

# **Exercising Responsibility in the Seafood Supply Chain**

A Case Study on How a Retailer Implements its Commitment to Sustainable Seafood & Experiences of Other Seafood Buyers

**Emma Rogers**

Supervisor

Beatrice Kogg

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If you wish to contact the author of the publication please email Emma Rogers at [emma.rogers@rogers.com](mailto:emma.rogers@rogers.com). The illustration on the front cover along with a number of others within the text were produced by James Munro, based on the research conducted by the author.

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Tel: +46 – 46 222 02 00, Fax: +46 – 46 222 02 10, e-mail: [iiiiee@iiiiee.lu.se](mailto:iiiiee@iiiiee.lu.se).

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Emma Rogers

*Lund, Sweden  
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## **Abstract**

The current status of overexploited fish stocks worldwide and increasing stakeholder expectations that retailers should responsibly source products have led to an increasing number of food retailers committing to sell sustainable seafood. Yet, the complexity and variety of seafood supply chains and the challenge inherent in the verification of sustainability qualities suggest that the implementation of these commitments can be difficult. The focus of this thesis is on understanding the approaches food retailers take to exercise responsibility over the sustainability of their seafood products. Insight into how food retailers implement their commitments, what factors shape their approach and the difficulties they perceive is intended to contribute a better understanding of how firms address environmental and/or social issues in supply chains. The research presents findings from a case study on a large Canadian food retailer and validates and contrasts the findings through interviews with other retailers and seafood suppliers. The analysis is based on a literature review of responsible sourcing and environmental supply management research, as well as multiple theoretical perspectives, including transaction cost economics, resource dependency theory and agency theory. The findings suggest that individual retailers use a number of approaches to exercise responsibility in the seafood supply chain as a result of external contextual factors associated with each product. Retailers also perceive challenges in the implementation of their commitments. Most common are that: mainstream end markets have not demonstrated the importance of the sustainability aspects in their purchasing habits; and, long, fragmented supply chains can make it difficult to verify the sustainability of the product. In turn, limited resources for retailers to select more sustainable products, work with suppliers to influence product qualities, and enhance supply chain control measures, can pose difficulties.

**Keywords:** sustainable seafood, responsible sourcing, corporate social responsibility (CSR), interorganizational management

## Executive Summary

*This thesis concerns how firms address sustainability issues in the supply chain. The research examines how a food retailer implements its commitment to source sustainable seafood. The focus is on understanding the different approaches to exercising this responsibility and the perceived implementation challenges.*

It is estimated that eighty percent of the world's wild fish stocks are fully exploited or overexploited (Flotthmann et al., 2010). With the depletion of high value stocks, there is a consistent trend of fishing down the food web to the lower trophic levels that were previously unexploited (Markowski, 2009; Pauly et al., 1998). This trend has been forecast to result in an ocean filled with bottomfeeders and jellyfish (Grescoe, 2008). The state of our fisheries is largely a consequence of overfishing and poor management of the resource within the oversight of governments, as well as illegal, unreported and unregulated (IUU) fishing occurring within and beyond national coastal borders (Valdimarsson, 2009; UNEP, 2009). An underlying driver is the increasing demand for seafood (Jacquet & Pauly, 2007; UNEP, 2009).

Meanwhile, the retail sector is increasingly seen as the gatekeeper of products, holding the potential to reduce the adverse impacts on society and the environment resulting from consumption and production (Kotzab et al., 2011; EC, 2008a; Forum for the Future, 2007). For most major food retailers, the importance of safeguarding the future of the seafood supply has become evident. Pressure from NGOs and the media in European and North American markets has been significant for this product category (Jacquet et al. 2009; UNEP 2009). As a result, food retailers in these markets have introduced sustainable seafood policies.

From a societal perspective, this trend has the potential to connect fisheries worldwide with demands for the sustainable management of this resource. Yet, from the point of view of a retailer there are challenges ahead. Exercising responsibility over environmental and/or social impacts that are occurring upstream in the supply chain can mean sourcing a product with qualities that are *not on the market* at a price or a quantity that fits their usual demanded volumes; *influencing suppliers* often many tiers upstream to meet specifications; and ensuring *compliance of processes* upstream, which cannot be easily detected in the product.

The overall aim of this thesis was to contribute to understanding how firms address environmental and/or social issues in supply chains. The research focus is on how retailers work to implement sustainable seafood policies. The objective is to understand *how* a food retailer works to source seafood that meets its tightened specifications, what *challenges* it perceives and the *contextual factors* that influence the implementation approach.

The research questions that reflect these objectives are:

*RQ1. How do food retailers approach the implementation of their sustainable seafood commitments?*

*RQ2. What challenges do food retailers perceive in implementing their sustainable seafood commitments?*

*RQ3. What contextual factors play a role in influencing the implementation approach?*

### Research Method

A case study on a major Canadian retailer was used as the primary source of data. The findings from the case study were also validated and contrasted to data collected through interviews with other seafood buyers in different contexts. Nine other retailers and nine suppliers were interviewed, largely based in North America and the UK. In total, over thirty interviews and multiple literature reviews inform the research.

The foundation for the analysis was Kogg’s (2009) framework for implementing upstream CSR. Kogg’s framework was developed to examine different ways firms address environmental and social issues in the supply chain. The framework was further elaborated based on an analysis of environmental supply management and responsible sourcing literature, with a particular focus on different theoretical perspectives on the phenomena. Theoretical perspectives that supported the analysis include transaction cost economics, resource dependency theory and agency theory. The proposed framework is used to categorize approaches for implementing seafood commitments and to identify contextual factors that can be seen to influence the range of options a buyer has to exercise responsibility.

**Sourcing Sustainable Seafood**

The first task for a food retailer implementing its commitment is gathering information from suppliers on each seafood product purchased. Buyers are now asking suppliers for the species name, where the seafood products are caught and what catching method was used. Interestingly, this data can be new information for the retailer and gathering it can be challenging. This information is not always at the tip of the suppliers’ fingers and can be a time consuming step in the implementation process.

This data is used to evaluate the sustainability of each seafood product. The evaluations are largely guided by partner NGOs which have developed standard evaluation methods. The evaluation of the sustainability of wild seafood products is generally related to the health of the fish stock in a particular fishery and the impact of fishing practices on the surrounding ecosystem, as well as the strength of the management and governance systems in place. The sustainability evaluation for each product can vary from being deemed ‘sustainable’ to requiring the retailer to consider discontinuing the product. The supply chains and supplier relations for each product purchased can also be very different.

The variety of product supply chains was demonstrated by the case study. A comparison of the supply chain and supplier relations the case retailer has with fresh coastal seafood products (e.g. lobster) and a canned national brand product (e.g. tuna) presents the strong variations.



Figure 1 Lobster and tuna supply chains from the case study (buyer’s perspective)

The lobster products for the coastal region stores have a short supply chain. It is a fresh product, and is caught and processed locally. The lobster is also from a supplier that has a long-term, exclusive relationship with the case retailer. Where as the national brand of tuna has a much longer, international supply chain and provides product to retailers across North America. These differences in supplier relations and length of the supply chain are some of the complexities that were analyzed for their impact on implementation approaches.

**Approaches to Sustainable Seafood Commitment Implementation**

The first research question focused on how food retailers approach the implementation of their sustainable seafood commitments. Research suggests that food retailers are taking a number of different approaches to move toward a more sustainable seafood assortment. The approaches taken all involve working directly with suppliers either: *reactively*, selecting products

already on the market that are deemed to be more ‘sustainable’ by third parties (e.g. NGOs, or certification schemes); or *proactively*, going beyond relying on the market to produce a more sustainable product/supplier and exerting influence and/or control. A combination of approaches is used even within a single firm as a result of the nuances of each seafood product purchased. Nevertheless, some generalizations can be made.

*Reactive approaches* were largely used to *secure a supply* of sustainable seafood. Selection of product that met tightened ‘sustainability’ specifications was common. Implicitly working with other seafood buyers by requiring suppliers to meet a standard definition of sustainability (i.e. fishery improvement project or certified fishery) by a certain date as part of the policy commitment was also widespread. Explicit collaboration with other buyers was less common among retailers, but large suppliers used this approach to influence suppliers further upstream.

The reactive nature of the approaches largely appeared to be a result of *external contextual factors*, which have supported the success of an arm’s length market shift. Specifically, a relatively cost sensitive *customer orientation*, unfavorable *power circumstances* for individual retailers to influence upstream raw material suppliers, and *competitors* receiving similar pressure to act have supported the popularity of industry-wide approaches, namely Marine Stewardship Council certification and fishery improvement projects.

A more *proactive approach* was often inspired by a need to *verify* sustainability aspects in the seafood supply chain. Food retailers were working with suppliers to enhance the transparency of the supply chain. A number of retailers were also auditing supplier activities and building trust in supplier operations through information sharing and long-term relations. Reconfiguring the supply chain to more easily exercise control over product qualities was also widespread. However, there were a number of industry-wide trends, including consolidation, food safety and quality, which contributed to this approach. Supplier selection was also suggested to be a mechanism for control, but was rarely the approach taken.

A more proactive approach to controlling aspects largely appeared to be a result of the *difficult to detect* product qualities, which result in the need to monitor supplier behavior, establish trust in the supply chain or manage to achieve mutual goals with suppliers. The efforts to proactively control and verify aspects may also be short-term. Efforts are applied on a risk basis and as more products are certified efforts can be relieved.

*Indirect approaches* that do not involve members of the firm’s supply chain, such as lobbying governments and working with NGOs, are widely used to support efforts to *learn about, influence* and *control* sustainability aspects.

### **Perceived Implementation Challenges**

The second research question asked what challenges food retailers perceive in the implementation of their sustainable seafood commitments. The research finds that the belief that customers are not willing to pay for the increased costs associated with a more sustainable product and the inability to calculate a return on the investment made in implementation can restrict resources and can challenge support for the policy internally. Control and verification was also said to be particularly difficult in fragmented and long supply chains, where power circumstances are not favorable and supplier relations are weak.

Overall, these challenges were subtler and more easily overcome by firms who viewed sustainable seafood as an opportunity. This was largely because more resources could be devoted toward these activities and they had already invested in capabilities to manage other aspects. Interviewees also suggested that it is important to keep in mind that this is a *long-term*



strategy and these are *short-term challenges*. Rationalizing costs for ‘innovations’ over many years makes absorbing tighter margins and losses easier. Customers are likely to become more engaged, and there is the belief that most product will be certified in the long run, so there won’t be a different price for certified product.

**Contextual Factors Shaping the Implementation Approaches**

Finally, the third research question, focused on the variables that shape the implementation approach. The research suggests that largely external factors play an influential role in determining the implementation approach. The key factors identified were: the extent to which that firm’s end market values the sustainability aspects; the power circumstances of the buyer in the supply chain up to where the impacts need to be addressed; the relationship with suppliers; the common interest among other buyers purchasing the same product or working with the same suppliers; whether products meeting the specifications were accessible on the market; and whether the sustainability aspects are credence product qualities. Two influential internal factors were also identified; these were the brand or business strategy and the firm’s technical competence. Combinations of these contextual factors appear to affect what implementation approaches are possible, what resources are available for implementation and what the expected costs (and benefits) are for a particular implementation approach. Figure 2 identifies the key variables influencing the general approach on a continuum.

Variable	Proactive Approach	vs.	Reactive Approach
Supplier or product on the market	• Product (or suppliers) meeting specifications <i>not</i> on the market		• Product (or suppliers) meeting specifications on the market
Verifiability	• <i>Not</i> verifiable upon purchase		• Verifiable upon purchase
Competitor Orientation	• Competitors are <i>not</i> in a position to collaborate		• Competitors are demanding the same criteria from their suppliers
Power circumstances	• Buyer dominance over or interdependence with suppliers up until the impacts occur		• The buyer does <i>not</i> have influence over aspects
Supplier relations	• Long-term, trusting relationships		• Adversarial relations
Customer orientation	• High value placed on sustainability aspects		• Will not pay more for a sustainable product
Threat or opportunity	• Opportunity to deliver greater value to customers and attract new customers		• Threat of losing market share.
Other associated benefits	• There are other benefits inherent in developing particular suppliers		• There are no additional benefits to working to develop suppliers
Brand	• Differentiated toward niche customers who value sustainability aspects		• Mainstream customers
Technical Competence	• Technical staff already engage with suppliers down the supply chain		• No in-house technical staff for auditing and engaging suppliers

Figure 2 Key variables on a continuum of influencing the approach

**Research Contribution**

The findings of this research contributed to the development of an existing framework that captures the range of implementation approaches for exercising responsibility in the supply chain and the key contextual factors that appear to influence the practice of responsibility in the supply chain. The adapted framework is presented below in Figure 3. The framework developed builds on that of Kogg (2009). The added value is that the adapted framework provides additional key contextual factors, further theoretical rationale and modifies the range of approaches. The research also highlights that managing sustainability issues in the supply chain presents new challenges, which can inspire new management techniques and could influence sourcing decisions. Issues can occur *many tiers upstream* outside of the *sphere of influence* of the firm, and these product qualities are *not always valued* by the customer and can be *difficult to verify upon purchase*. This drives the importance of industry-wide collaborative efforts and third party verification, and can require interorganizational management, which can benefit from improved supplier relations and shorter supply chains.

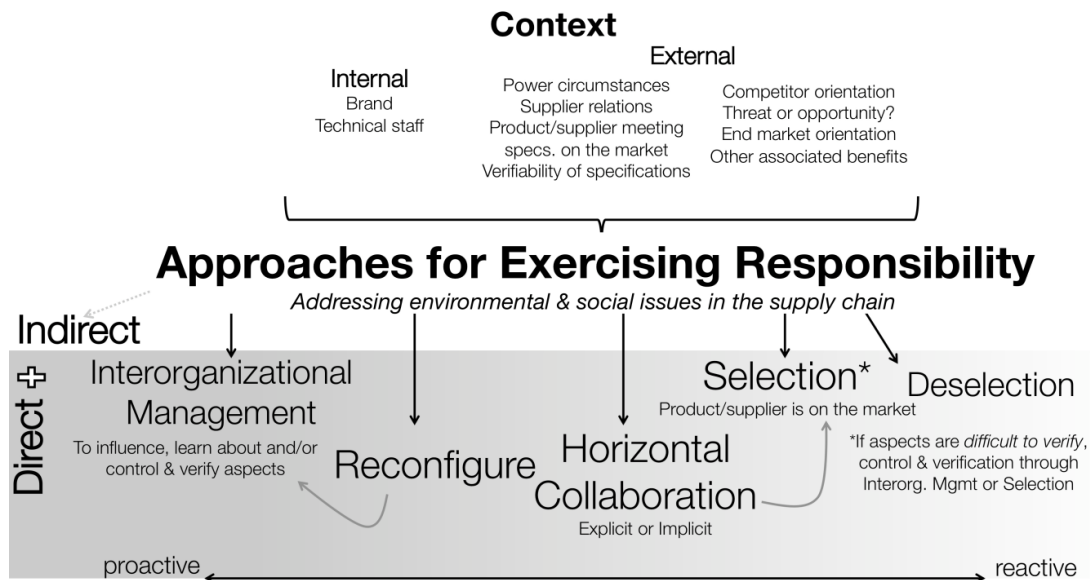


Figure 3 Framework for understanding implementation approaches for exercising responsibility in the supply chain

### Practical Implications

Some *transferable lessons* for retailers and potentially other businesses implementing commitments to source sustainable raw materials can also be drawn from the research:

- *Internal agreement and capabilities*, such as buyer knowledge or top management support, appear to be important in making the commitment and implementing it effectively. This supports the findings of a number of other researchers.
- *Transparency of the supply chain* is important for a risk analysis as well as an understanding of the power dynamics of the supply chain in order to understand the implementation approaches that are possible.
- *Standards and certification schemes* support buyers in overcoming power dynamics and could provide a cost sensitive approach. *However, these tools do not necessarily negate the need to acquire knowledge and exercise control.* Certifications schemes need to be continuously improved and held accountable, not all decisions made by the schemes may fit with the policy principles.
- *Creative ways to engage consumers are needed to overcome cost sensitivity.* Finding an implementation approach that fits with consumer values and addresses aspects that customers are willing to pay for is likely to be more effective at moving toward more sustainable products.
- *A more inclusive supply chain is likely necessary for better results.* Collaborating with experts, NGOs, government and competitors is important to expand ‘eyes and ears’ and create a better context for transitioning markets for transformation.

Lastly, some broader reflections are highlighted from a societal perspective. Certification schemes and standard approaches are identified in this research as an important tool for retailers to address sustainability issues in the supply chain. However, schemes face a number of criticisms, including a limited scope of sustainability aspects addressed and a lack of accessibility for small producers. Retailers can acknowledge the criticisms, in order to be active participants in improving the effectiveness of these tools. All actors and markets are also unlikely to adopt sustainable seafood commitments and current mainstream retail business strategies present limitations for the sustainability of seafood. This emphasizes the need for government measures. Trade restrictions, international cooperation and collaborative forums for key stakeholders are still vital for ensuring consuming seafood is sustainable.

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## Abbreviations

CSR	Corporate Social Responsibility
EC	European Commission
EEZ	Exclusive Economic Zone
FAO	Food and Agriculture Organization
FIP	Fishery Improvement Project
ISSF	International Seafood Sustainability Foundation
IUU	Illegal, Unreported and Unregulated
MSC	Marine Stewardship Council
NOAA	National Ocean and Atmospheric Administration
OECD	Organization for Economic Cooperation and Development
RDT	Resource Dependency Theory
RFMO	Regional Fisheries Management Organization
RFID	Radio Frequency Identification
SCM	Supply Chain Management
SFP	Sustainable Fisheries Partnership
SSCM	Sustainable Supply Chain Management
TBL	Triple Bottom Line
TCE	Transaction Cost Economics
UN	United Nations
UNEP	United Nations Environment Programme
WWF	World Wildlife Fund

# **1 Introduction**

*This thesis concerns how firms address sustainability issues in the supply chain. The research examines how a food retailer implements its commitment to source sustainable seafood. The focus is on understanding the different approaches to exercising responsibility and the perceived implementation challenges.*

## ***The Wild Seafood Crisis***

“The fish and fish products sector is facing a crisis of global dimensions: its primary resource, fish stocks, is collapsing” (UNEP, 2009, p.14). According to the United Nation’s Food and Agriculture Organization (FAO), the increasing number of overexploited, depleted and recovering stocks is reason for concern (FAO, 2010). Causes of the wild fish stock crisis are complex, but include: overfishing, poor fisheries management, unsustainable fishing practices, and illegal, unregulated and/or unreported (IUU) fishing (UNEP, 2009). The increasing global demand for fish products has also been exacerbating these issues. Worldwide per capita consumption of marine fishes has almost doubled since the 1960s and so has the world’s population (Jacquet et al., 2009). The increase in consumption and trade volume of fish products has largely been absorbed by aquaculture, which has surged over the last 20 years. Yet, aquaculture demands fishmeal and juveniles harvested from wild stocks, and threatens coastal environments, adding to the pressure rather than alleviating it (UNEP, 2009).

## ***Complex Global Supply Chains***

Like many products, seafood trade has also become more international over the years. Fish are travelling through multiple countries; fished in one coastal zone, landed in another and processed in yet another country. The global fish trade has grown from US\$51.5 billion in 1998 to US\$102 billion in 2008 (FAO, 2010). The globalization of trade creates longer and more complex supply chains, which make traceability more challenging and increases the potential for IUU or misrepresented product to enter supply chains unnoticed. In addition, without a global record of all fishing vessels, the first actor in the supply chain can remain difficult to identify. The lack of transparency in the seafood supply chain is suggested to be an ‘underlying facilitator’ of all negative aspects of the fisheries sector (FAO, 2010, p.105). A lack of transparency can also make it difficult to purchase fish products responsibly.

## ***An Increasing Role for Retailers: Gatekeepers of Sustainable Seafood?***

The retail sector, as the gatekeeper of products, is increasingly seen as holding the potential to reduce the adverse impacts on society and the environment resulting from consumption and production (Kotzab et al., 2011; EC, 2008a; Forum for the Future, 2007). For most major food retailers, the importance of safeguarding the future of the seafood supply has become evident. Pressure from NGOs and the media has been significant for this product category (Jacquet et al. 2009; UNEP 2009). The sustainability of seafood is also on the minds of consumers. Polls find that consumers are concerned about the sustainability of the ocean, want to more information to responsibly purchase seafood (Sobeys, 2010b; Janes Family Food, 2011; WWF, 2011; SCA, 2005; MBA, 2009). As a result, many major European and North American food retailers have responded by introducing sustainable seafood policies.

## ***Implementation of Sustainable Seafood Policies: Challenges Ahead***

Addressing environmental and/or social issues in the supply chain can involve a number of challenges, particularly influencing actors outside of your direct hierarchal control and verifying process-related ‘sustainability’ criteria (Kogg, 2009). There have already been signs of challenges to meet seafood commitments by some retailers. Both Sainsbury and Walmart pledged to sell only sustainable sources by 2010, but have not yet reached their goals (Sainsbury, n.d.; Walmart, 2010; Jacquet et al., 2009). Sobeys, a large Canadian food retailer,

has also suggested that there are challenges associated with implementation (D. Smith, personal communication). In 2010, Sobeys, a Canadian food retailer, introduced its Sustainable Seafood Policy with the goal that by 2013 they “will not sell any seafood species [...] that have major sustainability issues associated with them”(Sobeys Inc., 2010). Currently, Sobeys is working to enhance the transparency of the supply chain to understand the impacts and tighten specifications in order to avoid sourcing product that does not meet minimum sustainability standards. However, Sobeys has admitted that there are difficulties associated with implementation, particularly determining how to prevent product that does not meet specifications from entering its supply chain (D. Smith, personal communication). This hurdle reflects a key challenge associated with exercising responsibility in the supply chain: control over activities beyond your organization and verification of compliance with specifications.

## 1.1 Research Focus

The current status of the seafood crisis, the complexity of the supply chains and the challenges inherent in verification of sustainability aspects suggest that there are a host of issues for retailers to manage in the implementation of their seafood commitments. Insight into how actors are implementing their commitments, why they have chosen their measures, what factors shaped their approach, and the difficulties and consequences they perceive can contribute to learning how firms exercise responsibility and address environmental and social issues in supply chains. This knowledge will be beneficial to businesses, academics and society.

From a practitioner standpoint, a better understanding of the contextual variations, challenges and consequences associated with different implementation strategies will support businesses in determining how they can address environmental and/or social issues upstream (Brammer, Hoejmose & Millington, 2011; Kogg, 2009; Cramer, 2008; Andersen & Skjoett-Larsen, 2009).

From an academic perspective, there is also an opportunity to add value. There is significant research interest in this topic area. Yet, frameworks and theories used to explain implementation approaches are still in the development phase and need to be tested. More cross-contextual research is also needed to understand the variations in approaches (Pagell & Wu, 2009; Brammer et al., 2011; Kogg, 2009; van Bommel, 2010).

From a societal perspective, an understanding of the constraints faced by retailers which have committed to sourcing a sustainable product will shed light on what can be expected and how retailers can be supported. The 2009 UNEP report, *The Role of Supply Chains in Addressing the Global Seafood Crisis*, highlighted that there is an interest in learning more about the challenges retailers face in sourcing sustainable seafood in order to understand the barriers. The report also exposed the tendency for this information to be treated as sensitive, which the authors feel is associated with difficulties retailers face (UNEP, 2009, p.57).

## 1.2 Research Objectives & Questions

The first objective of this research is to provide a better understanding of how a major food retailer who has committed to sourcing sustainable seafood has implemented this commitment. This will involve understanding how the retailer sources a product that meets its specifications and how it verifies compliance with specifications. The second objective is to understand the challenges the food retailer perceives in the implementation of its commitment. The final objective is to identify the key contextual factors that influence the implementation approach and associated challenges faced by the food retailer.

The objectives are realized through a case study of a Canadian food retailer with external validation and a comparison of the findings through interviews with other large retailers and



seafood buyers (i.e. processors, small retailers) in different contexts. As already mentioned, there is no single theory or established framework used to study this phenomena. Kogg's (2009) framework depicting implementation approaches for upstream CSR provides a foundation for the research. However, there is a wealth of literature on the topic that includes different frameworks which remain relatively untested - including Kogg's. Therefore, these frameworks, in addition to a number of popular theoretical perspectives used to study interorganizational relations, have been used to support the analysis of the findings.

The research questions that reflect these objectives are:

*RQ1. How do food retailers approach the implementation of their sustainable seafood commitments?*

*RQ2. What challenges do food retailers perceive in implementing their sustainable seafood commitments?*

*RQ3. What contextual factors play a role in influencing the implementation approach?*

For more details on how these questions are answered see Chapter 2 on the Methodology.

It is expected that answering these questions and discussing the findings in reference to existing knowledge will contribute to a deeper understanding of how firms exercise responsibility and manage sustainability issues in supply chains. The findings also provide insight into how the retailer subject to the case study (termed the *case retailer*) could overcome the challenges it faces in implementation.

### **1.3 Scope**

The research is focused on wild seafood products, as they have unique challenges. However, farmed products are of increasing importance, and provide an interesting context to contrast implementation approaches, so some examples are used.

The primary aim of the case study is to understand the retailer's approach, why it chose this approach, and to explore constraints and opportunities in its operating context. The case chosen for the study is not meant to suggest that this is the best practice approach to responsible seafood sourcing. It should also be recognized that none of the measures taken by any of the seafood buyers interviewed were evaluated based on efficiency or its effectiveness.

Seafood buyers interviewed to supplement the case study in this research refer mostly to other major retailers and large fish processors. Both types of actors were interviewed to gather a broad range of approaches and look for factors in their different operating contexts that shape their approaches. These two types of actors were perceived to be most relevant given their public commitments to sustainable seafood. However, seafood buyers of all types and sizes may have implemented measures. For this reason, two small niche retailers are also interviewed to contrast approaches, challenges and contextual variables.

Interviewees were largely from North America and the UK. A few actors were from other parts of Europe. Language and accessibility barriers may have arisen if the study had a broader scope. Relevant efforts are underway in other jurisdictions, such as Japan and Australia.

Finally, the intended audience is business practitioners and academics who have an interest in understanding strategic considerations in managing sustainability issues in the supply chain. The focus of the research is not how to solve the world fisheries crisis, although it does support a better understanding of the challenges in moving toward sustainable seafood.

## 1.4 Reader's Guide

This thesis is structured into the following chapters:

- *Chapter 2* - provides details on the data collection and analysis methods for each phase of the project.
- *Chapter 3* - is an overview of the essential background knowledge on context for sustainability commitments by seafood retailers based on the literature.
- *Chapter 4* - describes and analyses the literature on the theoretical context for addressing sustainability issues in the supply chain and the findings are summarized into an adaptable analytical framework.
- *Chapter 5* - provides details of the case study on a large Canadian food retailer; the chapter discusses how the retailer is approaching the implementation of its commitment and the challenges it faces.
- *Chapter 6* - outlines findings from interviews with other seafood buyers; the chapter contrasts and validates a number of findings from the case study and identifies contextual factors that shape implementation approaches.
- *Chapter 7* - provides the analysis of the findings outlined in chapter 5 and 6 through the lens of the adaptable analytical framework.
- *Chapter 8* - concisely answers the research questions and highlights overall conclusions. The chapter also discusses the implications of the findings for practitioners and society.

## 2 Methodology

The methodology used to conduct this study is outlined in this chapter. The approach taken, types of data collected, units of analysis, as well as the literature to interpret the findings are discussed.

### 2.1 Research Design

A *qualitative* approach was taken to conduct this research. The research was conducted in attempt to understand relations between actors in the supply chain, contextual factors influencing actors and is exploratory, so a qualitative approach was deemed appropriate. The approach used for this study was both *inductive* and *deductive*. A single theory did not govern the data collection, but a summary of the theoretical context in the form of an adaptable analytical framework was used to guide data collection, as well as analyze the findings. Patterns in the findings that did not fit with the themes in the theoretical context were identified and were reflected in the final framework. This approach was chosen because the subject is relatively new and no single framework or theory currently exists for studying the phenomena. This method avoids the risk of choosing a single theory that limits the scope. The research process was also *iterative*; the research questions and literature for the analysis evolved with the study.

To study the implementation of sustainable seafood commitments in the retail context and the associated challenges a case study method was chosen. This method was chosen because the subject matter is a contemporary event and aims to understand and explain a complex situation within an organization (Yin, 2003). The case study method is appropriate for a close study of the context in which a food retailer is working and provides an opportunity to investigate the implementation of a sustainable seafood policy from a number of perspectives.

A single case study method was used in order to place sufficient resources on studying the contextual determinants of the implementation process. Single case studies, and case studies in general, can be criticized for being difficult to generalize, being too context dependent and simply verifying a researcher’s biases (Flyvbjerg, 2006). However, a number of measures were taken, as recommended by Yin (2003, p.34), to strengthen the validity and reliability of the case study, see Table 2-1. The ability to generalize is then analyzed after testing the findings in interviews with other actors and returning to the literature. This provides further validity for the findings. *Limitations in the method are recognized in Section 2.3.*

Table 2-1 Measures taken to strengthen validity and reliability of the case study adapted from Yin (2003)

<b>Validity</b>	<ul style="list-style-type: none"> <li>• <i>Construct</i> – Multiple actors within the case retailer and external stakeholders were interviewed. Interviews were recorded. Data was documented. A draft was submitted for review.</li> <li>• <i>Internal</i> – Pattern building and rival explanations were explored within the interviews and the analysis.</li> <li>• <i>External</i> – Theoretical context guides the research and is used to analyze findings. Validation of findings is also done through interviews with other retailers and seafood buyers in different contexts.</li> </ul>
<b>Reliability</b>	<ul style="list-style-type: none"> <li>• The methodology is clearly described in this chapter. The analytical framework is also described in Chapter 4 and is used to structure the analysis in a transparent manner.</li> <li>• Sources are cited clearly and are included in the bibliography.</li> <li>• Research questions were semi-structured and can be found in Appendix B.</li> </ul>

The research design is broken down into four phases: 1) a review of the context, 2) a case study, 3) interviews with other seafood buyers and 4) an analysis of the findings and discussion of the implications. See Figure 2-1 for an overview of the research phases.

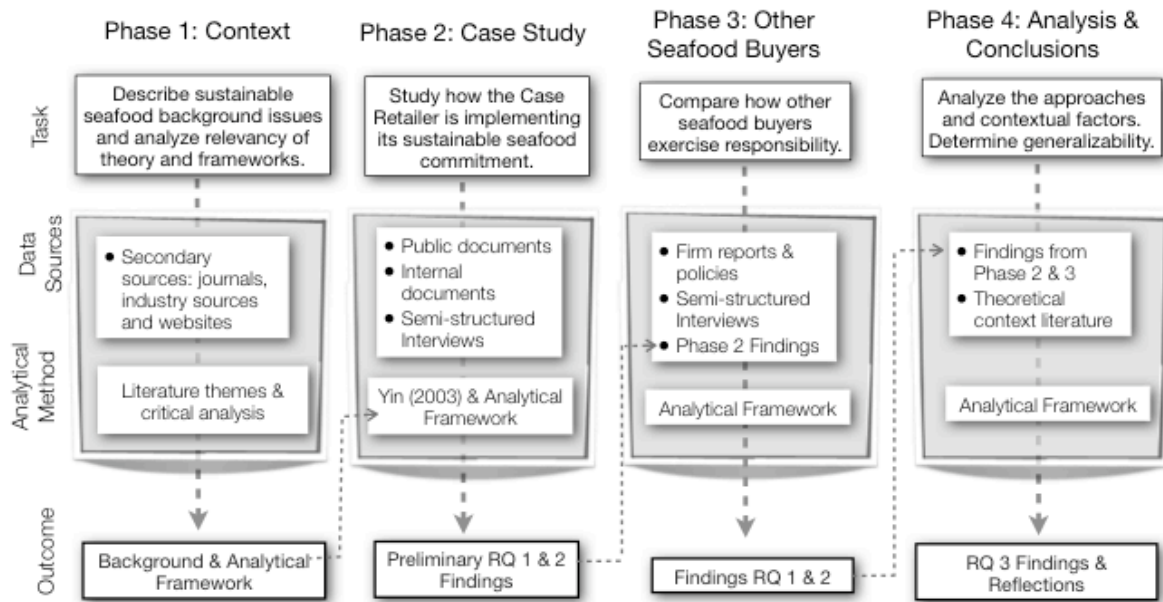


Figure 2-1 Research Methodology Phases

A further explanation of the phases is provided in the following section.

## 2.2 Data Collection & Analysis

### Phase 1: Contextual Background & Theory

The first phase began with two literature reviews. A review was conducted to gather an understanding of the *background issues* for the problem and another to determine *theoretical perspectives* for the analysis.

The review on the background issues was conducted to gather an overview of existing knowledge on the topic of ‘sustainable seafood’ and ensure that the broader context for the sustainable seafood commitments was understood. Data in this phase was collected largely using Lund University’s Online library, LibHub<sup>1</sup> and Internet sites of key organizations.<sup>2</sup> The topics covered were:

- Sustainability challenges for wild fish stocks
- Fisheries governance & challenges – overview of the international and national regulation of fisheries management, and sources of difficulty in managing sustainability
- The global seafood product market, wild fish supply chains and their relations
- Private sector measures to control sustainability qualities of seafood products

This background context is largely based on sources from public institutions (government and international bodies), non-governmental organizations (NGOs) and industry publications.

<sup>1</sup> Databases used were: EBSCOhost, ScienceDirect, Web of Knowledge and OECD Library.

<sup>2</sup> Key organizations were identified using the snowball approach and initial interviews with the case retailer. Key organizations include: Government bodies (DFO, NOAA, EC), Sustainable Fisheries Partnership (SFP), Greenpeace, World Wildlife Fund (WWF), Marine Stewardship Council (MSC). Seafood policies of large retailers from Europe and North America were also reviewed (see Appendix I).

Some peer reviewed journal articles were used. Interviews with NGOs, government officials<sup>3</sup> and Sobeys were used to deepen understanding of the secondary sources.

The second literature review looked at the *relevant theory and frameworks* in order to analyze the findings. No single theory was chosen, rather, an adaptable framework was created based on an analysis of research conducted on similar problems. The use of frameworks and theory provide greater validity and direction to research. The *adaptable* framework allowed for an iterative and partly inductive approach, while still providing guidance on the design of interview questions and a level of reliability so that others can replicate the study.

Managing environmental and social issues in supply chains continues to be a subject that is not often guided by theory. A number of researchers have advocated that future research be grounded in a more theoretical background (Brammer et al. 2011; Pagell & Wu, 2009; Kogg, 2009; Seuring and Müller, 2008). Therefore, an attempt is made to capture the theoretical context. The relevant literature was determined through a broad review of sourcing and supply management literature. Then focus was placed on how firms address environmental and/or social issues upstream. Particular focus was on 1) the key implementation tasks to address sustainability issues in the supply chain identified by Kogg (2009): *influencing* social and environment aspects and *verification* of the aspects; and 2) explanations for the factors that influence particular approaches for managing these challenges.<sup>4</sup>

The review involved a critical analysis of the literature as well as the identification and discussion of key themes. A number of theories have been identified, summarized and analyzed to identify the approaches that a buyer can take to manage sustainability issues in the supply chain and factors that influence the approach chosen. These findings were used to derive an adaptable analytical framework and incorporated into the research design.

### **Phase 2: Case Study**

Sobeys Inc., a Canadian food retailer, was chosen for the case study because it: 1) is a large food retailer with a commitment to sourcing sustainable seafood; 2) identified an interest in exploring the challenges associated with implementation, particularly control and verification of criteria; and 3) was willing to take part in the study and grant access to information.

Sub-questions were designed to guide the case study, see Box 2-1. The sub-questions were informed by Phase 1 (Chapter 4), which established the analytical parameters in the literature that were of particular importance for analyzing influence and control over supplier performance. The sub-questions focused on understanding the relationships between key actors involved in implementation; stakeholders, management, buyers and suppliers. In order to understand the relationship between the retailer and its suppliers, who are important partners in any sourcing initiative, questions are directed at understanding the supply chain structure and the nature of the relationships with suppliers along the full chain (at least to the extent the retailer is aware). Focus was also placed on the pressures the retailer faces from stakeholders perceived as most important to the business and the rationale for the retailer's measures taken to meet its sustainable seafood commitment.

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<sup>3</sup> Interviews included government officials – Canada (DFO), EU, US (NOAA); NGOs - Greenpeace, WWF, SFP; verification methods – Trace Register. See Appendix A for a list of the interviews.

<sup>4</sup> Keyword searches used to determine the theoretical context were combinations of: "sustainab\* OR ethical OR responsible AND supply chain OR sourc\* OR procurement OR purchasing". Another line of searching was: purchasing OR supply chain management OR sourcing AND strategy. In some instances the search was narrowed with "AND fish OR seafood". Peer reviewed journals were preferred and articles that were aimed to answer questions of: 'how' with reference to strategic objectives were prioritized.

### **Box 2-1 Case Study Sub-Questions**

- What actors are involved in the seafood product category supply chain networks?
- What types of relationships does the retailer have with its seafood product suppliers?
- What are the perceived expectations of salient stakeholders regarding seafood sustainability?
- How does the retailer respond to these pressures?
- Why has the retailer chosen this approach to address seafood sustainability?
- What does the retailer perceive as the key challenges in meeting their sustainable seafood objectives?

*Primary data* was collected through semi-structured<sup>5</sup> interviews. Interviews were conducted with a number of key actors who could offer different perspectives on the development and implementation of Sobeys sustainable seafood policy. Actors interviewed were: the VP Retail Strategy and Sustainability, a regional Category Manager for Seafood and the National Procurement Manager for Seafood and Meat. The interview questions were provided ahead of time for the interviewees to review. The interviews were recorded with their permission, and notes on the interview were provided for their review. *See Appendix B for sample interview questions.* Unfortunately, there was no opportunity to be embedded in the organization in order to have perspective on the day-to-day activities and the organization's culture. Apart from the sustainability metrics used to evaluate seafood products and a presentation made to suppliers on the seafood commitment, limited internal documents were used. Sobeys Inc. corporate website, press releases, and public presentations provided useful primary background data.

Outside perspectives were also sought through interviews with NGOs; Sustainable Fisheries Partnership (SFP); Greenpeace Canada and World Wildlife Fund (WWF) Canada. A few of Sobeys first tier suppliers<sup>6</sup> were also interviewed. The interviews lasted between 40 minutes and 2 hours. In total 13 different actors were interviewed regarding the case study: three working for Sobeys, six suppliers to Sobeys, and four employees working for NGOs.<sup>7</sup> In some cases, actors were interviewed several times, and others were emailed for follow-up questions; a few were provided with draft findings for feedback.

*Secondary data* was also collected from public sources. Information from industry news sources, SFP and the Greenpeace Out of Stock annual rating of food retailers across Canada (2008-2011) provided background on Sobeys' approach to sustainable seafood. Media coverage surrounding the development of the policy and existing literature on the topic was also used.

### **Phase 3: Implementation Experiences of Other Seafood Buyers**

To improve validity of the case study, other seafood buyers' (i.e. retailers, distributors and processors) approaches were also investigated through interviews. The focus of these interviews was on the implementation of their policies, particularly how they exercised control over supplier performance and verified sustainability criteria. In addition to the contextual factors that have shaped their approach, the challenges and consequences they faced during the implementation of their commitments were also investigated.

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<sup>5</sup> For semi-structured interview an interview guide was developed, but follow-up questions and tangents were allowed during the interview in order to capture unexpected results.

<sup>6</sup> The names of suppliers to the private label are kept confidential at request of Sobeys Inc. Some of the large seafood processors, such as Janes Family Foods, Trident, High Liner and Bumble Bee (Cloverleaf), are also suppliers to Sobeys; these brands can be recognized on store shelves.

<sup>7</sup> Interviews with customers and store employees were not undertaken as these would largely be anecdotal without conducting surveys to achieve a larger sample. This is an opportunity for further research.

The difficulty of compliance and verification was one of the key challenges identified in the literature review and the case study (Phase 2). The other retailers and seafood buyers, particularly those based in the UK, provide important data regarding this challenge as a result of the earlier implementation of sustainable seafood commitments.

Primary data was collected from a range of actors involved in the seafood supply chain. *See Appendix A for the list of interviewees.* These included: large food retailers in European, US and Canadian markets, large and medium-sized fish processors in Canada, US and Europe, suppliers serving Canadian and international markets, chain of custody and traceability services. Actors interviewed for the study were identified through discussions with Sobeys, the Greenpeace annual supermarket ranking, and Seafood Choice Alliance summit attendees list. The “snowball method” was also used: at the end of each interview, interviewees were asked for additional contacts particularly relevant for the study. Small retailers were not chosen as a unit of study as many do not have public sustainable seafood commitments. However, two small niche retailers<sup>8</sup> were interviewed to gather insight on the unique circumstances they have in procuring sustainable seafood, and to highlight the issues that are unique to large buyers.

To improve the validity of the data, all interviewees were provided with questions in advance, and with their permission, many of the interviews were recorded. Interview recordings were further reviewed, and key themes were identified. A draft of the interview findings was also provided to some of the interviewees for their comment and feedback.

The first level of analysis took place in this Phase (Chapter 6). The findings were categorized based on the analytical framework constructed with the results from the literature analysis (Chapter 4) and were contrasted to the case study (Chapter 5).

#### ***Phase 4: Analysis & Conclusions***

In this Phase the findings from Phase 2 and Phase 3 were analyzed using the framework to describe how food retailers have implemented their sustainability commitments. Each major task, 1) influencing sustainability aspects of upstream suppliers, and 2) controlling supplier performance and verifying compliance, was analyzed. The contextual factors that seem to have determined the approaches taken were identified and discussed. The challenges identified through the case study and by other interviewees were identified and a relationship between contextual factors was established. Key contextual factors that are supportive of implementation were discussed and adaptations to the analytical framework were considered.

The conclusions provide an overview of the answers to the research questions and the key findings as a result of the analysis. The findings to the RQs were also discussed in terms of their implications for businesses and society. Key lessons for practitioners are summarized and opportunities to overcome challenging circumstances are considered. The broad implications of the approaches from a societal perspective are explored and recommendations for policy makers are suggested. Future research ideas are also highlighted.

### **2.3 Limitations**

There are a few limitations in this research that are recognized. First, there are limits on the information that can be gathered and there are also risks of misinterpretation and/or bias.

Data collection limitations can be faced when research is conducted on companies, particularly when focusing on the supply chain, as a result of the perceived secrecy of the

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<sup>8</sup> Toronto based 'sustainable fish' retailers were interviewed: Hooked and the Big Carrot.

information. This challenge was faced both with the case retailer and when interviewing other companies. The information that may have accurately depicted influence over some product categories or the relative importance of certain products was not possible to gather in detail.

There were limitations in terms of the willingness of actors to participate in the study. A number of other retailers and suppliers were contacted for interviews, but declined to participate. As a result, limited information has been collected on the power circumstances from the perspective of the supplier and virtually no details are provided on suppliers further upstream beyond the first tier (direct) suppliers. It is recognized that this would have been a valuable perspective to gather and this is an opportunity for further research.

The majority of the research was also undertaken through qualitative interviews and this method runs the risk of weaknesses in validity. Phrasing of the questions (clarity for the interviewee), lack of trust, and the interpretation of data (biases of the interviewer) can prevent accurate data collection and analysis. In order to limit these risks, the interviewees were provided with the questions in advance and were asked whether they had any questions regarding at the beginning of the interview. Some of the interviewees were also provided with the findings resulting from the interview in order to clarify any misinterpretations.

There are also limitations as a result of the research focus and design. The method of using a single case study and approaching the study from outside of the organization may have limited the perceived challenges and contextual factors identified. These limitations were addressed by referring to literature that looked at different industries and companies, and how they addressed other environmental and social issues in the supply chain. Interviews with other seafood buyers also broadened the results. Nevertheless, the findings would need to be tested further in different circumstances.

The focus on addressing issues associated with a single type of product may result in limitations for the findings. Looking at wild seafood sustainability also has unique aspects. Seafood is part of an ecosystem and where it is caught is an important determinant of its 'sustainability'. The management of its production is also relatively highly regulated. This could also limit the generalizability of the findings to other situations.



### 3 Background: Public & Private Regulation of Seafood

*This chapter is an introduction to the wild fisheries resource situation, the attempts by governments to sustain fisheries and the role that private actors are increasingly playing in the management of sustainable fishing.*

#### 3.1 An Unsustainable Wild Seafood Supply

The primary concern over the sustainability of fisheries products<sup>9</sup> is the state of stock<sup>10</sup> and surrounding ecosystem; its ability to reproduce and the associated impacts on biodiversity that result from its exploitation. Every two years, the Food and Agriculture Organization (FAO) of the United Nations publishes “The State of the World Fisheries and Aquaculture” in an attempt to provide an informed view of worldwide fish resources. The latest data suggests that “[m]ost of the stocks of the top ten species, which account in total for about 30 percent of the world marine capture fisheries production in terms of quantity, are fully exploited” (FAO, 2010, p.8). It is estimated that eighty percent of the world’s marine fish stocks are fully or overexploited (Flothmann et al., 2010). In short, fully exploited means that there is no room for further growth, and overexploited suggests that there is risk for the stock to collapse (FAO, 2010). See Figure 3-1 that reflects the depletion of global wild seafood.

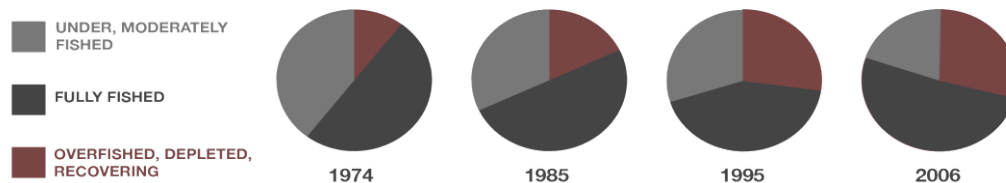


Figure 3-1 Depletion of Wild Fish Stocks, adapted from MBA (2009) based on FAO (2008)

With the depletion of high value stocks, there is a consistent theme of fishing down the food web to the lower trophic levels<sup>11</sup> previously unexploited (Markowski, 2009; Pauly et al., 1998). This trend has been forecast to result in an ocean filled with bottomfeeders and jellyfish (Grescoe, 2008). In 2006, the consequences of accelerating erosion of biodiversity and resulting decline in ecosystem functions for global fisheries was stressed by research that projected the *collapse of all fish stocks currently fished* by 2050 (Worm et al., 2006).

The state of our fisheries is largely a result of overfishing and poor management within the oversight of governments and fishing authorities, as well as illegal and unreported fishing occurring within and beyond national coastal borders (Valdimarsson, 2009; UNEP, 2009). The underlying driver of the problem is the increasing demand for seafood (Jacquet & Pauly, 2007; UNEP, 2009). In addition, the interaction of human impacts on the ocean, which include overfishing, climate change, nutrient run-off and invasive species, are creating negative synergies that severely compromise the ocean’s resilience (IPSO, 2011).

#### 3.2 Public Regulation to Sustain Fisheries

The sustainability of our fish resources is addressed on a number of different levels of government: international, national and regional.

<sup>9</sup> The term *fisheries products* are used interchangeably with *fish* and *seafood*. Wild products are the focus of the research; when referring to farmed products, this is stated clearly.

<sup>10</sup> See the glossary for the definition of *fish stock*.

<sup>11</sup> See the glossary for the definition of *trophic levels*.

## International

A long history of global fishing freedom was altered with the emergence of exclusive economic zones (EEZs), agreed upon in 1982 through the United Nations Convention on the Law of the Sea (FAO, 1995). The Law of the Sea recognized new limits on the ability of fishing vessels<sup>12</sup> to exploit coastal resources and gave the responsibility to coastal states to manage their EEZs - 200 nautical miles beyond their coast. See Figure 3-2 for an example of an EEZ off the coast of Canada. Coastal states have sovereign rights over their resources, but have the responsibility to manage the living resources to ensure that they are not endangered by overexploitation (Markowski, 2009). Responsible fishing practices have been on the international agenda since 1991 in the forum of the FAO. This was the rationale for the 1993 FAO Compliance Agreement<sup>13</sup> and the 1995 Fish Stocks Agreement<sup>14</sup>, which strengthened the rules for management of resources outside of EEZ on the high seas. These agreements also build on the flag system for vessels. The agreements emphasize that each state is required to control the activities of their own *flagged* vessels and must ensure vessels comply with the agreed upon management measures. The FAO Code of Conduct for Responsible Fisheries adopted by 170 nations in 1995 also sets non-binding best practices to promote fisheries sustainability. The Code is recognized by actors in the public and private sector as the standard in fisheries management. However, the extent to which these rules are abided by depends on each country's approach to governing its resources (FAO, n.d.; FAO, 2001).

## National

Within EEZs the state that has jurisdiction over the area can manage fisheries through various measures, including licensing of vessels, catch quotas, season and gear restrictions, and monitoring requirements (Markowski, 2009). Governance can be decentralized with responsibility devolved to fishing communities, and others have a more centralized approach with mechanisms to encourage local stakeholder involvement. There is diversity in national approaches. There are a number of dimensions of diversity, including governance, ownership, scale of operations and fishing gear used. Some fisheries still operate on an open-access basis, but the trend has been to implement limited access fishing rights that set individual transferable quotas. For many developed countries, the 20<sup>th</sup> Century has been marked by an effort by governments to move away from promoting resources to protecting them, with an increased dependence on science for management decisions (OECD, 2011; Love, 2010; Caddy & Cochrane, 2001).



Figure 3-2 Example of an EEZ

## Regional

There are also fishing activities that occur outside of national borders (on the high seas) or are occurring between national borders as a result of highly migratory and straddling stocks. The 1995 Fish Stocks Agreement provides the basis for Regional Fisheries Management Organizations (RFMOs) to manage these stocks (FAO, n.d.). See Appendix D for a map of the

<sup>12</sup> *Fishing vessels* refers to ships engaged in fishing operations; "mother ships" and other boats used for fishing (FAO, n.d.).

<sup>13</sup> The full name is: The FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, 1993.

<sup>14</sup> The full name is: The Agreement for the Implementation of the UN Law of the Sea (1995) relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks.

*RFMO areas.* RFMOs are made up of coastal states and fishing nations. RFMOs are not supranational entities and are only as effective as collaboration between these parties allows (FAO, n.d.). Fishing vessels from other countries are allowed to fish outside of domestic waters if they are party to an RFMO for that fishing area. All vessels are to be governed by their flag state. Each state must have the appropriate enforcement measures in place when vessels act in contravention to the laws. Any country can be a flag state, but some countries do not have the capacity or intention to govern their vessels (HSTF, 2006).

### **Governance Challenges & Failures**

The issues that plague fisheries governance are many and vary with the specific situation. Common issues include a lack of commitment or resources by governments to responsibly govern fish resources and overcapacity of fishing fleets (Love, 2010; UNEP, 2009). SeaChoice<sup>15</sup>, a Canadian sustainable seafood program run by five conservation organizations, highlights five management failures associated with wild capture fisheries: 1) inadequate regulations and management; 2) oversized fishing fleets subsidized by governments; 3) IUU fishing; 4) discarded bycatch<sup>16</sup>; and 5) fishing gear that damages habitats (SeaChoice, n.d.).

*IUU fishing* demonstrates the complexity of the challenges faced by governments and seafood buyers committed to sustaining fish resources. IUU fishing occurs in virtually all capture fisheries, and is battled by importing states and fisheries governance bodies. IUU fishing refers to activities that are: *illegal*, conducted in a managed area (EEZ or RFMO) that are in contravention to the rules; *unreported*, for instance the catch is misreported; or *unregulated*, when fishing is conducted by vessels without a nationality, by vessels from a nation that is not party to an RFMO or in an area that is not managed (HSTF, 2006; Love, 2010; FAO, 2010).

*Why does IUU fishing occur?* IUU is a product of poor enforcement, negligible penalties, difficulty in monitoring activities and increasing economic incentives. IUU can be a highly organized criminal activity, termed ‘pirate fishing’, which is associated with vessels which fly *flags of convenience*<sup>17</sup> and poor port controls in some countries (DeSombre, 2005; Love, 2010; HSTF, 2006). In other cases, fishermen may not accurately report discards, misreport fish exceeding quotas, or underreport their catches (Jacquet and Pauly, 2008; Pitcher et al., 2002).

IUU fishing undermines management efforts and compromises the ability for regional and national fisheries organizations to meet food security and environmental protection goals. Without accurate data and control of vessels’ activities within a fishing area, it is clearly very difficult to manage fish stocks. Adverse economic and social impacts are also associated with IUU. IUU fishing is particularly felt by developing countries which do not have the resources to govern and protect their coastlines and inland resources (HSTF, 2006; FAO, 2001). The cost of IUU fishing has been estimated to be worth US\$10 -23.5-billion per year (FAO, 2010).

Over the last two decades, there have been many efforts by international bodies and national government to curb IUU fishing. *See Appendix E for a summary of measures to curb IUU.* Approaches include requirements for nations to close ports to vessels engaging in IUU; catch documentation systems that require fish covered by the scheme to have documentation upon import; lists of vessels allowed to fish and those that are ‘black listed’, and national measures to prevent citizens from taking part in IUU activities (HSTF, 2006; Roheim & Sutinen, 2006;

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<sup>15</sup> SeaChoice was formed by David Suzuki Foundation, Sierra Club BC, Canadian Parks and Wilderness Society, Living Oceans Society, Ecology Action Centre. Funding is provided by the David and Lucile Packard Foundation, Webster Foundation and Eden Foundation.

<sup>16</sup> See the glossary for a definition of *bycatch*.

<sup>17</sup> See glossary for a definition of *flags of convenience*.

Lodge et al., 2007). However, the EU is the only market that has implemented measures to address imported product and IUU is still said to be widespread. IUU operators have demonstrated an ability to continuously innovate when new enforcement mechanisms are introduced (FAO, 2010; Flothmann et al., 2010; Österblom & Sumaila, 2011). At the same time, the incentives and opportunities for IUU activities are also believed to have increased with the greater demand for high value species and a greater amount of product being processed abroad (Roheim & Sutinen, 2006; Flothmann et al., 2010).

### 3.3 Increasing Seafood Consumption & Trade

One of the underlying drivers for IUU, along with the other sustainability challenges, is the increased demand for seafood products (Flothmann et al., 2010; UNEP, 2009). Overall, demand for fisheries products has been steadily increasing; from 9.9 kgs per capita to a record high of 17kg per capita in 2007 (Swartz et al., 2010). The greatest surge in consumption has occurred in Asia from 10.8 kg in 1961 to 30.1 kg in 2007, as well as Southeast Asia from 12.7 kg in 1961 to 29.8 kg in 2007 (FAO, 2010, p.64). Increasing wealth and development of economies, most notably in China, and the rising popularity of seafood as a healthy source of protein are expected to only increase demand (Swartz et al., 2010).

Fisheries products are the most traded food in the world (FAO, 2010). Trade increased with the introduction of EEZs in the 1970s. This meant that foreign vessels lost access, and domestic vessels began to export fish. Developed nation foreign vessels also engaged in “cash for access” agreements with developing countries (Swartz et al., 2010). The collapse of highly productive fisheries (e.g. Atlantic cod) also created a need for imported product for countries whose own fish stocks were overexploited. Processing facilities located around the world, particularly in China, have led to increases in trade of raw product and re-importing of value-added product. Improved freezing technology and lower airfreight costs have also allowed for a greater flexibility. Approximately, two thirds of the fish consumed in Europe and North American markets is canned or frozen, which means that a good portion may be imported. Lower cost farmed products, specifically salmon and shrimp, from developing countries in South America and Asia have also led to strong exports (Anderson & Martinez-Garmendia, 2003; Valdimarsson, 2009; Anderson & Valderrama, 2009; FAO, 2010).

Seafood can also be considered one of the most fragmented food sectors. There are “people harvesting from canoes, and at the same time, you also have large multi-national companies investing resources in trade” (Anderson & Valderrama, 2009, p. 27). Roughly equal quantities of landings are a result of small artisanal fisheries, often in the developing world, and those from large factory vessels (FAO, 2010). Fish supply chains vary depending on the species and source. For a sense of the significant range of chains, see Table 3-1. In general, the supply chain includes *producers* catching the product, *primary processors* filleting and freezing the product, *secondary processors* packaging the product, and *retailers*, e.g. supermarkets, restaurants, selling the product (Roheim, 2008).

Table 3 -1 Three Species and Example Corresponding Supply Chains for the US Market

Species, Source Governance	Fishing Method	Supply Chain
Cod, Iceland	Trawler; owned by processors	Fished and processed in Iceland. Sold to import companies in the US. Distribution to US retail, restaurants and food processors (UNEP, 2009).
Albacore /Skipjack Tuna, Western and Central Pacific Fisheries Commission (RFMO)	Longline vessels or Purse Seine	Caught by a number of large vessels; brokers provide financial resources to vessels; a processing firm purchases it; and it is processed and canned in Puerto Rico and sold in the USA (ISSF, 2010; M. Kraft, personal communication).
Blue swimming crab, Indonesia	Bottom gillnets, traps, baby trawls	Small-scale fishing boats (employs 65,000) in at least 10 fisheries. Traders and primary processors in 'mini-plants' are steps in-between large final processors in Asia. Most crab is exported to the US (50%) by airtight container by 65 different companies, with five purchasing the majority (SFP, n.d.).

Yet, despite the globalization and complexity of some supply chains, the industry is becoming more concentrated. Market growth is generally a result of “consistently delivering a high-quality product at stable or declining costs” (Anderson & Valderrama, 2009, p.28). As a result, it is expected that the market will continue to be concentrated on fewer actors and species. The increasing market concentration is a trend across the agro-food industry (Fearne et al., 2001; Love, 2010). Farmed species, which can more easily cut production costs and offer stable supplies, are also likely to continue to increase their market growth (Anderson & Valderrama, 2009). Wild products face unique instabilities: variable weather conditions, stock size variations and government regulation (Gagalyuk et al., 2010). Major markets also appear to concentrate consumption on key fishing areas. The seafood consumed by the EU is global, but largely from West Africa and the East Atlantic. US consumption is concentrated on North and South Pacific and Northwest Atlantic fisheries (Swartz et al., 2010).

### **3.4 Private Regulation to Sustain Fisheries**

Businesses, particularly retailers, have increasingly been committing to include sustainability in their seafood product specifications, in addition to their food safety and quality requirements. *Sustainability* generally refers to a fish product from a fish stock with a biomass that is not depleted or overfished; fished in a way that minimizes the impact on the ecosystem; and from fisheries with management systems in place that are capable of governing the resources responsibly (Jacquet et al., 2009; Thrane et al., 2009).

This new role for retailers has been influenced by the increased pressure from NGOs and attention from the media (Jacquet et al., 2009; UNEP, 2009). In 2005, Greenpeace kicked off campaigns that ranked UK retailer purchasing policies. The strategy was designed to find a new angle to influence the management of fisheries that went beyond ‘the iron triangle’ - fisheries bureaucrats, the fisheries ministers and the fishing industry. This strategy has been replicated in other ‘Western’ markets, including the US and Canadian markets (S. King, personal communication).

Yet, implementing commitments can be difficult. Seafood buyers are faced with the traditional challenges of addressing sustainability issues in the supply chain (see Chapter 4) within an industry known to be battling fraudulent practices (NFI, n.d.; Buck, 2010; Holland, 2011).

#### ***Fraudulent Practices***

There are significant economic gains to be made from mislabeling a fish product as another species, for instance selling farmed salmon as wild. As more buyers require traceability of their seafood, in terms of species, country of origin and production method, there are a number of opportunities and incentives to misrepresent product. Species are being mislabeled because: they are illegally caught; there is a shortage of a desired species/product; or there is just an economic benefit to be made from selling a fish as another species. Studies have shown that seafood can be mislabeled in surprising proportions (Jacquet & Pauly, 2008; Miller & Mariani, 2010; Miller et al., 2011; Stiles et al., 2011; Buck, 2010). A number of actions for the public and private sector are identified in the literature. DNA testing, although not yet widely used, is a method that could be used to test seafood imports and/or purchases (Fleming, 2011). Ecolabelling with audited chain of custody requirements provide another method to verify purchases (Miller & Mariani, 2010; Jacquet et al., 2011; Stiles et al. 2011; Roheim, 2008). Yet, even in these supply chains fraudulent fish have been detected (Marko et al., 2011).

## **Ecological Labelling & Certification**

The Marine Stewardship Council (MSC) was the first ecolabel for wild seafood that addressed a wide-scope of environmental issues in the certification process. The MSC standard is based on the health of the stock, the impact of fishing on the marine ecosystem and the management system in place. The MSC was developed in 1997 through discussions between WWF and Unilever, as an opportunity for well-managed fisheries to be recognized in the market place for their responsible practices. There are limited alternatives; only Friends of the Sea and Naturland are international schemes covering wild fisheries. MSC is by far the most popular ecolabel scheme with the broadest number of species and international coverage (Washington & Ababouch, 2011; MRAG, 2009; FAO, 2009).

MSC is set-up as an independent non-profit organization. The scheme relies on MSC's standards for sustainable fisheries management and for traceability of certified product. Various privately run certification bodies assess whether the fishery and its supply chain live up to the standards. In some cases, becoming certified requires behavioral change and in others it is a matter of paying for the use of the MSC logo on products and annual audits. The MSC label aims to secure the chain of custody; products can only have the label if every actor in the supply chain has been audited (Cummins, 2003; Gulbrandsen, 2009; MSC, 2009). A premium is supposed to come with certification. However, the consumer's willingness to pay is debated (Goyert et al. 2010; Kaiser & Edward-Jones, 2006).

In the climate of increased pressure from NGOs to commit to sustainable seafood purchasing criteria, certified product has been growing in popularity amongst retailers. The number of certified fisheries is also increasing. At the end of 2008, 38 fisheries were certified and 88 were in assessment (Gulbrandsen, 2009). As of June 2011, there are 128 fisheries certified and another 129 fisheries under assessment (MSC, n.d.). However, still only 10% of global wild capture landings are engaged in the process (MSC, n.d), and the majority of fisheries are said to be large-scale fisheries in the developed world (Kaiser & Edwards-Jones, 2006).

### **Other Solutions?**

Ecolabels are not the only private sector approach to control sustainability qualities.

*Enhancing traceability* is another approach commonly highlighted in the literature. For food products the one-up, one-down traceability system is common for safety and recalls. This means that each actor in the supply chain holds information on incoming product and where it is going. Traceability can be enhanced if each actor in the supply chain can see the entire chain. A number of different traceability systems have been said to improve the security of the seafood supply chain by providing *external electronic traceability*. These systems can be manual entry, barcode or RFID (Magera & Beaton, 2009; Petersen & Green, 2004).

*Fishery improvement projects* (FIPs) can also influence sustainability of the product. FIPs are usually led by NGOs, namely SFP and, to a lesser extent WWF. FIPs are a product of collaboration with a number of actors in a fishery's supply chain to develop a plan to improve management and governance mechanisms (e.g. reduce by-catch through new gear methods, ). While FIPs can combat issues at source, misrepresenting seafood product can still occur within the supply chain (WWF, n.d.; SFP, n.d.; FishSource.org, n.d.).

Other solutions exist, these are only the solutions commonly raised in the literature on the role of the private sector in addressing wild seafood sustainability. This research looks at approaches from the perspective of a retailer implementing their sustainable seafood commitment, which can include strategies that affect sourcing and supply management.

## 4 Managing Responsibility in the Supply Chain

This chapter provides an overview of the themes and frameworks in the literature related to managing responsibility in supply chains and the theoretical basis for the research.

### 4.1 Corporate Social Responsibility & Supply Chains

Retailer commitments to address the sustainability of seafood products should be seen in the larger context of companies integrating responsible practices in all aspects of their business. *Corporate social responsibility*<sup>18</sup> (CSR) is rooted in stakeholder expectations and the notion that a business can be held accountable for social, environmental and economic impacts of their operations (Carroll, 1999). As CSR evolves with stakeholder expectations the firm's responsibility has expanded to include impacts occurring beyond the company's doors to its supply chain (Maloni & Brown, 2006; Tate, Ellram & Kirchoff, 2010). The *supply chain* refers to the network of organizations, both *upstream* and *downstream*, that are linked to add value and bring products and services to the end consumer (Mentzer, 2001), see Fig. 4-1.



Figure 4-1 A Wild Caught Fish Product Supply Chain

Adverse environmental and social impacts, also termed *sustainability* issues<sup>19</sup>, occurring upstream are increasingly surfacing in the media and consumer surveys, and are being highlighted by NGOs. Addressing these issues is a priority for many companies in order to avoid brand risk, respond to consumer demand or regulation, or even to deliver cost-reductions (Brammer et al., 2011). In some cases, such as seafood, the raw material is at risk of depletion, and risks to supply could be a driver.

Implementing responsibility in the supply chain, or as Kogg terms the practice, *upstream CSR*, is defined as “the management of environmental and social aspects that are determined, or occur, upstream within the supply chain beyond the focal company’s span of direct hierarchical control” (Kogg, 2009, p.13). From a societal perspective, upstream CSR has the potential to connect the production processes occurring across the globe with pressure that demands continuous improvements. As Hall (2000) points out, high profile firms, usually close to the end consumer, are most likely to experience horizontal pressure from external forces (e.g. NGO advocacy), but vertical pressure can result in improvements in environmental performance of all the actors in the chain. Referring to environmental issues, Preuss (2005) terms this the ‘green multiplier’ effect.

Yet, from the point of view of a buyer, the outlook may have many challenges ahead (Kogg, 2009; Brammer et al. 2011). Addressing environmental or social impacts upstream means that there are new sourcing considerations for a product. The buyer faces additional supplier performance challenges, including: 1) sourcing a product or supplier with qualities that may *not*

<sup>18</sup> Carroll’s seminal work in 1979 defined CSR as encompassing “the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time” (p.500).

<sup>19</sup> The term *sustainability* has become closely related to CSR. Sustainability is an “elusive concept”, but is generally considered to have three dimensions: economic, environmental and social (Marshall & Toffel, 2005; Arnold & Schmidt, 2010; Brammer et al., 2011). It is acknowledged that addressing stakeholder concerns and engaging in ‘responsible business practices’ does not mean that sustainability has been integrated into business decision-making. However, environmental and social issues are often referred to within the business context as sustainability issues.

on the market at a price or a quantity that fits their usual demanded volumes; 2) *influencing* suppliers often many tiers upstream to meet sustainability specifications; and 3) *ensuring compliance* of processes upstream which cannot be detected easily in the product. These challenges are not entirely new; they are similar to mainstream supply chain issues, such as innovation (developments in functionality, cost) and quality assurance (verification). However, the aspects may be determined further upstream and are often difficult to verify.

## 4.2 Sourcing Strategy

At the heart of the supply chain of a firm is the purchasing unit. The purchasing unit is concerned with supplier performance - ensuring that suppliers in the chain can respond to customer needs in terms of key competitive dimensions. These include: price, quality, delivery speed, reliability, adapting to volume changes and flexibility to introduce new products (Jacobs, Chase & Aquilano, 2008). Purchasing departments compete with other firms to deliver on supplier performance by using different *sourcing strategies*, which are a combination of relationship management styles and sourcing options matched to context (Cox, 2004). Each firm’s approach to address sustainability issues upstream will be related to its sourcing strategy, and may even result in a need to change the strategy.

There is a full range of *sourcing options*, but they can be categorized as *reactive*- supplier selection, supply chain sourcing, and *proactive*- supplier development or supply chain management<sup>20</sup> (SCM). Reactive approaches largely allow market competition to govern supply in terms of innovation and cost, and proactive approaches tend to use relational mechanisms. Each sourcing option has varying degrees of involvement with the tiers of the chain and resources required (Cox, 2004). Figure 4-2 identifies the different options as defined by Cox.

<b>Focus of buyer relationship with supplier</b>	<b>Proactive</b>	<b>Supplier Development</b> Buyer and supplier make relationship specific adaptations in order to deliver lower costs or increased functionality to the market.	<b>Supply Chain Management</b> Buyer undertakes proactive supplier development through the supply chain right to the raw material.
	<b>Reactive</b>	<b>Supplier Selection</b> Buyer selects supplier from market offerings and weighs the trade-offs. Market competition is used to generate innovation.	<b>Supply Chain Sourcing</b> Buyer selects suppliers from market - not only the first tier supplier. Search, selection and negotiation occur between many tiers of suppliers.
		First-tier	Supply chain

**Level of work scope with supplier and supply chain**

Figure 4-2 The Four Sourcing Options for Buyers taken from Cox (2004), p.349

Traditionally, most sourcing strategies were reactive, short-term relations, only involving the exchange of information regarding the transaction (Hoyt & Huq, 2000). More resources are required for a proactive option, which can involve “information exchange, operational linkages, cooperative norms and relation-specific adaptation” (Cox et al., 2003, p.137).

Sourcing options are only part of the strategy. Relationships can be managed in different ways depending on the intent of each of the parties. Either an *adversarial* (aggressively maximize

<sup>20</sup> SCM has many definitions (Mentzer et al., 2001; Croom et al., 2002) and is sometimes used synonymously with managing supply or sourcing. However, Cox’s (2004) definition differentiates SCM from other sourcing options; SCM is virtually a vertically integrated chain and involves relationship-specific adaptations along the entire supply chain. For clarity, SCM will only be used when referring to this particular sourcing option.



value) or *non-adversarial* approach (pay market price or transparently share commercial value) can be chosen. Cox suggests even collaborative relationships can be adversarial (Cox, 2004).

The range of sourcing approaches matched with various relationship management styles contributes to the diversity of supply chains. These can extend from one with a high degree of cooperation and win-win relations down the chain to one knit together with arm’s length adversarial relations (Forman & Søgaard Jørgensen, 2004). The former supply chain, governed by the proactive, relational approach, has been argued by many over the last two decades to be the ‘ideal’ sourcing option (Cox et al., 2004). A proactive approach can enhance the buyer’s control over supplier performance in terms of innovation, cost and quality (Cox, 2004). This sourcing option – also known as ‘partnering’ - is the basis for the lean school of thinking, just-in-time management and total quality management, among other best practice strategies (Hogarth-Scott, 1999; Duffy and Fearn, 2004; Pagell & Wu, 2009; Preuss, 2005). This strategy also appears to be advocated by sustainable supply chains research.

### 4.3 Sustainable Supply Chains

There is a significant level of research activity on addressing sustainability issues in supply chains. There is a wealth of literature that covers different activities that could fall under this umbrella and related terms.<sup>21</sup> Activities include implementing social-based codes of conduct, developing organic product lines and closed loop supply chains (Kogg, 2009; Carter and Rogers, 2008; Carter & Easton, 2011; Seuring & Müller, 2008; Brammer et al. 2011).

*Sustainable supply chain management (SSCM)* is defined as “the strategic, transparent integration and achievement of an organization’s social, environmental, and economic goals in the systemic coordination of key interorganizational business processes for improving the long-term economic performance of the individual company and its supply chains” (Carter & Rogers, 2008). Pagell & Wu (2009) and Brammer et al. (2011) identified practices for SSCM with the intention of building theory. Both sets of authors suggest that practices include collaboration with suppliers, long-term supplier relations, risk sharing and enhancing transparency. Table 4-1 (below) provides a summary of the identified best practices. The practices outlined imply the use of *proactive* sourcing strategies.

Table 4-1: SSCM best practices as identified by Brammer et al. (2011) and Pagell & Wu (2009)

	<u>Brammer et al. 2011</u>	<u>Pagell &amp; Wu 2009</u>
<i>Internal Facilitators</i>	<ul style="list-style-type: none"> <li>• Purpose – alignment with business strategy</li> <li>• Policy – top management support</li> <li>• People – leadership and capabilities of buyers</li> </ul>	<ul style="list-style-type: none"> <li>• Integration: Managerial orientation toward sustainability &amp; design and innovation capability</li> </ul>
<i>External Facilitators</i>	<ul style="list-style-type: none"> <li>• Partners - quality of the relationship with suppliers and other partners</li> <li>• Public policy supportiveness and demands</li> <li>• Peers – level of collaboration within industry</li> <li>• Power – power balance</li> </ul>	<ul style="list-style-type: none"> <li>• A well performing supply chain on traditional metrics is the foundation</li> <li>• Reconceptualizing who is in the supply chain, including NGOs &amp; trade groups</li> </ul>
<i>Practices</i>	<ul style="list-style-type: none"> <li>• Environmental scanning &amp; stakeholder engagement in determining direction</li> <li>• Collaborate with suppliers on objectives</li> <li>• Supplier development – long-term relations, investing in suppliers &amp; evaluation, learning</li> </ul>	<ul style="list-style-type: none"> <li>• Collaboration with suppliers</li> <li>• Supply base continuity: risk sharing, transparency, traceability; supplier certification.</li> </ul>

See Appendix F for the illustration of their SSCM best practice models.

<sup>21</sup> For instance green procurement, ethical sourcing, socially responsible purchasing, environmental-SCM.

SSCM<sup>22</sup> is defined as going beyond addressing a single aspect to moving toward a *truly* sustainable supply chain. Yet, SSCM practices also reflect much of the research on addressing environmental and social issues upstream and are similar to ‘good practices’ for implementing CSR in the supply chain.<sup>23</sup> Brammer et al. (2011) state: “our research suggests that a developmental, supportive, and mutually trusting approach to managing sustainability issues in international supply chains may offer the most robust set of practices by which firms can minimize their exposure to risks and at the same time explore a range of opportunities for performance enhancement in the buyer-supplier relationship” (p.50).

### 4.3.1 The Importance of Context

SSCM literature generally underscores the value of collaboration between buyers and suppliers to achieve innovations in sustainability and reduce upstream risks with greater information sharing and trust, but a collaborative approach may not be appropriate for all contexts. In reality, buyers use different sourcing strategies and other approaches are used to address environmental and social issues occurring upstream. For instance, Forman & Søgaard Jørgensen (2004) show that a number of different strategies are taken in ‘environmental-SCM’ - arm’s length and collaborative. The type of implementation approach depends on the supplier relations, and they believe that environmental outcomes do not suffer.

Kogg (2009) investigates how companies in the textile sector implement upstream CSR and presents a framework (Fig. 4-3) based on empirical findings. Her research suggests that *different* approaches to implementing responsibility are used, direct approaches involving actors in the supply chain (interorganizational management and selection) and indirect approaches that do not involve actors in the supply chain. The primary determining factor for the approach was whether the suppliers or products meeting the specifications were available on the market and/or the aspects specified are easily verifiable. Kogg (2009) finds that *interorganizational management* is likely when the product is not available on the market or not easily verifiable, as well as when staying with a particular supplier is desired or necessary for other reasons.

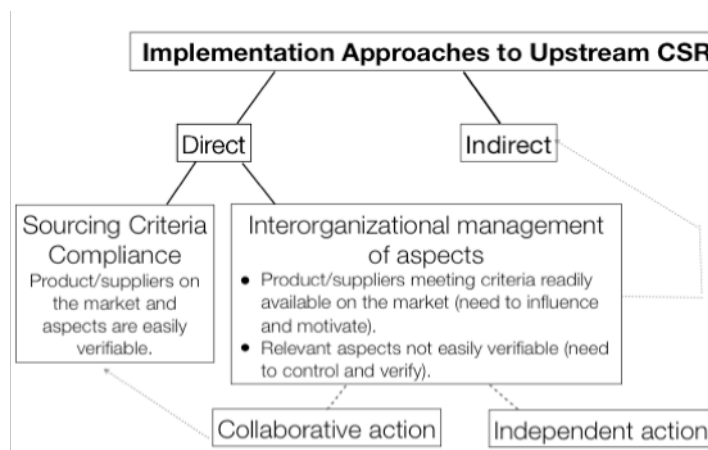


Figure 4-3 Adapted framework of upstream CSR implementation approaches Kogg (2009), p.226

Interorganizational management is a more *proactive* approach. The firm is involved in the activities of upstream suppliers. This could require information sharing and resources on the part of the buyer firm to influence the upstream actors, control sustainability aspects and/or establish systems (Kogg, 2009; Sinding, 2000). However, this is not synonymous with *proactive*

<sup>22</sup> SSCM research is not based on Cox’s interpretation of SCM, rather it suggest a broader interpretation. Yet, it is clear that the practices that fall under SSCM “best practices” tend to be proactive in line with supplier development.

<sup>23</sup> See Preuss, 2005; Spence & Bourlakis, 2009; Andersen & Skjoett-Larsen, 2009

sourcing as defined by Cox. It only suggests that the company is not taking a reactive strategy.

Other research also suggests that there are a number of contextual factors that influence the approach taken to manage sustainability issues upstream:

- Roberts (2003) analyzed ethical sourcing initiatives in different sectors and found that *the number of links in the supply network, reputational vulnerability* of network members and *power relations*, influence implementation.
- Smith (2008), who works for Unilever on sustainable agriculture, provides advice on developing sustainable food supply chains noting that *whether consumers value extended-product qualities, the supply chain structure and supplier relations* are key determinants in the approach.
- Cramer (2008) creates a step-by-step plan for global chain responsibility that identifies *product assortment diversity, importance of suppliers, the end market, supply chain complexity* and the *power* the firm has over suppliers as critical in determining the approach.
- Vurro, Russo & Perrini (2009) suggest that governance approaches to sustainability issues depend on the *supply network structure, position of the focal firm* and the *expected results*.
- van Bommel (2011) develops a conceptual framework that suggests that the *cooperation characteristics* of the supply network and the *internal capabilities* will affect the approach.

While this literature helps to extract key contextual factors, there is no tested framework that explains the role of contextual factors or that can predict the variations in approaches. The literature can also lack theory-based explanations, which can help to advance the reliability of the research. To this end, theoretical perspectives were sought to help expand upon the role of these factors. Theory and seminal literature that describes the factors that determine how firms improve supplier performance (or sourcing strategy) can provide a theoretical basis.

#### 4.4 Theoretical Context

Research on managing supply chains and managing sustainability issues in supply chains is often prefaced with a need for theory development.<sup>24</sup> Yet, there are theoretical underpinnings to much of the literature, it is only that a single theory is not used. Popular economic and organizational theories, such as transaction cost economics (TCE), agency theory and resource dependency theory (RDI) are commonly used to explain the strategic considerations a firm makes in determining the sourcing approach. An introduction to these theories is in Table 4-2.

Table 4-2: Introduction to Theoretical Foundations

<b>TCE</b>	Used to understand interorganizational governance schemes. The appropriate governance scheme is dependent on the dimensions of the transaction, which include frequency, uncertainty and asset specificity. Transaction costs change with these dimensions. There are four types of transaction costs: search, contract, monitoring and enforcement. The theory is based on the idea that all actors are opportunistic and this occurs as result of <i>incomplete contracts</i> . More complex contracts, using safeguards, are needed to prevent this behavior. Increased asset specificity may mean the firm should vertically integrate for maximum control over the behavior of the supplier (Williamson, 1995; Dyer 1997, Ménard, 2004; Wang & Wei, 2007).
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<sup>24</sup> Authors noting this include Croom et al., 2000; Mentzer et al., 2001; Harland et al. 2006. Regarding managing sustainability in supply chains include: Seuring & Muller, 2008; Kogg, 2009; Brammer et al., 2011; Pagel & Wu, 2009.

<b>Agency Theory</b>	Used to determine the most efficient contract between two parties: the <i>principal</i> who assigns work and the <i>agent</i> who performs the work. Agency theory deals with the trade-off between the cost of measuring behavior versus outcomes. There are two types of contracts: rewarding outcomes or monitoring behavior. The contract will depend on uncertainty and verifiability of the work among other factors (Eisenhardt, 1989).
<b>RDT</b>	Used to understand <i>power</i> in inter-firm relations. Power is based on the notion that it is a product of the relationship between two actors; the power of X is measured in relation to the capabilities of Y. Actors can either have an imbalance or be mutually dependent on one another. Power is relative, but is rooted in firm resources, such as the firm's access to information (Emerson, 1962 as cited in Casario & Pikorski, 2005).

As mentioned in the methodology, the relevant theoretical context is summarized into an adaptable analytical framework that builds on Kogg's (2009) framework. The framework is later used for describing the approaches taken by firms to exercise responsibility in the seafood supply chain and for understanding the factors that influenced the approaches.

#### 4.4.1 Use Resources Efficiently: Purchasing Portfolio

One of the seminal works in sourcing literature is Peter Kraljic's paper on the importance of purchasing in a business' strategy, published in 1983. Grounded in TCE and RDT, Kraljic advocated for purchasing to become strategic, rather than purely reactive transactions. Kraljic (1983) argued that a company's supply strategy should be designed to minimize risks and make the most of buying power by determining a "tailor-made" strategy based on the strategic value of the purchase and the supply market conditions. Kraljic (1983) argued that the relative strength of the vendors, determined based on the importance of their resources, should also be incorporated into the strategy. If the purchase was strategic, then further analysis is necessary. This purchase might require the firm to engage in strategic partnerships and develop long-term relations, and depending on the power position, different sourcing strategies can be used. Essentially, *different sourcing strategies* are needed for *different types of purchases*; each type of purchase lies on a quadrant (see Figure 4-4).

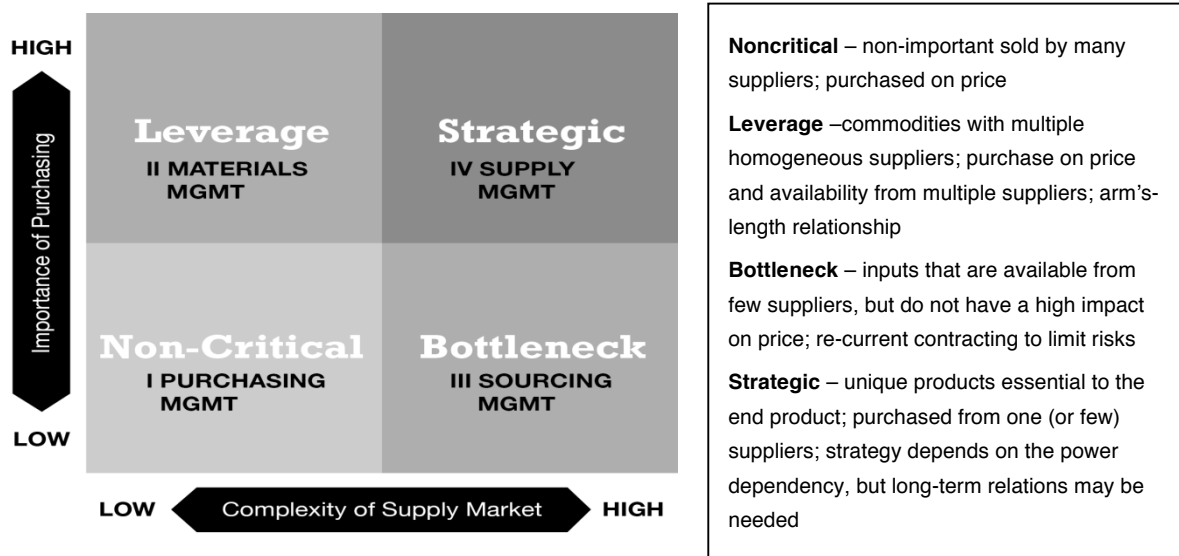


Figure 4-4 Adapted from Kraljic's (1983) exhibit *Stages of purchasing sophistication*, p.11

Kraljic is concerned with *when is it most efficient* for the buyer to invest resources in supplier relations. Investing in supplier relations is not recommended when products are standard and there is high profit impact inventory needs to be flexible and buyers can drive down costs through competition. His portfolio, among variations of it, is still widely used (Gelderman & Van Weele, 2003; 2002; Arnold & Schmidt, 2010).

**‘Sustainability’ Risks & Stakeholder Demands Influence the Portfolio**

Krause, Vachon & Klassen (2009) suggest that just as other competitive priorities (i.e. quality, or flexibility) have influenced sourcing strategy decisions of purchasers, so should *sustainability*. Sustainability is just another competitive priority that can affect Kraljic’s dimensions.

Arnold & Schmidt (2010) propose revisions to Kraljic’s portfolio. They suggest that as a result of changing stakeholder expectations and associated CSR objectives, firms are considering environmental and social issues in decision-making, and this includes the purchasing function. Arnold & Schmidt (2010) suggest that stakeholder demand can be used as an additional dimension for the purchasing portfolio – creating a cube rather than a matrix. This proposes the greater the impact on salient stakeholders<sup>25</sup> and profit, the greater the need for resources to be spent on the purchase and buyer-supplier relations. Handfield et al. (2005) have similar suggestions, but only use environmental risk. See Figure 4-5 that illustrates the revised model.

Arnold & Schmidt (2010) suggest that stakeholder impact will mean that: 1) non-critical items could benefit from third party certification schemes to minimize transaction costs; 2) for bottleneck items cooperation with competitors through industry standards is proposed; 3) leverage items should still be treated with price competition, but efficiencies should be considered and; 4) supplier development is recommended for strategic items.

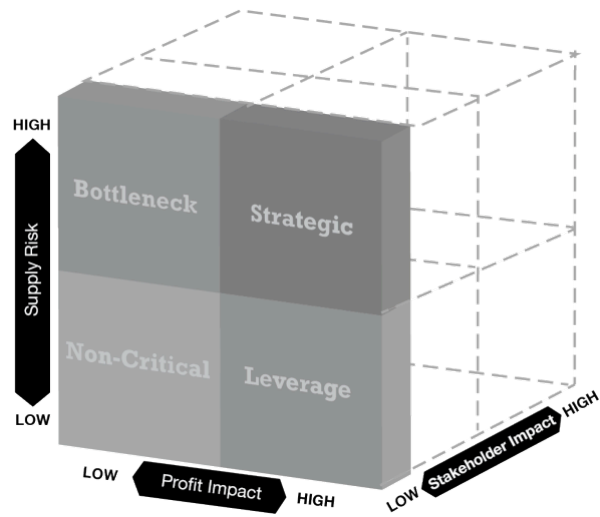


Figure 4-5 The Purchasing Portfolio Cube adapted from Arnold & Schmidt (2010), p.11

Pagell, Wu & Wasserman (2010) also suggest an update to Kraljic’s matrix to understand sustainable sourcing strategies, but have differing conclusions and they maintain a two dimensional model. The alteration they make is to define profit impact as risk to the *triple bottom line* – profit, people, planet. Changing stakeholder expectations are also used to explain the increasing importance of sustainability aspects.<sup>26</sup> Pagell et al.’s (2010) research found that companies were buying leverage products at above market prices and, in some cases, were reducing the risk for the supplier by signing long-term contracts. This makes it easier for some suppliers to deliver improvements, but essentially transfers some power to the supplier. The authors’ conclusions focus on leverage products and suggest that a collaborative sourcing approach could be necessary in the short-term. The transaction costs associated with sustainability criteria make collaboration strategic until the criteria are mainstream and information asymmetry settles. This conclusion essentially works with Kraljic’s original matrix and suggests only that the risk to supply increases, so this does not contradict Arnold & Schmidt’s model.

<sup>25</sup> Stakeholder theory is based on the notion that important actors outside of the business influence whether the company is successful; the amount of value created. Value is created for stakeholders when their interests are met. Customers are one of these important stakeholders, but also other actors such as investors, communities and/or suppliers. See research conducted by R.E. Freeman. Stakeholder theory looks at a number of factors to determine the salience of stakeholders for the success of a business. Mitchell, Agle & Wood (1997) categorize stakeholders and suggest that the attributes that determine a stakeholder’s importance are power, legitimacy and urgency. This would be an approach to measure stakeholder impact.

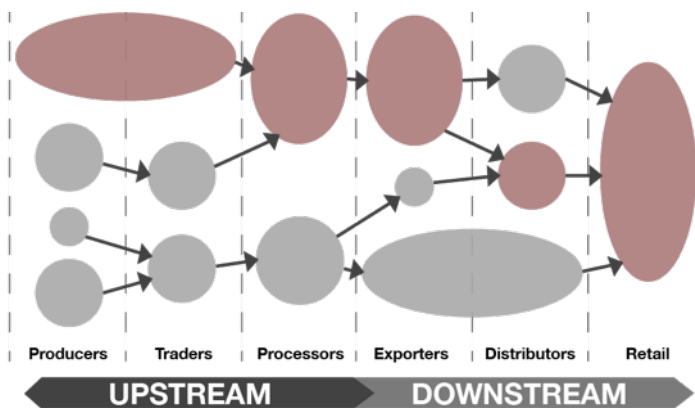
<sup>26</sup> Pagell et al. (2010) suggest explanations for this logic based on TCE, stakeholder theory and resource based view.

However, the authors do contradict Arnold & Schmidt’s approach when they suggest that some leverage product purchases could be differentiated on multiple dimensions of sustainability should be treated as *strategic commodities*. The authors suggest that supplier collaboration could result in a competitive advantage and the relational view of the firm (see Dyer & Singh, 1998) could also be a motivation for this approach to leverage items. Pagell et al.’s (2010) proposed model will be considered in the discussion, however, their inclusion of an additional theory poses some contradictory findings, which Arnold & Schmidt (2010) highlight. Therefore its use is limited for the purpose of determining the theoretical context.

#### 4.4.2 Collaboration is Not Always Possible: Power Regimes

The work of Andrew Cox and his colleagues over the past decade, based largely in RDT, provides further insight into when companies choose to establish relational governance mechanisms. While Cox recognizes the value of a collaborative approach to control the supply chain performance, Cox takes a different tack and suggests that companies first need to look at *what is possible* based on the power circumstances.

Cox views buyer-supplier relations as dynamic relations competing for value appropriation. The essence of business is value appropriation, and this is not only happening on the horizontal level, but also vertically (Cox, 1999). Cox also stresses that power is relevant not only in terms of the relation between the buyer and direct supplier, but also the extended network of dyadic relations – called *power regimes* (Cox, Sanderson & Watson, 2001). Fig. 4-6 reveals the complexity behind a single product chain. Each of these dyadic-relations can be managed differently. Cox et al (2003) explains that in determining what type of relationship and sourcing approach a buyer uses there are a number of factors, such as the importance of the purchase, certainty of the purchase, and also *buyer-supplier power relations*.



Power is the ability for one actor to overcome the resistance of another actor. In the commercial environment, a buyer might be able to ask a supplier to perform in many different ways, but it will come at a cost. If the buyer is powerful then they will more easily overcome negotiations without risking the buyer’s profits (Cox et al., 2003).

Figure 4-6 Fictional Supply Chain Network for a Fish Product

According to Cox’s work, the determination of power is based on

RDT. Power is a result of the relative resources a firm has in contrast to another firm. Resources are defined in terms of: utility, scarcity and information (Cox et al., 2001). There are four power situations: *buyer dominance* (<), *interdependence* (=), *independence* (0) and *supplier dominance* (>). For instance, a buyer might be more powerful than a supplier if there are few other buyers, they hold a large portion of the supplier’s market and the buyer’s switching costs are low. *Power attributes* are dynamic; as the market changes, so do the power attributes. See Appendix G for Cox’s framework for determining the power attributes of buyer-supplier relations.

Each actor in the supply chain has at least two dyadic relations for a particular product, one with the buyer and one with the upstream supplier(s). Looking again at Figure 4-6, if the first tier supplier (distributor in red) does not have power over the upstream supplier (second tier, exporter, in red), it is clear that the power would not be channeled through the chain and it would be difficult to improve the performance of this supplier (Cox, 1999). Figure 4-7 provides a depiction of the retailer's (A) dominance over the supplier (B). The supplier (B) has different relationships with its suppliers (C, D, and E) of a particular fish product - in one case they are independent ( $B \approx C$ ), in another it dominates ( $B > D$ ), and in the other they are interdependent ( $B = E$ ). These relationships tiers below the first dyad can complicate the ability to control the supply chain performance (Cox et al., 2004).

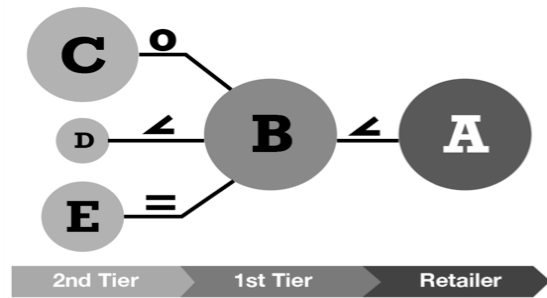


Figure 4-7 Fictional power regime adapted from Cox et al. 2001

The relevance of Cox's work to managing responsibility in the supply chain is that he argues against the presumption that it is possible for all buyers to collaborate with suppliers. A proactive strategy is only appropriate when there is *buyer dominance* or *interdependence*. The result of a misaligned approach is that the buyer may be unable to capture the attention of the supplier - suppliers won't allocate resources to collaboration if they are not dependent on the buyer in some way; or it may be economically unsustainable, because the value resulting from supplier development will be captured by other actors in the chain (Cox et al., 2003; Cox, 2004). Similarly, if the buyer is attempting to affect the performance of suppliers many tiers upstream, as is the case with a raw material, their ability to do this effectively will depend on the power circumstances of each of the dyads across the entire supply chain.

#### 4.4.3 Controlling Credence Qualities: Agency Theory

*Credence qualities* are those characteristics that are *difficult to detect in the finished product* and require the buyer to gain confidence through other means. These qualities of the product can easily be 'hidden' as they are associated with the production process (Sloth Andersen, 1994).

Agency theory, which can be used to understand contracts in buyer-supplier relations, suggests that the problems in contracts occur when there are conflicting goals and it is difficult to verify that the work has been performed to specifications. Agency theory highlights that if performing according to specifications cannot be easily verified or refer to credence qualities then contracts cannot be outcome-based, and monitoring behavior becomes necessary. Yet, when the principal has knowledge about the agent through multiple interactions, this can make monitoring behavior unnecessary (Eisenhardt, 1989). Pedersen & Andersen (2006) use agency theory and RDT to look at how companies can implement safeguards to ensure that suppliers meet environmental and social specifications. Suppliers can have divergent goals from the buyer's, as they can benefit financially from lowering environmental or social standards, and behavior is difficult to monitor. Safeguards include:

- *Sanctions* – where you have supplier dependence and can detect non-compliance.
- *Goal congruence* – the buyer can reward the supplier on outcomes or develop risk sharing collaborative arrangements; the buyer can also explain why the specifications will benefit the supplier and/or the buyer can involve the supplier in developing specifications.
- *Monitoring through a third party* – external auditors can enhance the credibility of monitoring.
- *Trust* – trust in the supplier is built on knowledge of the supplier.

Ring & van de Ven (1992) also suggest that *trust can play a governance role in high risk scenarios*. Risk is negatively related to time, information and control, and trust emerges from norms of ‘equity’ and repeated personal interactions that discourage opportunism.

#### 4.5 An Analytical Framework: Synthesizing Theoretical Context

While Kogg’s (2009) framework (Fig. 4-3) can be used to categorize approaches and begins to reveal the factors that lead to variations, research could go further to discuss the contextual variations. The theoretical context suggests some important factors influencing the approach:

- *Importance of Purchase* - Kraljic suggests going beyond an arm’s length sourcing approach is resource intensive and is not necessary for all purchases. The more important the purchase is in terms of supply risk and profit the more it may deserve collaboration.
- *Stakeholder Orientation* –Arnold & Schmidt (2010) and Pagell et al. (2010) both suggest that for purchases where stakeholder impact is high then the purchase will be treated differently. However, Arnold & Schmidt (2010) also underscore that each purchase should be treated differently depending also on the importance of the purchase, so responding to stakeholder demand for less important purchases can be done through less proactive approaches, e.g. ecolabels and collaborating with industry.
- *Scarcity of Suppliers Meeting Specifications* - Building on Kraljic, Pagell et al. (2010) highlight how seeking a product with specific environmental or social criteria can result in supplier scarcity, so once the criteria are widely available on the market then the purchase can return to being more reactive. This is in line with Kogg’s (2009) finding regarding the aspects being accessible on the market.
- *Verifiability of Criteria* - Kogg (2009) suggests that only if a easily verifiable product meeting specifications is on the market, then a buyer can use *selection*. Agency theory provides further rationale for Kogg’s finding regarding verifiability. When supplier performance cannot be determined based on the outcome of the work, as a result of credence qualities, then monitoring behavior may be necessary. Agency theory also suggests trust in the supplier (and supply chain) can replace monitoring of behavior.
- *Power Circumstances* - Cox (2004) argues that *power circumstances* – dominance or interdependence – must be in place for a collaborative approach. The power a buyer holds determines control, but is changing according to market conditions. This helps to explain the role of factors, such as the supplier relations, supply chain structure and the ‘distance’ between the buyer and supplier where the sustainability aspect is determined.

*What about internal context?* The factors stressed in these theoretical perspectives are largely external (or inter-firm). Yet, research also recognizes that *internal capabilities* can be supportive of a more proactive approach. For instance, resources for facilitating SSCM are said to be: top management support, cross-functional teams, supplier collaboration, buyer knowledge on sustainability issues and technical skills, as well as robust purchasing policy and procedures (Gold et al., 2010; Bowen et al., 2001; Brammer et al., 2011). These are similar to buyer-supplier management factors identified by Chen & Paulraj (2004) as supply chain management capabilities. Hall (2000) also suggests that, in addition to power, the firm must have technical competence for environmental supply chain innovations.



The theoretical context also implies that possible approaches should be reflected upon. Particularly, if power does limit options, what does a buyer do when the product or supplier that meets the required specifications is not available on the market?

Kogg (2009) proposes two other approaches:

- *Horizontal Collaboration* - Kogg (2009) suggests that *collaborating with competitors* is an option, which she suggests can more easily allow for selection of a product with the desired aspects. From a power regime outlook, industry collaboration can leverage new influence over the supply chain. However, this means that an additional contextual factor should be considered: *competitor orientation*. If other firms are not under the same pressure or do not have the capacity to cooperate this would likely affect the opportunity for this approach.
- *Indirect Approach* - Kogg (2009) also suggests that an *indirect approach* may be appropriate when there is no industry standard approach, and impacts are far removed from the buyer or the buyer is dependent on supplier and cannot motivate them to address aspects.

Yet, based on deductive reasoning, there also seem to be two more:

- *Reconfigure the supply chain* – although Cox (2004) notes it can be difficult to engineer a supply chain where the buyer can establish the appropriate power circumstances to undertake interorganizational management, this could be an option in some cases.
- *Deselect the purchase* – a buyer could also put resources into an alternative purchase.

Figure 4-8 depicts the contextual factors and approaches that will be a focus of the study based on the theoretical context and Kogg’s framework. The possible approaches are arranged from *proactive* to *reactive*. *Proactive* refers to the need for the company to invest additional effort to address aspects and suggests that the company may need to go beyond an arm’s length approach toward supply governance.

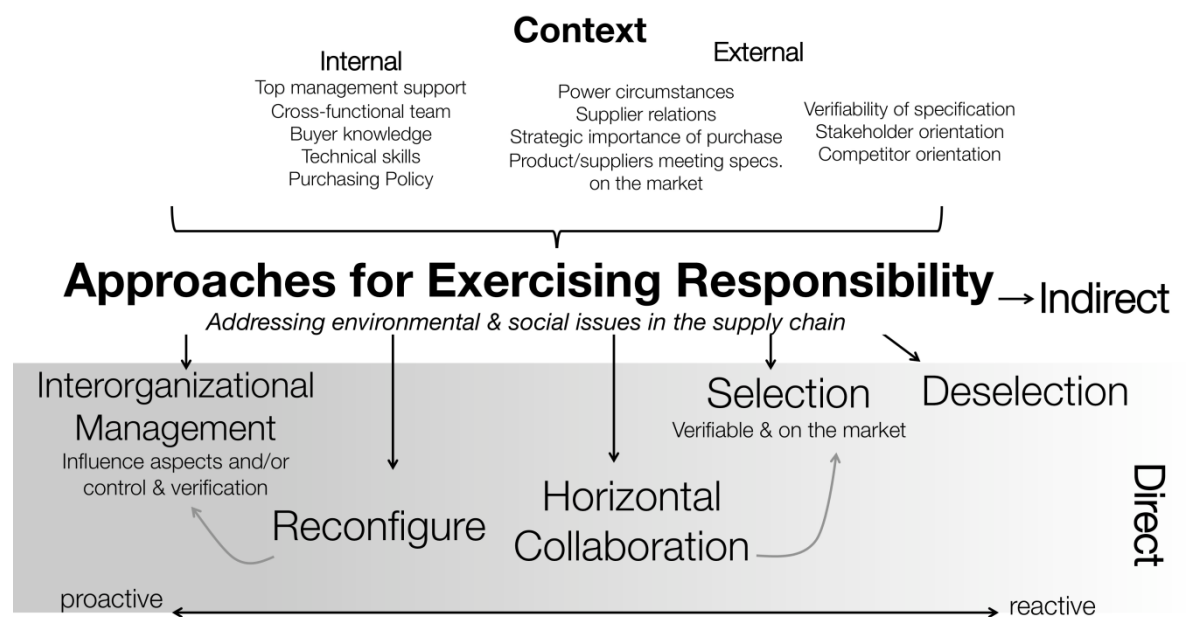


Figure 4-8 Theoretical Context Summary & Adaptable Analytical Framework building on Kogg, 2009

Figure 4-8 will act as an *adaptable* analytical framework. Other factors and approaches raised in the findings will be included in the analysis and the framework will be adapted to reflect this.

## 5 Case Study: Toward a Sustainable Seafood Category

*This chapter presents the case study on a food retailer's sustainable seafood policy development and their current experiences with the implementation of their policy. Challenges perceived internally are identified.*

### 5.1 A Competitive Climate

In Canada, the food retail industry is considered concentrated. The top three market actors Loblaw, Sobeys and Metro total 41% of total grocery retail<sup>27</sup> sales value (Euromonitor, 2011). Sobeys Inc.<sup>28</sup> is the second largest market player with revenues of approximately \$15.2 billion (CAD). Sobeys has over 1,300 stores across the country under a number of different store formats catering toward different market segments (Datamonitor, 2011; MMR, 2011).<sup>29</sup> For a visual depiction of Sobeys locations across Canada see Figure 5-1. Loblaw is the largest food retailer in Canada with 21% of the retail value share, whereas Sobeys has 10% and Metro has 9% (Euromonitor, 2011). Loblaw's market share of seafood is even greater; estimated to be 40% of the retail seafood market in Canada (P. Uys, personal communication). Retailers tend to dominate in certain communities and provinces, and within many communities Sobeys operates it ranks first in market share (MMR, 2011).

The food retail industry in Canada is a very competitive market. It is said to deliver some of the world's lowest food prices, particularly in Ontario (MMR, 2011; S. McMurter, personal communication). Recently, the competitive climate has only been intensifying. Food inflation is on the rise, at 1.7% in January 2011 and expected to increase to 5% by 2012 (Datamonitor, 2011). As Sobeys CEO

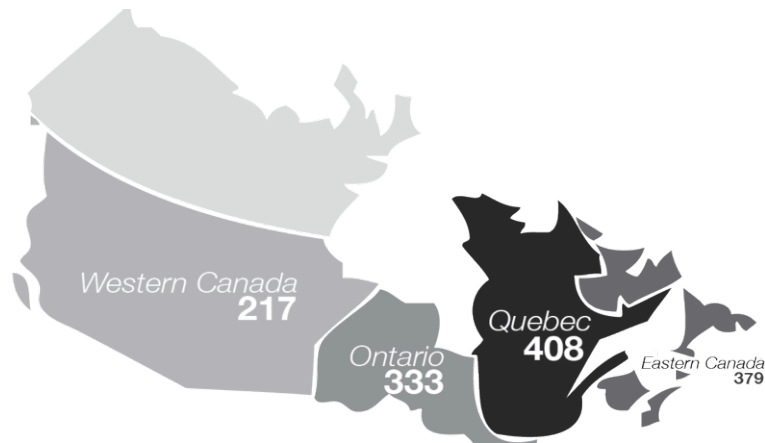


Figure 5-1 Sobeys Inc. stores across Canada adapted from Sobeys Inc. (n.d.)

explained at the beginning of 2011, Canada's food retailers are faced with rising costs of supply and labor and "competitors new and old are hammering away at prices on the front end". Market growth has also not been growing at the same rate as square footage has been added by new players, such as Walmart, Shoppers Drug Mart and Target (Canadian Grocer, 2011).

### 5.2 Sobeys Inc.

Sobeys aims to differentiate itself with a 'focus on food' and superior customer service. Like all retailers, particularly food retailers in the Canadian market, there is a strong commitment to supply chain efficiency and continuous innovation to save costs. Private label brands have also become increasingly important (Euromonitor, 2011). These trends are demonstrated by

<sup>27</sup> Grocery retail includes not just food sales, but also liquor sales, which can be concentrated through an arm of the provincial government (Euromonitor, 2011). Food sales are even more concentrated than 41% with the three players.

<sup>28</sup> Sobeys Inc. is a privately held company owned by Empire Inc.- publicly traded, but primarily held by the Sobeys family.

<sup>29</sup> Food retail banners include Sobeys, IGA, Foodland, Fresh Co., Price Chopper and Thrifty Foods. However, Sobeys also has a few non-food focused banners such as Sobeys Spirits and Lawtons drugstores (Datamonitor, 2011).

Sobeys' latest investment in a 'state of the art', fully automated distribution centre and an increase in private label products (Sobeys, n.d.; MMR, 2011; Canadian Grocer 2011).

Over the last five years, Sobeys Inc. has been undergoing a gradual 'sustainability transformation'. Reducing impacts of direct operations was the first focus, and now efforts have expanded to the products on their shelves and the activities in their supply chain. In October of 2010, Sobeys introduced its National Sustainable Seafood Policy and is now in the process of implementing it. The chief commitment is by 2013 not to sell any seafood species that has major sustainability issues, unless the sources have science-based development plans and timetables for improvements (Sobeys, n.d). *See Appendix H for the full policy.*

### **5.2.1 Seafood Product Supply Chains**

Sourcing at Sobeys is decentralized. Sobeys has 5 regions: Atlantic, Quebec, Ontario, West and BC (Thrifty Foods) each with their own buyers. Each region has strong influence over their business. They determine the products they have on their shelves, including the private label products. The regions are each in charge of their own profitability. Most of the regions also have some franchise stores<sup>30</sup>, which have some differing rules. Within each of the regions, there are also different policies on what decisions an individual store can take on their own. Development and sourcing of the private label brands is centralized at the National Office, but is directed by regional demand. Across all of Sobeys buyers, there are over 150 suppliers that provide to the private label, regional seafood counters or are national brand owners (G. Greenlaw; S. McMurter, personal communication).

#### ***Private Label Products***

Like most western markets, private labels have gained ground among Canadian consumers (Datamonitor, 2011). Private label brands are widely understood by food retailers to be an opportunity to improve margins, build consumer association with the store brand and create competition with the national brand prices (Seidler, 2007; Dunne & Narasimhan, 1999). Sobeys has three private label brands: Compliments (mainstream), Compliments Sensations (premium) and Signal (discount) (MMR, 2011). There are 73 different seafood products that are sold under the Sobeys private label brand, covering 17 different species. The majority of products are farmed (e.g. shrimp, salmon), but wild accounts for almost half in terms of volume (S. McMurter, personal communication).

Overall, Sobeys' private labels have thousands of different products, and seafood does not make up substantial portion of these. Yet, seafood has a strategic importance as it represents a product that is gaining importance to the consumer and is viewed as a 'better for you', high quality protein. These qualities can fortify the private label brand in the eyes of the consumer. Additionally, in seafood, the private label can replace national brands for some products and offers an opportunity to have strong presence (S. McMurter, personal communication).

There are generally two types of private label products. There are products that require investment in product development, such as a salmon burger, or those that are simple and can fit general quality and food safety specifications, such as frozen shrimp (S. McMurter, personal communication). The relationships with the suppliers, and the number of first tier suppliers, differ depending on the product and the vendor. Those that require a 'recipe' have only a single vendor at one time, whereas 'commodity-like' goods can have multiple vendors that can

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<sup>30</sup> 701 stores are franchised and just under half are corporate stores (633) (Datamonitor, 2011).

more easily be replaced. A number of the private label products are produced through collaborative relations with single vendors that have spanned decades. This is typical of private labels. However, this is not the case for all products. It would be optimal, from the perspective of Shawn McMurter, the National Procurement Manager for Seafood and Meat, if all relationships were collaborative and based on single sourcing, but at this time it is not realistic. The extreme competitive environment results in very thin margins, and this fosters the belief among retail buyers that better profitability can only be achieved through forcing the vendor community to compete for business. From the perspective of Sobeys staff, below is a depiction of the likely supply chain for one of Sobeys value-added products.

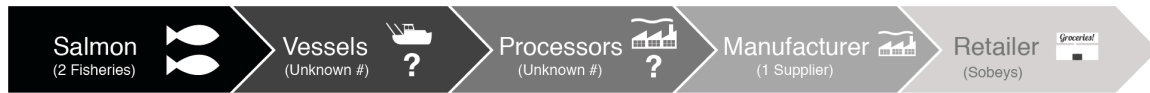


Figure 5-2 Diagram of a likely fish supply chain for a wild salmon value-added private label product

### The Fresh Seafood Counter

The seafood counter can be viewed as an important component of Sobeys stores. Sobeys focus on fresh foods and customer service can be demonstrated at the counter. This is a unique opportunity to build a relationship between the customer and Sobeys employees. Greenlaw, a long-time seafood category manager, explains: “of the 72 stores that I work with, that have a full seafood counter, the best stores are the ones that are run by people who know customers by name and the ones where customers can come in and ask ‘what should I take home for supper?’ These are the stores that have the best sales, margins and consumer comments. You don’t see that in a lot of other areas of the store” (personal communication).

Regional proximity dictates what goes into the fish counter. The greatest variety is within the fresh seafood counter, but that variety is not standard from region to region. In fact, it varies greatly (S. McMurter; G. Greenlaw, personal communication). As McMurter explains: “fish is one of those products that for many years different nations have been eating certain species as a result of proximity to certain sources. Only recently are we becoming more globalized and getting seafood from abroad. Even in Nova Scotia and New Brunswick, they eat more haddock than in Newfoundland, and in Newfoundland they eat primarily cod” (personal communication).

The supply chains for products in the counter vary depending on the product and the region that is sourcing the product. In some instances, buyers are sole sourcing product, or there is a very close distributor relationship to ensure high quality and food safety requirements. The supply chains for two fresh coastal seafood products, whitefish and lobster, are illustrated below. However, these chains are by no means typical. Sourcing will depend on local taste, access and the importance of price as a negotiating factor. The land locked regions, such as Ontario and Quebec, with greater ethnic diversity with more global taste preferences and less access to local product will have different supply chains than the two coasts.

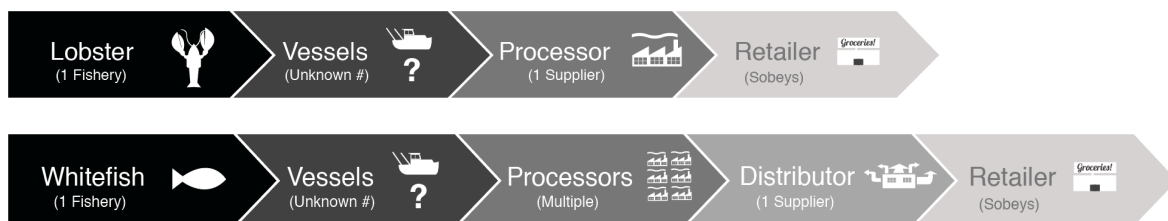


Figure 5-3 Diagrams of two likely coastal seafood counter product supply chains

### National Brands

There are many national brands that have had a strong presence on Canadian retail shelves for a long-time. Long-time brands in frozen boxed fillets and value-added product feature High Liner and Janes, as well as Bluewater. Canned product notables are Cloverleaf (Bumble Bee in the US) and Ocean's (Greenlaw; McMurter, Personal Communication). National brands, particularly High Liner and Janes, have also committed to sustainable seafood policies.<sup>31</sup> Each regional buyer sources these products. In some cases, the relationships with these products have lasted many generations. Their supply chains can also vary greatly depending on the product and brand. However, generally speaking the major companies have to source much larger volumes. As a result, multiple fisheries are engaged; many vessels land product and overseas processing in Asia is common. In a few cases, the chain is completely vertically integrated, but in others, it is fragmented and relies on artisanal fishermen. Below are two sample supply chains for national brand products (S. McMurter, H. Demone, M. Kraft, personal communication).

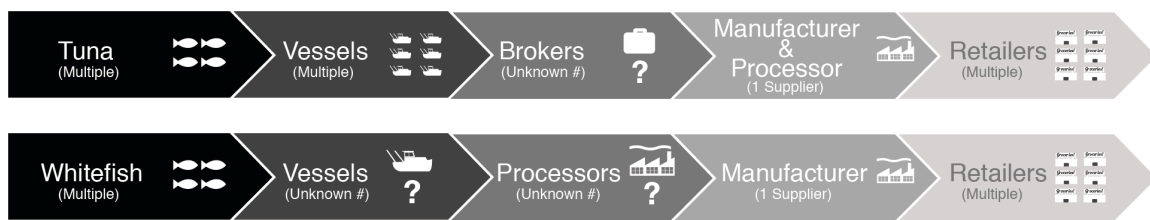


Figure 5-4 Diagrams of two likely fish supply chain for a major national brand

### 5.3 Development of the Commitment: The Threat of Not Acting

The seafood policy development began as early as 2005 at Sobeys, with signs of interest developing across regional management. Regional management was driven by their concern over the raw material supply, information requests from customer care departments and signs that seafood sustainability was destined to be of importance, as reflected in the UK market. There were increasing references to UK retailer sustainable seafood initiatives and MSC in industry news sources. Staff enthusiasm also likely played a role in pushing forward Sobeys' commitment to sustainable seafood. Graham Greenlaw, a seafood buyer for over ten years, is passionate about fishing and its community, and he explains that the policy development was important to him (G. Greenlaw, personal communication).

After initial interest from the regions for National Office leadership, there was a period of time before there was any action. The policy took over two years of conference calls and collaboration with the regions and the National Office. The group took time to determine the right approach. The approach had to consider the ability for stores to profit in a very competitive marketplace (D. Smith; G. Greenlaw; S. McMurter, personal communication).

Greenpeace Canada's 2008 *Out of Stock* report, which could not rank Canadian retailers due to inaction, presented another reason for effort on this issue. When writing the report, one of the authors, Sarah King, was struck by the fact that there were virtually no signs of action (S. King, personal communication). However, behind the scenes clearly retailers were making commitments internally and formulating the appropriate strategy going forward. In 2009 there was a burst of activity among the Canadian retailers. See Figure 5-5, which marks the

<sup>31</sup> High Liner has partnered with SFP and has committed to source from sustainable sources by 2013 (High Liner). Janes has already introduced 100% MSC certified product (Janes). Bumble Bee (Cloverleaf in Canada) has also committed to improve, in particular, the sustainability its primary product, tuna, by working with its industry competitors.

progression of retailer rankings according to Greenpeace Canada<sup>32</sup> (assessed on a 100 point scale). This was yet another reason for Sobeys to finalize its policy and remain committed (S. McMurter; D. Smith; G. Greenlaw, personal communication).

Internal agreement took time and what finally allowed for the policy to take shape was an off-site meeting where the issues could be looked at more closely. SFP guidance and consumer research supported the development. Immersion in the issues and reasons for action were necessary. Finally, in 2009 the policy was

presented to over 150 of Sobeys seafood suppliers with support from Sobeys' CEO, regional management, the CEO of High Liner, the CEO of Bumble Bee and the CEO of SFP (D. Smith; S. McMurter, personal communication).

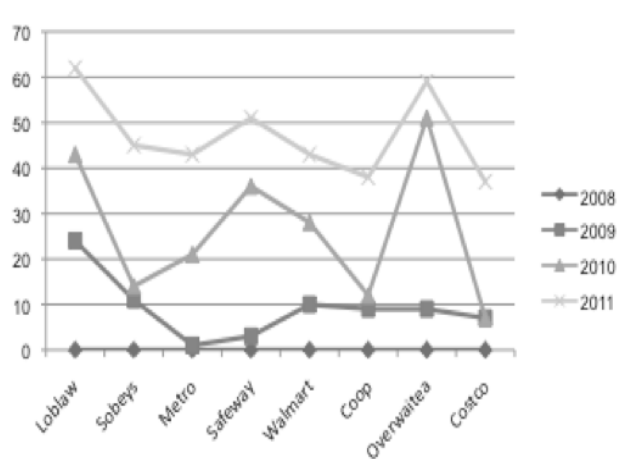


Figure 5-5 Progression of seafood policies in Canada according to the Greenpeace supermarket ranking

### Why Source Sustainable Seafood?

Sustainable seafood was not perceived as an opportunity to charge a price premium for a sustainable product. In fact, noticeable consumer interest was not a driver, and the lack of it is viewed as a barrier. Instead, it is believed that customers expect Sobeys to be responsible for sustainable seafood through its product selection just as it does for food safety and quality. As McMurter explains, this is a threat: “consumers view retailers as their champion in this regard, and if they were led to believe we do not live up to expectations, they would punish us” (personal communication).

In sum, seafood sustainability represents a threat to Sobeys as a brand and business. The dwindling wild fish supply, concern over the environmental impacts of farmed product, competition moving in this direction and NGOs actively campaigning about supermarket seafood selections contribute to the threat. In the long-term, Sobeys sees benefits; there is an opportunity to support regional fishing communities toward a sustainable future. These communities are suppliers and customers, and maintaining their livelihood is important to Sobeys and its staff (D. Smith; S. McMurter; G. Greenlaw, personal communication).

## 5.4 The Commitment: ‘Fix the Worst First’

Sobeys’ National Sustainable Seafood Policy states that it will ‘fix the worst first’ and go ‘beyond ecolabels’ (Sobeys, 2010). The basic notion is that Sobeys does not intend to shift to existing *sustainable sources*<sup>33</sup>; they do not want to switch its first tier or further upstream suppliers. While they do support ecolabels and have a number of ecolabeled products, they have not made any commitment to sell only certified seafood. This is in contrast to Loblaw, which committed in 2009 to source 100% MSC certified seafood by 2013 (Loblaw). See Appendix I for a policy comparison of other major retailers.

The policy approach taken by Sobeys is related to the company’s Atlantic heritage, which has long traditions with regional suppliers which are viewed as important to the retailer’s

<sup>32</sup> See Hunter & King (2008, 2009, 2010) and King (2011).

<sup>33</sup> Criteria for sustainable sources are based on SFP’s metrics described in Section 5.5 and see Appendix J.

relationship with the community. The Pacific coast banner of Sobeys, Thrifty Foods, has similar relations to key suppliers. Sobeys sees this approach as taking into consideration the social<sup>34</sup> and economic impacts of sustainable seafood, as well as customer demand for local seafood product (S. McMurter; G. Greenlaw, personal communication).

Sobeys also believes their purchasing power should be directed at the fisheries that are not certified but who are willing to improve; these fisheries can be supported by sourcing seafood from fisheries with improvement plans in place. MSC certification is considered the gold standard, an option suited for the best managed sources. Instead, Sobeys argues that resources invested could make a greater impact. Sobeys' VP Sustainability and Strategy believes that if the fishery needs to meet 80% of the criteria to pass the certification test then instead of devoting resources to shifting fisheries from 70% to 80% they should be concentrated on moving fisheries from 10% to 50%. Smith believes that delisting species and walking away from sources will just mean that other buyers will purchase the product, resulting in two markets for product – one that serves sustainability-focused markets and the other for buyers who are only concerned with price (D. Smith; S. McMurter, personal communication).

Sobeys was also wary of future price increases for certified product. MSC makes up a relatively small portion of the wild catch, and accessibility of supply and stability of prices are a concern. Certified product could face substantial price increases due to a shortage of supply as a result of the commitment by so many private actors to source certified seafood. In turn, there is fear that the cost will rise too high for the consumer for a product that is already deemed expensive, which can negatively affect profitability and waste product. This was an experience that David Smith, Sobeys' VP for Sustainability and Retail Strategy, experienced in the transition to natural meat and organic produce, and he believes this also adversely affects internal buy-in for the policy (D. Smith, personal communication).

***Box 5-1 When to purchase certified product?***

There are wild caught products in Sobeys stores that have ecolabels. National brands, such as Janes and High Liner, have MSC products. The private label also has a few products, e.g. the wild pacific salmon burger and Alaskan Pollock surimi. At this point, the MSC label is only on frozen seafood. For this type of product, the chain of custody can be managed by the manufacturer, where as for fresh product, the chain of custody would be dependent on the distributors and the individual stores. MSC sources are chosen for the private label product based primarily on security of supply, the cost of switching sources and the new material cost. It also depends greatly on whether regional buyers perceive that there is value in the label; they are key in the development of the private label product (S. McMurter, personal communication).

Concern that there was not a strong customer demand for sustainable seafood, or at least that demand is currently latent, was an important part of the policy development discussion. Competition is intense, and going to market with competitive prices is important to the economic viability of the company. There may not be a strong market for sustainable seafood, but there is for locally caught product, so the strategy is not to abandon these sources. Sobeys believes this demand for locally caught product and their long-term relationships in some key local fisheries can have an impact on the sustainability of these sources (D. Smith; S. McMurter; G. Greenlaw, personal communication).

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<sup>34</sup> Note: Sobeys policy includes reference to Global Social Compliance Initiative as well. However, thus far, this has not been a focus of the implementation process (D. Smith, personal communication).

## 5.5 Policy Implementation: Data First

In going forward with the policy, Sobeys looked for a partner to provide expertise. Sustainable Fisheries Partnership (SFP) was well positioned for the role as their approach aligns with Sobeys' philosophy. SFP is an NGO, established in 2006 and based in the United States, with experience supporting retailers, food service companies, and processors in evaluating the sustainability of their fisheries products and catalyzing FIPs with actors in the seafood supply chains. SFP does not advocate for ecolabels and believes in the potential of multi-stakeholder improvement plans (SFP, n.d.; K. Novak; D. Smith, personal communication).

The first step for Sobeys was to collect data on all of their seafood suppliers. The cornerstone of their policy is understanding the sustainability issues associated with each product, and SFP has helped Sobeys collect and analyze the data. SFP has an online metric system, into which suppliers submit data on a monthly basis. In order to do a thorough analysis of the fish product, they need details on the body of water the fish was caught in, the gear used and the country of origin of the vessel (K. Novak; D. Smith, personal communication).

The data submission process has been a challenge for a number of the suppliers. Product can be caught with different gear and from different sources, and then mingled, which will require a new level of organizational processes. However, in other cases, suppliers have not had to go back through their supply chains to ask for this data, and it is only a matter of asking for the right data. Suppliers are not refusing to provide data. According to SFP, these challenges are not unique to Sobeys but are just part of the process of implementing traceability (K. Novak, personal communication). Even though data collection has taken longer than expected, David Smith sees this as major progress: the data is "light years beyond what we had just a year ago" (personal communication). This data is then used against four standard metrics that SFP developed based on publicly available scientific knowledge on fisheries around the world.<sup>35</sup>

The data is not used to incentivize the purchase of more sustainable product. Data is collected to get a better understanding of the issues associated with the product and identify where they should focus their resources on FIPs (D. Smith; G. Greenlaw; S. McMurter, personal communication). FIPs are a long-term approach and could be resource intensive. From Sobeys' side, this will be a matter of staff resources in supporting the process, financing support by SFP and encouraging suppliers and other interested parties to commit support. Sobeys can also support sources with FIPs already in place through its purchasing specifications (K. Novak; D. Smith, personal communication).

Engaging the supply chain in the importance of 'sustainable seafood' has been a major step forward for Sobeys. McMurter recalls that even just two years ago when he started working on these issues, there was a very different attitude toward sustainability across the industry. The level of knowledge has changed, and so have relationships in some ways. Vendors are more likely to come forward with new selections of sustainable product and are offering much more visibility. Discussions with one of their long-time suppliers, Supplier A, confirm that Sobeys' commitment has had influence over its decisions to press its suppliers to improve the traceability of the product. Supplier A sees an opportunity to collaborate with local suppliers with which it has long-term relations. While, Sobeys in this case is not their only customer, the market that they offer is still very important (Supplier A, personal communication).

Communicating the message is important to the policy's success. Sobeys believes that customers need to understand the challenges associated with addressing this issue and the

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<sup>35</sup> See fishsource.org. The metrics are: fishery management, stock status, environment and biodiversity.



efforts being made. Marketing campaigns are under development. Training modules have been introduced to in-store staff and videos on seafood sustainability issues feature on the Sobeys website (S. McMurter; G. Greenlaw, personal communication).

In the future, it is perceived that relationships with suppliers will only become stronger. McMurter sees more partnership and collaboration down the road; ‘there needs to be better understanding of costs and challenges on both sides of the bargaining table. It makes everyone’s job much easier’. Yet, he explains: “buyers have for a long-time been driven to bid for the lowest cost of product – in line of course with safety and quality specs – but this makes us our own worst enemy. The result is our suppliers just have less money to spend on sustainability”. McMurter believes collaboration in this way is unlikely without a good reason, and sustainability could be influential for this product category (personal communication).

## 5.6 Perceived Implementation Challenges

The perceived challenges from the perspective of Sobeys staff (interviewed) were: a lack of customer engagement and internal buy-in, marketing and in-store staff education, and control and verification. In many ways the perceived challenges are each related to one another:

- *Customer engagement* – The importance of ‘sustainable seafood’ to customers and the business has been debated internally. In the transition, prices are likely to be adjusted to reflect the increased cost of the product. There is concern that markets focused on price will be lost. Internal buy-in requires more feedback from customers, either through purchasing decisions or even raising the issue at the store level. The lack of clear customer engagement has been a barrier in the development and implementation of the policy. Building customer engagement ties closely to marketing, but also internal buy-in.
- *Internal buy-in* - The challenge of internal support for the commitment was overcome in the development phase, but is foreseen to be another hurdle to overcome in the implementation phase. It continues to be a challenge within a large decentralized organization, and a lack of customer engagement and the focus on price by some key market segments. This can hinder resources for marketing, and control and verification.
- *Marketing & in-store staff education* - While SFP notes that Sobeys is communicating their message more than some of SFP’s other partners (K. Novak, personal communication), the communication of their message will still be a challenging part of their strategy. Sobeys has a more complicated message to sell than sourcing MSC product. Communicating the message effectively will also take dedication to in-store staff training, and this can be a challenge in any retail environment where staff turnover can be substantial and sustainability issues are complex. This is always a challenge, but one that staff management believe they can execute (G. Greenlaw, personal communication). Ultimately, communicating the message will also take resources, which requires internal support. On the other hand, if Sobeys marketing is effective, then customers may reinforce the importance of the issue in purchasing decisions and internal buy-in may increase.
- *Control & verification* - is a challenge particularly when sourcing uncertified product. Enhancing control and verification is perceived to be closely tied to *traceability* and *trust in the supplier*, which are not currently established for all products. These are challenges that management believes will be overcome through supplier relationship management and commitment to data collection. Barcoding and other technologies, such as Trace Register, are seen as opportunities to enhance traceability. Verification of traceability is seen as a long-term challenge (D. Smith, S. McMurter, personal communication).

## 6 Implementation Experiences of Other Seafood Buyers

*This chapter presents the findings of how other seafood buyers are working to deliver a more sustainable product to validate the case study findings and look at how these other actors ensure that products meet specifications.*

### 6.1 An Introduction to the Other Seafood Buyers Interviewed

A brief introduction to each of the interviewed seafood buyers is provided. The interviews with these other seafood buyers contributed to a stronger understanding of the different approaches, challenges and influential contextual factors. ‘Other seafood buyers’ refers to retailers and suppliers (i.e. distributors, processors). See *Appendix A* for a list of the interviewees.

#### *The Retailers*

- Three large UK based retailers: *Marks & Spencer*, *ASDA* and *Tesco*. It should be noted that Marks & Spencer caters to a relatively niche, higher end market.
- One European retailer, operating outside of the UK: *Royal Ahold*. They operate largely in the Netherlands, but also have stores in Czech Republic, Slovakia and jointly own ICA in Sweden and Pingo Doce in Portugal. Royal Ahold is the parent company to Ahold USA.
- One mainstream, large US-based retailer: *Ahold USA*.
- One large niche retailer: *Whole Foods*, which targets the natural and organic market. Whole Foods operates stores in the United States, UK and Canada.
- One other major Canadian retailer: *Loblaws*.
- Two small niche retailers with single stores: *Big Carrot* and *Hooked*.

#### *The Suppliers*

- Four large secondary processors who source a wide variety of seafood products: *Supplier B*<sup>36</sup>, *High Liner*, *Findus Group*, and *Young’s*. Supplier B operates in Europe and the United States. High Liner’s market is North America. Findus’ major markets are Sweden and France. Findus also owns Young’s, which is the Group’s arm in the UK.
- Two secondary processors that source a few key products: *Abba Seafood* and *Bumble Bee*. Abba Seafood’s markets are in the Nordic countries, largely Sweden, sourcing primarily herring and mackerel. Bumble Bee’s markets are in the United States and Canada, and its primary product is canned tuna.
- A large integrated processor (i.e. primary and secondary processing): *Trident Seafood* has markets in the United States, Japan, China and Europe.
- One smaller secondary processor: *Janes Family Foods*, whose market is in Canada.
- One distributor: *Supplier A* whose market is largely in Canada, but also the United States. Products are largely from Canadian sources, but product is sourced globally.

All of the suppliers provide product for both the retail and food service markets.

### 6.2 Sustainable Seafood Commitments

The *retailers* interviewed have similar commitments to those of the case retailer. The policies commit to: traceability to catch area, evaluation of the source fisheries, and a more sustainable assortment. Discontinuation of a few products that are considered poorly managed is also widespread. The resulting seafood assortment differs based on the definition of *sustainable* (this is determined with support from NGOs, see 6.2.1) and implementation approach. Certified sources are an explicit commitment for some retailers, and for others a long-term goal.

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<sup>36</sup> Supplier B is a direct supplier to Sobeys’ private label and has been kept anonymous at the request of Sobeys.

Overall, most of the retailers were committing in the long-term to source only certified sources (i.e. ‘MSC or an equivalent standard’). Currently, no retailer interviewed was selling only certified seafood products, although this is an intention of a number of retailers: Royal Ahold, Marks & Spencer, ASDA, Ahold USA, Walmart and Loblaw. The commitment to certify sources was one of the noticeable differences between the case retailer and the other retailers interviewed. *See Appendix I for an overview of the policies.*

The implementation dates and product categories to which the policy applies also range, all apply to fresh and frozen seafood, but some also include grocery products (e.g. canned tuna, dried fish). Loblaw has a unique commitment that applies to all products, including pet food. Within Canada, the retailer commitments were largely made in 2009-2011 and are to be implemented by 2013-2015. American retailers are also more recently adopting policies (2008-2011), apart from Whole Foods (1999) and Ahold USA (2001). European, particularly UK, retailer policies have generally been in place longer than those of the average North American retailer. In the UK, a large wave of commitments came in 2006 after Greenpeace UK’s 2005 supermarket ranking (SCA, 2007).<sup>37</sup>

Most of the *suppliers* interviewed<sup>38</sup> (largely secondary processors) have also committed to a sustainability policy, but this is not likely representative of the industry. For North American processors interviewed, this is a relatively recent trend driven largely by the retail industry. Of the processors interviewed, Janes Family Foods, a Canadian family-owned company, was the only one which was sourcing only MSC product.

### 6.2.1 Defining ‘Sustainability’ Specifications

Sustainability specifications for all of the interviewed actors are based on the evaluation of their product’s source fisheries. The sustainability of wild seafood is primarily related to:

- the population of the fish stock and its ability to reproduce (i.e. grow or maintain size);
- the management of the stock (i.e. precautionary approach, science-based decisions),
- the fishing vessels’ track record of being in compliance with international, national and local laws; and
- the impact of fishing practices on the ecosystem and other species.

The sustainability of seafood is related to the activities of the full fishery; the fish cannot be sustainable if the ecosystem from which it comes is not managed responsibly. While an individual supplier’s fishing methods are important to consider, this is not the only parameter used to evaluate the product. *See Appendix J, which summarizes SFP’s evaluation metrics.*

No actors interviewed suggested that they explicitly included adverse environmental or social impacts throughout the product’s life span in their evaluations of product, such as the carbon footprint of the gear or the total distance the fish product travelled. However, it is possible that these commitments are captured outside of the sustainable seafood policy.

The evaluations of source fisheries are usually conducted by *partner* third parties. ASDA, Tesco, Findus & Young’s, High Liner, Walmart use SFP. WWF has supported Loblaw, Royal Ahold and Marks & Spencer. The New England Aquarium supports Ahold USA. The evaluations provide actors with a way to measure where their products are now and where improvements are needed. Resulting specifications depend on the implementation approach.

<sup>37</sup> In 2005, when the ranking was conducted only Marks & Spencer and Waitrose had full policies in place (SCA, 2007).

<sup>38</sup> It should be noted that the sample interviewed is not representative; they were chosen in part for their commitments and to contrast with the retailer perspectives.

The partner's key role is providing credible expertise. As the Head of Ethical and Sustainable Sourcing at ASDA argues, he shouldn't be the one to decipher differences in the "half dozen different fish-to-eat lists", putting these decisions to an independent body with expertise is sensible (C. Brown, personal communication). Partners can also be important in communicating a credible message. The partner is also chosen because of their relationship to the customer (A. Hilbrands; T. Taylor; P. Uys, personal communication).

## 6.3 Commitment Implementation

### 6.3.1 Data Gathering & Evaluation of Seafood Products

The first task, particularly for the retailers, which have historically had less visibility upstream, is to gain greater transparency of the chain in order to evaluate source fisheries. The degree of transparency varies, but species name, source fishery, catch area and method are usually retrieved through the direct supplier. Like the case retailer, most interviewees agreed that this information is not always easy to gather. It is particularly difficult when supply chains are fragmented, or dynamic, and new products are coming on the market. Once an initial level of transparency is achieved, implementation involves two key tasks: sourcing product with sustainability specifications and ensuring that the product purchased meets specifications.

### 6.3.2 Securing a Supply of Sustainable Seafood

Approaches to securing a supply of sustainable seafood were relatively common among the retailers interviewed. Most were using a combination of approaches. These included maintaining current product selection that met the specifications, selecting a more 'sustainable' source for a fish product over their past source (e.g. from Russian salmon to Alaskan MSC certified salmon), and influencing current sources to become certified or engage in a Fishery Improvement Project (FIP). Discontinuing product was also used in some cases. Suppliers, particularly those that were secondary processors and the distributor, were engaging in similar approaches, but did tend to use influence over current sources, rather than selection.

#### *Selection of a More Sustainable Product*

One approach used was simply purchasing a seafood product that is either certified or has been evaluated to be 'sustainable' by third parties or a specific third party partner. This is how the small niche retailers interviewed, the Big Carrot and Hooked, have approached the issue (see Box 6-1). Sourcing small volumes, they have limited influence over sustainability of the source fishery (M. Kirkpatrick, personal communication). Instead these retailers select product that meets their definition of sustainable. For these retailers certification schemes do not warrant a sustainable product. These actors warned that alignment with a certification scheme can risk credibility and they need to respond to 'sustainability' nuances of each product purchased.

For Hooked, a local fish store based in Toronto, Canada, the seafood is selected based on multiple third party assessments and is purchased by making a connection to local fishermen. Sales staff hold detailed knowledge on when the fish was caught, by whom it was caught and the methods used. Hooked sources all seafood products right from the fishermen to verify fishing methods and source. The product is often purchased the day it was caught. The store manages all of its own transport. According to the owners, the business model with the shorter more flexible supply chain has resulted in competitive prices considering the small volumes, fresher, better quality product and potentially a smaller carbon footprint. However, prices are higher than they would be at a major retailer. The owners believe that in return for higher prices, customers get a better quality product that tastes noticeably better (D. Donovan, K. Donovan, personal communication).

**Box 6-1 A Small Niche Retailer's Approach: Purely Selection**

The Big Carrot Natural Food Market is a long-standing organic food retailer with a single store based in Toronto. The Big Carrot partnered with SeaChoice for its evaluation of source fisheries. The commitment involves purchasing only green listed species and some yellow listed species and ensuring traceability of all fish to source. The Big Carrot recognizes that they have little influence over the actors in their supply chain, so they approached their policy implementation by sole sourcing product from a distributor which was also partnered with SeaChoice and had the same commitment to traceability. The policy has resulted in a change in suppliers and increased prices, but the Big Carrot believes their customers expect the higher prices. The seafood category has also increased sales (M. Kirkpatrick, personal

**Influencing the Market: First Indirectly**

Sustainable seafood is available on the market, but the volume, particular species and the price do not satisfy the mainstream market and large retailers. As a result, large seafood buyers, retailers and suppliers, have exerted some influence. Influencing fisheries or vessels to become MSC-certified or engage in continuous improvement (often through a FIP with WWF or SFP) is done first by informing suppliers of the commitment. The *indirect influence* of purchasing power of major buyers is said to be a meaningful force. A clear example where an actor's purchasing power and commitment have had noticeable impacts is the case of Walmart. Walmart's commitment to source only MSC product has been influential for a number of fisheries. Dick Jones of SFP stated in 2011 that hake, crab, hoki, shrimp and flounder fisheries are all influenced by Walmart's commitment (Blank, 2011). High Liner also mentioned that this was a memorable moment for them as a supplier to Walmart (H. Demone, personal communication). Commitments made by large processors, such as Findus & Young's, are likely to have had similar impact (I. Larsson, personal communication). This form of influence can be particularly meaningful because buyers are referring to a standard set of criteria – MSC certification or a product from a fishery with a FIP. The overall shifting market preference, at least in 'Western' markets, plays an important role in the power of *indirect influence*. This allows other firms to 'ride the wave' of the movement, which has been possible for some of the North American actors as a result of the 'first movers' in the European market.

**Influencing Current Sources of Seafood: The Other Retailers**

Many of the retailers interviewed, particularly those based in Europe, tended to already have long-term relations with their direct suppliers in order to meet food safety and quality demands and as a result of the consolidation of the processing industry. There has also been a general shift toward closer relations to the source to simplify supply chains (C. Brown; J. Gorman; A. Hilbrands; H. Macintyre, personal communication). However, it was cautioned by all interviewees that wild fish products have many different supply chains; some products have more fragmented and dynamic chains.

When *direct influence* is used, it appears to be tied to power and supplier relations. In these circumstances, retailers have worked closely with their first tier supplier, which is said to value their relationship, who then worked closely with its own suppliers to deliver a more sustainable product. The ability for that first-tier supplier to deliver on these improvements is said to be dependent on the power they hold over the upstream supplier(s) (C. Brown; J. Gorman; A. Hilbrands; H. Macintyre, personal communication). Many interviewees commented that their supplier would likely have long-term relations with the source fishery, but few would have a very large portion of the total catch. This is a common restriction on influence. Examples include:

- As already mentioned, *Loblaw* is said to have 40% of the Canadian seafood market and has committed to sell only MSC product by 2013. So, for *Janes Family Foods*, with its market concentrated in Canada, making sure all of its fish products were MSC certified seemed like a necessary change. To secure a supply of certified product Janes selected a new source of salmon that was certified for their salmon burger, and also used direct influence to get its long-term source fishery for Haddock to become MSC certified (T. Janes, personal communication).
- At the reverse end, *Loblaw* notes the challenge of influencing suppliers in the lobster fishery. The majority is exported to the US, and the Canadian market might be 12%, so Loblaw is less than 5% of the market. Loblaw has virtually no share in the overall market. In this case, Loblaw feels it would not matter how close they were to their own supplier; the influence they have is limited (P. Uys, personal communication).
- At *Tesco*, sourcing pole and line caught tuna demands a greater involvement of the buyers. This has required much closer attention to exactly which fishery and vessel they work with. Normally this requires technical staff to go all the way back to the primary processor, and also establish relations with the vessel itself. This is not to negotiate contracts, but to enhance transparency and ensure there are limited trade-offs resulting from their specifications (J. Gorman, personal communication).

While *working with direct suppliers* to achieve product that met sustainability specifications was common, establishing collaborative relationships to work on improving the management of the fishery beyond the direct supplier was not common among the interviewed retailers. Collaborative sourcing approaches to influence product qualities appear more common with farmed product and in instances where the market is heavily consolidated:

- *Royal Abold* has established a long-term, collaborative sourcing contract with their white fish supplier as a result of market concentration, and food safety and quality standards. They have a similar relationship with their supplier for farmed salmon products for the same reasons (A. Hilbrands, personal communication).
- *Loblaw* established partnerships with key salmon farmers as a result of this shift toward the development of a more sustainable product. For the farmers, this allows more security in investments into new methods. Loblaw noted that the commitment for wild product is limited to an extent because of the natural shifts in supply as a result of the ‘vagaries of nature’. Fish is a raw material with a market that naturally shifts with supply and demand. A good example is the excess in the supply of wild sockeye salmon a year ago, which led to a noticeable drop in prices (P. Uys, personal communication).
- *Whole Foods* has also developed their own standards for farmed product, which require the supplier to make adaptations for both quality and sustainability. “Most suppliers wouldn’t want to make the investment in our standards if they weren’t going to be a long-term supplier” (C. Brownstein, personal communication).

In the interviews, there were very few examples of retailers which have invested financially in upper tier source suppliers. Marks & Spencer has a unique example, as a result of their Plan A strategy (see Box 6-2).

**Box 6-2 Marks & Spencer's Plan A**

The implementation of M&S' sustainability commitments through the Plan A strategy has generated funds that M&S uses to fuel more work in the area. Every category has the opportunity to complete a business proposal for sustainability work in a fishery. This fund was used to support the Cornish sardine fishery in moving forward on the MSC assessment (H. Macintyre, personal communication).

**Influencing Current Sources of Seafood: The Suppliers**

Suppliers interviewed, particularly large processors, such as High Liner and Findus, seemed to have an easier time working toward innovations in supply for wild product. The circumstances of processors mean that they have more power in terms of sanctions and rewards. They already have close ties with the source fishery, have long-standing relationships with the primary processor and work closely with upstream suppliers. Very few, if any, purchases are made on spot price. Large processors also have a much more significant portion of the overall catch (H. Demone; I. Larsson, personal communication).

The suppliers interviewed tended to have relationships with all upstream suppliers. In particular, large secondary processors said that they had long-term relationships with their direct suppliers and actors further upstream (i.e. primary processors and fishermen) to influence fishing practices at source and to implement control and verification systems. *Collaborative sourcing* was also said to be common with their direct suppliers for food safety and quality purposes. Similar to the retailers interviewed, purchasing power influence is used to change practices at the fishery, and more informal partnerships are used to share information. For example:

- *Findus Group* has invested directly in fishery improvements, such as the Western Isles langoustine fishery. However, these instances are rare, and the tendency is to use the reward of market opportunity as an incentive without directly investing in the fishery (I. Larsson, personal communication; Fish for Life, n.d.).
- *Abba Seafood* found that there was a lack of information on the primary tuna species used by Thailand-based processors. Abba worked together with SFP and their in-house experts to develop a management plan of the tuna stock. The objective of this work includes alleviating poverty for small-scale fisheries, and Abba has some financial support from the Swedish development agency (S. Buhl, personal communication).

Interview findings suggest that purchasing a volume significant to the specific fishery or a unique product for the fishery is important to influence practices, but purchasing large volumes of the global catch of a particular product is not necessary. For instance, Janes Family Foods is not purchasing large volumes of fish when compared to multinational processors. However, they have shown the influence they could have on a fishery and processors for their Scottish Haddock products. There was initially resistance in going MSC in this fishery, however this was a relatively small fishery, and Janes had developed long-term relationships with this source. Janes was also purchasing a relatively unique product - a smaller fillet that was to be frozen rather than the fresh larger fish. In the end, the threat of no longer being able to sell to Janes convinced the fishery to commit to MSC. Janes was able to be persistent regarding MSC, because they found a possible alternative to their long-time source and the popularity of the scheme is increasing (T. Janes, personal communications).

### **Working Collaboratively with Other Seafood Buyers**

In a number of instances, working with other seafood buyers sourcing from the same fishery has been used as a form of influence. This was an approach taken at least once by most interviewees, however it was much more common among large processors.

- *Loblaw and Marks & Spencer* are working together on a FIP for Atlantic cod off the coast of Newfoundland and Labrador. This was a result of WWF bringing forward an opportunity for many actors (other retailers and processors) to work together, along with the Canadian Government (H. Macintyre; D. Trefts, personal communication).
- In supply chains that are complex and fragmented, *Bumble Bee* has chosen to work with competitors. For instance, Blue Swimming Crab is harvested in artisanal fisheries where the actors in the supply chains are fragmented. The seafood is all collected at a central processing facility, so no single buyer is purchasing a substantial portion from a single fisherman. The project involves a few processors, SFP and also has financial support from the World Bank (M. Kraft, personal communication; Wright, 2010).
- *Abba Seafood* works together with other processors through the Swedish Fish Industries and Trade to improve the sustainable development of the local fisheries (S. Buhl, personal communication).

Another example is a global group of tuna processors. They partnered through the International Seafood Sustainability Foundation (ISSF) - see Box 6-4. The ISSF is working to coordinate and implement the industry's sustainability expectations by influencing action and enhancing control (M. Crispino; M. Kraft, personal communication).

It is unclear, whether collaboration is driven by the lack of power over the entire fishery or the end market orientation. Many interviewees mentioned that the sustainability of the product is not a differentiating factor - customers are not willing to pay more, so it is a minimum standard. Fisheries sustainability is commonly compared to food safety; customers are not going to pay more for a guarantee that the food is safe – they simply expect this of the producer of the product (M. Mitchell; M. Crispino; P. Uys, personal communication).

### **Discontinuation of Product**

Finally, product is discontinued by buyers in two types of situations. The first would be to stop selling species are deemed 'unsustainable', because of NGO pressure or limited opportunity for improvement. The second is a result of suppliers not being responsive to influence. This does result in financial losses. Loblaw and Findus provide good examples:

- The VP for Sustainable Seafood explains that *Loblaw* can rationalize a loss of sales as a result of deselecting a fish product when it is a large business although at the store level it can be upsetting. In response, Loblaw has to demonstrate that customers can be drawn to stores because of its commitment and substitutes must be found. For franchised stores, compensation is considered; those with their livelihood at risk need to be considered. Loblaw acknowledges this is easier for a business with centralized procurement (P. Uys, personal communication).
- In 2007, *Findus* took silver smelt off the market, because too little was known about the fish stock and the fishery was uninterested in undergoing an assessment. It is a popular product for the Scandinavian food service market and has no alternatives. The marketing department was disappointed because their competitor had this product available. However,



deselection was the only option if the brand was going to live up to their widely established principles (I. Larsson, personal communication).

In some situations where deselection has occurred, the end result has been an interest in meeting the specifications. For instance, in the Findus case, the silver smelt fishery is now under MSC assessment (I. Larsson, personal communication).

### **6.3.3 Supply Chain Control & Verification Measures**

One of the key challenges recognized by the case study, and also in broader sustainable supply chains literature, is controlling supplier compliance with sustainability criteria. The retailers in North America are relatively early in their implementation. Therefore, the primary focus is on securing a supply. However, retailers interviewed which were based in the UK and processors, have implemented a number of control measures, which they use in combination.

#### ***Contracts***

All suppliers have to meet a host of specifications that relate to legality and food safety, in addition to the product qualities. So it is common for the issue of IUU or mislabeling to be covered by the contractual obligations implicitly. A number of the interviewees felt that additional explicit reference to the risk of IUU product was not necessary (C. Brown, A. Hilbrands, personal communication).

#### ***Buyer Education & Organizational Alignment***

The buyer's knowledge on the issue was said to be important for control. The buyer should understand the risks associated with various products. For the suppliers, if their buyers understand how each fishery is managed and what potential risks are, then they can detect abnormalities. For instance, knowing when a fishery is closed or what market dynamics affect price can raise questions about product that is being offered (Supplier A; I. Larsson, personal communication). Similarly, organizational alignment is also important. From the supplier perspective, it is difficult when the commitment does not permeate the entire organization. If the only aspect on the buyer's mind is price, then other aspects, won't become part of the negotiation (H. Demone; Supplier B, personal communication).

#### ***Traceability, Transparency & Risk Analysis***

For all seafood buyers traceability is the foundation of control. Currently, information on seafood product is sometimes only taken from the first tier supplier with a paper trail of internal traceability, but the information is increasingly a result of electronic-based and integrated across supply chain actors. Many interviewees suggested that these advancements were being implemented or are foreseeable in the next five years - either in upgrades to their overall supplier management system (e.g. SAP) or a traceability service provider, such as Trace Register (Box 6-3). The latter only require supply chain members to manually enter information rather than integrate a new system (e.g. RFIDs or barcodes).

Some retailers noted two factors that tend to be barriers for mapping the supply chain: the supplier's concern that the buyer will source directly upstream and the complexity of some chains (A. Hilbrands; J. Gorman, personal communication).

A fuller picture of each supply chain step, allows for a better impression of the current level of control and allows for a risk analysis. A risk analysis can then be used to dedicate resources for control measures, which can be targeted based on risk. The risk analysis would be based on (P. Uys, C. Brown, J. Gorman, T. Taylor, personal communication):

- *Supply chain* – beyond the source fishery and vessel’s flag; other considerations are also said to be important. Knowing where fish are landed can give you information to assess whether there are weak port control measures. The steps involved in processing can provide the important points where mislabeling or mingling may occur.
- *Supplier relations* – the level of trust you have in your first tier supplier, and the precautions that it takes, are important to consider. If the supplier is transparent and demonstrates it has control measures in place, the risk is usually deemed to be significantly less. Trust was a product of long-term, positive relations, or alternatively the reputation of the supplier and its commitment to the same standards was another form of control .
- *Economic incentives* – based on the notion that fraudulent practices are more likely to occur when there is an opportunity to benefit from price premium for credence qualities, a number of buyers and technical managers also consider this in their approach. For example, Tesco highlighted that pole-and-line caught tuna currently has a price premium, as a result of the high demand and limited supply. These types of situations should be considered as risks (J. Gorman, personal communication).

#### **Box 6-3 Trace Register**

Trace Register is a traceability service provider which has developed a computer-based system that captures the handling of product across the supply chain on a shipment-by-shipment basis. The system also has the ability to send automated reporting on abnormalities to the system users. The information in the system can also act as a record. Trace Register believes this can also help deter opportunistic behavior in the supply chain. Each actor pays a subscription for the system for their step in the chain. Finally, there is also the ability for this information to be provided to the end customer (Trace Register, 2011; A. Furners, personal communication).

#### **Sanctions**

As already mentioned, sanctions were implicit in all of the actors’ contracts. However, explicit sanctions regarding fraudulent product (e.g. IUU) were rarely used as control measures. In the few examples where sanctions have been used it appears as though it is when buyers work together through explicit collaboration. Collaboration strengthens the impact of the threat of sanctions. There is the example of collaboration across the tuna processing industry where sanctions are used (see Box 6-4). There were also efforts in the Barents Sea cod fishery led by Findus & Young’s, among other European processors, to put an end to IUU fishing through a documentation control system and clear sanctions. This effort also involved a third party, SFP, who acted as an important facilitator (M. Mitchell, personal communication; SFP, n.d.).

#### **Box 6-4 International Seafood Sustainability Foundation**

While many other fishing industries are working on becoming MSC certified, the tuna processing industry felt they also needed to do something to address the core issues that prevent tuna from being considered a sustainable product. Tuna is highly migratory, so it would be difficult to certify and requires cooperation to achieve improvements. In 2008, ISSF brought together 50-60% of the tuna processing market to collaborate on tuna fishery improvements. ISSF has worked to prevent and deter IUU activities. Members are not allowed to have relations with vessels known to engage in IUU activities. If it is found that IUU has entered the marketplace, members must recall the product. ISSF is also working to create a comprehensive vessel registry and a requirement for members to only work with vessels with observers and monitoring systems (M. Kraft; M. Crispino, personal communication).

### **Audits & Testing**

Marks & Spencer, Royal Ahold and Tesco all emphasized the importance of auditing suppliers. This is primarily to ensure that there is full supply chain transparency and to gain knowledge regarding all of the stages of the supply chain, including the source fishery. All of the retailers also regularly test their traceability systems to ensure that there are no breaks in the chain. This measure is facilitated by existing in-house technical staff, which are already monitoring the supply chain for food safety and quality purposes. Sustainability is integrated into their functions. This is said to be much more common in Europe than North America (D. Smith, personal communication), and the findings suggest this.

The large processors interviewed also had audit procedures in place and technical teams. For instance, Abba conducts audits usually to the primary processor level, and then it ensures that each raw material supply can be traced back to a vessel. For most of the raw materials, it also has the vessel name, which allows them to use Norway's electronic database on vessel compliance to ensure none of their product caught in Norwegian waters is affected. However, they have never found a vessel with an issue (S. Buhl, personal communication).

Loblaw suggested that in order to have full trust in the chain, once they are further along in the implementation of their policy, they would consider DNA testing as the ultimate way to monitor their supply chains (P. Uys, personal communication).

### **Third Party Certification**

Many actors have committed to sell only certified seafood by a certain date in part to verify the sustainability of the product. As described in Chapter 3, MSC products must have chain of custody certification. The ecolabel is viewed as a tool for verification. The other benefit of certification is the message can be clearly and credibly communicated to the customer.

### **6.3.4 Working Outside of the Supply Chain**

The importance of including other actors, such as *NGOs*, *governments* and *trade associations*, in the supply chain was demonstrated by every seafood buyer interviewed.

As already highlighted, NGOs play an important role as experts. This type of partnership seems more important for retailers because they are less likely to have this expertise in-house, and they have closer relationships with the end customer who is looking for a third party to verify a credible message. The partnerships seem to last a number of years even combined with in-house leadership. For instance, Marks & Spencer has an in-house Marine Biologist, and Loblaw seeks expertise from a well-known marine scientist and has appointed a VP for Sustainable Seafood. Yet, relationships with a range of third parties continue in order to have different perspectives on the issue (H. Macintyre; P. Uys, personal communication).

All of the interviewees recognized the important role played by government in improving the sustainability of fisheries. If the fishery has sound governance and management systems in place, then the work on the part of industry becomes much easier. Most retailers and processors have engaged with their national governments, particularly to discuss the management of local fish resources. In some jurisdictions, governments will support fisheries certification, either by providing data collection for assessments or directing their priorities and funding toward fishery improvements. For example, Loblaw has support from the Canadian government for the development of a recovery plan for cod off the coast of Newfoundland and Labrador (N. Bouffard, personal communication). Similarly, for processors fishing species that are managed by RFMOs, there is a high-level of active communication with these bodies (M. McGowan, personal communication). In other cases,

lobbying for supportive regulation is the focus. For example, European processors supported the introduction of trade measures to prevent IUU product from entering the market (I. Larsson, personal communication).

In some contexts this dialogue with numerous actors has been formalized. In the UK, the dialogue has been formalized with the Common Language Group established by Seafish, a 'pan-industry body'. The Common Language Group has representation from fishermen, processors, retailers, NGOs, government and regional development organizations. The objective is to achieve agreement on key issues affecting the seafood supply chain, particularly regarding responsible sourcing (C. Brown, personal communication; Seafish, n.d.). In North America, the dialogue is not as broad. Retailers and suppliers work on seafood sustainability issues through the Food Marketing Institute's Seafood Sustainability working group, which has worked on issues such as policy development and traceability (FMI, n.d.; P. Uys, personal communication). In Canada, DFO has also begun to engage the seafood industry in more regular discussions on these issues (N. Bouffard, personal communication).

Developing closer relationships with NGOs and government allows companies to expand their "eyes and ears". The Vice-President Government Affairs of Bumble Bee Seafood explained that establishing open lines of communication with NGOs and government has resulted in relationships with stakeholders which proactively raise issues occurring upstream. This allows for greater visibility of the supply chain (M. McGowan, personal communication).

## 6.4 Common Consequences & Challenges

There have been a number of positive consequences. For Royal Ahold the benefit of having greater transparency across the supply chain has meant that it has better control over the quality of the product and, in some cases, unnecessary actors can be removed from the supply chain. This can result in cost savings that it can re-invest in the sustainability of the product or deliver to the customer (A. Hilbrands, personal communication). Walmart's seafood commitment was also said to have minimized transaction and transportation costs by streamlining the supply chain to include fewer actors (Plambeck & Denend, 2008). However, shortening the supply chain has to be balanced against greater legal complexity. There are benefits to using an importer; they take care of a number of legal responsibilities (A. Hilbrands, personal communication).

Marks & Spencer and Tesco have found that their efforts to promote more sustainable species combined with the NGO and celebrity chef campaigns can result in greater seafood sales, particularly those products that had been less popular (H. Macintyre; J. Gorman, personal communication). Marks & Spencer, ASDA and Tesco all experienced greater sales over the previous year, as a result of Jamie Oliver and the Fish Fight campaign (Smithers, 2011).

Yet, reports of greater sales were far less common than a concern over the loss of sales and tighter margins. Most of the interviewees confirmed the case study findings. For retailers serving a mainstream end market, the price for sustainable products means that they have to absorb some of the costs associated with certification. In some cases suppliers are also absorbing some of this cost (M. Kraft; T. Janes; H. Demone, personal communication). Tighter margins and consumer price sensitivity, especially in the current market downturn, is a challenge. This is exacerbated by the fact that when purchasing certified sources there can be the risk of suppliers taking advantage of the surge in demand and the greater willingness to pay a premium for certification in some markets. As Plambeck and Denend point out in their 2008 article on Walmart's commitments: "Walmart needs to be careful that suppliers do not leverage their new position in the smaller supply base, particularly in times of scarcity" (Plambeck & Denend, 2008). High Liner also believes they are paying higher prices for

certified wild salmon as a result of a limited supply base, although this is likely to change once the Russian salmon fishery becomes certified (H. Demone, personal communication).

To get over this hurdle, interviewees suggested the situation should be looked at as a *long-term strategy* and *short-term challenge*. Rationalizing costs for ‘innovations’ over a number of years makes absorbing tighter margins and losses easier (J. Gorman; P. Uys, personal communication). Customers are likely to become more engaged, and there is the belief that most product will be certified, so there won’t be a different price for certified product in the long-term (T. Janes; H. Demone, personal communication).

Lastly, the long-term outlook raises a challenge without a clear solution: the growing seafood market in Asia could hinder progress. Some buyers stress that if they continue to raise the expectations of raw material suppliers and these growing markets become willing to pay a higher price, there is a risk that long-time suppliers will be lost to a very attractive deal - fewer specifications and standards, but still a higher or comparable price. Seafood is increasingly a global market, and the orientation of the entire market has not yet shifted toward the same standards (H. Demone; P. Uys; M. Kraft; personal communication).

## 7 Analysis of Approaches for Exercising Responsibility

*The case study and other interview findings on the implementation approaches are analyzed using the adaptable analytical framework introduced in Chapter 4. The implications of the findings for the literature on managing sustainability issues in supply chains are also reflected upon in this Chapter.*

### 7.1 Reintroduction to the Analytical Framework

The adaptable analytical framework (Figure 4-8, on p. 27) provides a basis for analyzing the approaches for implementing sustainable seafood commitments.

The framework proposed that there could be *indirect* (i.e. working outside the supply chain to address the issue) and *direct* (i.e. working within the supply chain) approaches to addressing environment or social issues in the supply chain. The direct approaches can be viewed on a continuum from *proactive* to *reactive*. In short, the reactive approaches suggest that the buyer uses the market to meet desired specifications. A proactive approach would necessitate some level of effort to influence and control the desired sustainability aspects, for example through supplier collaboration and/or coercion (i.e. abandon the supplier if they do not comply).

The five different direct ways of working proposed are:

- *Selection* – switching suppliers and products for new ones with the desired aspects.
- *Interorganizational management* – investing additional effort to influence and/or control and verify supplier activities in order to achieve desired aspects in the product.
- *Reconfiguration of the supply chain* – changing actors in the supply chain to exercise greater influence or control over aspects, for instance by shortening the supply chain.
- *Horizontal collaboration* - working with competitors or other buyers to influence aspects.
- *Deselection* – suggests that the product/supplier would be discontinued, and would not be simply substituted by another supplier providing the same product.

The objective of the analysis through the framework is to gain a stronger understanding of the elements involved in different approaches, contextual factors involved in determining the approach used and nature of the challenges. The framework is then adapted to capture the considerations involved in exercising responsibility.

### 7.2 Implementation of Sustainable Seafood Commitments

As was already highlighted in both the case study and the other seafood buyers interviewed, food retailers are working in a number of different ways to implement their seafood commitments. In most cases, this means that *individual retailers are exercising responsibility through multiple approaches for different seafood products* largely as a result of external contextual factors.

#### 7.2.1 Selection: When Available on the Market

The approach taken is influenced by whether a product meeting sustainability criteria and end market expectations is *available on the market*. Where there was a certified, 'FIP' or 'green listed' product on the market for the particular species, accessible through current suppliers, at the right volume, quality and price, many buyers would exercise responsibility through *selection*. This finding is consistent with Kogg's (2009) research findings. A transaction cost perspective and Cox's research on power regimes provide rationale for the contextual factors that shape the approach. The underlying contextual factors that contribute to the decision to take this approach appear to be: *customer orientation*, *power circumstances* and *competitor orientation*:

- *Customer orientation* - in most of the markets, customers expect a sustainable seafood product, but they will not pay a premium for it. This appears particularly evident in the

North American market. This places pressure on retailers to act, but constrains the transaction costs a buyer can incur and the overall resources available for the implementation approach. This customer orientation also provides no incentive for a differentiated approach.

- In many cases, the *power circumstances* would also not allow for a buyer to take a unique interorganizational management approach. The power circumstances should consider *where the impact occurs* and the *supply chain structure* for the individual product. However, the primary impacts currently of concern for seafood products all occur at the source fishery, and because the changes needed for most products are at this level the power dynamics are a barrier. Few buyers, particularly retailers, would represent a significant portion of the catch in a fishery. The buyer demanding any unique sustainability aspects would be expected to pay a high cost, and may be unable to exert influence over aspects.
- *Competitor orientation* – agreed-upon industry specifications can overcome these power circumstances and distribute costs across buyers. If the buyer stays within the mainstream sustainability specifications, the transaction costs associated with delivering the sustainable product are reduced. The sustainability standard becomes the ‘baseline’ specification, and search and information costs are reduced.

Where certified product was accessible, the need for buyers to be concerned about control and verification was reduced. Verification of sustainability aspects was confirmed by the third party assessment and auditing of the fishery’s practices and chain of custody. The need for *verification* of process-related qualities can result in high transaction costs without certification. As agency theory highlights, if the nature of the specifications make it difficult to assess supplier (agent) compliance, then the buyer (principal) can be required to invest in monitoring behavior or developing trust-based relationships with all actors in the supply chain. Certification also provides an additional benefit. For many major retailers, the ecolabel provides a more *credible message* to the end consumer.

These underlying contextual factors appear to contribute to the success of an industry standard. Ecolabelling schemes are often recognized for providing a third party verified message to the consumer, which in turn creates a market-based incentive for producers to invest in sustainability aspects (Constance & Bonanno, 2000; Thidell, 2009). Yet, what is just as important – at least in this case - is that buyers are consistently sourcing a product with the same specifications. The standard makes it possible to make progress on sourcing commitments when in a position of limited influence and a cost sensitive solution is needed.

#### ***No Interorganizational Management Required for Certified (Verified) Aspects?***

As mentioned above, based on the literature on agency theory, because certification provides *verification* of sustainability aspects, this should reduce the need to engage in interorganizational management for control and verification. Kogg (2009) suggests that selection of a product with the verifiable desired aspects would not require interorganizational management. Yet, according to the findings, this is not the full picture. Buyers use certification to verify the sustainability of the product, and the product was considered by many interviewees to be lower ‘risk’. However, in many instances even when the buyer selected a certified product, there were still some control measures, such as audits and traceability tests, which involve interorganizational management. These are put in place to verify the product is from a certified fishery, and for other food safety and quality aspects. Certification is not sufficient to protect their supply chain and buyers want additional assurance, particularly for product that is covered by the retailer’s brand name. This is where food may have some unique qualities. The

food industry faces a number of credence qualities inherent in food products and safety is often already addressed through interorganizational management. In cases where *in-house technical staff* are already engaging actors in the supply chain, it may mean that the added cost of incorporating new aspects into their work is low relative to the benefits. Furthermore, there may also be a lack of trust in the supply chain, which could be as result of the large variety of products a retailer sources and a tradition of an arm's length sourcing strategy.

### **Supplier Selection for Control & Verification of Credence Qualities**

Similarly, Kogg (2009) emphasizes that *interorganizational management* will need to be used to control and verify credence qualities. However, the findings suggest selection can also be used as a form of control. Supplier selection can be used to establish *goal congruence*. This was used by the Big Carrot; they switched suppliers with the same standards to ensure they could be confident that product met specifications. Similarly, other retailers chose suppliers with reputations they could trust. This was one reason why Young's, a processor, invested in supply chain control to deliver a secure product to buyers. This could be an option for those that cannot establish control or verification for themselves. Another approach was to require *traceability* for certain products as part of the selection process.

## **7.2.2 Interorganizational Management: Beyond Current Market Offers**

Most buyers are engaging in *proactive approaches* for some seafood product. Buyers are actively trying to *influence current sources* to engage in a FIP or MSC certification, because they require these species and volumes and want to avoid paying a premium for switching suppliers or competing for a limited supply of certified product on the market. The popularity of a single certification scheme (i.e. MSC) and broad industry support for the FIP process creates a situation of *implicit horizontal collaboration*. The tendency to *use influence rather than sharing risks and rewards* appears possible as a result of the factors already mentioned that support an industry-wide approach. This creates *buyer dominance* circumstances. Buyers do not have to demonstrate relationship-specific adaptations in order for suppliers to innovate on their behalf. In this case, the proactive sourcing approach described by Cox<sup>39</sup> or in the SSCM literature is not necessary to influence sustainability aspects (see Chapter 4). At least, this appears to be the case when buyers want suppliers to participate in a FIP and/or move toward certification.

The role of *implicit horizontal collaboration* is demonstrated by the challenges Loblaw's faces with its unique policy and its ownership of a store banner catering to a distinct end market. Loblaw's policy applies to all products. So, for atypical products such as cosmetics and pet food, it foresees additional hurdles trying to change the market. In addition, Loblaw owns T&T, which is a grocery store banner catering to Canada's large Asian communities. This means that a larger portion of product is imported or is a species that is not commonly requested to meet sustainability specifications. This results in product that is not likely to be certified, and Loblaw can have less influence over these suppliers (P. Uys, personal communication).

The importance of the *power dynamics*, up to the point in the supply chain where the impacts to be addressed occur, and *competitor orientation* as key contextual influences are also clear when contrasting approaches to farmed seafood product. Individual retailers seem more likely to invest in *proactive sourcing* to improve the sustainability of an aquaculture product. The reasons for this appear to be: 1) there is no agreed upon standard that reflects a sustainable farmed product, making horizontal collaboration difficult; and 2) the power an individual actor can have over a farm appears to be greater because even a single retailer can purchase a larger

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<sup>39</sup> Cox suggests that *proactive sourcing*, supplier development or SCM, is a sourcing strategy that involves buyers and suppliers making relationship specific adaptations.



portion of the supply; and since there is a more stable supply, the retailer can sole source product. Yet, because the *customer orientation* is similar for farmed product and aspects are equally difficult to verify upon purchase there is also active industry support for development of certification for farmed product.

Nevertheless, it should be noted that retailers were using a *proactive sourcing approach* at least with direct suppliers for other *associated benefits*. Influencing sustainability aspects is only a small contribution to the sourcing strategy decision. Expectations of continuous improvement regarding food safety and quality, and concentration in the industry for a particular product were also important drivers. A benefit of this approach is that it becomes easier to control and verify aspects. There was also a high-level of *interorganizational management* across the supply chain, even when Cox's strict definition of SCM was not the sourcing approach used. Staff resources are invested in engaging in relationships down the supply chain, because sustainability specifications are *difficult to verify*, and there are other *associated benefits* for food safety and quality reasons. Buyers are also engaging with source fisheries because there is *information asymmetry* with the supplier on the sustainability impacts, and the buyer wants to gain knowledge about them. This requires more active two-way communication. Communication also often involves a *third party*, such as WWF and SFP, to inform discussions and potentially the development an improvement plan (i.e. a FIP).

### ***Interorganizational Management for Control & Verification***

The findings from the interviews with other seafood buyers demonstrated that in circumstances where suppliers were providing a product with uncertified qualities, such as harpoon caught swordfish, a more robust control and verification system was usually implemented. This was explicitly recognized in many of the buyer's risk analyses. Kogg's (2009) framework and agency theory predicted the need for control and verification, potentially through monitoring behavior, when outcome alone cannot be used to ensure performance of the task. In these 'higher risk' cases, one approach is to use *interorganizational management* measures such as: trust in suppliers, building relationships down the supply chain, conducting audits and testing traceability. Factors that supported these measures were:

- Trust relieved the need to control suppliers and was said to be a result of *long-term supplier relations*. It is also important for the supplier to trust the buyer to increase transparency of the chain. This is where *power relations* appear to play a role; an apparent interdependence was often used to explain why the supplier was comfortable with sharing information. (Though this could also be a case of buyer dominance, where the supplier has no choice).
- A shorter *supply chain* was also said to contribute to a greater level of control and fewer resources necessary for monitoring behavior down the supply chain. Supply chains that involved more actors and were more fragmented were the most difficult to control. However, this is usually a consideration in the implementation approach, so *reconfiguration* or *horizontal collaboration* may be used to enhance control.
- Certain actors interviewed, namely Whole Foods, Marks & Spencer and Young's & Findus (a processor), remarked at how this responsibility was part of their company's differentiated position in the marketplace. The belief that this responsibility is *integral to their brand* allows the added costs to be justified as *building brand value*. Their customers are also *willing to pay* slightly more for their products as a result of what their brand stands for.
- The *technical staff* already established for food safety and quality, adapt their skills in many cases to incorporate sustainability-related attributes to their audits. The technical staff also

build relations with supply chain actors beyond the first tier and can gain knowledge about process-related impacts - for instance, by-catch rates of a particular fishing method.

### 7.2.3 Horizontal Collaboration: Working with Other Buyers

Explicit *horizontal collaboration* has also been used in a number of cases, particularly by processors and suppliers, to find effective solutions for influencing sustainability aspects. SFP's FIPs are often a product of collaboration among competitors. SFP's Barents Sea cod and Blue Swimming Crab projects are good examples of where industry competitors have worked together to influence suppliers at the source fishery. These initiatives are closely related to *power dynamics*; competitors must work together to influence the market and are often initiated by the buyer with the greatest market power in the particular fishery. As High Liner's CEO explained, the leadership roles taken by different actors in initiating collaboration on a FIP are determined by the importance of the purchase to a processor's portfolio and its purchasing power (H. Demone, personal communication). It is important to note that collaboration among competitors is often transitional and on a project basis in order to move product either toward certification or a more sustainable status, which could allow for *selection*. Interestingly, the two instances of the use of sanctions to enhance supply chain control arose when explicit horizontal collaboration was implemented. This is likely because 'buyer dominant' power circumstances permitted this to be effective.

### 7.2.4 Reconfigure the Supply Chain: Simplify for Influence & Control

For many of the retailers interviewed, particularly in Europe, there has also been a trend toward *reconfiguration of the supply chain to create a shorter, simpler seafood supply chain*. This makes it easier to exercise interorganizational management for influence and control over sustainability aspects. In the case of sustainable seafood, because the market makes influencing sources relatively easy, this is more important for control and verification of aspects, and influence over other aspects (i.e. safety and quality). So, reconfiguration of the supply chain should be viewed as a general trend, driven by market consolidation, food safety and quality standards.

### 7.2.5 Deselection: A Last Resort?

Finally, *deselection* has also been important for some of the interviewees to demonstrate their commitment and to have indirect influence on the sustainable seafood market. Deselection seems to be used where the pressure is particularly high, and they are not in a position to influence the situation. This is not likely the first choice for any actor as it inevitably results in a loss of sales. On the other hand, for retailers taking a *purely selection* approach, deselection is part of this process, but it is likely that the retailer believes this is the only circumstance that they can (or would) do business. This was demonstrated by the small niche retailers interviewed. This is where their unique end market and internal contextual factors, such as *business strategy*, would likely also have an important role in shaping the approach.

### 7.2.6 Indirect Approaches: An Inclusive Supply Chain for Better Results

In the case of sustainable seafood, the indirect approach is used simultaneously with direct approaches to support efforts to source sustainable seafood. No examples were found where a buyer was only working indirectly. Seafood buyers, retailers and processors are engaging governments, multiple NGOs and scientists, among other actors, in order to facilitate their efforts toward a more sustainable product. Through the indirect measures buyers seek: *expertise*, to *engage the public* and *gain government support* to encourage action and create an even playing field for the sector and suppliers. Kogg (2009) proposed the indirect approach is plausible when: 1) the buyer cannot influence impacts that occur several tiers removed from the buyer, and there is no established industry standard (or certified product is not available); or 2) when the buyer cannot influence impacts and there is no alternative supplier. Kogg also

acknowledged that the indirect approach could be used in tandem with a direct approach. However, it should be underscored that if the industry is under a high level of pressure from stakeholders and if the aspects can be translated into a standard, then it is unlikely the indirect approach would ever be used alone for long. Instead the indirect approach should be viewed as *a likely supplement for direct approaches* to achieve better results. SSCM literature also commonly refers to the need to engage a wide range of stakeholders when addressing sustainability issues in the supply chain (Pagell & Wu, 2009; Brammer et al., 2011).

### 7.3 Challenges Resulting from Difficult Circumstances

The case study and interviews with other seafood buyers offers a glimpse of the challenges related to implementing commitments to sustainable seafood. The most commonly raised challenges were lack of customer engagement (or willingness to pay) and lack of confidence in control & verification. As acknowledged in the case study, these two challenges are interrelated. In fact, the challenges faced by the case study retailer can be viewed as a feedback loop likely rooted in the *customer orientation*. See Figure 7-1, which illustrates this interrelation.

The commonly mentioned challenges are also affected by contextual factors. All retailers are being expected to address sustainability aspects, but all end markets may not be willing to pay for the added production costs associated with the sustainability innovations. Individually, retailers also have limited power to influence the sustainability aspects of seafood. These two factors result in largely *reactive approaches* toward influencing sustainability aspects. Even when the buyers are working proactively to influence current suppliers they are doing this through implicit horizontal collaboration. The market, as a sum of its parts, is raising the ‘sustainability baseline’ to eventually reach a point where selection of a sustainable product (by their definition) is easier.

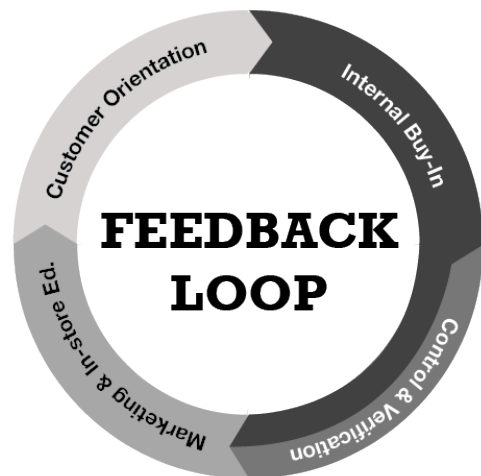


Figure 7-1 Feedback loop of the perceived challenges

This makes the buyer’s role easier on one level, but as the market develops toward a situation where buyers can select a *verifiable* sustainable product, there is a very high demand for limited product. It can be expensive to purchase only certified product while the market is in transition; limited supply increases prices. Commitments to *certified* product also mean that there is a third party actor that can influence product costs. Yet, the alternative – to purchase product that is moving toward sustainability aspects - becomes one that requires control and verification to source. This can be difficult in a long supply chain. Circumstances become particularly challenging where the retailer has not engaged in proactive sourcing, and relationships are adversarial rather than collaborative.

The relationships between such challenges and the retailer’s context are demonstrated when the case retailer is contrasted with a retailer in different circumstances. For instance, Marks & Spencer (M&S) has an end market that values sustainability aspects, which allows M&S to spend more resources on control and verification of aspects. M&S can also purchase more MSC certified seafood even though there can be a significant premium for this product as a result of the limited supply. M&S also has in-house technical staff that are working on a range of issues including food safety and quality as well as social aspects in the supply chain. M&S staff integrate the verification of sustainability aspects with their other tasks and engage suppliers to learn about the aspects at each stage of the supply chain. M&S has also worked

proactively with suppliers on other aspects, so this is said to result in a greater share of long-term, trusting supplier relationships. Contrasting this with the case study highlights the fact that the *end market* and the current approach to *supply chain relationships* and *technical capabilities* make a noticeable difference in the challenges faced.

## 7.4 Context Dictates Possibilities: Key Variables

As is already clear from the analysis, contextual factors have influenced the approaches taken by the seafood buyers. In order to use the contextual factors to understand the approaches taken in other scenarios, key variables can be extracted from the different approaches by examining the logic that would likely take place in determining the implementation approach.

**First, the possible approaches are determined.** The key variables appear to be:

- Supplier/  
product on  
the market** ➤ Is the product/producer with the necessary specifications accessible on the market – at the right *price* and *volume* – among other quality standards? If there is no product on the market, then selection is no longer a possibility. The transaction costs associated with securing the supply of the product increase. A more proactive approach may be necessary.
- Verifiability** ➤ Are the aspects verifiable upon purchase? Are they experiential qualities or is there a certification that can verify aspects? If they are verifiable, and the product is on the market then selection is an option. If the qualities cannot be easily verified, then selection may not be possible. Interorganizational management may be necessary for control and verification. This can be done internally or outsourced.
- Competitor  
orientation** ➤ Are competitors addressing the same aspects? Are they willing to collaborate? If the issue is unique to the company or competitors are differentiating themselves through their approaches, then horizontal collaboration may not be an option.
- Power  
circumstances** ➤ Where the impact occurs, and the relations between the actors in the supply chain, will affect the ability of the buyer to influence aspects. If the buyer does not have influence over the suppliers that determine the sustainability aspects, then a unique proactive approach may not be an option.

**Second, the buyer's resources to obtain a sustainable product are considered.** The key variables appear to be:

- Customer  
orientation \*** ➤ How important are sustainability aspects to the consumer? What is their willingness to pay a premium for the product? If customers were willing to pay associated costs, then buyers can spend more resources to obtain and deliver the product. Each *brand* or *business* will have a particular end market. For instance, a particular brand may *differentiate* itself on these aspects and this could result in more resources.
- Threat or  
opportunity\*** ➤ This can be related to the end market – is action driven by a loss of market share or the opportunity to capitalize on a premium? But there are other factors that dictate if there is an opportunity. Is there a guaranteed payback for investing resources or a calculable loss that might result? If there are opportunities to deliver greater value to the end customer or gain new customers because you have guaranteed pay back (e.g. reducing energy consumption), then a more proactive approach may be warranted.
- Other  
associated  
benefits\*** ➤ Does the future look as though customers and stakeholders will be demanding continuous improvement of aspects? Are there long-term benefits to a particular implementation approach? There can be other reasons to take a particular approach than to deliver on the commitment. If the long-term outlook offers other benefits to justify a more expensive approach, then buyers could invest for associated benefits.

**Third, the cost to deliver the product with these specifications is also considered.** The key variables appear to be:

- Supplier/  
product on  
the market** ➤ Whether the product/producer with the specifications is accessible on the market – at the right *price* and *volume* – along with other quality standards can affect the transaction costs associated with securing the supply. If no product is on the market a more proactive approach may be necessary.
- Power  
circumstances** ➤ If the buyer does not have influence over the suppliers that are in determine the sustainability aspects, then the costs associated with addressing these aspects are likely greater. For instance, reconfiguration may be necessary or offering premiums. This may drive the buyer to consider collaborating with competitors/industry.
- Verifiability** ➤ The verifiability of the aspects could determine whether measures for control and verification are necessary. If the information asymmetry with the supplier is high then control and verification of aspects is necessary. This could increase the costs associated with implementation.
- Supplier  
relations** ➤ The type of relationship the buyer has with actors in the supply chain will affect costs associated with either approach. Long-term trusting relations can enhance control and reduce costs associated with verification. However, it can also mean that a reactive approach may not be an option because changing suppliers can mean losing valuable benefits. Arm’s length relations can make it easier to use a selection approach, but it could be a challenge for verification of aspects.
- Technical  
Competence\*** ➤ If technical staff are already in place to monitor behavior, then this could be a cost-effective approach to implementing control and verification systems. If no technical staff are available, hiring these staff internally may be costly. Other options may need to be considered, such as selecting a new supplier.

*Note: Starred (\*) variables identify those that were not found in the analytical framework.*

The key variables can be viewed on a continuum as supportive of either a reactive approach or a proactive approach, depicted in Table 7-1.

*Table 7-1: Key variables on a continuum of influencing the approach*

Variable	Proactive Approach	vs.	Reactive Approach
<i>Supplier or product on the market</i>	• Product (or suppliers) meeting specifications <i>not</i> on the market		• Product (or suppliers) meeting specifications on the market
<i>Verifiability</i>	• <i>Not</i> verifiable upon purchase		• Verifiable upon purchase
<i>Competitor Orientation</i>	• Competitors are <i>not</i> in a position to collaborate		• Competitors are demanding the same criteria from their suppliers
<i>Power circumstances</i>	• Buyer dominance over or interdependence with suppliers up until the impacts occur		• The buyer does <i>not</i> have influence over aspects
<i>Supplier relations</i>	• Long-term, trusting relationships		• Adversarial relations
<i>Customer orientation</i>	• High value placed on sustainability aspects		• Will not pay more for a sustainable product
<i>Threat or opportunity</i>	• Opportunity to deliver greater value to customers and attract new customers		• Threat of losing market share.
<i>Other associated benefits</i>	• There are other benefits inherent in developing particular suppliers		• There are no additional benefits to working to develop suppliers
<i>Brand</i>	• Differentiated toward niche customers who value sustainability aspects		• Mainstream customers
<i>Technical Competence</i>	• Technical staff already engage with suppliers down the supply chain		• No in-house technical staff for auditing and engaging suppliers

## 7.5 Adaptations to the Framework

*External factors* appear to be more important in determining the approach, at least these were the factors emphasized by the case study and interviews with other actors, and suggested by the theoretical context. In addition to the external contextual factors expected in the framework, others could also have influence over the approach chosen: the *customer orientation*, whether the aspect is a *threat or opportunity* and *other associated benefits* that are expected to result from a particular approach. Even when certified product is an option, reconfiguring the supply chain could deliver benefits associated with cost savings or sourcing local product. Customer orientation was not identified in the theoretical context, but it is implied in much of the literature. It was also suggested by Smith (2008) that the lack of consumer discrimination is one factor that makes businesses collaborate on common supply chain issues.

Yet, these factors are also not surprising as they are indicated by *importance of the purchase* (to profit or supply risk). Customer orientation, threats or opportunities and other associated benefits are related in one way or another with delivering value to the customer. If a more resource intensive implementation approach does not reduce costs, deliver valued (potentially profitable) innovations or secure supply in order to continue to deliver a product then it would seem natural for a more reactive implementation approach.

Additionally, while the *strategic importance of the purchase* and *stakeholder orientation* were not explicitly raised in the findings, these factors are still likely important. These factors may be more likely to feature when comparing approaches in terms of products and operating context. For instance, both of these factors can be seen to a degree when comparing the retailer approaches to processors. The processors interviewed appeared to be more likely to have technical staff, long-term supplier relations and work collaboratively with their suppliers on a range of issues. This was likely because of the importance of the purchase and seafood supply chain to their business. These factors supported these actors in implementing interorganizational management approach for control and verification, and could have facilitated influence over sustainability aspects. Yet, because of the nature of power circumstances in the seafood supply chain, customer orientation and the route of the stakeholder demands (at the retailer) an industry standard approach was still common.

The *internal* factors, largely based on Bowen et al. (2001), said to be supportive of a proactive approach were not indicated to have significant influence in this study.<sup>40</sup> These capabilities were: top management support, cross-functional teams, buyer knowledge on sustainability issues and technical skills, and purchasing policy/procedures. These factors were raised in interviews as being important to implementing *any* approach to addressing ‘sustainability’ issues *effectively*. These factors support the implementation of any approach. However, the role of internal factors shaping the approach should be looked at more closely; a different set of actors, issue or research method could raise the importance of these factors.

Yet, two internal factors that were not identified in the review of previous research appear to be relatively important. These are: *brand* and *technical staff*. Yet, these could be forecast by external factors. If the brand is directed toward an end consumer who values sustainability aspects more than the average consumer, then payback can be more readily guaranteed and the resources it has for implementation are greater. This could mean that there are more resources for selecting a sustainable product, or this could result in more resources spent on influencing aspects. Technical staff can reduce costs associated with control and verification

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<sup>40</sup> The authors also identify *supplier collaboration* as a resource for implementing SSCM and this does appear to be a foundation for a proactive approach to addressing sustainability issues. However, while the buyer’s ability to develop a collaborative relationship is a capability, the possibility for this is also influenced by power circumstances and the supplier’s capabilities.

measures that require interorganizational management. External contextual factors are likely to influence whether the firm has technical capabilities already employed for interorganizational management of other aspects (i.e. quality and food safety), such as *customer orientation*, *supplier relations* and *other associated benefits*. It is also likely that these two internal contextual factors could be an indicator for other internal capabilities (mentioned above).

There are also refinements to the approaches that should be reflected in the framework.

- The findings suggest that *indirect approaches* should be viewed as an option to support direct measures, particularly where there is little control.
- Buyers could also choose selection as an approach even when the sustainability aspects are not verifiable. This is a difference from Kogg’s (2009) framework, but can be explained by agency theory. Selection is possible because buyers use *goal congruence* or *trust* to enhance control over aspects, rather than strictly *interorganizational management*. This however, does depend on the objective of the buyer and potentially the level of risk they perceive from the situation.
- *Interorganizational management* is not only used to influence and control aspects, but buyers are also using it to balance *information asymmetry* associated with the sustainability aspects. Relationships are built with actors in the supply chain also to *learn* about aspects.
- Horizontal collaboration can be *implicit* or *explicit*. Collaboration is implicit when there is a third party aligning approaches through pressure to achieve a standard. Collaboration is explicit where the buyers need to negotiate how to address a particular aspect. This will likely take more resources on the part of buyers. Both types can help support market development, toward one where buyers can use selection as an approach.

The framework is adapted to reflect the findings (Fig. 7-2). However, the factors that were not proven to be of high importance in this research should not be discounted from further research, namely *internal capabilities*, the *strategic nature of the purchase* and *stakeholder orientation*.

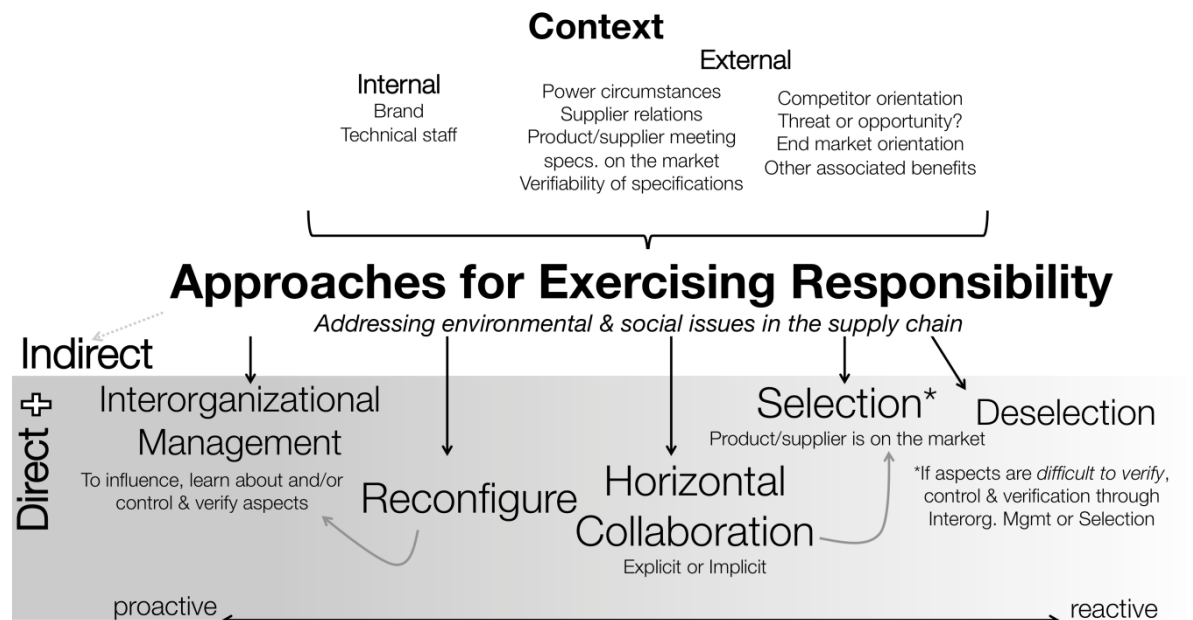


Figure 7-2 Analytical framework for understanding implementation approaches to exercising responsibility in the supply chain adapted to reflect findings

## 7.6 Research Contribution

The findings of this research contributed to the development of an existing framework that captures the range of implementation approaches for exercising responsibility in the supply chain and the key contextual factors that appear to influence the practice of responsibility in the supply chain. The framework developed builds on that of Kogg (2009). The research confirms Kogg's (2009) key finding that the specified *accessibility of product/suppliers on the market* and the *verifiability of the aspects* are key contextual factors that make a difference in the approach taken. The added value of the adapted framework is that it provides further theoretical rationale, identifies some key contextual factors and modifies the approaches.

The research suggests that a single firm can exercise responsibility in a number of different ways even for the same product category. This is because external contextual factors, which can vary from purchase to purchase, play a significant role in influencing the possible implementation approach. The framework also highlights that managing sustainability issues in the supply chain can present new challenges that can inspire new management techniques and influence sourcing decisions. Issues can occur many tiers upstream outside of the sphere of influence of the firm, and these new product qualities are not always valued by the customer and can be difficult to verify upon purchase. This drives the importance of industry-wide collaborative efforts and third party verification, and can require interorganizational management, which can benefit from improved supplier relations and shorter supply chains. These trends are also highlighted by much of the literature on addressing sustainability issues upstream, but not often examined using a theoretical basis (for example see Cramer, 2008).

### *A Portfolio Approach for Sustainable Sourcing*

The focus of the research was not on how addressing sustainability issues in the supply chain can impact sourcing strategy, but the findings suggest that *both* Pagell et al. (2010) and Arnold & Schmidt's (2010) amendments to Kraljic's portfolio should be tested.

With respect to Arnold & Schmidt's (2010) model, the findings and the amendments made to Kogg's (2009) framework appear support their assertion that non-critical, bottleneck and leverage items would be approached using standard industry approaches; ecolabels, industry standards and collaboration. The approaches taken by most retail buyers, although involving a level of interorganizational management for control, do not suggest that sourcing sustainable seafood has meant that buyers collaborate all the way down the supply chain for a product that would be unlikely to be classified as particularly strategic. Their model seems accurate in that stakeholder demands should be incorporated into the product specifications and this will require purchasing to consider appropriate tools available (i.e. ecolabels).

However, the findings suggest it is not so straightforward. It is also relatively common for direct suppliers of seafood products to be treated as partners over the long-term particularly among European retailers and processors interviewed. These relations are *not* often tied to sourcing a sustainable product, as posited by Pagell et al. (2010), or the strategic nature of the purchase. Long-term proactive supplier relations seem to be a result of a number of benefits associated with collaborative relationships. For instance, the close relationship that Sobeys has established with the distributor for its coastal region seafood counters has spanned decades. The relationship appears to be sustained as a result of the benefits that the buyer experiences from the trust in the supplier, transparency and consistent quality. There are many rationales provided in the literature, but it is less clear which is the best fit. In some cases, the food industry faces many risks, consolidation of supply markets, and a drive for increased quality and lower costs and these factors could contribute to the shift toward proactive sourcing. This fits well with Kraljic's portfolio (and TCE). Cox's research, based in RDT, also suggests that,



if the buyer has power over the supplier or a balance of power, then there are benefits in investing in the supplier simply for greater control over the supply. Alternatively, particularly considering the example of Sobeys coastal region supplier relations, potentially the relational view of the firm (Dyer & Singh, 1998), as suggested by Pagell et al. (2010), could help to explain this relationship.

**A Portfolio Approach to Implementing Responsibility?**

The research on updating Kraljic’s portfolio, particularly Pagell et al. (2010)’s research, also suggests that a portfolio based in transaction cost economics and stakeholder theory could be a valuable way to look at how firms approach upstream CSR. If exercising responsibility is analyzed from a portfolio perspective, looking at *risk to supply* on one axis and *stakeholder demands* (with an emphasis on stakeholder salience in terms of impact on business) on the other, then approaches could be separated out as being either *long-term strategic* or *transitional*. A long-term strategic approach would mean that a proactive approach would be more likely used and a transitional approach would mean that a proactive approach is used in the short-term until risks to supply diminish.

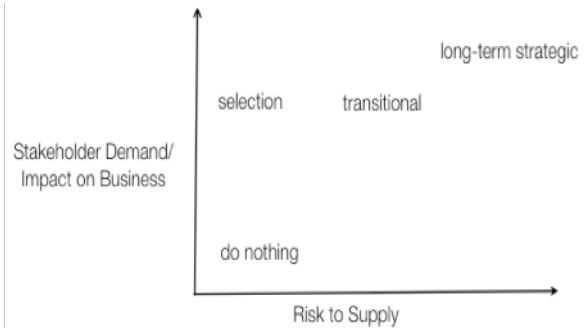


Figure 7-3 Portfolio of implementation approaches for exercising responsibility in the supply chain, developed for discussion purposes

The findings suggest that as a result of *greater transaction costs* retailers, which formerly purchased seafood reactively from an arm’s length supplier, are engaging in new relationships to secure supply. *Stakeholder demands* and greater *risks to the supply* require more resources to be spent on exercising responsibility. For most large retailers some level of *interorganizational management* is needed to secure supply and verify sustainability aspects. For example, in the market’s transition Sobeys has engaged in discussions with fishermen to influence their involvement in a FIP, and Sobeys is likely to specify product from suppliers from particular fisheries in order to support the FIP process. Those who have engaged in relations down the supply chain to enhance communication, control and transparency also base the level of their involvement down the supply chain on risk (to the company).

This is likely a *transitional* approach to exercising responsibility, which can mean going beyond an arm’s length approach to supplier relations in the short-term. In the long-term, it is likely that as transaction costs are reduced (i.e. search and monitoring costs), many retailers will *not* be as involved in the supply chain. The transaction cost perspective explains why a *more* proactive approach is often taken in the transition, but the likely goal is for the buyer to return to a reactive *selection* approach. The nature of stakeholder demands drives this approach; customers expect to have sustainable seafood, but not to pay more for a sustainable product.

Exercising responsibility can also be strategic when firms differentiate their position reflecting stakeholder demands and this would mean that exercising responsibility would more likely be proactive over the long-term. Marks & Spencer and Whole Foods are good examples of firms that are actively working with seafood suppliers on multiple sustainability issues. Both claim to have collaborative long-term relations with the majority of their seafood suppliers, which they explain are necessary for implementing their in-house standards on quality, environmental and social issues (H. Macintyre; C. Brownstein, personal communication). These retailers face both a risk to supply and greater stakeholder expectations (i.e. customers). This emphasizes the importance of alignment with the *business strategy* (or brand) in taking this approach.

## 8 Conclusions

*This chapter summarizes the findings, considers their generalizability, implications to business practitioners and society, and suggests areas for further research.*

The research focused on how food retailers work to implement their sustainable seafood commitments, what challenges they perceive and the contextual factors that play an influential role in determining the approach. The key findings are summarized below.

### ***Approaches to Sustainable Seafood Commitment Implementation***

The first research question was: *how do food retailers approach the implementation of their sustainable seafood commitments?* The research suggests that food retailers are taking a number of different approaches to move toward a more sustainable seafood assortment. There are both *indirect* (i.e. working outside the supply chain to address the issue) and *direct* (i.e. working within the supply chain) approaches to addressing environment or social issues in the supply chain. The direct approaches can be viewed on a continuum from *proactive* to *reactive*. In short, the reactive approaches suggest that the buyer uses the market to meet desired specifications. A proactive approach would necessitate some level of effort to influence and control the desired sustainability aspects, for example through supplier collaboration and/or coercion (i.e. abandon the supplier if they do not comply).

Interestingly, a combination of approaches is used within a single firm as a result of the context and nuances of each seafood product purchased. For instance, a retailer can purchase a fresh, local seafood product from a relatively short supply chain where the buyer has a long-term relationship with all of the upstream suppliers and seafood product from long, dynamic supply chains sourced from large global processors engaged in a number of fisheries. Nevertheless, some generalizations can be made.

*Securing a supply of sustainable seafood* was largely achieved through reactive approaches. Selection of suppliers and/or products that met tightened ‘sustainability’ specifications was common. Implicitly working with other seafood buyers by requiring seafood product to meet a standard definition of sustainability (i.e. fishery improvement project or certified fishery) by a certain date as part of the policy commitment was also widespread.

Explicit collaboration with other buyers was also used to secure a supply meeting tightened specifications. For instance, this could involve working with other buyers to finance an NGO to develop a fishery improvement project. However, this form of collaboration was not as common amongst retailers as it was among the large primary and secondary processors.

On the other hand, for many retailers *controlling* sustainability aspects in the seafood supply chain, particularly where certified product is not accessible, can motivate the firm to go beyond a more reactive approach. Food retailers were working with suppliers to enhance the transparency of the supply chain. They were also often auditing supplier activities and building trust in supplier operations through long-term relations and information sharing. Reconfiguring the supply chain to more easily exercise control product qualities was also widespread. However, there were a number of food safety and quality drivers that contributed to this trend. Notably, although this was less common, supplier selection was also used for controlling aspects through goal congruence and specifications that included traceability.

Indirect approaches that do not involve the members of the firm’s supply chain, such as lobbying governments and working with NGOs, are widely used to support efforts to learn, influence and control sustainability aspects. Research suggests that indirect approaches are

commonly used with more proactive direct approaches. The firm cannot easily select a product or supplier with desired aspects or cannot easily verify aspects so indirect approaches are used to advance the market transformation.

### ***Perceived Implementation Challenges***

The second research question was: *what challenges do food retailers perceive in implementing their sustainable seafood commitments?* The research indicates that the chief perceived challenges are related to the belief that customers are not willing to pay for the increased costs associated with a more sustainable product and the inability to calculate a return on the investment made in implementation. These challenges can restrict resources and support for the policy internally. A perceived lack of customer commitment and a need to maintain competitive prices can also constrain resources for control and verification. Control and verification was also said to be particularly difficult in fragmented and long supply chains, where power circumstances are not favorable and supplier relations are weak. Overall, these challenges were subtler and more easily overcome by firms that viewed sustainable seafood as an opportunity. This was largely because more resources could be devoted toward these activities and they had already invested in capabilities to manage other aspects.

### ***Key Contextual Factors Shaping Implementation Approaches***

Finally, the third research question, focused on the variables that shape the implementation approach: *what contextual factors play a role in influencing the implementation approach?* The research suggests that largely external factors appeared to play influential roles in determining the implementation approach. The key factors identified were: the extent to which that firms end market values the sustainability aspects; the power circumstances of the buyer in the supply chain down to where the impacts need to be addressed; the relationship with suppliers; the common interest among other buyers purchasing the same product or working with the same suppliers; whether product or supplier meeting the specifications was accessible on the market; and whether they are credence product qualities. Two influential internal factors were also identified; these were the brand or business strategy and the firm's technical competence. Combinations of these contextual factors appear to affect what implementation approaches are possible, what resources are available for implementation and what the expected costs (and benefits) are for a particular implementation approach.

A number of internal resources, such as top management support, business strategy alignment and buyer knowledge, were identified to be supportive of implementation. The extent to which these factors influenced the approach was not clear, but it is probable that these factors are supportive of a more proactive approach. Further research should look more closely at the role of internal contextual factors on influencing the approach.

## **8.1 Generalizability of Findings**

The findings from the research are expected to be applicable for other large food retailers, particularly those operating in North American and European markets, committed to sourcing sustainable seafood. The ability to generalize is largely a result of having strengthened the case study with interviews with other seafood buyers and a close study of contextual factors.

When looking at approaches for exercising responsibility in the seafood supply chain in relation to the broader subject of managing sustainability issues in supply chains, there are a few factors that make this research focus unique. First, the research concerns *food products*, which can already have a high level of buyer-supplier interaction in supply chains for food safety and quality purposes. Second, *wild seafood products* are part of a rare group of commodities that are naturally grown and regulated. Seafood's *source* is also a very important

determinant in whether it is sustainable. Third, *retailers* are also unique actors when compared to product manufacturers. Retailers have a significant variety of products that they purchase. Deselection without choosing a substitute is an option. The context could be very different for mid-chain actors and manufacturers.

Nevertheless, the findings are supported by existing literature and confirm a number of findings that result from research on different types of firms. Kogg (2009) studied the implementation of upstream CSR by textile manufacturers, and many of her findings are relevant. So, the applicability of the research findings is worth testing. It seems plausible that the findings could be relevant to different products and buyers, particularly those sourcing global raw material commodities.

## 8.2 Practical Implications

The research can also be used to provide practical insights and recommendations for businesses struggling with the challenge of addressing sustainability issues upstream. Reflections from a societal perspective and suggestions for policy-makers are also included.

### 8.2.1 Recommendations for the Case Retailer

The research originated from an interest Sobeys had in understanding approaches for control and verification of sustainability aspects, specifically for ensuring no IUU caught product was inadvertently purchased. Through a better understanding of their context, approaches taken by other seafood buyers and contextual factors that can limit options, the following are potential opportunities to limit the risk of purchasing fraudulent product:

- *Drive forward transparency and conduct a risk analysis.* The information Sobeys has on source fisheries is an improvement to what was known just a year ago, but more data must be gathered. The steps in each product supply chain will be important to conduct a risk analysis and this is important for determining the most appropriate control measures.
- *Leverage interdependent local supply chains for control and customer engagement.* Reconfiguring supply chains to provide locally caught and regionally processed product presents opportunities on a number of levels. Coastal regions have relationships with local distributors and stronger oversight over product. Sobeys could gain greater control over supply chains if more local product could be sourced to central seafood counters. Not only would there be greater oversight, but there could also be unique consumer engagement opportunities. Local product that is engaged in a FIP tells an interesting story, which would demonstrate Sobeys policy in action. The product could also stress benefits that consumers care about. Creating a relationship between local fishermen and the consumer appears like a win-win opportunity. As the Future of Fish project highlights, in order to engage consumers campaigns need to: “simplify the choice, make it personal, focus on the positive, simplify supply systems and reinvent the consumer experience”(Discovery Group, 2009).
- *Actively search for suppliers that share your policy objectives and are willing to share information.* Where interorganizational management may require too many resources and relationships are not ideal, goal congruence and trust based on reputation with select suppliers may be one way to deliver product that is from a more secure supply chain.
- *Support collaborative efforts to enhance control and use traceability tools in ‘high risk’ supply chains.* Tuna products often have complex global supply chains. Few retailers will be in a position to develop auditable supply chains in these circumstances. Specifying that tuna brands commit to ISSF is an opportunity to support the work that these processors are doing to

eliminate the risk of IUU in their supply chains. Another option is to consider traceability services, particularly for products where there is a commercial incentive for fraud. However, traceability *without verification* means that opportunistic behavior can still occur.

- *Engage other buyers and government* in a discussion on how IUU product can be more effectively deterred from entering the market. Collaborative efforts to control the supply chain appear to be an opportunity for North American retailers and governments to work together because there appear to be limited measures targeting this issue by either actor.

### 8.2.2 Transferable Lessons for Managing Upstream Sustainability Issues

Some *transferable lessons* for retailers and potentially other businesses sourcing other raw material commodities can also be drawn from the case study and interviews:

- *Internal agreement and capabilities*, such as buyer knowledge, top management support, appear to be important in making the commitment and implementing it effectively. This supports the findings of a number of other researchers.
- *Transparency of the supply chain* is important for a risk analysis as well as an understanding of the power dynamics of the supply chain in order to understand which implementation approaches are possible.
- *Standards and certification schemes* support buyers in overcoming power dynamics and may be a cost sensitive approach. *However, these tools do not negate the need to acquire knowledge and exercise control.* Certifications schemes need to be continuously improved and held accountable, not all decisions made by the schemes may fit with the policy principles.
- *Creative ways to engage consumers are needed to overcome cost sensitivity.* Finding an implementation approach that fits with consumer values and addresses aspects that customers are willing to pay for is likely to be more effective at moving toward more sustainable products. For instance, if consumers are willing to pay more for local product and there are opportunities to reconfigure the supply chain for more control then this should be reflected in the strategy.
- *A more inclusive supply chain is likely necessary for better results.* Collaborating with experts, NGOs, government and competitors is important to expand ‘eyes and ears’ and create a better context for transitioning markets for transformation.

### 8.2.3 Implications for Society & Policymakers

The research did not study the effectiveness of the approaches for safeguarding seafood resources. Yet, still, some reflections on the research findings are warranted on what this research highlighted for a society that is struggling with countless sustainability issues.

#### ***Certification is Important, but Has Drawbacks***

From a large retailer’s perspective, certification schemes are arguably critical for moving a number of raw materials toward sustainability. Yet, there are drawbacks that are worth noting in order to consider how they might improve. Drawbacks include that schemes do not often include all sustainability aspects, for instance a total life cycle perspective is not considered in MSC nor are social aspects (Thrane et al., 2009; Jacquet et al., 2010). Schemes can also risk credibility because accreditation is a business (Jacquet et al., 2010; Gulbrandsen, 2009; Smith, 2011). In addition, schemes can be costly and negatively affect small producers as the costs can be prohibitive and require capabilities found more readily in larger producers (Goyert et al., 2010; Iles, 2007; Ponte, 2008). These criticisms are specific to MSC, but are shared with other schemes for other products, such as FSC and fair trade coffee schemes (Ponte, 2008).

### **Shared Value? The Importance of Business Strategy**

One of the most striking interviews while conducting this research was with the owners of a local seafood store called Hooked. The interview underscored the importance of business strategy in presenting limitations or opportunities for selling a product from a sustainable supply chain. As detailed in Chapter 6, the seafood at Hooked does cost more, but the owners contend that the product is locally caught and the supply chain is shorter, so product can be delivered the same day it was caught, which can deliver a higher quality and more certain product (D. Donovan, personal communication).

For the wealthier portions of the world population, consuming *less* seafood, at a higher price to secure both *environmental* and *social* aspects, is likely part of the solution to a more sustainable product over the long run. Yet, major food retailers or processors are not likely able to take this approach. From a systems perspective, the business model - the volumes, distribution, stability in prices, measurements of success and focus competing on price - presents significant barriers. While the steps taken by the actors interviewed are all applauded, as huge advances have been made, this does raise the question of how much progress is possible before business models must be revisited?

Porter & Kramer (2011; 2006) suggest a new business philosophy must be embraced, which they call *shared value*, and it underscores the heart of this problem. They state that shared value involves “creating economic value in a way that also creates value for society”, and this can be done by “reconceiving products and markets” and “redefining productivity in the value chain” (p.7). Much of what is suggested is what might be found among firms which see *opportunities* in exercising responsibility. However, the authors leave it relatively unclear how businesses will make this radical transition smoothly, and without going out-of-business in the short-term. More research is needed on how mainstream, price-focused firms can effectively address sustainability risks with the same enthusiasm and long-term strategies as they respond to opportunities. Government policy has a role in this, which Porter & Kramer acknowledge.

#### ***A Need for Even Playing Fields: Government Measures***

The increasing role for private actors to contribute to addressing sustainability issues does not negate the role of government. It is very difficult to ensure that the whole market shifts toward more sustainable practices when the industry is diverse and global. The food service, restaurant sector and increasing consumers in China and South East Asia were said by interviewees to be showing fewer signals that they are destined for the same shift. This emphasizes the important role of government regulation and international cooperation. Government action is also necessary to prevent IUU from entering markets; trade measures may be necessary to create an even playing field. This may be the case for many risk-based sustainability aspects. Creating forums for discussing the specific barriers facing buyers in moving toward sustainable supply chains could also help to identify opportunities for government measures could add value.

### **8.3 Future Research**

To improve and build upon the research conducted in this thesis, the framework could be tested further to look at the applicability for different contexts and issues. Future research could also study the role of internal capabilities in influencing approaches. This was a weak point of the research design and these should be studied more closely. An embedded case study method might be more appropriate for this. Studying the evolution of implementation approaches over time could also help to understand the factors that contribute to approaches. The research could also be strengthened with a better understanding of the perspective of the suppliers on the implementation approaches to verify how they interpret the approaches.

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## **Glossary**

**Bycatch** “Fish or other fauna (e.g. birds or marine mammals) that are caught during fishing, but which are not sold or kept for personal use. In commercial fishing these include both fish discarded for economic reasons (economic discards) and because regulations require it (regulatory discards).” (OECD, 2001).

**Flags of Convenience** refer to states that operate ‘open registers’ for vessels to use their flag. This is where there are no citizenship requirements to flag a vessel. The flag of the vessel sets the legal obligations by signing international agreements and setting domestic regulations. States that offer flags of convenience also often have minimal legal obligations for ship owners, and these states are also often non-joiners of RFMOs (HSTF, 2006; DeSombre, 2005).

**Fish stock** “The living resources in the community or population. Use of the term fish stock usually implies that the particular population is more or less isolated from other stocks of the same species and hence self-sustaining. In a particular fishery, the fish stock may be one or several species of fish” (OECD, 2005.).

**Fully exploited** “the fishery is operating at or close to an optimal yield level, with no expected room for further expansion” (FAO, 2010).

**Overexploited** ”the fishery is being exploited at above a level which is believed to be sustainable in the long term, with no potential room for further expansion and a higher risk of stock depletion/collapse” (FAO, 2010).

**Trophic level** “the classification of natural communities or organisms according to their place in the food chain. Green plants (producers) can be roughly distinguished from herbivores (consumers) and carnivores (secondary consumers)” (OECD, 2001).

## Appendix A: List of Interviews

*Interviews all took place during the summer of 2011. Interviews were 30-minutes to 2-hours, but were usually 1-hour. A sample of the interview questions can be found in Appendix B and C.*

Affiliation	Name	Position	Date
Sobeys Inc.	David Smith	VP Retail Strategy & Sustainability	May 12; June 1; June 17; July 26
	Shawn McMurter	National Procurement Seafood & Meat	July 6
	Graham Greenlaw	East Coast Region, Sustainable Seafood	July 6
Sobeys Suppliers	Supplier A	VP Import/Export, North American Distributor	June 24
	Supplier B	Environmental Coordinator, Large International Supplier	June 23
Loblaws	Paul Uys	VP Sustainable Seafood	June 29
Whole Foods	Carrie Brownstein	Seafood Quality Standards Coordinator	July 27
Ahold USA	Tracy Taylor	Procurement Manager	June 23
ASDA	Chris Brown	Head of Ethical and Sustainable Sourcing	July 28
Royal Ahold	Aldin Hilbrands	Senior Manager, Product Integrity	June 22
Marks & Spencer	Hannah Macintyre	Marine Biologist	July 11
Tesco	Jonathan Gorman	Trading Law and Technical Manager	July 12
Hooked	Kristin Donavan Dan Donavan	Fishmongers & Owners	August 26
Big Carrot	Maureen Kilpatrick	Standards Manager	August 4
Janes Family Foods*	Tom Janes	Director, Corporate Sustainability	July 14
High Liner*	Henry Demone	CEO	June 29
Trident Seafood*	Katie Enarson	Sustainability Specialist	July 11
Bumble Bee, USA*	Mike Kraft, Mike McGowan	Director – Sustainability, VP Government Affairs	June 21
Abba Seafood	Solveig Buhl	Food Safety Auditor & Coordinator	July 6
Findus Sverige	Inger Larsson	Sustainability Director	June 21
Young's Seafood	Mike Mitchell	CSR Director	July 18
ISSF	Mike Crispino	VP Communications & Research	July 22
Sustainable Fisheries Partnership	Kathryn Novak	Sustainable Fisheries & Markets Program Manager	June 14
Greenpeace Canada	Sarah King	Ocean Campaigner	June 14
WWF Canada	Monica Da Ponte Deb Trefts	Director, Strategic Partnerships Sustainable Seafood Specialist	July 8
Department of Fisheries and Oceans Canada	Nadia Bouffard	Directorate General	July 13
Canadian Food Inspections Agency	Karen White	Fish Policy Officer	August 10
National Marine Fisheries Service, NOAA	Rebecca Lent, Greg Schneider	Office of International Affairs	June 29
European Commission	Desiree Kjolsen	Directorate General Maritime Affairs and Fisheries	July 13
Trace Register	Andy Furner	VP Marketing & Business Development	June 15

\*These are suppliers to Sobeys, along with many other retailers within Canada or across North America.

Note: Many other actors to be interviewed, particularly retailers in the United States and Canada, were contacted, but did not wish to participate.



## Appendix B: Sample Case Study Interview Questions

*The questions varied depending on the actor, but these questions provide a sample of those directed at Sobeys management involved with the development and implementation of the Policy.*

1. What have your roles at Sobeys involved? Where in the organization are you 'located'?
2. Is the seafood category of strategic importance to Sobeys?
  - a. Why?
3. How many buyers are purchasing seafood for Sobeys across the country?
  - a. How are they distributed in the organization?
  - b. Do they work together to buy in larger volumes?

### Sustainable Seafood Policy

4. How did the sustainable seafood policy first arise on the management agenda?
  - a. Who drove the development of the policy?
  - b. What stakeholders pushed this forward?
5. Why is it important for Sobeys to procure sustainable seafood?
6. As a buyer what are the benefits and drawbacks of not choosing to source 100% MSC certified product?
7. What implications would there be to de-list all red list species?
  - a. Are some of these products key to your assortment? Which ones?
  - b. Are there factors that make it harder for you than for UK retailers?
8. What 'sustainability' data do you have available for buyers to make decisions?
9. How are buyers considering the data acquired from suppliers in purchasing decisions?
  - a. Are there incentives for purchasing sustainable product?
10. What do you foresee as the major barriers for Sobeys to overcome in the implementation of the procurement strategy?
11. Is there enough 'sustainable supply' available on the market for the products you sell?
12. To what extent do you think influence will allow you to shift fisheries to sustainable improvement projects?
  - a. What types of suppliers will you target for fisheries improvement projects? (are there certain fisheries where you have longer/closer relations? or purchase a lot of their total supply?)
13. What changes do you foresee in the way you work with suppliers as a result of the sustainability policy?
14. How do you think that Sobeys will ensure the product that they purchase meets their sustainability specifications? How can you verify supplier data?
15. How do you think Sobeys can ensure it does not purchase product from illegal sources? Or no illegal sources are mingled with the other product?

### Supply Chain Dynamics

16. To what extent is the competition of fish products global vs. regional?
  - a. Is there any advantage that you have being a retailer in Canada to access the Canadian seafood fisheries? If yes, why is there this advantage?
17. What types of suppliers does Sobeys interact with directly (e.g. fully integrated suppliers, distributors, fish processors, fishing vessels)?
  - a. Does it depend on the product? Examples?
18. Do you have a lot of suppliers for each category to ensure a continuous supply? Or do you tend to work closely with a single supplier for each key product?
  - a. How might this differ for seafood than for produce?
19. In what ways is the supply chain dynamic? For instance, at what point in the chain are vendors changing (if at all)?
20. How would you characterize the types of relationships you have with your seafood suppliers?  
Some long-term relations?
  - a. How often do you interact with the suppliers? In what ways do you collaborate?
  - b. What role does trust play? Is it becoming more important?
21. How far down the supply chain can you “see” – could you depict the key features for an important wild fish product (e.g. wild salmon or haddock)? *\*e.g. type of suppliers, # of suppliers, markets they serve, number of production steps etc.*
22. Do you think that this is typical for the seafood products?
  - a. If they differ, could you characterize the types of supply chains?
23. Would it be easy for you to find an alternative supplier for most of the seafood products?
  - a. What about an alternate fishery? (are there some fisheries that don’t have competitors and therefore are harder to influence?)
24. Do you think that the structure of the fish/seafood industry makes it:
  - a. More or less difficult to find sustainable product? Why?
  - b. More or less difficult to influence and/or control the actions of suppliers? Why?

**Thank you so much for your time!**

## Appendix C: Sample Interview Questions for Other Seafood Buyers

*These questions were revised for each interview, depending on the relevance. The interviews were also semi-structured, so other topics raised by during the interviews were frequently covered in addition to the questions included in this sample.*

1. What does your role involve?

### Supply Chain Features & Securing Supply

2. Where are your major seafood products sourced (geographically, e.g. Barents Sea)?
3. Can you describe the key features of one of your company's wild caught fish supply chains:
  - a. Rough # of direct suppliers
  - b. Types of suppliers (in proportions - fishing vessels, distributors, processors)
  - c. Key geographic locations of your major suppliers (and then their suppliers?)
  - d. Range in relative size of suppliers (in terms of market power for the product)
  - e. Average timeframe of contracts
  - f. Average timeframe of relationships (supplier turnover)
4. Is this typical?
5. Is the competition for your major fish supplies global or regional?
6. Given the limited supply of fish products available and particularly for 'sustainable sources' – are fishing vessels increasingly having greater power over the product qualities and price?
7. How do you source sustainable seafood? Is it a matter of selecting a sustainable product or do you need to influence suppliers activities?
8. How do you influence the market for sustainable fish?
9. What constrains your influence?
10. What challenges do you face in implementing your sustainable seafood commitment?
  - a. Do you face challenges in securing a supply of sustainable product?
  - b. What are the challenges associated with securing a supply of sustainable product?
11. Why did you choose to commit to certification of all seafood product by X date?
12. To what extent can you trace your fish product to the vessel and catch location/time?
  - a. If yes, is this a recent development? How did you do to achieve this?
  - b. If not, what are the barriers?

### Measures to verify product & avoid IUU

13. Do you consider the risk of IUU in the supply chain an important issue for your company? Why?
14. How do you attempt to prevent IUU from entering the supply chain? Does it differ by product category?
  - a. Directly – sourcing approach and/or working with suppliers
  - b. Indirectly – lobbying and/or supporting efforts by other actors
15. How do you verify the product meets sustainability specifications (e.g. is the species you ordered, was caught by a certain method)? Similar approach?

16. If directly, what measures are used and how far do they apply in the chain:
  - a. Product/supplier selection
  - b. Policy/Code of Conduct
  - c. Contracts
  - d. Development of suppliers
  - e. Monitoring/auditing of suppliers
  - f. Evaluation
  - g. Other measures?
17. Why did you choose these measures?
18. Do you conduct a risk analysis on your products? What is it based on?
19. How has your approach toward control and verification evolved over time?
  - a. Have you tried anything in the past that has not worked?
  - b. Or has been too resource intensive?
20. To what extent do you believe your measures are effective?
  - a. Strengths
  - b. Weaknesses
21. Is your work to secure the supply chain considered expensive within the company?
  - a. How is the cost rationalized?
22. How did industry collaboration arise with the issue of IUU? Would industry collaborate in other fish products to prevent IUU?
23. How do you decide to collaborate with industry/competitors on sustainability issues?

#### Role of Government and Other Actors

24. How has the government policy/law affected your work?
25. What do you think the role of government is in this matter?

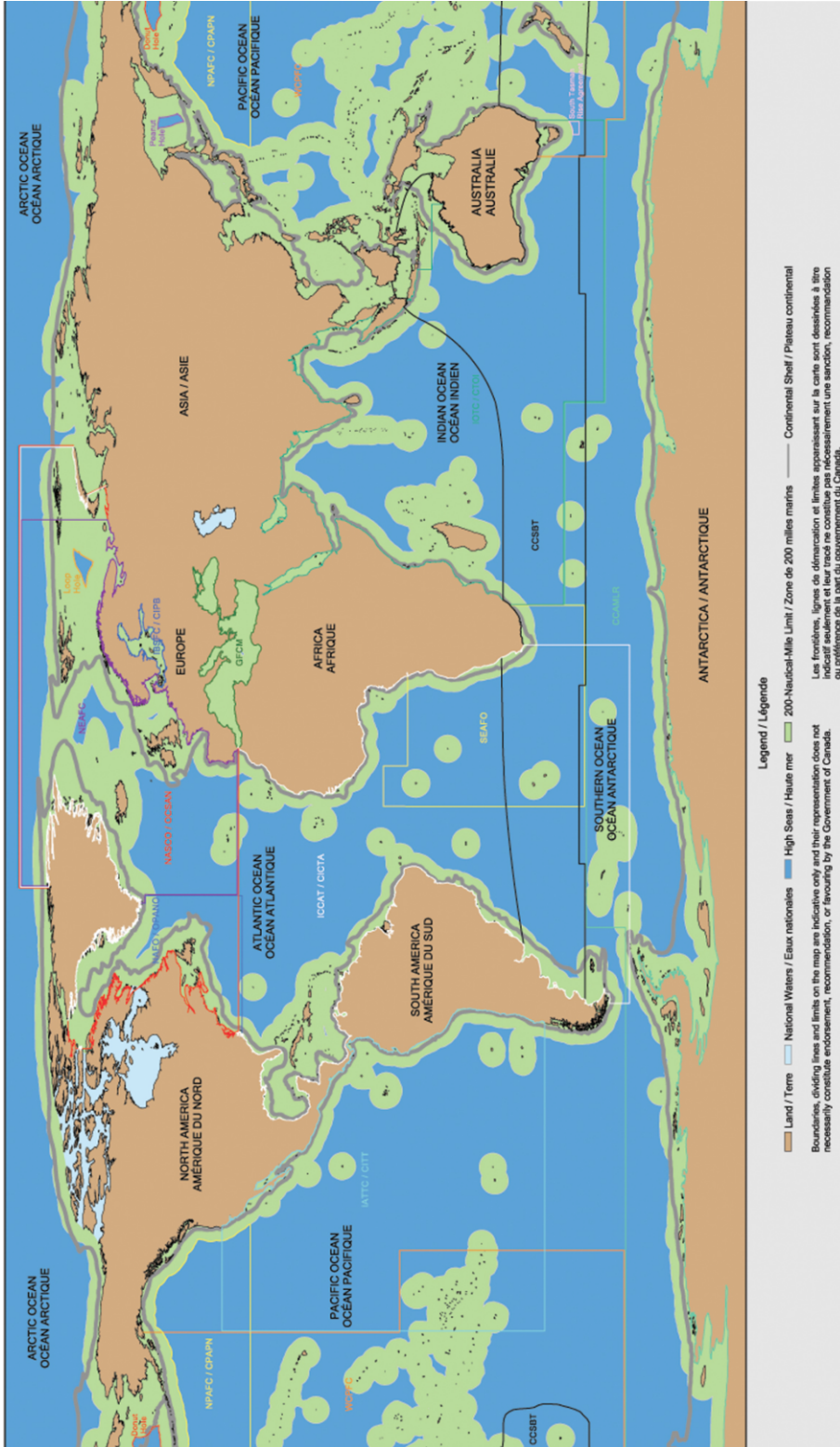
#### Contact Recommendations

Is there anyone you recommend that I contact on these issues?

Would you be willing to provide me with a contact in your supply chain to discuss this issue?

**Thank you so much for your time!**

## Appendix D: Map of RFMOs



Source: Regional Fisheries Management Organizations. Government of Canada. Retrieved from: <http://www.dfo-mpo.gc.ca/international/images/200-mill.jpg>

## Appendix E: Government Led Measures to Address IUU

*This provides a brief summary of government or public measures to address IUU.*

### International Measures

Efforts by multiple governments either in the forum of the UN FAO or other international forums include:

- *FAO* - the 2001 International Plan of Action to Prevent, Deter and Eliminate IUU Fishing recognizes the role of ‘flags of convenience’ in the IUU challenge and encourages states and RFMOs to introduce their own national plan of action to eliminate IUU. The Plan also identifies a potential role for port state and trade-related measures (FAO, 2001).
- *RFMOs* – in early 2000s many RFMOs implemented catch documentation schemes<sup>41</sup>. Schemes provide catch data to the RFMO, as well as traceability of the catch to a source fishery and validation that a catch is in compliance with the law. The scheme works through requirements for all contracting parties to the RFMO to validate their flagged vessels’ catch data and require fish covered by the scheme entering their market present documentation on import. Most RFMOs have also established positive and negative vessel lists, and members of RFMOs are also encouraged to use trade measures to prohibit vessels operating illegally from landing product (Sutinen & Roheim, 2006).
- *Task force of Multiple Nations* - the High Seas Task Force on IUU ran from 2006-2008, which outlined an action plan for committed nations to follow to eliminate IUU practices on the High Seas. Actions focused on opportunities for collaboration (HSTF, 2006).

In 2009, the FAO Port State Measures Agreement resulted in 92 nations agreeing to put in place measures to close ports to vessels that were suspected of conducting IUU activities. Though there are weaknesses in that it relies on compliance by port states and without consistent measures across regions it won’t have the intended impact (Flothmann et al., 2010).

### National Measures

On the national level, the EU is the only market that has implemented strict measures to address imported product. In 2007, the EU introduced its regulation on IUU, which came into force in 2010, requires authorized catch documentation for all wild seafood products entering the EU (processed and fresh). Each country must authorize catches by boats under their jurisdiction as legal (EC, 2007; 2008; 2009). See below for more details on the EU’s IUU Regulation.

The US also has some notable measures in place to deter IUU. The Lacey Act amendments made in 1981 make it illegal to possess fish products that violate international laws. The Act is applied to deter US citizens from processing or selling IUU caught fish products (HSTF, 2006). The Magnuson-Stevens Act enacted in 2007 requires the National Ocean and Atmospheric Administration (NOAA) to identify countries with vessels that engage in IUU. The US then works with the country to introduce corrective actions. Those who do not cooperate may face prohibitions of import of certain fisheries products (Lent, personal communication; Lent, 2009). As part of the Dolphin Protection Consumer Information Act, a Fisheries Certification of Origin has been required since 1990s for all frozen and processed tuna imports in order for each product to be traceable back to the vessel and catch area (NOAA, n.d.).

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<sup>41</sup> Examples include: ICCAT has a scheme for bluefin and bigeye tuna, and swordfish within their management areas, and CCAMLR has one for Patagonian toothfish (Roheim & Sutinen, 2006).

## The EU Regulation to prevent, deter and eliminate IUU fishing

The EU regulation (EC No. 1005/2008) to prevent, deter and eliminate IUU fishing (the IUU Regulation) was introduced September 29, 2008 and came into force January 2010. The EU Community believed their market was vulnerable to IUU products (along with most markets), because the Community imports significant amounts of fish products (16 billion Euros in 2007), processed products are roughly half of the imports and there is demand for high value fish product (EC, 2009).

The EU IUU Regulation applies to all *wild* fish products entering the EU market in any means of transport, including processed product fished in Community waters and flown into the EU. The key measures are (EC, 2009):

- Traceability through a catch certification scheme;
- Port state control measures for third party vessels, EC or third country vessels known to engage in IUU activities, non-cooperating third party vessels;
- Community Alert System to focus verification activities on risk situations; and
- Harmonized system of proportionate sanctions for infringements.

The EU catch certification program is the primary control mechanism to ensure that the products entering are legal. This requires the authority in the flag state of a vessel to authorize that the catch entering the EU market is legal. Then there are Port Controls for fishing vessels and controls respecting the documentation, which include prior notification.<sup>42</sup> The Ports will inspect 5% of landings based on risk (EC, 2009). Flag states still remain the ultimate authority when a product or a vessel is deemed to be engaging in IUU activities.

The EC contends the IUU Regulation is not considered as a trade barrier for a key reason, unlike the Tuna-Dolphin cases brought forward against the US in the 1990s the EU Regulation does not impose any new conservation measures. The Regulation is focused primarily on ensuring that the product entering the market is in line with existing management laws. It is also built upon existing management schemes introduced by the RFMOs; catch documentation schemes (EC, 2009).

### *Implementation*

Anecdotal implementation impacts according to the Implementation Director with the European Commission include: importers of processed product changing suppliers; and flag nations registering fleets of artisanal vessels (D. Kjolsen, personal communication). Interviewed EU-based retailers commented that the Regulation supported their work and minimal direct impacts resulted from its implementation, these primarily fall on their processors (C. Brown; H. Macintyre; J. Gorman; A. Hilbrands, personal communication). Interviewed EU processors stated that the Regulation was positive for their industry in that it ensures black market product is not competing with their legal product; it did not result in any supplier changes for them, but possibly others; and resulted in increased administrative work, in some cases requiring an additional staff person to administer the system (I. Larsson, S. Buhl, M. Mitchell, personal communication).

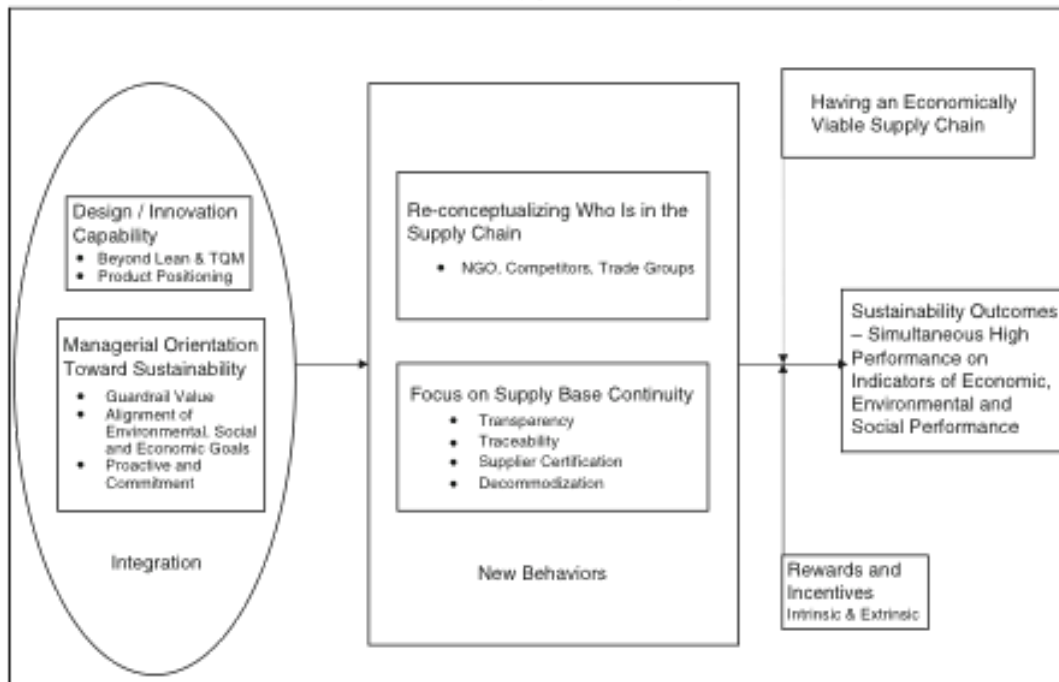
### *Future Outlook*

Potential improvements for the future are foreseen after the evaluation of the Regulation in 2012. The Regulation could require less paper work in some instances. Pushing forward this scheme as a global scheme across all major importing countries is a priority as well (D. Kjolsen, personal communication).

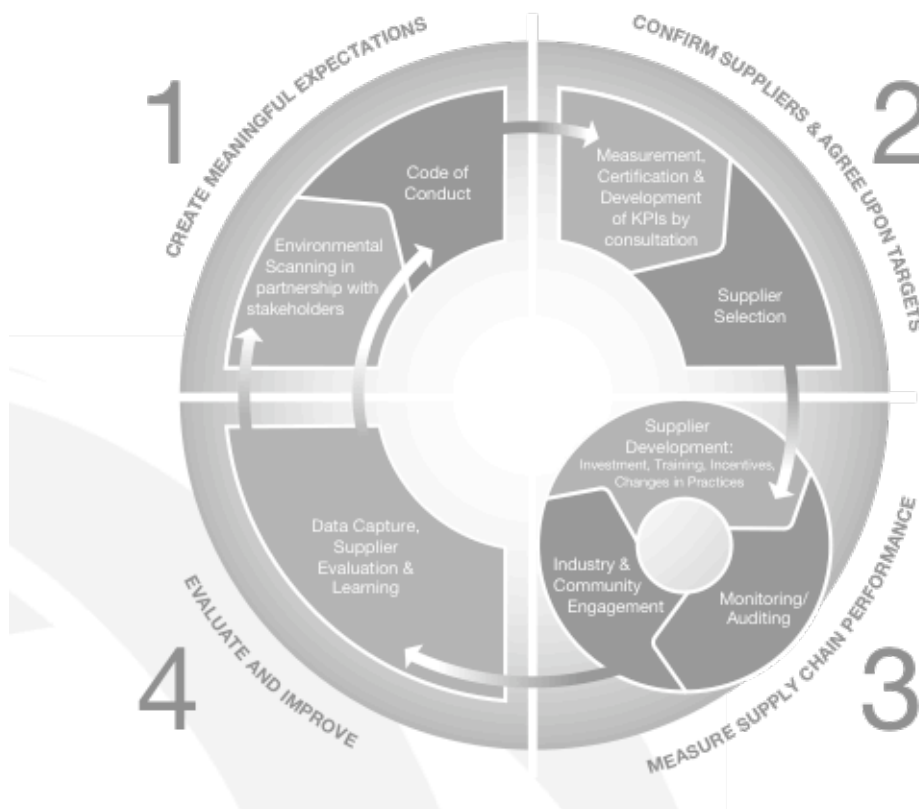
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<sup>42</sup> Prior notification includes: "vessel identification; name of designated port and purpose of landing; fishing authorisation or where appropriate; authorization to transship; dates of the fishing trip; estimated time of arrival in port; quantities of species and catch; the zone where the catch was made or transshipment took place; and quantities to be landed or transhipped" (EC, 2009, p.14).

## Appendix F: SSCM Best Practice Models



A Model for Sustainable Supply Chain Management Practices, Pagell & Wu (2009), p. 52



Proposed Best Practice Model for Sustainable Supply Chain Management, Brammer et al. (2011), p. 45



## Appendix G: Cox’s Framework for Attributes of Buyer-Supplier Power

<b>Buyer Power Attributes</b>	<b>High</b>	<p><b>Buyer Dominance (&gt;)</b></p> <ul style="list-style-type: none"> <li>Few buyers/many suppliers</li> <li>Buyer has high % of market</li> <li>Supplier is dependent for revenue</li> <li>Supplier switching costs are high</li> <li>Buyers switching costs are low</li> <li>Buyer’s account is attractive to supplier</li> <li>Supplier’s offering is a standard commodity</li> <li>Buyers search costs are low</li> <li>Supplier has no information asymmetry advantages over the buyer</li> </ul>	<p><b>Interdependence (=)</b></p> <ul style="list-style-type: none"> <li>Few buyers/few suppliers</li> <li>Buyer has high % of market</li> <li>Supplier is dependent for revenue</li> <li>Supplier switching costs are high</li> <li>Buyers switching costs are high</li> <li>Buyer’s account is attractive to supplier</li> <li>Supplier’s offering is relatively unique</li> <li>Buyers search costs are relatively high</li> <li>Supplier has moderate information asymmetry advantages over the buyer</li> </ul>
	<b>Low</b>	<p><b>Independence (0)</b></p> <ul style="list-style-type: none"> <li>Many buyers/ many suppliers</li> <li>Buyer has low % of supplier’s market</li> <li>Supplier is not dependent for revenue</li> <li>Supplier switching costs are low</li> <li>Buyers switching costs are low</li> <li>Buyer’s account is not particularly attractive</li> <li>Supplier’s offering is a standard commodity</li> <li>Buyers search costs are relatively low</li> <li>Supplier has limited information asymmetry advantages over the buyer</li> </ul>	<p><b>Supplier Dominance (&lt;)</b></p> <ul style="list-style-type: none"> <li>Many buyers/ few suppliers</li> <li>Buyer has low % of market for the supplier</li> <li>Supplier has no dependence on buyer</li> <li>Supplier’s switching costs are low</li> <li>Buyer’s switching costs are high</li> <li>Buyer’s account is not particularly attractive</li> <li>Supplier’s offerings are relatively unique</li> <li>Buyer’s search costs are very high</li> <li>Supplier has information asymmetry advantage over buyer</li> </ul>
		<b>Low</b>	<b>High</b>
		<b>Supplier Power Attributes</b>	

Attributes of Buyer and Supplier Power, adapted from Cox (2004), p. 352

## **Appendix H: Sobeys Inc. Sustainable Seafood Policy**

This Policy has been taken from Sobeys Inc. Corporate website.

### ***Our Commitment***

Seafood is an important component in Sobeys' customer offering and is a key differentiator in our food-focused strategy. Sobeys is committed to leveraging our scale and values by being a leading advocate for change to help ensure that:

- Seafood supplies are available to feed the needs of our customers today and for generations to come;
- We enable our customers to make informed choices about the relative sustainability of the seafood they purchase from us.

Sobeys understands that protecting the long-term health of ocean ecosystems is important to ensuring the viability of the species we source and to enabling the continuing economic activity of the communities dependent on seafood.

### ***Sobeys Goal***

By 2013, we will not sell any seafood species (in our seafood and grocery departments) that have major sustainability issues associated with them, where science-based consensus has defined the extent of the issues, unless the sources we procure from have science-based development plans and timetables for improvement. We will monitor development plans over time for demonstration of improvements, and will consider appropriate action if suitable progress is not made. As sustainability also includes social elements, we will consider in our decision-making the impact on the economy of Canadian-based local producer communities and their local retail markets we serve.

### ***Our Seafood Sustainability Philosophy***

As the intermediary between our customers and suppliers, we will engage both in a journey of continuous improvement toward greater seafood sustainability. We will do this by requiring the adoption of more sustainable practices in our supply chain and through providing more sustainable product choices and information to enable our customers to make the informed decisions they seek.

Our first priority is to seek improvements in the management practices in fisheries and aquaculture facilities where the most critical issues are widely acknowledged to be found. Ideally we will do this through collaboration and engagement with our supply chain and relevant experts, helping to provide the guidance, support, and time to create improvement plans and to implement them. However, where the issues are so challenging that fisheries are severely depleted, and/or face unanswered questions about their ability to manage more sustainably, or fail to demonstrate reasonable improvement in realistic timeframes, we will stop sourcing from those fisheries.

### ***Alignment with the UN Food and Agriculture Organization's Code of Conduct for Responsible Fisheries***

We will seek to align with the spirit and intent of the UN's Food and Agriculture Organization's (FAO) Code of Conduct for Responsible Fisheries, as summarized in the following introductory paragraph from the FAO document: "Fisheries, including aquaculture, provide a vital source of food, employment, recreation, trade and economic well being for people throughout the world, both for present and future generations and should therefore be conducted in a responsible manner. This Code sets out principles and international standards of behaviour for responsible practices with a view to ensuring the effective conservation, management and development of living aquatic resources, with due respect for the ecosystem and biodiversity. The Code recognizes the nutritional, economic, social, environmental and cultural importance of fisheries, and the interests of all those concerned with the fishery sector. The Code takes into account the biological characteristics of the resources and their

environment and the interests of consumers and other users. States and all those involved in fisheries are encouraged to apply the Code and give effect to it."

### **Sobeys Sustainable Seafood Principles**

#### **Sourcing**

- We partner with experts to gain objective, science-based, assessments of the status of seafood we procure (target stocks, governance, and environmental impacts). We will continue to capture data to monitor the sustainability characteristics of the seafood we source.
- We take all reasonable precautions to ensure that we do not purchase seafood that is illegally caught (IUU = Illegal, Unregulated, Unreported) or farmed.
- We only deal with suppliers who are committed to being informed about, and accountable for, seafood sustainability and transparency, legality, and ongoing sustainability improvement, and who conform to the UN FAO Code of Conduct for Responsible Fisheries.
- While we encourage certified eco-labels, such as the Marine Stewardship Council (MSC) for wild and the Best Aquaculture Practices (BAP) for farmed, and others that may emerge, such as the Aquaculture Stewardship Council (ASC), and that comply with UN FAO and ISEAL guidelines for certification standards, our commitment is to go beyond eco-labels. We seek to “start at the bottom” by improving the status of the most problematic seafood we source. Our priority is to gain commitments from the producers to time-bound plans to remedy their key issues, and we will continue to support and engage with producers who are committed to improvement projects. Where biomass and/or other issues are so pressing, according to the best available scientific consensus, that de-listing is the only viable action, we will take such action.
- Where feasible, we will implement traceability programs, focused especially on seafood sources where improvement plans are in place, so we may verify that we only procure specific species from those sources that meet our tightened requirements.
- We endorse the Global Social Compliance Program for fair labour practices, and seek to procure seafood from producers that honour that reference code or complementary initiatives such as the Ethical Trading Initiative and SA8000.
- Sobeys relies on science-based, peer reviewed data and recommendations from Sustainable Fisheries Partnerships and other experts to guide its decision-making. The following factors are among those evaluated for each source:

#### **Wild-caught seafood:**

- Status of fish stock in the UN FAO internationally defined fishing area and its IUCN rating, and other peer reviewed resources – key issue: overfishing and depleted stocks
- By-catch – key issue: excessive capture of non-targeted species
- Fishing gear type – key issue: may impact amount of by-catch and/or impacts on sea floor
- Impact on sea floor – key issue: may impact plants and animal species
- Legality (i.e. not Illegal, Unregulated, Unreported, “IUU”) – key issue: fisheries that exceed total allowable catch quotas or do not conform to other fishery management systems
- Fishery management practices – key issue: reacting effectively to changes in context/status; committing to participation in credible improvement plans

#### **Farm-raised seafood:**

- Location of the farm – key issue: located in sensitive areas
- Fish feed – key issue: over-reliance on unsustainable fisheries for feed, and high ratio of wild seafood feed to finished farmed product
- Impacts on seafloor bottom – key issue: excessive localized waste/pollution from the facility
- Impacts on nearby sea ecosystem – key issue: impacts on habitats and other species, including plants
- Disease or parasite transfer – key issue: transfer from farmed to wild species
- Escapes – key issue: excessive escapes of non-indigenous species

- If land-based, addressing key issues: carbon footprint, water consumption, and waste management
- Chemical/antibiotic use – key issue: excessive use and resulting impact on ecosystems

### **Communication**

- We will provide our customers with the information they require regarding the sustainability characteristics of the seafood they purchase so that they may make informed decisions.
- Information may be provided on our website, in our stores, on our packages, and/or through other appropriate channels.
- Information will include product source, where and how it was caught or farmed, and compliance with Canadian country of origin labeling regulations.
- We will promote seafood products that are considered better sustainability options.
- We will educate our employees about seafood sustainability.
- We will engage and align with our seafood suppliers on the importance of sustainability and this policy and its implementation.

### **Collaborative Engagement for Improvement**

- Given that the issues facing the sustainability of seafood are systemic and not unique to Sobeys, we will participate in industry collaboration initiatives aimed at improving the sustainability of seafood.
- We will continue to engage with producers, distributors, governments, academics, and NGOs to seek the continued improvement of seafood sustainability.
- We acknowledge that sustainability is a journey, and we will update this policy as and when new insights and contexts warrant.

**Source:** Sobeys Inc. (2010). Sobeys Inc. National Sustainable Seafood Policy. Retrieved from: [http://www.sobeyscorporate.com/sustainability/supply/sustainable\\_seafood\\_policy.html](http://www.sobeyscorporate.com/sustainability/supply/sustainable_seafood_policy.html)

## Appendix I: Retailer Sustainable Seafood Procurement Policies

This table is based on a review of information available on retailer websites and in CSR reports.

Retailer & Policy	Commitments & Principles	Discontinued Species	Tools & Improvement Focus	Transparency	Partners
<b>CANADA</b>					
<p><b>Sobeys</b><sup>43</sup></p> <p>September 2009</p> <p><i>Grocery &amp; fresh</i></p> <p>Stores across Canada</p>	<p>Implementation date: 2013</p> <p>Commitment not sell any seafood species that have major sustainability issues associated with them unless the sources have a FIP.</p> <p>Principles include: partnership with experts, reasonable precautions to ensure they do not purchase from IUU sources; work with suppliers who will conform to UN FAO Code of Conduct for Responsible Fisheries; encourage eco-labels, but attempt to improve problematic seafood first; implement traceability programs where feasible; endorse fair labor practices.</p>	<p>All Canadian supermarkets have delisted 6 species: skates and rays, sharks, Bluefin tuna, bigeye tuna, orange roughly and New Zealand hoki.</p> <p>Sobeys has not delisted any others.</p>	<p>Sustainability ranking tool for buyers to identify species that need improvements.</p> <p>Fishery Improvement Projects (FIPs).</p>	<p>Customer information will include product source, where and how it was caught or farmed, and compliance with country of origin labeling regulations.</p> <p>The website features a new video series on the BC wild salmon fishery and its sustainability challenges.</p>	<p>Sustainable Fisheries Partnership</p>
<p><b>Loblaws</b><sup>44</sup></p> <p>2009</p> <p><i>All product categories</i></p> <p>Stores across Canada</p>	<p>Implementation date: 2013</p> <p>Commitment to source 100% of all the wild and farmed fish sold in our stores from sustainable sources.</p> <p>Principles include to: seek independent advice and guidance from experts; support credible, independently audited sourcing initiatives; favor vendors who demonstrate continuous improvement; take all reasonable steps to ensure seafood does not come from IUU sources; improve customer information; be transparent about sourcing and review and update the commitment.</p>	<p>The 'classic' 6 red list species, plus 2 others - arctic surf clams and Chilean sea bass..</p> <p>Only purchasing harpoon-caught or pole and line sources of swordfish.</p>	<p>Verification through third party certification programs or equivalent standards.</p> <p>FIPs</p> <p>ISSF for tuna species.</p> <p>Species identified for improvement are: swordfish; Atlantic cod; and yellow fin tuna.</p>	<p>Fresh counters feature: species' common name, catch method and origin.</p> <p>Consumer education site: <a href="http://www.oceanstomorrow.ca">www.oceanstomorrow.ca</a></p>	<p>WWF &amp; Marine Stewardship Council, suppliers and fisheries.</p>

Retailer & Policy	Commitments & Principles	Discontinued Species	Tools & Improvement Focus	Transparency	Partners
<p><b>Metro</b><sup>45</sup></p> <p>May 2010</p> <p><i>Grocery &amp; fresh</i></p> <p>Stores primarily in Quebec &amp; Ontario</p>	<p>Implementation date: June 2011</p> <p>Commitment to base sourcing decision on: fish stock health, responsible fishing/aquaculture methods, traceability, and sourcing from local artisanal fisheries whenever possible.</p> <p>Principles include: external expertise; healthy species from well-managed fisheries; sustainable fishing methods; product traceability and commitment to local labor laws.</p>	<p>The 'classic' 6 red list species, plus 1 - Atlantic cod (West).</p>	<p>Code of Conduct with Suppliers; favor suppliers who commit to continuous improvement of products, traceability and meeting standards.</p> <p>Species working to improve are farm-raised salmon, tropical shrimp, haddock, swordfish, Atlantic and Greenland halibut and, finally, scallops and Stimpson's surf clams.</p>	<p>Scientific name, the product's origin, the fishing type and the presence of a standard, where applicable. Commitment to customer information.</p>	<p>No specified partners.</p> <p>NGOs, governments and suppliers.</p>
<p><b>Safeway Canada</b><sup>46</sup></p> <p>June 2011</p> <p><i>Fresh &amp; frozen seafood</i></p>	<p>Implementation date: 2015</p> <p>All seafood will be sustainable (no red graded Sea Choice seafood) and traceable.</p> <p>The policy is focused on four elements: formation of a sustainable seafood task force, supplier outreach, staff training and customer outreach. Supporting fishery and aquaculture improvements by encouraging unsustainable fisheries and farms to establish credible improvement projects designed to both meet our purchasing policy and result in measurable conservation gains.</p>	<p>The classic 6 red list species. Plus 6 others: Atlantic and Greenland halibut, swordfish, arctic surf clams, Chilean sea bass and yellow fin tuna.</p>	<p>Delisting red list species.</p>	<p>Labels will include Latin name, common name, farmed or wild, the catch methods, and origin.</p> <p>New website coming soon with details on catch methods and the sustainability initiatives. Brochures are located at the seafood counter.</p>	<p>Sea Choice</p>
<p><b>Overwaita</b><sup>47</sup></p> <p>2009</p>	<p>Implementation date: 2015</p> <p>Commitment to discontinue all Greenpeace and Sea Choice red list species.</p>	<p>The classic 6 red list species, plus 5 others - Atlantic and Greenland halibut, swordfish, arctic surf clams and Chilean</p>		<p>Fresh and frozen green and yellow products have the Sea Choice logo.</p>	<p>Sea Choice</p>

<sup>45</sup> Metro's Sustainable Fisheries Policy: <http://www.metro.ca/corpo/responsabilite/peche-durable-politique.en.html>

<sup>46</sup> Safeway's Sustainable Seafood Commitment: <http://cnw.ca/en/releases/archive/July2011/04/c2960.html>

<sup>47</sup> Overwaita's Seafood Policy: <http://www.owfg.com/sustainable-seafood>

Retailer & Policy	Commitments & Principles	Discontinued Species	Tools & Improvement Focus	Transparency	Partners
<p><i>Fresh &amp; frozen seafood</i></p> <p>Stores only in BC</p>		sea bass.		Promotion of sustainable alternative species in-store & sustainable seafood reference guide at seafood counters. A new sustainable seafood website page.	
<p><b>Walmart Canada</b><sup>48</sup></p> <p>April 2010</p> <p><i>Fresh &amp; frozen fish</i></p>	<p>Implementation date: 2013</p> <p>All seafood will be sourced from certified sustainable sources (MSC for wild or minimum equivalent). Currently evaluating fish sources according to SFP metrics.</p> <p>100% ISSF canned tuna.</p>	The classic 6 red list species, plus 6 others - Atlantic and Greenland halibut, swordfish, arctic surf clams, Chilean sea bass, Haddock, Atlantic sea scallops.	<p>Certification is the primary tool: 37% of seafood is MSC certified (or equivalent) &amp; 40% will be in the certification process by 2012.</p> <p>ISSF for canned tuna.</p>		SFP
<b>UNITED STATES OF AMERICA</b>					
<p><b>Ahold USA</b><sup>49</sup></p> <p>2001 (Eco-sound project)<sup>50</sup> &amp; new policy in 2010</p>	<p>Implementation date: 2015</p> <p>Seafood will be 100% MSC certified (or equivalent).</p>	Discontinued products include Chilean sea bass, orange roughy and shark.	Traceability systems, MSC certification	Labeling, actively promoting more sustainable choices	New England Aquarium
<p><b>Walmart USA</b></p> <p>2006</p>	<p>Original implementation date: 2010-2011, now 2013.</p> <p>Commitment to source 100% MSC certified. However, the policy was revised to sell MSC product or product that demonstrates it is on the road to certification. Canned tuna is to be from processors who are members of ISSF.</p>	Discontinued products include Chilean sea bass.	MSC certification (55% by volume in 2010)		

<sup>48</sup> Walmart; CNW News wire: <http://www.newswire.ca/en/releases/archive/April2010/13/c9519.html>

<sup>49</sup> Ahold USA – Sustainable Seafood Policy: [http://www.stopandshop.com/living\\_well/healthy\\_living/seafood\\_sustainability.htm](http://www.stopandshop.com/living_well/healthy_living/seafood_sustainability.htm)

<sup>50</sup> Roheim & Sutinen, 2006

Retailer & Policy	Commitments & Principles	Discontinued Species	Tools & Improvement Focus	Transparency	Partners
<b>Whole Foods</b> <sup>51</sup>  1999	In-house standards for the evaluation of source fisheries based on Seafood Watch and Sea Choice evaluations. Farmed seafood is evaluated based on in-house standards.  Try to purchase certified product when possible (specifically MSC).	Chilean sea bass (non-MSC), orange roughy, Bluefin tuna, sharks, and marlins, swordfish and tuna from red-rated fisheries. With the exception of Atlantic cod and sole, all other seafood from red-rated fisheries will be discontinued by 2012.	MSC certification  In-house standards and audits.  Traceability technologies, i.e. Trace Register.	Color-coded rating program that provides shoppers with sustainability status information for all wild-caught seafood not certified by the MSC.	Blue Ocean Institute; Monterey Bay Aquarium  Sea Choice in Canada
<b>EUROPEAN UNION (focus on the UK)</b>					
<b>Asda</b> <sup>52</sup>	100% sustainably sourced by 2010. According to SFP evaluation. Either MSC certified or with an improvement plan in place.  Lobbying governments to support and improve policies, which protect marine habitats.	Information unavailable.	MSC certification	Information on where the fish was caught, when it was caught and how it was stored.	SFP
<b>Sainsbury</b> <sup>53</sup>  <i>All seafood products</i>	100% MSC certified product is the goal (80 products MSC labeled); when not available they use their own seafood sustainability evaluation system.  100% pole in line caught tuna. Line-caught yellow fin tuna, Atlantic cod and haddock are both line caught.	Information unavailable.	MSC certification		Marine Conservation Society
<b>Marks &amp; Spencer</b> <sup>54</sup>	100% certified product (MSC or equivalent) by 2012 is the goal.	Information unavailable.	MSC certification for 84% of products.	Labeling includes: catch location, method used to catch the fish. Some	WWF & Marine Conservation

<sup>51</sup> Whole Foods Seafood Sustainability: <http://www.wholefoodsmarket.com/values/seafood.php>

<sup>52</sup> Asda Sustainable Fishing Policy: <http://health.asda.com/sustainability/our-policies/sustainable-fishing.aspx>

<sup>53</sup> J Sainsbury plc Corporate Responsibility Report 2011: [http://www.j-sainsbury.co.uk/cr/files/pdf/cr2011\\_report.pdf](http://www.j-sainsbury.co.uk/cr/files/pdf/cr2011_report.pdf)

<sup>54</sup> Marks & Spencer: <http://plana.marksandspencer.com/we-are-doing/sustainable-raw-materials/stories/6/>



Retailer & Policy	Commitments & Principles	Discontinued Species	Tools & Improvement Focus	Transparency	Partners
1996, a number of other commitments later  <i>All seafood</i>	No product that has been shipped from China for processing for risk products.  Signed WWF's Seafood Charter.			products have pictures of the fishermen.	Society
<b>Royal Ahold</b> <sup>55</sup>  <i>All seafood</i>	Implementation date: 2015  Commitment to source 100% of six critical commodities for own brand products in compliance with industry certification standards.  <i>Note: Royal Ahold owns Ahold USA.</i>	Information unavailable.	MSC certification or equivalent.		WWF
<b>Tesco</b> <sup>56</sup>  <i>All seafood</i>	Sustainable seafood policy for a number of years, already implemented, but continuously improving. Currently, working to evaluate the sustainability of all of the fish sources with SFP.  100% line and pole caught tuna by 2012.	Information unavailable.	MSC certification of many products.		SFP

<sup>55</sup> Royal Ahold Sustainable Trade: <http://www.ahold.com/suppliers/sustainable-trade>; 2010 CR Report: <http://www.ahold.com/en/responsible/sustainable-trade>

<sup>56</sup> Tesco: <http://www.tescopl.com/corporate-responsibility/our-sourcing-policies/seafood-sustainability/>

## Appendix J: Summary of SFP Fishery Evaluation

This is a brief summary of SFP's Fishery Evaluation System – developed by SFP and adapted from SFP:  
<http://sfpcms.sustainablefish.org.s3.amazonaws.com/2011/05/22/Understanding%20SFP's%20Fishery%20Evaluation%20System%20May22-2-3ec98860.pdf>

Evaluation Outcome	Evaluation Components		
	Governance Quality	Target Stock	Environment
<b>Low Risk</b>	Management strategy is precautionary <sup>57</sup> ; managers follow scientific advice, and; fishers comply with regulations.	Fish population numbers are high, and; fishing pressure is low enough to allow the population to maintain or grow.	All impacts on habitat, protected species, other fisheries and ecosystem functions are known, monitored and managed properly, and; a representative network of marine protected areas are in place where the fishery operates. <sup>58</sup>
<b>Medium Risk</b>	Managers ignore scientific advice, or; management is not precautionary, or; fishers compliance is not adequate.	Population numbers are high, but fishing pressure is too high, or; Fishing pressure is low but population numbers are too low or population numbers are high but fishing pressure may or may not be too high to allow the fish stock to grow or maintain.	No red conditions are met and some but not all green conditions are met.
<b>Unknown Risk</b>	Not enough information is available to evaluate risk.	Not enough information is available to evaluate risk.	Not enough information is available to evaluate risk.
<b>High Risk</b>	Significant illegal fishing is taking place undermining the intent of management, or; managers ignore scientific advice and management is not precautionary.	Population numbers are very low, or; population numbers are low, and; fishing pressure is high.	The fishery is having a significant negative effect on: a) protected species that are failing to rebuild; b) other fisheries because bycatch mortality is preventing their recovery; c) ecosystem functions; d) habitats that are underrepresented in spatial marine protections where the fishery operates.

<sup>57</sup> "According to the precautionary principle, not having enough scientific information cannot be used as a reason for postponing or failing to take conservation or management measures. The precautionary approach is described in the United Nations Fish Stocks Agreement" (SFP, 2011).

<sup>58</sup> "SFP follows International Union for Conservation of Nature (IUCN) classifications for protection. This includes the term MPA various levels of protection, ranging from strict nature reserves where no or little fishing or other activities are permitted, through wilderness areas and national parks, to lower forms of protection such as habitat management areas and protected seascapes (i.e., where protections may be limited to restricting the use of a specific fishing gear." (SFP, 2011).