
as equally sustainable, consumers generally do not have the information needed to identify the
differing degrees of sustainability between the available seafood products and thus face
challenges in using their purchasing power to identify and support sustainable fishing efforts.
These outcomes have also contributed to frustrations manifesting among harvester groups, and
potentially client groups, participating in Atlantic lobster supply chains.

For harvester groups and client groups that are unsatisfied with the MSC representation
of their sustainability, this dissatisfaction may fuel the desire to opt out of a fishery certificate.
Certified client groups with more available financial and human resources to adapt to new
conditions likely will be better positioned and more willing to respond to the changes imposed in
the name of sustainability. However, any client groups or harvester groups that are limited in
their resources may see the costs of these changes as outweighing the benefits and thus opt out of
the certificate. In interviews with representatives of the NSNBLECS and PEI client groups,
participants noted that during the certification process, their client groups insisted that provisions
should be included in the certificate that allow the members to opt out of certification at any
time. Various participants reflected on this provision in interviews, arguing that while the
conditions currently imposed on the fisheries are broadly acceptable, the cost of changing the
fishery’s harvesting practices to meet the mackerel conditions may determine if the client group
or harvester groups choose to discontinue participation in the certificate. Furthermore,
participants argued that any unjustified or overly expensive conditions imposed in the future may
also encourage the harvester group or client group to opt out of the certificate.
Alternatively, dissatisfaction among harvester groups with respect to the distinction between locally-practiced and externally defined sustainability, as well as the desire to receive recognition and further compensation for their independent sustainability efforts, has fostered interest in strategies that communicate sustainability efforts in a new way. This trend is evident among certain Atlantic lobster harvester groups, as various marketing and branding initiatives that are representative of MSC-plus strategies (as described in Section 2.1.5) have emerged in the form of region-specific traceability websites, regional lobster branding initiatives, and independent promotion of other sustainability measures and research. Emergence of these MSC-plus initiatives reflects the dissatisfaction among some harvester groups and client groups with the ability of the MSC label to communicate the fisheries’ supplementary sustainability efforts to markets and consumers, thus prompting these groups to seek alternative ways of demonstrating sustainability and capturing additional market value. Continued dissatisfaction among harvester groups may further encourage the pursuit of MSC-plus initiatives or certification of the fishery through a different organization.

4.6.3 Legitimacy and Longevity of MSC Certification in Atlantic Lobster Fisheries

An important component of understanding the role that MSC certification plays in the lobster industry is the value and permanence that it will have over the long term, especially given the context of the dynamic seafood industry. Thus, the findings of this research can provide lessons for hypothesizing the longevity of MSC certification in the context of Atlantic lobster fisheries, and potentially other similar fisheries worldwide. With respect to the governance of a system, the legitimacy of the system can be best defined as the state in which “firms, social actors, and stakeholders are united into a community that accepts shared rule as appropriate and justified” (Bernstein & Cashore, 2007, p.347). Similar to the role of legitimacy as an indicator of
The acceptance of a given system, longevity of the system is also important to be examined, as longevity will indicate the degree of continued acceptance and support of a system by the diversity of participating actors.

The legitimacy and longevity of a system are inextricably linked, as legitimacy is likely a strong indicator of the system’s longevity. As discussed by Levi & Linton (2003), “if NSMD systems are to achieve their goal of moving beyond static systems in which firms and social actors constantly evaluate and re-evaluate whether to withdraw support based on short-term cost-benefit calculations, they must become more deeply engrained as legitimate authorities” (as cited in Bernstein & Cashore, 2007, p. 348). Working under this approach to legitimacy, it seems that MSC certification of Atlantic lobster is still in a static system state, as various interview participants noted that their organizations continue to evaluate and re-evaluate their willingness to support or participate in the system. The perceived legitimacy of a system can therefore be a strong indicator of the system’s longevity—as long as participation in certification is reflective of a static system, the longevity of the system is limited. However, if the system moves beyond this static state, it can achieve longer term legitimacy and consequently longevity.

In the following discussion, harvester groups’ perceived legitimacy of MSC certification is framed as an indicator of the longevity of their participation in the certification. To preface this discussion, the ability of harvester groups and client groups to demonstrate power in the context of other market-facing actors’ dominant influences is first examined. Harvester groups’ contribution to developing the perceived legitimacy of a governance system is then explored by using environmental governance literature and CSR literature to engage with the research findings. Using interview data that explores harvester groups’ perceived legitimacy of the MSC
certification, the longevity of the certification’s ability to satisfy harvester groups’ interests is also hypothesized.

**Understanding Harvester Group Influence among Powerful Market Actors**

This research emphasized the influence that external market-facing actors—namely retailers and buyers—can have on harvester groups’ decision-making. Almost all representatives noted that their groups were motivated to pursue MSC certification as a means of securing or improving access to markets, as well as being pressured by specific retailers, buyers, and other supply chain actors (see Section 4.3.1). When asked about the power that harvester groups have in shaping the certification landscape, one representative responded as follows:

So far very little. I mean, maybe that’s some of our own fault, not knowing… we were just caught up in the process, stuff was being fed down to us. Hopefully in the next review or the next reassessment we take a more proactive approach and maybe see if we can put some stuff in there that would benefit us and the fisheries itself. (Participant A05)

Harvester groups’ perception of their limited power in decision-making, in combination with the influence of other supply chain actors, confirms the line of discourse in literature that points to the power of market-facing actors in determining the direction of the seafood industry and its governance (see Goyert et al., 2010; Gulbrandsen, 2014; Schmidt, 2012). While this influence is certainly significant, it cannot be argued that harvester groups are unable to hold any influence over the industry as harvester groups are central to the production of the seafood product for the supply chain. For example, if all harvester groups in a given client group chose to opt out of the MSC certification contract, the processors, buyers, and distributors in the client group would likely encounter challenges in securing and incorporating other producers into the certified supply chain.

The influence that producers can have over determining the direction of seafood certification is not thoroughly explored in literature; however, certain case studies reveal the
power that these actors can hold in the certification landscape. One such case is the high-profile Alaskan salmon fishery, which was initially certified by MSC in 2000, received a designation of “certified responsible fisheries management” by Global Trust Certification in 2011, and opted to not apply for recertification under MSC in 2012 because of dissatisfaction with the certification and its associated costs. This case study is particularly interesting due to the three different clients who have each terminated their participation in the certificate over this period of time. As a result of the producers’ and the clients’ dissatisfaction with the MSC, tensions emerged which led to the pursuit of alternative sustainability and marketing initiatives in Alaska and elsewhere (Foley & Hébert, 2013). Using the Alaskan salmon case study as an example, it can be argued that the changing participation of popular fisheries in MSC certification can affect uptake of MSC certification in other fisheries—one demonstrated example is the PEI lobster trap fishery. Interviews with research participants representing the PEI lobster fishery revealed that representatives from this fishery held extensive consultations with representatives from the Alaskan salmon fishery as part of their decision whether to certify lobster under MSC and/or pursue similar alternative sustainability and marketing initiatives.

The remainder of this thesis’ discussion employs the understanding that harvester groups’ and client groups’ perceived legitimacy of the certification can influence their participation in, and the direction of, the governance mechanisms employed in the fishery. In considering this research’s findings and similar case studies such as the Alaskan salmon fishery, this research brings to light the agency of harvester groups and client groups in choosing to pursue or decline certification (and recertification) under MSC. As such, this thesis suggests that harvester groups have the capacity to exert power in the complex seafood governance landscape. However, the degree to which these harvester groups can exert their power and contribute to system legitimacy
is up for debate, as demonstrated in the following discussions of Bernstein and Cashore’s (2007) and Mueller et al.’s (2009) evaluative frameworks.

The Role of Harvester Groups in Developing Legitimacy: Examining the Bernstein and Cashore (2007) framework

MSC certification is broadly perceived as legitimate by many retailers and market-facing actors due to the growing market acceptance of MSC-certified seafood (Foley, 2013), but this perception of legitimacy is likely not consistent across all actors in the seafood industry. Literature that examines the perception of MSC’s legitimacy in specific case studies (see Foley, 2013; Gulbrandsen, 2009; Kalfagianni & Pattberg, 2013) demonstrates that this perceived legitimacy may not be straightforward or constant. Evaluative frameworks, such as that of Bernstein and Cashore (2007) (see Section 2.2.4), can be useful in exploring the legitimacy of certification and other NSMD governance systems. However, these frameworks may not be able to accurately capture the unique nature of the current certification landscape in a given setting.

In applying of the Bernstein and Cashore (2007) framework to the case of Marine Stewardship Council (MSC) certification of Atlantic lobster in particular, it seems that the framework cannot thoroughly guide the evaluation of the system’s legitimacy. Criticisms of MSC and its legitimacy within interviews and the relevant literature suggest that the legitimacy of MSC certification may not be predominantly dictated by firms and NGOs, as outlined in Bernstein and Cashore’s (2007) framework. Instead, perhaps the decisions, actions, and opinions of other smaller-scale industry groups—such as the many harvester groups that contribute to production within the firm—are able to influence or suppress the legitimacy of the system. While Bernstein and Cashore’s (2007) framework for legitimacy in NSMD systems provides valuable insight into understanding how legitimacy is furthered by firms and NGOs, other critical actors are largely omitted from consideration.
Consequently, this thesis posits that the decisions, actions, and opinions of the various small-scale industry groups involved in production (such as harvester groups and client groups) are able to influence the success of certification’s implementation (Goyert, Sagarin, & Annala, 2010) and its perceived legitimacy, and thus should be given more consideration when examining this legitimacy. Furthermore, this thesis suggests that while firms and NGOs can play a critical role in maintaining the legitimacy of MSC certification, the longevity of MSC certification in Atlantic lobster fisheries is also dependent on support from smaller industry groups as well. Thus, the perceived legitimacy of MSC certification can act as an indicator of the potential longevity of the certification arrangement in a given context.

**Weight of Influence between Actors: Examining Mueller et al.’s (2009) criteria for system legitimacy**

Similar to how the legitimacy and longevity of MSC certification in the context of Atlantic lobster fisheries can be examined by drawing from environmental governance literature, it can also be explored using CSR literature. More specifically, this discussion will utilize Mueller, dos Santos, & Seuring’s (2009) understanding of input, throughput, and output legitimacy of a system, as well as the authors’ criteria that help determine the degree of legitimacy within a standards system (outlined in Section 2.3.4). Compared to Bernstein and Cashore’s (2007) framework for modelling the development of legitimacy in a given NSMD governance system, Mueller et al.’s (2009) approach to understanding system legitimacy is more holistic. While Bernstein and Cashore’s (2007) framework focuses primarily on the role of firms and NGOs in developing NSMD system legitimacy—particularly in initial stages of development—Mueller et al. (2009) highlight the importance of involving all stakeholders within the input, throughput, and output stages of the system’s evolution in order to develop legitimacy. Furthermore, of the five criteria for system legitimacy outlined in Mueller et al. (2009), three of
the criteria highlight the important role of stakeholders in developing legitimacy: inclusion of all concerned stakeholders; integration of all supply chain participants; and development of the standards’ criteria through wide stakeholder discourse. The approach proposed in Mueller et al. (2009) is therefore more holistic in its consideration of how all supply chain actors contribute to the legitimacy of MSC certification in a given fishery.

In applying Mueller et al.’s (2009) criteria for determining the legitimacy of a given standards system to the case of MSC-certified Atlantic lobster, a new perspective on the system’s legitimacy is gained. By establishing client groups for certified fisheries (such as the NSNBLECS and PEI client groups) and the LCC, these new institutions directly address two of Mueller et al.’s (2009) legitimacy criteria—increased inclusion of stakeholders and integration of supply chain participants in decision-making. Thus, application of Mueller et al.’s (2009) framework in evaluating the perceived legitimacy of MSC certification in Atlantic lobster fisheries suggests that legitimacy can be advanced in this context through the use of client groups and the LCC.

While Mueller et al. (2009) attest that inclusion of all stakeholders will help develop the legitimacy of a system, the respective weight of certain actors’ contributions to developing this legitimacy is not acknowledged. In the case of Canadian lobster, the dominance of market-facing actors’ influence over harvester groups’ decision-making suggests that in comparison to these actors, harvester groups may not have as strong of a voice in collective decision-making. Furthermore, shortcomings in many harvesters’ awareness and understanding of their participation in the MSC certificate (as described by various representatives, see Section 4.3.4) may influence their ability to participate in meaningful group discussion and decision-making.
regarding certification. Thus, harvester groups’ contribution to developing the legitimacy—and consequentially longevity—of a certification arrangement may be limited.

The findings of this research also suggest that the longevity of the Canadian lobster certification arrangement will be dependent on the decision-making of powerful market actors. DeSimone and Popoff argue that strong external influences tend to result in a reactive approach to adopting CSR strategies such as certifications (as cited in Lozano, 2015). The significance of external influences in harvester groups’ decisions to certify, such as pressures from retailers and processors, therefore implies a reactive approach in harvester groups’ decisions. Given the dominance of these external actors’ influence on harvester groups’ decision-making, it is hypothesized that these external actors are most centrally positioned to generate industry support for certification, and can possibly redirect the support for MSC certification towards a different governance approach. By utilizing the relevant CSR literature, this research attests that while the longevity of the MSC certification arrangement for Canadian lobster can be influenced by the decisions of harvester groups, ultimately the longevity is largely dependent on the decisions of other powerful market actors.

**Hypothesizing the Legitimacy and Longevity of the MSC Certification Arrangement**

Literature that begins to explore the legitimacy and longevity of MSC certification in Atlantic Canada emphasizes the influence of the actions and decisions of retailers, buyers, processors, and other powerful industry actors; however, harvester groups’ ability to influence the arrangement’s legitimacy and longevity must also be considered. The legitimacy and longevity of this arrangement can be argued to be influenced by the ability of MSC certification to satisfy harvester groups’ interests. Broadly, it seems that Canadian lobster harvester groups’ interests lie in maintaining both the sustainability of the fishery and the success of harvesters’ businesses.
Within interviews, concerns were raised regarding the MSC label’s tendency to conceal critical distinctions between fisheries with differing degrees and practices of sustainability, which can restrict harvesters groups’ ability to communicate their perceived superior sustainability practices in markets and thus gain recognition for these efforts. Consequently, some harvester groups have pursued MSC-plus efforts (such as provincial branding initiatives and region-specific traceability websites) to gain additional recognition for their sustainability efforts. It can therefore be argued that from the perspective of the harvester groups, the legitimacy of the MSC label as a means of providing thorough recognition for their sustainability and management efforts is limited, further suggesting that MSC certification is not needed to satisfy these harvester groups’ sustainability interests.

Although interview representatives emphasized the value in maintaining the fisheries’ sustainability, MSC certification largely was largely pursued by Atlantic lobster harvester groups and client groups as a business strategy (as evidenced in Section 4.3.1). Thus, the legitimacy and longevity of the MSC certification arrangement for Atlantic lobster harvesters is likely dependent on the certification’s ability to support and grow harvesters’ businesses. The importance of considerations regarding maintaining and improving market access and industry relations were evident in all participant interviews; thus, it is suggested that MSC’s ability to meet these needs is central to the perceived legitimacy and longevity of the certification arrangement for harvester groups. If the benefits for market access and industry relations derived by harvester groups become substantial and outweigh the costs of certification participation, or if the risks of opting out of the certification arrangement are too great to bear, MSC certification will likely be seen by harvester groups as a valuable tool to satisfy their business-related interests. Furthermore, it can
be hypothesized that if these business interests are met, the certification arrangement will be viewed by harvester groups as legitimate and valuable to maintain over the long-term.

This discussion has demonstrated various strengths and shortcomings in the perceived legitimacy and longevity of the Atlantic lobster certification arrangement. While the longevity of the arrangement can be hypothesized to be dependent on the decisions of central market actors and the benefits gained by harvesters’ businesses, the longevity is ultimately unknown. The “wait and see” approach to MSC certification discussed by various interview participants is reflective of this uncertainty, as these participants emphasized that the certification arrangements are relatively new. Consequently, many representatives indicated that their groups will be re-evaluating the value that MSC provides for harvesters’ businesses and for the fisheries when the fisheries are due for reassessment. Given the dynamic nature of the industry, as well as the continual introduction of new governance and CSR mechanisms into the seafood industry, re-evaluation of MSC certification’s value is critical for harvester groups.

4.6.4 Research Implications

Retailer Dominance in Resource Governance Decisions

An early finding in this research was that harvester groups’ decisions to certify lobster under the MSC label were largely influenced by the desire to obtain or secure market access. Most broadly, this reflects the dominance of large-scale retailers and their commitments to certified or sustainable seafood. Particularly after the highly publicized Walmart commitment to MSC-certified seafood, retailers and other market actors such as foodservice companies have rushed to make similar commitments, thus shaping international seafood markets and governance networks (Schmidt, 2012). Consequently, it can be proposed that seafood certification and non-state market-driven governance networks will continually be shaped according to the goals of international seafood markets and retailers. Furthermore, given this changing landscape of
seafood certification, producers’ goals, relationships, and decision-making will likely continue to be largely influenced by those of retailers and other market-facing supply chain actors.

**A Reactive and Reliant Approach to Decision-Making**

Among this research’s various findings, this thesis supports Foley & McCay’s (2014) argument that collective action among diverse industry members is promoted within the structure of MSC certification’s rules and methodology, which encourage all industry participants in a particular fishery to be included in the certification process. By encouraging the use of client groups and thus changing the structure of the network of industry participants, new relationships and support systems are fostered and common goals are set for the group. While there are various benefits to participating in a collective governance arrangement, the power of the central client group organization as a decision-making unit can reduce participating groups’ autonomy and potentially their willingness to pursue any alternative governance arrangements that may be more beneficial. Furthermore, continued reliance on other client group members in decision-making may encourage a reactive approach to resource management, where individual members’ actions simply mirror the decisions and actions of the client group.

**Longevity of Participation in MSC Certification for Harvester Groups**

Harvester groups’ continued participation in MSC certification is dependent in part on the perceived benefits and costs to the harvester groups and the comparative strength of their influence. Benefits secured through certification by harvester groups include increased or secured market access, strengthened relationships within and outside of the client group, and new opportunities to share information and costs. In contrast, costs imposed through certification include the financial costs of obtaining and maintaining certification, as well as reduced autonomy in decision-making. If dissatisfaction and disagreement with MSC certification grows among harvester groups, or even client groups, one of several strategies may be pursued. First,
harvester groups may adopt the perspective that their certified fishery will only be recognized in markets as sustainable through use of the MSC logo, and thus will seek to only meet the MSC criteria and may discontinue any additional sustainability initiatives to save time and resources. Alternatively, harvester groups may further pursue MSC-plus efforts (such as traceability mechanisms or regional marketing initiatives) in conjunction with their existing MSC certification to gain recognition for additional sustainability efforts. A final strategy that may be pursued is abandonment of MSC certification by a single harvester group or entire client group. If the costs of MSC certification outweigh the benefits for these groups, they may decide to opt out of the MSC certificate and pursue alternative sustainability initiatives. However, given the growing market acceptance of the MSC label and the continued role of powerful buyers in dictating purchasing requirements to suppliers, this final strategy will not likely be prevalent in today’s retail landscape.

4.7 Conclusion

This manuscript has explored the case of Atlantic lobster on the east coast of Canada to understand how harvester groups have navigated the complex certification landscape, document the influences that encouraged harvester groups to participate in MSC certification, and examine how harvester groups experience changes resulting from certification. These research aims were achieved by: characterizing the landscape of relevant events and actors involved in the certification of Northwest Atlantic lobster; examining how harvester groups respond to different influences and pressures to certify; and exploring the implications of this certification on the lobster network’s structure and on the emergence of tensions between local and external determinations of sustainability.
Several methods were utilized to address these objectives. Primarily, a review of industry documents allowed for characterization of the Atlantic lobster fisheries and the actors and groups participating in MSC certification. This process identified 31 harvester and client group representatives for interviews, of which 14 representatives agreed to participate in semi-structured interviews. Interview data were then transcribed and coded using NVivo software to identify central thematic nodes. A review of interview data and secondary data was then conducted to fulfil the final research objective.

Several notable findings were identified in this research. With respect to harvester group responses to certification, conversations with representatives emphasized the motivation of securing market access as central to the decision to pursue certification. This finding confirms existing literature that highlights the influence of market access in decision-making for different supply chain actors and bridges a research gap by providing the unique perspectives of harvester groups. Similarly, the dominance of external pressures on harvesters in decision-making was evident in this research, as a majority of participants described the decision to certify as also driven by pressure from buyers, retailers, their client group, and other industry stakeholders.

This research additionally noted the changes to the Atlantic lobster network’s structure, processes, and relationships resulting from MSC certification. Most centrally, the certification of Atlantic lobster led to the creation of the LCC and client groups, which strengthened and stressed the network and thus led to various implications for harvester groups. While the introduction of MSC certification fostered new opportunities for collaboration and collective decision making, these dynamics created pressures to adhere to client group decisions and fostered concerns among some harvester groups that their autonomy in certification decisions is limited.
This research also revealed tensions in how sustainability is understood locally versus externally. Harvesters’ frustrations with the two mackerel conditions highlight a different understanding of sustainable management compared to that outlined in MSC’s criteria. These frustrations were furthered among various participants who practice alternative and independent sustainability measures but are unable to receive additional recognition under the MSC label, therefore leading to the pursuit of MSC-plus initiatives to further communicate these efforts and improve the market value of their lobster.

This manuscript’s discussion advanced these findings by hypothesizing that the longevity of Canada’s lobster certification arrangement is dependent on the perception of its legitimacy by the certification’s participants, which in this case is more complicated than the picture presented in some literature that assumes firms as the main type of producer. While it may seem that the harvester groups’ voices are comparatively weaker to those of powerful market actors, this manuscript suggests that dissatisfaction experienced among harvester groups can impact the legitimacy and longevity of the certification arrangement. This perceived legitimacy and longevity for harvester groups will be largely dependent on whether MSC certification can satisfy harvester groups’ business and sustainability interests. Canadian lobster harvester groups have demonstrated their ability to maintain their fisheries’ sustainability prior to MSC certification; as such, MSC certification is not needed to satisfy harvester groups’ sustainability interests. Instead, MSC certification is perceived by harvester groups as a valuable and legitimate means of satisfying their business interests. Therefore, the longevity of the arrangement will be dependent on if these business interests will continue to be met over a longer term.
Chapter 5. Conclusions

5.1 Thesis Summary

This thesis has been motivated by a global shift towards third-party seafood certification as a means of fisheries governance; it explores how lobster harvester groups have organized and rationalized decisions in the face of external market demands. MSC certification has arguably gained the most popularity of seafood certifications internationally, partly due to its perception as the “gold standard” of seafood certifications and the support garnered from retailers in the form of sustainability commitments. Consequently, the MSC label is increasingly becoming the standard required for market acceptance. Given the increase in retailer commitments to providing certified seafood in stores, groups of shippers, buyers, processors, and harvesters have had to adapt accordingly. To secure market access for their seafood, these groups of actors have increasingly sought to certify their supply chains under the MSC standard. MSC certification promises various benefits for the actors involved, but unexpected costs and changes imposed can complicate participation for certain groups. Therefore, the complex landscape of influences and decision-making can be difficult to understand, particularly with respect to harvester groups that face pressure from other actors to engage in certification.

To approach this issue, this research has drawn from literature that seeks to understand certification from a variety of perspectives. Significant advancements have been made in the academic fields of environmental governance, corporate social responsibility, and case studies of Atlantic fisheries—particularly with respect to each of these scholarships’ approach to understanding certification. While existing research offers valuable insight, there is a gap in research on the unique responses and decision-making processes of harvester groups in the landscape of MSC certification. Furthermore, there are gaps in understanding the role of external
market-facing influences in harvester groups’ decision-making, as well as the implications of MSC certification on network structure and the way that sustainability is communicated.

Guided by these gaps, this research has used the case of Atlantic lobster on east coast of Canada to explore how harvester groups have navigated the complex certification landscape and to document the influences that ultimately encouraged harvester groups’ decision to pursue MSC certification. Three objectives were addressed: to characterize the landscape of relevant events and participants involved in the certification of Northwest Atlantic lobster; to understand how harvester groups respond to various influences in their decisions to certify; and to explore implications of this certification on the lobster network’s structure and its construction of “sustainability”.

Several methods were utilized to meet these research objectives. A review of industry documents helped to characterize the lobster fisheries participating in MSC certification. Retrieval of information on the harvester groups, client groups, and their representatives identified potential participants for interviews. After interviews were organized and conducted with interested representatives, interview data were transcribed and coded using NVivo software to identify thematic nodes that are central to the second and third objectives. A final review and analysis of interview data and secondary data was then conducted to identify changes to the Atlantic lobster industry network’s structure and perceived discrepancies among some harvester group representatives between locally-practiced and externally-defined sustainability. Implications of these changes were then explored to hypothesize the longevity of the current arrangement of MSC’s certification of Atlantic lobster.

With respect to findings, three themes emerged. The first theme identified several notable trends regarding harvester groups’ rationales to certify under MSC, harvester groups’ support...
and criticisms of MSC, and the challenges and concerns encountered during the certification process. To understand harvester groups’ rationales for participating in MSC certification, participants were asked to identify their primary and secondary rationales involved in the decision to certify. In these discussions, the dominance of external pressures and motivations over internal motivations became evident. References to internal motivations to certify were infrequent in interviews, as only two participants argued that MSC certification was pursued for the purpose of maintaining the fisheries’ current levels of sustainability. In contrast, almost all interview participants identified the external motivation of market access as central to decision-making, and the importance of other external factors such as pressure from buyers, retailers, and the client group was also emphasized. Thus, MSC’s relative importance as a market access tool rather than a sustainability improvement tool is demonstrated in the case of Atlantic lobster fisheries. This research suggests that few significant improvements to the fisheries resulted from certification, but certification was critical for market access.

Changes to the lobster industry’s network structure and relationships was explored as the second theme of this research’s findings, as the introduction of MSC certification led to various structural changes that affected harvester groups. Interviews highlighted that the two central changes to the network structure were the creation of client groups and the introduction of the Lobster Council of Canada (LCC)—both of which imposed changes on the industry’s structure as well as the harvester groups in particular. With respect to the creation of client groups, harvester groups noted strengthened relationships and new opportunities for information and cost sharing, but some also lamented their reduced autonomy in decision-making. With respect to the introduction of the LCC, positive outcomes included advancement of the lobster industry and creation of a central communication hub for industry members, while negative changes
concerned the penny-a-pound lobster levy imposed on harvester groups and claims that the LCC made public decisions and announcements without consultation of harvester groups. The introduction of MSC certification therefore led to both positive and negative impacts on the industry’s network structure.

The third theme of the research findings outlines the distinction between conceptualizations of sustainability at a local level and at the MSC’s institutional level. While a review of fisheries sustainability practices and the fisheries’ CAB assessments demonstrated no significant concerns regarding the fisheries’ sustainability, harvester groups were frustrated that what they perceived as irrelevant conditions (namely the two mackerel conditions) were imposed on them despite the lobster fisheries’ noted sustainability and the belief that the impacts of those changes on mackerel fisheries would be small. Representatives also expressed frustration that critical distinctions between their sustainable fisheries and other notoriously destructive fisheries that have been certified are concealed through the use of the MSC label. As a result, Hadjimichael & Hegland’s (2016) argument that the MSC label may be monopolizing the concept of sustainability in fisheries is reflected in representatives’ concerns. The emergence of MSC-plus initiatives in some lobster fisheries demonstrate a reaction to this problem, as these initiatives reveal harvester groups’ desire to communicate different attributes and sustainable practices beyond those prescribed by the MSC.

This thesis’ discussion extended the research findings by examining the perceived legitimacy and potential longevity of MSC certification in Canadian lobster fisheries, using support from environmental governance literature and CSR literature. This research hypothesizes that the longevity of Canada’s lobster certification arrangement is dependent on the perception of its legitimacy by the certification’s participants, which in this case is more complicated than a
picture presented in some literature that assumes major firms as the main type of producer. Furthermore, the discussion revealed while the decisions, actions, and opinions of industry actors can influence the success of certification and its perceived legitimacy, the ability of harvester groups to affect these outcomes may be limited in comparison to that of other powerful market actors. While Canadian lobster harvester groups aim to maintain their fishery’s sustainability and are secure in their ability to independently do so, the research’s findings demonstrate that MSC certification is not primarily used to maintain this sustainability—instead, MSC certification is pursued to further the harvesters’ businesses. It can therefore be suggested that the longevity of harvesters groups’ willingness to participate in MSC certification will be largely dependent on the certification’s ability to satisfy harvesters groups’ business interests.

5.2 Research Contributions

5.2.1 Practical Contributions

Several practical contributions are developed through this research that offer valuable lessons for the lobster industry as well as the seafood certification industry. Primarily, this research draws attention to the pressures faced by harvester groups in managing their fishery, and more specifically in choosing to pursue certification for their fishery. Pressure to secure and improve market access, meet the demands of various market actors, and maintain relationships within a given client group largely influenced the decision-making of harvester groups in the certification process. Given this diversity of external influences, this research may help to encourage self-reflection among participants in the Atlantic lobster fisheries and in other fisheries regarding their motivations to pursue MSC certification specifically.

This research may also encourage harvester groups to further consider the benefits and costs to their association from participation in MSC certification, both in the short and long term.
Examination of whether harvesters view MSC as legitimate and valuable can provide insight into the potential longevity of their certification arrangement—if harvesters do not see the MSC certification as a legitimate means of addressing their business and sustainability interests, they may choose to opt out of the arrangement and pursue another means of governance. This consideration is particularly important for harvester groups aiming to stay competitive and sustainable, as new sustainability initiatives and programs continue to materialize within the dynamic seafood industry.

Practical contributions for understanding sustainability in seafood governance are also revealed in this research. The distinction between a fishery’s sustainability experienced by harvester groups and defined by the CAB or the MSC is evident in the case of Atlantic lobster. Furthermore, the harvester groups in this research have developed sustainability initiatives beyond what is required for the MSC label, thus demonstrating a desire among some harvester groups to continue the pursuit of sustainability and communicate this to market actors through alternative means. Harvesters must acknowledge that the sustainability of their fishery should not be limited to the requirements of MSC certification, and recognition for any supplementary sustainability initiatives can be gained through alternative means.

This research also has practical contributions for understanding the seafood industry more broadly. Most notably, the research demonstrates the influence that decisions made at the end of the supply chain have on those at the start of the supply chain. Interviews with research participants highlighted the significance of retailers’ certification commitments in dictating the seafood industry’s participation in sustainability initiatives. Consequently, harvester groups must be aware of the influence that these commitments can have on their decisions, and ensure that their decision-making primarily addresses the needs of the harvester group and the fishery.
5.2.2 Scholarly Contributions

The most central scholarly contribution of this research is the insight into harvester groups’ responses to, and motivations for choosing to certify with, MSC certification within the complex landscape of market-based sustainability initiatives. Literature examining the roles of various actors, such as state actors or powerful supply chain actors, in the seafood certification landscape is abundant (Christian et al., 2013; Foley, 2012; Foley, 2013). However, by focusing on harvester groups, this research helps to complete the existing literature that explores this complex landscape. This research in particular has provided valuable insight into harvester groups’ rationales for participating in MSC certification, the dominance of external influences in harvester groups’ decision-making, and the challenges encountered by these groups.

This research also addresses gaps in the literature by contributing a deeper understanding of the implications of harvester groups’ participation in MSC certification. There is some research on the effects of using a client or client group in resource governance, as required by the MSC certification (Foley, 2012; Foley & Hébert, 2013; Foley & McCay, 2014); however, this research furthers this literature by exploring how this component of certification impacts harvester groups, their relationships, and their activities. More specifically, this research demonstrates that although harvesters may lose some autonomy in decision-making by participating in a client group, harvester groups can reap the benefits of new information and cost-sharing channels that develop from collective action and collaboration.

Additionally, while there is some acknowledgement in the literature of tensions between local experiences of sustainability and external determinations, there is limited understanding of what this tension implies for the longevity of the arrangement. Building from literature that explores the MSC label’s monopolization of the concept of sustainability (Hadjimichael & Hegland, 2016), this research suggests that harvesters’ ability to gain recognition for their
sustainability initiatives is limited by MSC’s use of a single label to demonstrate sustainability. The case of Atlantic lobster presented in this research furthers Bush et al.’s (2013) argument that MSC-plus initiatives are emerging as a response to the label’s limited ability to effectively represent harvesters’ sustainability initiatives that exceed the requirements of MSC certification.

This research also contributes a critical examination of two legitimacy frameworks presented in the environmental governance and CSR literatures. Using lessons from the Atlantic lobster case study, this research reveals differences and shortcomings in the frameworks developed by Bernstein & Cashore (2007) and Mueller et al. (2009). By focusing on the firm, Bernstein & Cashore’s (2007) framework largely does not address the roles of small-scale supply chain actors (such as harvesters and harvester groups) in furthering the legitimacy of a NSMD system, and Mueller et al.’s (2009) framework does not consider the weight of different actors’ voices in decision-making. This research thus finds that while these frameworks are valuable, there are still shortcomings in understanding the legitimacy of certification systems and how this legitimacy is developed. This research also suggests that the perceived legitimacy of a system in a given context can indicate the potential longevity of that arrangement.

5.3 Future Research

This thesis has examined harvester group responses to MSC certification by conducting research in the context of Atlantic Canada’s lobster industry. While many valuable lessons emerged from this research, there are opportunities for new directions of future research. Primarily, this research focused on three of the seven certified Northwest Atlantic lobster fisheries; however, these fisheries cannot be wholly representative of the other four fisheries due to differing circumstances and decision-making structures. Further research is thus recommended to be pursued in these remaining fisheries to gain a more comprehensive understanding of the
Atlantic lobster industry and the way it responds to changes in fisheries governance. Similarly, one of the most striking lessons from this thesis concerns the limited research on harvesters and their awareness of, as well as their participation in, certification processes. Conversations with harvester group representatives suggested that many harvesters have little knowledge or interest in MSC certification; as such, further research should focus on the harvesters participating in certified fisheries.

Additionally, research exploring the dynamics between Canadian and American client groups harvesting lobster in adjacent fishing areas will likely provide a new perspective in understanding the role and influence of MSC certification. While past research has explored the Canadian and American lobster industries separately, the interactions between these industry actors should be studied. Attention to the introduction of the newly certified Maine lobster fishery in particular has the potential to revitalize and expand the current body of relevant literature.

To supplement the findings in this research and other relevant literature, future research should also explore the role of client groups in influencing the uptake and usage of MSC certification. While this research largely focused on the role of harvester groups in selecting and maintaining MSC certification, some critical issues in client group dynamics should be explored further. For example, the noted relationship between some buyers and harvesters in financing lobster fisheries and influencing harvesters’ decision making calls for further examination of the relationships between groups of harvesters, processors, buyers, and shippers.

Lastly, there is value in furthering the academic understanding of legitimacy and its implications on longevity in certification arrangements. This research highlighted shortcomings in the approaches to evaluating legitimacy of a system presented in environmental governance
and CSR literature. While there is value in using the Bernstein & Cashore (2007) framework and Mueller et al.’s (2009) approach for understanding legitimacy in seafood governance, further research should be done to explore legitimacy in dynamic governance systems and its implications on the longevity of certification as a governance tool.
Bibliography


DFO. (2013b) *Media Detail: Minister Shea releases the final results of the Atlantic Lobster...*


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Appendix A: Background on Northwest Atlantic Lobster Certification

The purpose of this Appendix is to characterize the landscape of certified lobster in Northwest Atlantic and the participants involved through a review of relevant academic, governmental, and industry literature. The history of Northwest Atlantic lobster is first provided, which describes the Canadian management of lobster and significant events that have defined the spread of lobster certification in the region. The following section outlines the current state of the three lobster fisheries used in this research, the groups and participants involved in the fisheries’ certification process, and the involvement of the Lobster Council of Canada. With this background information, a thorough description of the landscape is provided, in which various industry actors participate in decision-making processes regarding the certification of lobster.

A History of Atlantic Lobster

Canadian Lobster Fishing Areas (LFAs)

Lobster Fishing Areas (LFAs) were established by Fisheries and Oceans Canada (DFO) as a means of creating boundaries for the management of lobster in Atlantic Canada and Quebec. Figure 5 (see in Section 3.2) displays a map of the 45 lobster fisheries managed by the DFO, including an offshore lobster fishery (LFA 41) and an area closed for conservation (LFA 40) (DFO, 2015a). There are about 10,000 licensed lobster harvesters under this management system in Canada, who must abide by the broad rules set by the DFO for all LFAs as well as any additional rules established particularly for a harvester’s given LFA (DFO, 2015a).

Establishment of the LFAs has created a means for the DFO to manage the fisheries according to the needs of a specific area. Canada’s inshore lobster fisheries are managed by input control, which means that a limit is placed on fishing efforts instead of quotas (DFO, 2015a). The year-round offshore lobster fishery (LFA 41) uses conservation measures similar to those in
the inshore fisheries, as well as a total allowable catch (TAC). The TAC is a limit on the number of a particular species allowed to be caught annually. The TAC for the offshore lobster fishery was established in 1985 and has remained unchanged at 720 tonnes per year since 1989 (DFO, 2015a; DFO, 2016b). The eight licenses held by the Clearwater lobster fleet each hold 12.5% of the TAC to ensure that it is equally shared (Blyth-Skyrme, Addison, & Angel, 2015, p.13).

Changes to Canadian Lobster Management and Prices

The DFO conducts regular stock assessments of lobster fisheries through various means, such as monitoring traps, harvester logbooks, and trawl and diving surveys. Lobster landings are primarily used to indicate the abundance of lobster under the DFO system of management, but additional information such as catch rates, catch sizes, and male/female ratios are also collected to understand the status of lobster and make adjustments to management measures in a given LFA (DFO, 2015a). In 2013, annual lobster landings were 74,686 tonnes, continuing the generally upward trend of abundance in recent decades—landings in 2011 were 66,500 tonnes, and landings in 2009 were 56,554 tonnes (DFO, 2015a). Lobster remains Canada’s most valuable export species, with exports exceeding two billion dollars in 2015 (DFO, 2016a).

The increasing abundance of lobster stocks in recent decades has had both a positive and negative influence on the management of lobster and lobster harvesters’ businesses. While the abundance of lobster has guaranteed no shortage of lobster for export to markets, this abundance also placed a stress on lobster harvesters to reduce the price of lobster to get it out to market during the economic recession and 2008-2009 lobster season (Standing Committee on Fisheries and Oceans, 2009). During this time, there was a decrease in lobster demand from American and European markets—likely due to the perception of lobster as a luxury food item—which resulted in a significant decline in the price of lobster (Parlee & Wiber, 2011; Standing Committee on
Fisheries and Oceans, 2009). Similarly, buyers and processors experienced difficulty in securing working capital to finance inventories, which consequently slowed their purchasing rate from harvesters. This scenario resulted in a decline in purchases of landed lobster from harvesters, poor prices received for those lobsters in the market, and economic stresses on harvesters and businesses in lobster dependent areas (Standing Committee on Fisheries and Oceans, 2009).

Several direct outcomes resulted from Canada’s parliamentary discussions regarding lobster at this time. Primarily, the Canadian government’s House of Commons Standing Committee on Fisheries and Oceans recommended that the government work with the Atlantic provincial governments and industry stakeholders—including harvesters, shippers, processors, and First Nations—to create a multi-stakeholder marketing research and advertising council for the region. This council, now known as the Lobster Council of Canada (LCC), was approved by the Government of Canada and created in 2009 (Lobster Council of Canada [LCC], 2014; Standing Committee on Fisheries and Oceans, 2009). The LCC’s mandate is to focus discussion and action on industry challenges such as market access issues—namely eco-certification and traceability—and market research and innovation. Creation of the LCC has allowed the industry to access current and future governmental program funding for the council’s marketing efforts and strategies (Standing Committee on Fisheries and Oceans, 2009).

Recognizing the importance of securing continued market access after the economic recession—in addition to the evolving retail landscape that requires proof of sustainability for products—the Standing Committee on Fisheries and Oceans recommended that certification of Atlantic lobster should be pursued. An option discussed by the committee and the government was the creation of a Canadian certification system for fishery products. This proposed system would be designed to comply with internationally established management guidelines for
responsible fisheries. While this option was considered, several challenges stood in the way of developing the certification in a credible manner. Most notably, development of a certification system by a federal government that certifies its own fisheries would not be viewed as an impartial and legitimate process (Standing Committee on Fisheries and Oceans, 2009).

Given the inability to establish a legitimate Canadian seafood certification, the Canadian government and DFO recognized and adapted to the increasing uptake of the MSC eco-certification program internationally and the growing commitments from buyers and retailers to supply products exclusively from MSC-certified fisheries (Standing Committee on Fisheries and Oceans, 2009). One of the most notable examples of this in the Canadian context is Walmart’s 2006 commitment to increasingly purchase from MSC-certified fisheries until all seafood options are responsibly sourced (Wal-Mart, 2006). This commitment has since evolved to also accept seafood from fisheries participating in a program that meets the Principles of Credible Sustainable Programs developed by the Sustainability Consortium (Undercurrent News, 2014). Other retailers have reflected similar commitments, such as those by Loblaw’s, Sainsbury’s, Marks & Spencer, and Lidl, who have committed to sourcing their frozen fish products from suppliers under the MSC label (Goyert, Sagarin, & Annala, 2010; Kalfagianni & Pattberg, 2013; Schmidt, 2012). The government’s response to these trends thus involved utilizing the DFO to adapt to the international seafood industry’s shift towards eco-certification by: providing support in research on fisheries’ resources and management; working with certification bodies to ensure that the fishing areas’ unique attributes are considered in the certification process; and working with industry stakeholders to make the necessary changes to management practices and meet the conditions of the certification (Standing Committee on Fisheries and Oceans, 2009).
Timeline of Significant Events

After parliamentary discussions regarding MSC certification of Canada’s lobster, several Canadian lobster fisheries in the Northwest Atlantic obtained MSC certification. All certified Northwest Atlantic lobster fisheries chose to pursue MSC certification compared to schemes from other third-party certification bodies, such as Friend of the Sea, Naturland, or Seafood Trust (MSC, 2016c; National Fisheries Institute, 2012; Sainsbury, 2010). A timeline of the central events involved in certifying Northwest Atlantic lobster is summarized in Table 5 below.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008, July</td>
<td>The Eastern Canada Offshore Lobster Fishery announces the commencement of its main assessment for MSC certification.</td>
</tr>
<tr>
<td>2009, Oct.</td>
<td>The Canadian government discusses certification alternatives in the wake of the economic recession as a means of securing access for seafood products. In a report presented to the House of Commons on October 19th, 2009, the government states that a Canadian seafood eco-label would not be viewed as legitimate and therefore recommends pursuing certification of Atlantic lobster by the Marine Stewardship Council (Standing Committee on Fisheries and Oceans, 2009).</td>
</tr>
<tr>
<td>2009</td>
<td>The Lobster Council of Canada is created and begins participating in discussions regarding certifying lobster harvested in Nova Scotia, New Brunswick, and Prince Edward Island (PEI) (LCC, 2014; Standing Committee on Fisheries and Oceans, 2009).</td>
</tr>
<tr>
<td>2010, June</td>
<td>The Eastern Canada Offshore Lobster Fishery is granted MSC certification. The MSC certificate is held by Clearwater Seafoods.</td>
</tr>
<tr>
<td>2013, March</td>
<td>The Maine Lobster Trap is granted MSC certification. The MSC certificate is held by The Fund for the Advancement of Sustainable Maine Lobster.</td>
</tr>
<tr>
<td>2013, July</td>
<td>Iles-de-la-Madeleine Lobster Fishery (Quebec) is granted MSC certification. The MSC certificate is held by L'Association des pêcheurs des Îles-de-la-Madeleine.</td>
</tr>
<tr>
<td>2014, Nov.</td>
<td>The PEI Lobster Trap is granted MSC certification. The MSC certificate is held by the PEI Fishermen’s Association (PEIFA), the PEI Seafood Producer’s Association (PEISPA), Lennox Island First Nation (LIFN), and Abegweit First Nation (AFN).</td>
</tr>
<tr>
<td>2015, March</td>
<td>The Gaspésie Lobster Trap (Quebec) is granted MSC certification. The MSC certificate is held by Regroupement des Pêcheurs Professionnels du Sud de la Gaspésie.</td>
</tr>
<tr>
<td>2015, May</td>
<td>The Bay of Fundy, Scotian Shelf, and Southern Gulf of St. Lawrence Lobster Trap is granted MSC certification. The MSC certificate is held by the Nova Scotia and New Brunswick Lobster Eco-Certification Society.</td>
</tr>
<tr>
<td>2015, June</td>
<td>The Eastern Canada Offshore Lobster Fishery, originally certified in 2010, is recertified under MSC.</td>
</tr>
<tr>
<td>2016, Dec.</td>
<td>The Gulf of Maine Lobster Fishery is granted MSC certification. The MSC certificate is held by Maine Certified Sustainable Lobster Association.</td>
</tr>
</tbody>
</table>

Table 5. Timeline of significant events for Northwest Atlantic lobster certification. All information adapted from the MSC’s Track a Fishery website (MSC, 2016c), unless indicated otherwise.
The Current State of Lobster Fisheries in the Northwest Atlantic

The following sections will describe the current landscape of lobster harvesting in the case study area in order to provide a background on the area’s lobster industry certifications, participants, and management mechanisms. This section first reviews the three certified lobster fisheries used as the focus of this research and the central characteristics that define each fishery and its certificate. Following this, a summary of the groups and participants involved in the production and MSC certification of the case study’s fisheries is presented. A description of the Lobster Council of Canada’s role in the industry and the responses to its role is also presented to further elaborate on the complexity of the industry. This section concludes with a review of the fisheries’ DFO management mechanisms in place and the fisheries’ MSC assessments in order to identify any sustainability concerns for the fisheries.

Lobster Certification in the Northwest Atlantic

There are seven Northwest Atlantic lobster fisheries fully certified by MSC, all of which hold the certification as of January 2017. These seven fisheries are: the Bay of Fundy, Scotian Shelf, and Southern Gulf of St. Lawrence lobster trap fishery; the Prince Edward Island lobster trap fishery; the Eastern Canada Offshore lobster fishery; the Gaspésie lobster trap fishery; the Iles-de-la-Madeleine lobster fishery; the Maine lobster trap fishery, and; the Gulf of Maine lobster fishery. Of the seven fisheries certified, three fisheries are the focus of this research: the Bay of Fundy, Scotian Shelf, and Southern Gulf of St. Lawrence Fishery; the Prince Edward Island Lobster Trap; and the Eastern Canada Offshore Lobster Fishery. Descriptive characteristics of these lobster fisheries and their MSC certificates are found in Table 6 below.
Table 6. Characteristics of Canada's MSC certified lobster fisheries used in the research. All information adapted from the MSC's Track a Fishery website (MSC, 2016c).

**Participants in Northwest Atlantic Lobster’s MSC Certification and Supply Chain**

Numerous participants are involved in the process of harvesting Atlantic lobster, processing and distributing the lobster to market customers, selling the lobster to consumers, and certifying the supply chain from start to finish under the MSC Fisheries Standard and Chain of
Custody Standard. Table 7 (below) outlines and simplifies this complex landscape of groups and participants involved in the MSC certification process.

<table>
<thead>
<tr>
<th>Group Involved</th>
<th>Group Description</th>
<th>Group Participants and Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishery Client or Client Group</td>
<td>Individual client or client group applying for MSC certification of the fishery and its supply chain participants</td>
<td>A single client (e.g. Clearwater Seafoods Ltd.) consists of only the members in a client’s organization. Alternatively, a client group (e.g. NSNBLECS and the PEI client group) can include harvester groups, buyers, processors, shippers, First Nations groups, and other stakeholder groups (MSC, 2015c; SAI Global, 2014). The client or client group must provide funding for the certification, ensure stakeholders are involved in certification process, provide the assessment team with data and information, and implement any conditions imposed in the assessment.</td>
</tr>
<tr>
<td>Conformity Assessment Body (CAB)</td>
<td>Third-party group approved by Accreditation Services International (ASI) to conduct the assessment</td>
<td>The CAB selects the assessment team, issues the certification, and conducts surveillance audits during the life of the certificate. The CABs contracted to conduct assessments for the three fisheries are SAI Global, Intertek Fisheries Certification Ltd., and Acoura Marine Ltd. (MSC, 2016c).</td>
</tr>
<tr>
<td>Assessment Team</td>
<td>Team of fisheries scientists and experts with specialist knowledge</td>
<td>Third-party experts are selected by the CAB. The experts assess the fishery against the MSC standard and evaluate whether the fishery should be certified using existing information and reports.</td>
</tr>
<tr>
<td>Peer Reviewers</td>
<td>Independent experts who review the assessment created by the CAB</td>
<td>The peer reviewers are typically two fisheries scientists who review the assessment team’s report and provide an opinion on the report’s conclusions, conditions, and performance indicator scores.</td>
</tr>
<tr>
<td>Stakeholders</td>
<td>Individuals and groups who hold a stake in the fishery under assessment</td>
<td>Stakeholders typically include government agencies, industry organizations, retailers, community groups, environmental organizations, etc. These stakeholders bring attention to issues or concerns regarding the fishery and its certification.</td>
</tr>
</tbody>
</table>

**Table 7.** Groups involved in the production and MSC certification of Canadian lobster. Information adapted from MSC’s guide to fishery certification (MSC, 2015a), unless indicated otherwise.

**Development of the Lobster Council of Canada and Industry Responses**

The Lobster Council of Canada (LCC) is a particularly noteworthy stakeholder in the Atlantic lobster landscape given its central role in the industry and the mixed criticisms of the organization from harvesters (“Lobster Levy to get Review”, 2015). The LCC was created in
2009 after governmental recommendations to address industry challenges and market access issues for Atlantic lobster (LCC, 2014; Standing Committee on Fisheries and Oceans, 2009). Broadly, the mandate of the Lobster Council of Canada is to “enhance the value of the Canadian Lobster Sector in a sustainable fashion by addressing the issues of importance to the industry” (LCC, n.d.-a). Development of the LCC was formally supported by the DFO and the governments of Quebec and the Atlantic provinces. These governmental groups were also involved in ensuring the necessary funding and governance mechanisms were in place for the council’s use (Theriault, Hanlon, & Creed, 2013).

While support was garnered among the necessary governmental and industry groups, one tension that continues in the broader lobster industry is the distinction between those that support and oppose the LCC. The council is favoured by some industry members for its ability to act as the principal communication center for the lobster industry. Findings within the 2013 Report of the Maritime Lobster Panel showed that many industry members see the LCC’s work as being central to supporting the industry. Similarly, this report found that those who support the LCC typically see the organization as capable and well-positioned to continue their marketing and promotion efforts into the future (Theriault, Hanlon, & Creed, 2013).

The 2013 Report of the Maritime Lobster Panel also revealed some deep concerns among industry members that the LCC has moved away from their original mandate of marketing and promotion, and instead has crossed into the management of the fisheries. Similarly, other concerns were identified in this report regarding the absence of a plan clearly articulated by the LCC that describes their approach to future marketing and promotion of the Atlantic lobster industry (Theriault, Hanlon, & Creed, 2013). The LCC has responded to this concern by creating a Generic Marketing Strategy that outlines a plan to build value and growth in the sector while
strengthening the reputation of Canadian lobster internationally (LCC, 2015). Some industry members are also critical of the lobster levy that is in the amount of one cent paid by fishermen for each pound landed, as well as payment of an additional cent per pound landed, paid by onshore actors. While the Report of the Maritime Lobster Panel identified support for the levy within the industry, industry concerns were also identified regarding the LCC’s use, management, and accountability of funds, as the LCC is intended to collect 85% of the funds (Theriault, Hanlon, & Creed, 2013, p.49). The levy has been implemented in Prince Edward Island and New Brunswick; however, resistance against the levy and mistrust of the LCC continues among some Nova Scotia lobster harvesters (“Lobster Levy to get Review”, 2015; Withers, 2015).
Appendix B: Participant Recruitment Letter

Dear [name of recipient],

This letter is a request for [name of company, organization, or agency]’s assistance with a research project I am conducting as part of my Master’s thesis in the Department of Geography at the University of Guelph, Ontario, under the supervision of Dr. Jennifer Silver, Dr. Benjamin Bradshaw, and Dr. Paul Foley. The title of this research project is “Balancing market access with local practice: Understanding harvester group motivations and experiences with Marine Stewardship Council certification”. Below I have provided additional information about this project, its aim, and its intended outcome.

Recent literature has identified a saturation of seafood certification alternatives, which is thought to have increased the complexity of the certification landscape and (potentially) impacted harvesters’ ability to effectively select a certification for their fishery. Consequently, my research aims to examine the strategies adopted by lobster fishing organizations to navigate the dynamic seafood certification landscape and assess the implications of these strategic decisions for the governance of the international seafood industry. The information generated by this study will contribute to the body of literature on the evolving North American seafood certification landscape. Additionally, this research will offer practical contributions to the seafood industry by drawing attention to the central challenges and pressures faced by harvester groups in pursuing certification.

I hope to connect with as many certified lobster or seafood harvester groups, their respective client groups, and other valuable industry actors along the east coast of North America to develop an understanding of the lobster certification landscape and its complexities. I believe that [name of company, organization, or agency] has a unique role in the North American certified seafood industry and that you have important insight into the issue I am exploring.

This study is dependent on your participation, which is entirely voluntary. Participation in the study will entail consenting to an interview approximately one hour in length, which will be scheduled at our mutual convenience sometime in the next few months. Should you express interest in participating, I will gladly provide more information about the research design, including how your information will be treated confidentially, stored securely, and used with consent.

I hope that the results of this study will be beneficial to the [name of company/organization/agency], to the other industry actors in North America’s seafood certification network, and to the broader research community. I look forward to speaking with you and thank you in advance for your assistance with this project. If you have any questions regarding this study, please contact me at xxxx@xxxx or by phone at xxx-xxx-xxxx.

Sincerely,
Larissa Goshulak, M.A. Candidate
Department of Geography, University of Guelph
Appendix C: Participant Consent Form

CONSENT TO PARTICIPATE IN RESEARCH

“Balancing market access with local practice: Understanding harvester group motivations and experiences with Marine Stewardship Council certification”

You are asked to participate in a research study conducted by Larissa Goshulak and supervised by Dr. Jennifer Silver and Dr. Ben Bradshaw from the Department of Geography at the University of Guelph, and Dr. Paul Foley at Memorial University. The results of this study will contribute to Larissa Goshulak’s Master’s thesis.

If you have any questions or concerns about the research, please feel free to contact Dr. Jennifer Silver at xxx-xxx-xxxx or Dr. Ben Bradshaw at xxx-xxx-xxxx.

PURPOSE OF THE STUDY

The purpose of this study is to identify and understand the strategies adopted by lobster fishing organizations to navigate the dynamic seafood certification landscape; and assess the implications of these strategic decisions for the sustainable governance of the international seafood industry.

The study will explore how harvester groups respond to certification uptake in the seafood industry, how decisions are made regarding certification selection, and what challenges and influences affect harvesters’ certification selection. This information will help in analyzing the common trends, challenges, and relationships that are involved in certification selection across the North American seafood industry.

PROCEDURES

If you volunteer to participate in this study, we will ask for participation in the following:

Interview
Your primary contribution to this study will be a one-on-one interview, approximately one hour in duration. The interview will be held at a time and location agreed upon ahead of time. At the time of the interview, you will be asked to answer questions, drawing upon your knowledge and expertise. This interview will involve a discussion of your opinions on and experiences with certification, your certification selection strategy and rationale, and whether alternatives were considered.

Follow-Up
After the interview, you will be contacted by telephone or email before research results are shared in the spring of 2017. The purpose of this follow-up will be to verify any answers that are unclear, to ask for consent to attribute information to you in publication, and to answer any questions that you might have. You will also be informed of when a detailed summary of research findings will be available to you.

**POTENTIAL RISKS AND DISCOMFORTS**

Participating in this research may involve sharing information about your company/organization/agency that has not been made public. In this sense, there is a risk that privacy could be compromised.

This risk has been mitigated by research design. Information that you provide at any time will only be shared/published with your consent after the interview. If you wish for certain information to be used but not attributed to you or your company/organization/agency, this can also be done. You are free to retract or reword statements at any time before publication, and you may request a copy of your interview transcript for review.

Information that you provide will also be treated confidentially, stored securely, and properly destroyed. Please see the Confidentiality section below for more details.

**POTENTIAL BENEFITS TO PARTICIPANTS AND/OR SOCIETY**

This study is a learning opportunity for participants and their companies/organizations/agencies. The interview process will encourage participants to reflect on the changing role of certification in seafood governance and how certification influences seafood supply chain dynamics.

The information generated by this study will also contribute to the body of literature on the evolving North American seafood certification landscape. The final output of the research will help reconceptualise the state of certification in the seafood industry and the role of harvester groups in the certification of fisheries.

Additionally, this research will offer practical contributions to the seafood industry by drawing attention to the saturation of seafood certification alternatives and the resulting confusing surrounding the certification schemes. Similarly, the research aims to explore the central challenges and pressures faced by harvester groups in acquiring seafood certification.

**PAYMENT FOR PARTICIPATION**

There is no remuneration for participation in this study.

**CONFIDENTIALITY**

Every effort will be made to ensure confidentiality of any identifying information that is obtained in connection with this study.
Anonymity

Because of the nature of this study, full anonymity is not possible. Because you will be engaging in a face-to-face interview, the researcher must know who you are when you are sharing information.

Confidentiality

All of the information you share will be treated confidentially to ensure that it remains between you and the researcher unless you explicitly consent to its publication. Upon transcription, your interview data will be assigned an ID code representing you and your company/organization/agency. Only the primary researcher will have access to a master list of participant names and their associated ID codes. This list will be stored apart from any research data, on a different secure drive, in a different locked office.

Information collected in this study will not be shared with anyone other than the primary researcher, Larissa Goshulak, and her supervisors Dr. Jennifer Silver, Dr. Ben Bradshaw, and Dr. Paul Foley, until thesis publication.

This measure of confidentiality will be maintained throughout the research process. Before research findings are shared or published, your consent will be required to attribute certain pieces of information to you or your company/organization/agency. If consent is not granted, the information will be presented without identifying the source or it will be entirely omitted (upon your request). At any time after your interview, you can request access to your interview transcript in order to revise or remove information.

Storage and Disposal of Information

Audio recordings of your interview will kept in a locked office in the Department of Geography. Upon transcription, the audio tape(s) will be shredded. The transcribed interview will be encrypted and stored on a private password protected desktop work station in a locked office in the Department of Geography. One backup of the data will be kept on a password protected drive in a faculty researcher’s locked office.

After the research results are published in the spring of 2017, the data will be retained for one year. All the files will then be deleted from the desktop and the backup drive.

PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequence. You may exercise the option of removing your data from the study. You may also refuse to answer any questions you don’t want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise that warrant doing so.
RIGHTS OF RESEARCH PARTICIPANTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. This study has been reviewed and received ethics clearance through the University of Guelph Research Ethics Board. If you have questions regarding your rights as a research participant, contact:

Director, Research Ethics
University of Guelph
437 University Centre
Guelph, ON N1G 2W1

Telephone: xxx-xxx-xxxx
E-mail: xxxx@xxxx

SIGNATURE OF RESEARCH PARTICIPANT

I have read the information provided for the study “Balancing market access with local practice: Understanding harvester group motivations and experiences with Marine Stewardship Council certification” as described herein. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

____________________ ____________________ ____________________
Name of Participant (please print) Date (dd-mm-yyyy)

__________________
Signature of Participant