

**Fair Trade Fish:
A Tool to Protect Culture and Promote Responsible Fisheries
Management**

By

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Submitted in partial fulfillment of the requirements for the degree
of
Master of Marine Management

at

Dalhousie University
Halifax, Nova Scotia

August 2011

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Degree: Master of Marine Management

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Year: 2011

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Table of Contents

LIST OF TABLES	V
LIST OF FIGURES	V
ABSTRACT	VI
ABBREVIATIONS	VII
ACKNOWLEDGEMENTS	VIII
<u>CHAPTER 1: INTRODUCTION</u>	<u>1</u>
<u>CHAPTER 2: EVOLUTION OF GLOBAL FISHERIES</u>	<u>4</u>
<u>CHAPTER 3: CURRENT SEAFOOD CERTIFICATION SYSTEMS</u>	<u>8</u>
3.1 MARINE STEWARDSHIP COUNCIL	9
3.2 OTHER CERTIFICATION PROGRAMS	11
3.3 SUSTAINABLE SEAFOOD CERTIFICATION LIMITATIONS	14
3.4 SUSTAINABLE SEAFOOD CERTIFICATION SUCCESSES	18
<u>CHAPTER 4: FAIR TRADE FISH</u>	<u>19</u>
4.1 STRUCTURE OF FAIR TRADE COFFEE	20
4.1.1 SWOT ANALYSIS	23
4.2 STRUCTURE OF FAIR TRADE FISH	27
4.3 ABORIGINAL CONTEXT	30
4.4 PRINCIPLES OF FAIR TRADE FISH	32
4.4.1 ABORIGINAL TRADITIONAL KNOWLEDGE	33
4.4.2 PRECAUTIONARY PRINCIPLE	36
4.4.3 ADAPTIVE MANAGEMENT	38
<u>CHAPTER 5: MSC AND FAIR TRADE FISH</u>	<u>41</u>
5.1 COMMONALITIES	41
5.2 DIFFERENCES	45

<u>CHAPTER 6: APPLICATION OF FAIR TRADE FISH</u>	<u>46</u>
6.1 INTEGRATING ABORIGINAL TRADITIONAL KNOWLEDGE	48
6.2 FEASIBILITY	52
<u>CHAPTER 7: CONCLUSION</u>	<u>54</u>
<u>WORK CITED</u>	<u>58</u>

LIST OF TABLES

Table 1: Defining Limitations

LIST OF FIGURES

Figure 1: Environmental impacts at different life cycle stages of seafood production

Figure 2: Flow chart of the main steps in MSC's fishery assessment process

Figure 3: Combining Sources of Data

Delesalle, M. (2011). Fair Trade Fish: A tool to protect culture and promote responsible fisheries management. Halifax, NS: Dalhousie University.

ABSTRACT

The fishing industry has played and continues to play an important role within Aboriginal culture and the larger Canadian demographic. Due to decades of habitat loss and poor fisheries management, many wild keystone fish species have been decimated to near extinction. Overexploitation of fishery stocks continues to be a serious problem that is felt locally and globally, resulting in a need to reevaluate how the resource should be effectively managed. Sustainable seafood campaigns and ecolabels have been developed in recent years to help alleviate some of this pressure through social marketing campaigns that target consumer purchasing power. There are a number of organizations, including Marine Stewardship Council, SeaChoice, Ocean Wise and others, who have created labels that notify the consumer of the sustainability associated with that product. However, there may still be a need to create a new innovative certification system that incorporates a social and Aboriginal component, which is able to learn from the mistakes of past organizations while implementing traditional knowledge systems within its fundamental principles. This could be accomplished through a certification program like Fair Trade Fish, with the main objective being to protect traditional livelihoods while also promoting conservation and sustainability of valuable fishery resources. Thus, creating a certification program where consumers can feel confident that they are supporting not only an environmentally responsible product but also a socially responsible one.

Keywords: Fair Trade Fish; fair trade; traditional livelihood; sustainability; Aboriginal Traditional Knowledge; certification; ecolabelling; Marine Stewardship Council, fair trade coffee; Precautionary Principle; Adaptive Management.

ABBREVIATIONS

MSC	Marine Stewardship Council
ATK	Aboriginal Traditional Knowledge
NGO	Non Government Organization
WWF	World Wildlife Fund

ACKNOWLEDGEMENTS

I am thankful to my supervisor, Chris Milley, whose encouragement, guidance and support from the initial to the final level enabled me to develop a simple idea into a grad project. I am also grateful to Don Cunningham and all those working at Pangnirtung Fisheries Ltd, for being gracious hosts and providing me with a once in a lifetime internship opportunity.

I owe my deepest gratitude to the Marine Affairs Program, specifically Lucia Fanning, Becky Field and all associated professors, for pushing and challenging me to grow academically within the field of marine management.

Thanks is also due to my family and friends who provided assistance and guidance throughout this past year.

Lastly, I offer my deepest thanks to my fellow MMM students, words alone cannot possibly express the thanks I owe to each of them, their moral support and encouragement made this year invaluable.

CHAPTER 1: INTRODUCTION

The decline in the viability of fish stocks throughout the world has been a major area of concern for researchers in recent years (Ward & Phillips, 2008). The extensive expansion and growth in technology has made harvesting procedures and techniques efficient, which emphasizes the increased pressure on valuable fish stocks. Millions of people throughout the world are dependent upon fish resources for their livelihood and food security, increasing the pressure placed on both small and large scale commercial fishing endeavors as a means of meeting this demand (Coulthard et al., 2011). With many traditional fisheries fully exploited, overexploited or depleted, it appears that the global carrying capacity for fisheries production has been reached and, in many cases, exceeded (Pelletier & Tyedmers, 2008). Examining the history of fishing and fisheries management has made it abundantly clear that humans have had a major impact on target species and their supporting ecosystems for thousands of years (Pauly et al., 2002, 689). As a means of overcoming this obstacle many organizations have begun campaigns to promote sustainable seafood through ecolabels¹. “[An] ecolabelling programme is a system used to create a market-based incentive to encourage products that can demonstrate they are produced in an ecologically sustainable manner” (Ward & Phillips, 2008, 2). The Marine Stewardship Council (MSC), SeaChoice, Ocean Wise and others are established certification organizations that have been a part of the global recognition of sustainable fisheries and a market friendly means of identification.

¹ An ecolabel is a mark, logo, label or product that is associated with specific standards that tells the consumer that the product has been produced through environmentally sustainable procedures, and is from a source that is well managed (Ward & Phillip, 2008).

“Certification schemes have emerged in recent years as particularly vibrant sources of standard setting and governance in the fisheries sector. These certification schemes go beyond voluntary codes of conduct and self-regulatory modes of governance, in that they involve the development of prescriptive standards for certification, which require behavioral changes and independent verification of compliance” (Gulbrandsen, 2009, 654).

Unfortunately many of the current programs are extremely intensive, costly and time consuming excluding many smaller artisanal and Aboriginal fisheries from gaining certification due to the lack of their financial capabilities (Shelton, 2009). There are a number of responsibilities associated with the varying costs of conducting the assessment process and meeting any corrective actions that may be required to maintain a product’s certification (Ward & Phillip, 2008). Emphasizing that the high level of costs associated with securing an ecolabel have been known to prevent smaller-scale, low profit margin fisheries from submitting their products for assessment (Ward & Phillip, 2008).

While, the reasons for the inadequacies of current organizations are varied, there have been a number of important successes in the certification process in which declines have been reversed and sustainability achieved (Ward & Phillips, 2008). However, there is still a need to create a new innovative certification system that incorporates a social and Aboriginal component, which has learned from the mistakes of past organizations while implementing traditional knowledge systems within its fundamental principles. Instead of trying to fit within the exact mold of existing certification programs, it will be beneficial to investigate the potential of creating a new certification system based upon the fair trade movement. The creation of a Fair Trade Fish certification system would not only address fishing operations and environmental issues, but would also address key social and

development issues similar to the fair trade coffee campaign (Gulbrandsen, 2009). Gulbrandsen (2009) identifies that there is a need to improve fishery practices by linking fish production to fish trade, which could be accomplished through sustainable certification programs like Fair Trade Fish. Properly integrating the broad concepts of Aboriginal Traditional Knowledge (ATK) within the framework of Fair Trade Fish will help protect traditional harvesting systems, which in turn will help preserve Aboriginal culture. Berkes et al (2000) have defined ATK as a “cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment” (1252). ATK is not a universal body of knowledge shared by all Aboriginal communities, it is dynamic, constantly changing and adapting to its surrounding areas. ATK is comprised of a number of characteristics ranging from the use of ecological indicators, adaptive strategies for monitoring, enhancing and sustainably harvesting resources, effective systems of knowledge transfer, respectful and interactive attitudes and philosophies as well as the close identification with ancestral land (Turner et al., 2000). This type of knowledge recognizes the fundamental importance of managing local resources with reverence for the world’s biodiversity while providing locally valid models for sustainable living (Turner et al., 2000).

Assessing the feasibility of Fair Trade Fish is key, in order to make the certification process dynamic and adaptable to multiple cultures’ traditional knowledge systems. Ideally the system would combine a multitude of theoretical frameworks such as the precautionary principle and adaptive management while also integrating ATK as into

its standards to promote the use of alternative knowledge sources. In turn, this offers an opportunity for Aboriginal communities to protect their traditional livelihoods, by providing a means to overcome what was lost during colonization while regaining assertion over their rights to their traditional resources. “As a result of the colonial experience, lands were stolen, cultures were assimilated, native languages all but disappeared, and the right to self-govern was taken, leaving a people living in the shadow of what they once were” (Iyall Smith, 2008, 1818). This reiterates the importance of allowing Aboriginal peoples to actively participate in decision making processes while recognizing and respecting their rights to own and control their traditional lands, territories and resources (Mackay, 2004). Integrating ATK in a Fair Trade Fish campaign would allow for the opportunity to develop specific management and operational criteria based on the specific knowledge associated with the region, area, community or culture, thus creating a certification program where consumers can feel confident that they are supporting not only an environmentally responsible product but also a socially responsible one. In turn, this will help alleviate some of the pressures facing resource management by directly getting consumers involved and participating in supporting sustainable products.

CHAPTER 2: EVOLUTION OF GLOBAL FISHERIES

The ongoing depletion of marine fish stocks due to overexploitation is endangering the future of the marine ecosystem, leading to a key debate among fishery managers and government bodies on the appropriate action to rebuild this loss (Mullon et

al, 2005). According to the Food and Agriculture Organization, up to 75% of global fisheries are overfished or seriously depleted (Iles, 2006). Human consumption of fish has nearly doubled in the last 30 years resulting in the world eating down the marine food web (Jacquet & Pauly, 2007). This is reflected with the massive jellyfish blooms that have occurred around the world. The expansion of bottom-trawl fishing has resulted in the loss of predators, competitors and has further altered the state of the marine ecosystem allowing species like the jellyfish to flourish in areas such as the Bering Sea and Chesapeake Bay (Jacquet & Pauly, 2007). Furthermore, there are a number of serious ecological changes that have been associated with overfishing, creating great concern within the field of fishery management. These include pollution, eutrophication, physical destruction of habitats, outbreaks of disease, invasions of introduced species and human induced climate change all having varying impacts on the surrounding ecosystem (Jackson et al, 2001). According to Jackson et al (2001), “the characteristic sequence of human disturbance to marine ecosystems provides a framework for remediation and restoration that is invisible without a historical perspective” (636), emphasizing the importance of understanding the degree to which keystone fish species play within the marine food web and the impacts losing these species plays on the marine ecosystem. Current estimates of global fish stock populations are thought to be too low making the situation appear to be even more critical than previously depicted (Jackson et al, 2001).

Many studies have outlined that fisheries have rarely been sustained in the past. Rather, fishing depletions have “long been masked by improved technology, geographic expansion and exploitation of previously spurned species low in the food web” (Pauly et al., 2002, 689). The only times in which fishing practices were deemed sustainable was

when fish populations were naturally protected by having a large part of their distribution outside of the range of fishing activities (Pauly et al, 2002). According to Pauly et al (2002) “[even] where such natural protection was absent, that is, where the entire population was accessible to fishing gears, depletion ensued, even if the gear used seems inefficient in retrospect” (689). Throughout history fisheries appear to follow the same pattern of discover and overexploitation leading to collapse. This is illustrated with the Atlantic halibut fishery that was not favored in the early 1800s but is now described as one of the world’s favorite whitefish (Jacquet & Pauly, 2007). The market for halibut began to grow by the 1830s, which led to the increase in fishing effort in New England and Nova Scotia (Jacquet & Pauly, 2007). Within less than twenty years the inshore halibut stocks in the Western Atlantic collapsed and have failed to recover since (Jacquet & Pauly, 2007). Other examples that illustrate the effects of overfishing include the collapse of the Atlantic cod fishery, a fishery that was believed to be limitless. The decline of cod populations accelerated in the late 1980s and early 1990s when most of the cod stocks off New England and eastern Canada collapsed, ending a coastal tradition and legacy that had existed for centuries (Pauly et al, 2002). It is clear that humans have had a major impact on target species and their supporting ecosystems throughout the history of the fishing industry (Pauly et al, 2002).

Despite the collapse of countless target species around the world, the global expansion of effort has continued to grow while trade in fish products has intensified leading them to become one of the most globalized commodities (Pauly et al, 2002). Nearly one in four fisheries collapsed during the period of 1950 to 2000 (Mullon et al, 2005). Unfortunately, there have been few signs of improvement to prevent collapses

despite the increase in awareness of such a risk and the improvements made in stock assessment methods by direct and indirect methods (Mullon et al, 2005). Furthermore the open-access nature of many fisheries continues to threaten the long-term survival of marine capture fishery resources. The issues of “common-pool fisheries² that are managed non-cooperatively; the increasing replacement of small-scale fishing vessels with larger ones; and the payment of subsidies by governments to fishers which generate profits even when resources are overfished” continues to increase fishing mortality to unsustainable levels (Pauly et al, 2002, 692). There appears to be this persistent race to catch the last fish, leading fishers to be unaware of the detrimental impacts they are having on the resource they exploit and are dependent on.

“The market for seafood may be dynamic, but its consequences are uncomfortably static and predictable. The rising global market demand for seafood has led to an increase in industrial fishing coupled with fisheries mismanagement. The result has been overfishing, the collapse of innumerable fish populations and the destruction of ocean habitat” (Jacquet & Pauly, 2007, 308).

This has been illustrated throughout history with the growth of commercial fishing fleets, development of new fish markets and fisheries expanding their reach into deeper and more remote waters (Pauly et al, 2002). The challenges of sustainability within fisheries has been a consistent issue since humans first started harvesting this resource, however,

² A ‘common-pool’ resource refers to a resource that is to be protected and conserved in order to allow for continuous exploitation. There is typically a core resource (fish), which defines the stock variable, while providing a limited amount of fringe units to be harvested or consumed. If implemented properly a common-pool resource can provide a positive feedback loop where the stock variable is continually regenerated by the fringe variable (Singh, 1994).

as the scale of the world's endeavors continue to increase innovative and robust management plans are being called into action.

CHAPTER 3: CURRENT SEAFOOD CERTIFICATION SYSTEMS

A means of overcoming the reality surrounding current fish populations is to make seafood consumption more sustainable via certification and ecolabeling programs. Certification and ecolabeling programs are a means of getting stakeholder involvement, in which consumers can exercise their choice between different seafood producers and products (Ward & Phillip, 2008). The hope is that the consumer will be more inclined to purchase products that are certified by a label that promotes a sustainably managed fishery opposed to one that is exploited beyond its sustainable yield³. These sustainable seafood certification programs were established as a result of social movement activism and consumer concerns on the degradation of fishery systems and the marine ecosystem. There seems to be this need to improve fishery practices by linking fish production to fish trade (Gulbrandsen, 2009). There are a number of international organizations to fight for improved fishery production; many NGOs, aquariums, foundations and retailers have banded together to develop strategies that will target consumer patterns through the marketplace (Iles, 2007). Many of these organizations have been a part of a variety of seafood social marketing campaigns that have ranged from certification labels to the explicit boycott of specific products (Iles, 2007). The main notion behind ecolabeling is educating the consumer of the product they are purchasing. This is done with the hope of

³ 'Sustainable yield' refers to the amount of capital (or fish) that can be extracted/harvested without overexploiting the overall population of the given resource.

altering consumer-purchasing behavior causing companies to use more environmentally preferred production measures and methods (Iles, 2007). Furthermore, a sustainable seafood certification program should provide a transparent framework to ensure “a high probability of achieving targets, a very low probability of breaching limits, and acceptable probabilities of rebuilding stocks that nevertheless become depleted, in a timely manner” (Shelton, 2009, 187). MSC is an example of an organization that has designed a set of environmental criteria for sustainable and well-managed fisheries to follow in order to receive the certification label and MSC approval (Iles, 2007).

3.1 MARINE STEWARDSHIP COUNCIL

The Marine Stewardship Council (MSC) was created to manage a wild-capture fisheries certification program designed to reward sustainable practices and well-managed fisheries. MSC was formulated in 1997 with Unilever, the world’s largest buyer of seafood at the time, and the World Wildlife Fund (WWF), an international conservation organization, to combat the issue of depleting fish stocks and unsustainable harvesting practices (Cummins⁴, 2004). The certification itself represents that certain principles or practices have been adhered to during its production representing a sustainable choice for consumers (Kaiser & Edwards-Jones, 2004). “The MSC is the only international fisheries organization working to provide a market-based incentive, encouraging consumers to make the best environmental choice in seafood, by setting a

⁴ The Cummins article (2004), illustrates the authors perceived success of MSC, however, there have been few articles written since that justify Cummins position on the matter. It is important to understand that the MSC certification program is not the ‘saving grace’ of sustainable seafood and has shown limited success in its application.

standard against which independent accredited certification bodies assess fisheries” (Cummins, 2004, 85). This market-based approach has prompted several retailers to increase their commitment to supplying their consumers with certified seafood (Ward & Phillips, 2008). This may allow fishers to obtain “higher premiums for their products, greater market access and less volatility for their seafood products” (Cummins, 2004, 86). The MSC has three main principles that guide the organization to keep their focus primarily on fishing operations and environmental issues related to wild-capture fisheries. According to Gulbrandsen (2009) these three principles require

“that the fishing activity must be at a sustainable level; that fishing operations should be managed to maintain the structure, productivity, function and diversity of the ecosystem on which the fishery depends; and that the fishery must meet all the local, national and international laws and must have a management system that responds to the changing circumstances and maintains sustainability” (656).

Alongside these principles there are a number of other more specific operational and management criteria set in place to meet regional and local fishery conditions.

The MSC certification process can be applied to a variety of stakeholders who actively seek a means of acquiring a sustainable seafood label. These stakeholders may include fishers’ associations, an industry association representing quota holders, a processor’s organization or a government management authority (Gulbrandsen, 2009). There are a number of required steps that a fishery must undergo before they are granted an MSC certification label. The first of these steps is to go through a pre-assessment in order to determine if the fishery is qualified to proceed to the full certification stage. During the full assessment process the fishery is assessed by a third party certifier, to ensure an unbiased and fair approval of the fishery in question (Goyert, 2010). Once

certified, a fishery is required to be audited annually and reassessed every five years to ensure that it is still enforcing MSC standards (Goyert, 2010). The fundamental purpose of the assessment is to determine the feasibility of the certification for the specific fishery while ensuring that the goals of the fishery correlate with the goals of MSC. MSC provides a framework, fundamental guidelines and eco-label acting as a facilitator to those fisheries looking to qualify for certification (Owens, 2008). What gives MSC certification credibility is its use of a third-party certification body that undertakes an assessment of the fishery to assert whether a fishery may be considered to be well managed and sustainable based on the three guiding principles (Thrane et al, 2009). To guarantee high product standards a fishery can lose its MSC certification if it fails to abide by the set principles or participates in unsustainable harvesting practices (Goyert, 2010). The purpose of the assessment process is to track the origin of the products through every stage of the supply chain, as well give consumers the insurance that products carrying the MSC logo originate from a certified fishery (Gulbrandsen, 2009).

3.2 OTHER CERTIFICATION PROGRAMS

There are a number of other reputable certification programs in addition to MSC, which include Sea Choice, Ocean Wise and Monterey Bay Aquariums Seafood Watch. Seafood Watch of Monterey Bay Aquarium has created an evaluation standard for capture fisheries based on five guiding principles:

“(i) a low vulnerability to fishing pressure and hence a low probability of being overfished, because of inherent life history characteristics; (ii) stock structure and abundance are sufficient to maintain or enhance long-term fishery productivity; (iii) fish

are captured using techniques that minimize the catch of unwanted and/or unmarketable species; (iv) fish are captured in ways that maintain natural functional relationships among species in the ecosystem, conserve the diversity and productivity of the surrounding ecosystem, and do not result in irreversible ecosystem state changes; (v) a management regime exists that implements and enforces all local, national and international laws and utilizes a precautionary approach to ensure the long-term productivity of the resource and integrity of the ecosystem” (Shelton, 2009, 187).

The main purpose of campaigns such as Sea Choice and Seafood Watch is to encourage the public to abstain from purchasing unsustainable seafood, in doing so consumers actively participate in helping revive fish stocks (Jacquet & Pauly, 2007). The campaigns created seafood wallet cards whereby the evaluation of factors under each of the criteria resulted in colour ranking of red, yellow, and green (Shelton, 2009). “Consumers are encouraged to purchase seafood from the ‘best choices’ (green) species because these fisheries are deemed to be sustainable [while] ‘good alternatives’ (yellow) are suggested in preference to species from the ‘avoid’ (red) category” (Shelton, 2009, 188). Essentially, consumers are expected to stop purchasing species that are listed under the red category in the hopes of generating demand for sustainable fishes and rewarding producers who supply these fishes (Iles, 2007). There is much controversy and concern surrounding species that fall under the yellow category because they do not demonstrate all of the qualities of a sustainable fishery and therefore should not be regularly purchased (Shelton, 2009).

Other more direct campaign approaches have focused on boycotting the capture, sale and use of a specific species that is experiencing significant population degradation. This has included SeaWeb’s ‘Give Swordfish a Break’ campaign, which encouraged

restaurant owners and chefs to omit swordfish from their menus (Jacquet & Pauly, 2007). The campaign began in 1998 and has contributed to the rebounding swordfish populations (Jacquet & Pauly, 2007). The ultimate success might be attributable to the second objective of the campaign, which was to close swordfish nursery areas in the United States to fishing (Jacquet & Pauly, 2007). Speculations also surround the issue of mercury levels within swordfish, many believing that consumer demand for the species reduced to less at risk pelagic species (Jacquet & Pauly, 2007). It should be understood that “such blunt approaches can succeed if the fish species in question is endangered, all relevant fishers and fisheries are contributing and a moratorium would help rebuild populations” (Iles, 2007, 578). However, if this is not the case, boycotts typically do not create incentives for producers to adopt sustainable practices because in the marketplace all producers are created equally (Iles, 2007). Another example of this is have the “Dolphin safe tuna’ eco-label that was initially established in 1990 as a means of tackling the high volume of dolphin bycatch in the tuna industry (Thrane et al., 2009). “This eco-label must be characterized as a single attribute label that focuses on the unintended impacts of fishing on non-target species (arrow 2) in Figure 1” (Thrane et al., 2009). In other words, this label addresses one environmental issue, in this case bycatch, but not others such as energy consumption or the impacts of the life cycle stage of the target species (Thrane et al., 2009).

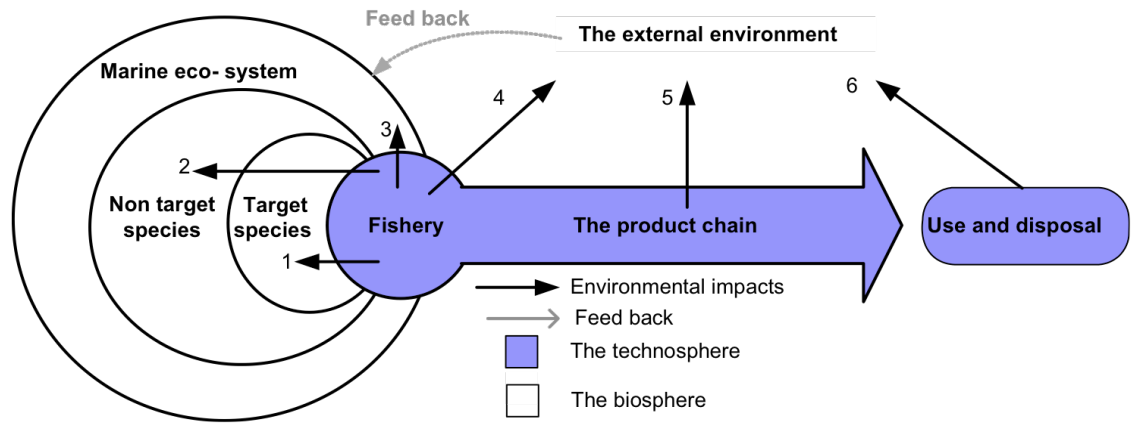


Figure 1: Environmental impacts at different life cycle stages of seafood production (Thrane et al., 2009, 418).

3.3 SUSTAINABLE SEAFOOD CERTIFICATION LIMITATIONS

There are a variety of limitations and problems that have plagued sustainable seafood certification systems throughout their existence. These limitations, defined in Table 1, have ranged from lack of traceability, mislabeling, bycatch, inefficiency, accountability and more.

Table 1: Defining Limitations

<i>Word</i>	<i>Definition</i>
Traceability	Referring to the ability to trace/track a fish from the producer to the consumer ensuring that the means in which the product was caught actually follows the sustainability standards of the ecolabel. Traceability helps protect consumers from
Mislabeling	Referring to the mislabeling or renaming of seafood preventing consumers from fully recognizing or understanding what type of product they are purchasing.

Bycatch	Referring to fish caught unintentionally by fishers who are targeting other species. Bycatch essentially become discarded waste because fishers are not allowed to profit from unintentional catch or they will be charged with a fine.
Inefficiency	Referring to barriers that prevent an ecolabel from effectively implementing sustainability standards within the global fish industry.
Accountability	Referring to an organizations ability to be transparent in their decision-making processes and being held accountable for actions that do not follow their mandate or standards.

One such limitation can be linked to the relationship, or lack there of, between consumers and producers within the seafood production chain. The main focus of market-based strategies is to ensure that seafood producers are changing their production methods to become more sustainable (Iles, 2007). However, “to date, the sustainable seafood movement has largely concentrated on changing consumer demand in industrial countries rather than assuring that production practices change worldwide as well” (Iles, 2007, 577). Because it is not yet clear whether or not consumers will be willing to consistently pay premium prices for sustainable products, this becomes a major issue. (Iles, 2007). It has been argued that there needs to be more focus on producers than consumers when it comes to sustainable seafood. “Instead of drawing a dichotomy between producers and consumers, advocates can examine how multiple producers and consumers shape each other through the production chain, and how producers are consumers too” (Iles, 2007, 578). It is clear that sustainability needs to not only change consumption but also change

production practices and choices in order to have a lasting impact on fish stocks (Iles, 2007).

Much criticism has revolved around MSC's methodology claiming that there is too much flexibility to the certifying bodies, leading to variable and inconsistent assessments (Shelton, 2009, 187). Additionally, a severe absence of traceability undermines the strategies that these social marketing movements are attempting to accomplish. To avoid destabilizing the credibility of these sustainable seafood certification systems it is essential that:

“the fish being purchased and consumed must be [clearly labeled] so that it can be traced all the way back along the supply chain to a point of origin in a sustainable managed fishery using a particular fishing gear type, on an identified taxonomic species caught within a clearly demarcated geographic location” (Shelton, 2009, 188).

Lack of traceability and re-labeling is a serious problem that continues around the world even outside the realm of sustainable seafood certification campaigns. Reports from the National Environmental Trust have identified that a significant amount of illegal Patagonian toothfish, an endangered species, have entered US markets labeled under the nondescript title of ‘frozen fish fillet’ (Jacquet & Pauly, 2007). The potential financial incentives of becoming an environmentally friendly product have inspired many fishers and seafood companies to misrepresent their seafood product (Jacquet & Pauly, 2007). This poses a serious problem when trying to educate consumers on the appropriate product to purchase. There are numerous examples of fish being renamed in order to be deemed as a more marketable and appetizing product. This is illustrated with the Patagonian toothfish, which has been relabeled as Chilean sea bass (Jacquet & Pauly, 2007). Slimeheads were conveniently renamed as Orange roughly to portray them as a

more desirable product opposed to their original name (Jacquet & Pauly, 2007). This misrepresentation and dual names confuses consumers and further complicates efforts being made by seafood advocacy groups to educate the public on choosing the right product.

Another major debate that plagues the sustainability standards and labels for seafood centers on the issue of inclusion and exclusion (Ponte, 2008). In particular, it has been shown that sustainability certifications for coffee, timber or seafood can indeed marginalize smaller producers and producers in poorer countries (Ponte, 2008). This has created an unbalanced relationship within the certification realm, as it is often those smaller fisheries or those fisheries from developing countries that are most in tune with sustainability measures or those that are most desperate for implementation. Developing countries and smaller artisanal fisheries fear that the promotion of sustainable seafood is out of reach leaving them to sell the unsustainable fish by default. This creates concern that sustainable seafood labels may become only suitable for niche markets marginalizing its capabilities and overall demand (Jacquet & Pauly, 2007). According to Jacquet and Pauly (2007) “this is perhaps because, unless the program is mandatory, only fisheries that stand to benefit financially from adopting a product certification and label are likely to do so” (309). If these certification systems cannot serve the needs of the small-scale or artisanal fishers, which are the vast majority of fishers worldwide, can it really be considered an improvement to global fisheries management? This is a question that has presented itself throughout the literature, the answer often revolving around the need for further inclusion of these small-scale or artisanal fishers within current management strategies such as seafood certification systems.

3.4 SUSTAINABLE SEAFOOD CERTIFICATION SUCCESSES

Sustainable seafood campaigns should not be viewed as failed attempts to combat the issue overexploited fishery resources, for they have produced successes and progress in a number of ways. First, the measures that have been undertaken by MSC, SeaChoice and other seafood certification campaigns have helped to raise consumer awareness on the current overfishing crisis that is facing the world today. MSC has had a substantial influence within the social marketing sphere of ecolabeling, as it is the largest sustainable seafood organizations currently in existence (Iles, 2007). As of 2008, MSC had certified 38 fisheries and another 88 were in the assessment stage, accounting for merely 7% of all wild-caught seafood sales (Gulbrandsen, 2009). Second, another success lies within MSC's role in the global whitefish market, attributed to the Alaskan Pollock fishery whereby MSC now supplies approximately one-fifth of the traded volume of whitefish (hoki, hake, and Pollock) (Gulbrandsen, 2009). Organizations such as SeaChoice, Ocean Wise, MSC and other sustainable seafood certification systems have created a working partnership with retailers to promote consumer awareness of sustainability issues. By establishing a good working relationship with retailers certification programs have found that many retailers are encouraging their suppliers to apply for certification assessment (Cummins, 2004). This is an effective domino effect in which more and more suppliers will adapt to sustainability standards to gain certification. Third, most certification programs apply "a detailed procedure for third-party certification, accreditation, stakeholder involvement as well as announcements of all steps taken in the certification process" (Thrane et al., 2009, 418). This illustrates a rigorous certification procedure that

promotes an unbiased neutral assessment of any fishery that is striving to become certified by one of these labels. Finally, it has been argued that an eco-label can have a positive effect on the price of the product in question (Erwann, 2009). “The price increment, or possibly the increased volume of sales of the ecolabelled product, preferentially rewards the producers of the more ecologically sustainable products over those producing products without ecolabels” (Ward & Phillip, 2008, 3). This premium price can help cover all additional costs that are associated with eco-labeling creating incentives for producers to produce eco-labeled products for the larger market (Erwann, 2009).

CHAPTER 4: FAIR TRADE FISH

When discussing the trade of fish products much of the literature focuses on the monetary value of the trade rather than the context of the landings or the stocks from which they originate (Alder & Watson, 2007). The removal of keystone fish species beyond a sustainable level can have serious implications for the ecosystem as well as the human communities that rely on them. As described above many initiatives have endeavored to overcome this challenge through various social marketing campaigns promoting sustainable seafood harvesting methods. The concept of Fair Trade Fish can be broadly connected to these current seafood certification systems that focus on environmental and fish stock sustainability. However, Fair Trade Fish goes a step further and incorporates another factor that has generally been ignored or overlooked by previous certification system: an Aboriginal component and traditional culture. Fair Trade Fish

may support the development of economic security, protection of culture, access rights, and control for Aboriginal communities within fisheries sector aiming to create an improved level of cultural survival.

“Fair trade and ethical trade initiatives have arisen in the context of economic globalization. In recent years, they have acquired considerable prominence due to an increasing public acknowledgement that international trade actors have moral obligations to address issues of poverty, sustainable livelihoods, environmental assets and sustainable development in general” (Utting, 2009, 127).

In order to gain a better understanding behind the theory of fair trade it will be important to analyze the history, concept and principles of other existing movements such as the fair trade coffee campaign. The concept of fair trade coffee will enact as a model and guide, illustrating the strength, weaknesses, opportunities and threats linked to its current state of production and methodologies. Therefore, a Fair Trade Fish campaign will strive to combine the favorable principles associated with both fair trade and sustainable seafood certification systems in order to create a new certification system, one where consumers can feel confident they are supporting a product that is deemed to be both environmentally and socially responsible. The changing state of the global oceans has raised a number of unanswerable questions with respect to the sustainability of the world's fish populations due to high levels of uncertainty.

4.1 STRUCTURE OF FAIR TRADE COFFEE

The fair trade movement has been shown to have a positive impact on marginalized and poor producers in the developing South by giving them access to the world trading

system (Young & Utting, 2005). Oxfam and other European aid organizations first developed the fair trade model in the 1970s as a means of overcoming the trade relationship between developed North and the developing South (Goodman, 2004). “[In] 1992 at the Rio Summit that 182 member states defined a global objective to implement a virtuous circle, uniting efficient economic development which is socially equitable and ecologically sustainable” (Erwann, 2009, 251). Today the largest fair trade market is for coffee, however other commodities are showing promise and growth, including tea, chocolate and bananas (Goodman, 2004). As the fair trade movement continues to grow and gain momentum the regulations monitoring its standards have become more formalized. “Currently, the Fairtrade Labeling Organizations International (FLO), created as an umbrella organization of 17 labeling groups, maintains the standards for the ‘Fairtrade’ label” (Goodman, 2004, 897). The FLO system remains to be the most dominant organization providing fair trade standards worldwide (Schuler & Christmann, 2011). These standards focus on three main areas including producer behaviors, trader behaviors and promotion to consumers (Schuler & Christmann, 2011). There are a number of environmental requirements associated with FLO’s standards, these include “the use of sustainable farming practices, conservation of natural resources, prohibition of the use of certain chemical pesticides and fertilizers, waste reduction and recycling, soil and water preservation, prohibition of the use of fire to clear land, organic farming requirements, and prohibition of the use of genetically modified organism crops” (Schuler & Christmann, 2011, 135). Environmental sustainability is a key component within the fair trade standards identifying the need to understand and implement methods that do not further decimate the land and resources of which the industry is based.

At a minimum, fair trade standards are ratified by “a price premium, a guaranteed price floor, long-term trading contracts, easier access to credit, and shorter supply chains” (Goodman, 2004, 897). However, it is understood that the benefits gained from the fair trade premium must be for the purpose and utilization of participating stakeholders (Goodman, 2004). It is important to understand that fair trade initiatives “aim to change the behaviors of producers and traders in international trade by establishing production and transaction standards such as environmentally-friendly production methods, minimum age for work, and fair prices paid to producers, as well as mechanisms to enforce these standards, in order to improve the lives of the producers and their communities” (Schuler & Christmann, 2011, 133). Interestingly, many farmers who produce fair trade coffee often already qualify as organic by default due to their historically marginal position and levels of poverty, creating more opportunity within many international niche markets (Goodman, 2004). This is then communicated to consumers through the use of a fair trade label, allowing them to identify responsibly traded products and to incorporate social considerations in their purchasing decisions (Schuler & Christmann, 2011). The fair trade movement harnesses benefits from free trade, such as consumer choice and specialization of production, while also promoting social justice and capacity building within communities (Schuler & Christmann, 2011). “Fair trade has come to represent an important approach to correcting the imbalance between coffee supply and demand, the disparity between international coffee prices and producers’ wages, and the discrepancy between global trade rules and sustainable development” (Utting-Chamorro, 2005). This offers an alternative trading opportunity for many producers by developing a new approach to current global trading systems and to

development systems linking the local regional producers to global consumers through trade (Utting-Chamorro, 2005).

4.1.1 SWOT ANALYSIS

Strength

The fair trade movement has harnessed a number of positive attributes since its succession with a main focus of creating improved economic security for communities and promoting environmental sustainability. “There is growing awareness that, for poor farmers, the benefits of participation in fair trade networks extend beyond those of improved landscapes and communities” (Goodman, 2007, 897). There are a variety of economic benefits that have been associated with the structure of the fair trade movement. First, growers are able to participate in other professional development initiatives that help them to increase their knowledge and understanding of international markets, technical production and quality control assistance, and organizational help to expand bargaining power (Goodman, 2007). Second, many researchers and observers have recognized the role fair trade has played in strengthening many Aboriginal communities’ identities, organizations, and farmers’ political positions through improved self-sufficiency (Goodman, 2004). Fair trade allows Aboriginal communities to gain access to a more profitable trading system facilitating a stronger connection between the more rural South and the more urban North (Utting-Chamorro, 2005). Finally, “fair trade attempts to level the playing field for small farmers through two important principles: paying farmers a fair price, that is, one that covers costs and is stable; and offering them and their organizations varying levels of support services” (Utting-Chamorro, 2005, 585).

This gives producers the adequate and necessary support needed in order to participate in the international trade arena while promoting social, economic and ecological sustainability.

Weaknesses

Of course no initiative exists without its weaknesses and critics have identified a number of areas of concern within the fair trade movement. Many of the concerns revolve around the inability of consumers to adequately distinguish between the increasing number of fair trade initiatives while others relate to the growing lack of empirical evidence concerning the effectiveness of these campaigns and their ability to allow for ethical evaluations of their practices and standards (Utting, 2009). This poses a problem because it may allow producers to gain recognition without any accountability to the requirements of the fair trade standard. Weak enforcement is serious issue that plagues many industries including fisheries management and fair trade coffee. This is illustrated by Schuler & Christmann (2011) who state,

“some producers are more interested in the potential private benefits of participating in market-based social governance schemes such as increased legitimacy or sales than in contributing to the social benefits associated with implementing the schemes’ required practices. These producers have incentives to simply declare that they comply with a scheme’s requirements or to do the minimum required to pass external audits without fully implementing the required practices in their daily operations” (140).

This remains to be a significant weakness within any certification system that is attempting to promote more environmentally or socially sustainable practices. Another major weakness is the transparency of the fair trade process, specifically when

investigating the relationship between fair trade initiatives and giant corporations such as Starbucks. Starbucks has refused to be transparent about the amount of fair-trade coffee they support which undermines the legitimacy of the fair trade label (Villalon-Soler, 2010). These profit-seeking mammoths have weakened the standards to the single criteria of a minimum price overriding the importance of the other objectives such as improving social conditions, promoting fair practices and providing financial transparency (Villalon-Soler, 2010).

Opportunities

There have been a number of opportunities associated with the creation of the fair trade movement. First, it has allowed fair trade participants to stay in the community opposed to being forced to migrate to urban centers in light of the crisis of world agricultural prices (Villalon-Soler, 2010). This has allowed many Aboriginal communities participating in the coffee industry to maintain their traditional government structure and customs creating positive social stability. Second, according to Villalon-Soler (2010), “the improvements in wealth in the fair-traders’ households are redistributed throughout the entire community” (182). Especially because the environmental standards that are implemented and maintained are labor intensive requiring ample employment opportunities for the remaining members of the community (Villalon-Soler, 2010). Third, a number of studies have illustrated that families who participate in the fair trade industry are more inclined to spend their income on the education of their children. This illustrates a growing understanding of the importance in investing in the education of future generations (Villalon-Soler, 2010). Finally, harvesting

and production techniques being utilized by the fair trade coffee industry have been shown to contribute to reforestation initiatives while also protecting the local biodiversity and water supply (Villalon-Soler, 2010). Fair trade standards provide the opportunity for producers to implement environmentally friendly means of production to help rebuild important croplands that have been lost to degradation and poor management. Fair trade has been able to provide a number of positive opportunities for communities as well as the environment, opposed to the more conventional coffee plantation operations.

Threats

Some critics of fair trade and ethical trade see a number of potential insurmountable challenges, which include, “[the] limited potential to expand market growth, to ensure sustainability and to create long term benefits for Third World producers and their communities” (Utting, 2009, 128). Another threat that can impact the fair trade initiatives is the effectiveness of enforcement control and transparency mechanisms. “Research has shown that without effective enforcement, participating organizations may not comply with standard requirements” (Schuler & Christmann, 2011, 140). This may cause a huge risk to the credibility of a marketed fair trade product, leaving the label vulnerable to those who wish to exploit it for purely economic benefits. The most common way of ensuring standard requirements are being followed is through third-party auditing, similar to the assessment process of MSC. Some fair trade initiatives require that “participating firms undergo third-party audits, in which external auditors verify that the firm complies with the [standard] requirements and issue certifications for firms that pass” (Schuler & Christmann, 2011, 140). Fair trade products are also highly susceptible to the variance in

the global market. For example, when the price for coffee has plummeted observers have seen many conventional growers switch their coffee farms into subsistence plots by destroying the forest for maize cultivation and livestock grazing (Villalon-Soler, 2010). This makes any progress made in promoting more efficient and environmentally friendly harvesting methods obsolete as maize and livestock cultivation is extremely detrimental to the ecological integrity of a given area. There is a lot of room for improvement in the current practices, methods and standards of the fair trade movement. However, it has paved the way for further recognition of the importance of implementing trading mechanisms that support economic security, social harmony and environmental sustainability.

4.2 STRUCTURE OF FAIR TRADE FISH

Fair Trade Fish is designed as an alternative certification system that will attempt to reconnect producers and consumers economically, socially and environmentally through the creation of an innovative moral certification system. Specifically this analysis will concentrate on Fair Trade Fish within Canada and Canadian fisheries, focusing on how it will provide Aboriginal communities with an opportunity to participate within new economic and social markets that will offer more stability, security and control over their own economies and traditional livelihoods. When examining Fair Trade Fish in Canada, similarities are evident from the fair trade coffee campaign. There is a parallel relationship felt between the North and South dynamic in fair trade coffee and that of Aboriginal communities and Euro-Canadian society within Canada. “Fair trade was introduced as an innovative market-based approach aiming to make the rules that preside

over the global economy and trade work for disadvantaged and vulnerable producers in the South by establishing direct links with consumers in the North and eliminating intermediaries in the trading chain” (Young & Utting, 2005). Throughout history Aboriginal communities have been subjected to abuse, assimilation and poor economic possibilities that have threatened their means of survival and traditional economies putting them in a position of inferiority. “Observers have recognized fair trade’s role in strengthening indigenous identities, organizations, and farmers’ political position through greater self-sufficiency” (Goodman, 2004). There needs to be more opportunity for participation, decision-making and engagement with respect to resource and land management for Aboriginal peoples of Canada.

Canada’s political stability and influence may be deemed as both beneficial and unfavorable. The Canadian Government is a democratically elected government body and has a constitution that divides legislative ability between the different governing bodies; however, all its citizens do not favor the Canadian Government. Aboriginal communities throughout Canada have been subjected to a long history of abuse, assimilation and denial of rights. Promoting a new certification system, one that promotes connecting fair, ethical and environmentally aware concepts with Aboriginal Traditional Knowledge (ATK), will allow Aboriginal communities to regain control and rights to their natural resources and access to new economic markets (Goodman, 2004). “Fair trade is important to today’s world because it proposes a new form of rural development intervention that links the local with the global through trade” (Utting-Chamorro, 2005, 585). Within Canada, the rights of Aboriginal peoples to self-government, self-determination and resource access and control have been explicitly denied by colonial government powers

(Nettheim et al, 2002). Aboriginal peoples throughout Canada continue to struggle in efforts to reassert their rights and identity within the post-colonial States. Access to their traditional lands and the rights to use the resources within plays a central role in their drive to nationhood (Anderson, 2006). “Traditional lands are the ‘place’ of the nation and are inseparable from the people, their culture, and their identity as a nation” (Anderson, 2006, 45). Thus, creating a new marketable label that represents an ethical certification process promoting social and environmental sustainability not only helps global fish stocks but Aboriginal communities as well.

There are a number of certification systems already in existence that concentrate on overcoming the obstacle of overfishing and exploitation. Many of these certification systems and policy regulations face recurring problems regarding economic interests, political will and global demand. It has become apparent that “many of the stocks of economic interest are under significant pressure and fishery policies and regulations must be designed to reduce pressure on stocks while meeting the interests of the fishermen and subsequent parts of the product chain from sea to table” (Thrane et al, 2009, 416). Although these are prominent issues, current certification systems have been unsuccessful in acknowledging the Aboriginal social component and obstacles that are facing fisheries today. A number of these obstacles correlate with the imbalance of international trade regulations that often inhibits Aboriginal communities from gaining access to new economic opportunities. This is illustrated by author Jaffee (2007) who states, “the legacy of colonialism that created the injustices of world trade continues to resonate, even within the alternatives that were created to address these imbalances. While many activists within the system are working hard to reduce the effects of such disparities and

strengthen the hand of Southern participants, traces of this unequal history have been formalized into the governance structures of fair trade certifiers” (228). The Fair Trade Fish label will strive to create an environmentally and socially responsible label that focuses on sustaining the reproductive capacity of fish stocks by limiting over-fishing and adverse effects on the marine ecosystem while also providing economic security and social development within Aboriginal communities (Thrane et al., 2009).

4.3 ABORIGINAL CONTEXT

Defining Aboriginal communities can be a difficult task given the complexity of human history and social organization, resulting in no single definition. Sometimes there is a clear history of colonization, conquest and genocide, while at other times the history involves conquest and marginalization from within the Aboriginal societies themselves (Mauro & Hardison, 2000). According to Mauro & Hardison (2000),

“the current definition of indigenous peoples most accepted in the international framework includes parts of all of the following elements: self identification as indigenous; descent from the occupants of a territory prior to an act of conquest; possession of a common history, language and culture regulated by customary laws and are distinct from national cultures; possession of a common land; exclusion or marginalization from political decision-making; and claims for collective and sovereign rights that are unrecognized by the dominating and governing group(s) of the state” (1264).

Since colonization Aboriginal peoples have been fighting for the recognition of their rights, culture and sovereignty from the Nation-States who sit in a position of superiority. One means of overcoming this burden is creating economic and social security within the Aboriginal communities themselves. Many Aboriginal communities throughout Canada

struggle to compete in the modern Euro-centric workforce and market place. A Fair Trade Fish campaign that has Aboriginal Traditional Knowledge and sustainable harvesting practices as its core principles offers these communities an outlet to create improved social well-being. This type of campaign will make a visible link between Aboriginal fishers and urban consumers that conventional markets render invisible establishing trade relations based on alternative ethical values such as equality, access and control (Taylor et al., 2005).

It is important to understand the historical context of the relationship between Aboriginal peoples and the natural resources upon which they are dependent. There have been many false perceptions of Aboriginal peoples throughout history, particularly with reference to their relationship with the environment. This perception often revolves around this belief that Aboriginal peoples lived in this pristine landscape where all the creatures in the forest including humans lived in harmony. Although it can be argued that Aboriginal people did exercise a more balanced relationship with the environment it still possessed direct and indirect impacts on it. There has been ample evidence to suggest that before the arrival of Europeans, Aboriginal people not only used their resources, but also manipulated, impacted and managed them to sustain themselves (Notzke, 1994). It is important to understand that “while indigenous peoples have sometimes caused extinctions and degraded environments, they have often persisted for millennia in their territories by using detailed adaptive knowledge” (Mauro & Hardison, 2000, 1263). The knowledge accumulated from this type of trial and error practice is then passed on from one generation to the next allowing for adaptive strategies to be implemented.

4.4 PRINCIPLES OF FAIR TRADE FISH

Like other sustainable seafood certification systems, Fair Trade Fish will need to have a number of guiding principles to ensure that its mandate follows sustainable practices both within the social and environmental sphere. In order to promote cultural survival and community development it may be important to incorporate ATK, the precautionary principle and adaptive management in the fundamental principles of a Fair Trade Fish campaign. The main objectives of Fair Trade Fish may include (i) reducing the risk of extinction of fish species as a result of exploitation, (ii) stabilizing catches and slow the rate of fish harvesting, (iii) promoting Aboriginal control and access over traditional fisheries, and (iv) supporting small-scale over industrial fishers. These four main objectives should then be combined with the guiding principles of other sustainable seafood certification systems such as MSC to formulate the core structure of what it is to be Fair Trade Fish. The three main principles of MSC require “that the fishing activity must be at a sustainable level, that fishing operations should be managed to maintain the structure productivity, function, and diversity of the ecosystem on which the fisher depends and that the fishery must meet all the local, national and international laws and must have a management system that responds to the changing circumstances and maintains sustainability” (Gulbrandsen, 2009, 656). These principles would then be supplemented by a number of more specific operational and management criteria whereby independent certifiers would need to ensure that the principles meet regional and local fishery conditions as well as are culturally sensitive. However, the specific operational and management criteria are beyond the scope of this analysis. For a Fair Trade Fish campaign to be effective, new efforts may need to be made which incorporate

knowledge from multiple sources, make use of existing certification models and support new forms of cooperation between the producer and the consumer.

4.4.1 ABORIGINAL TRADITIONAL KNOWLEDGE

Aboriginal Traditional Knowledge (ATK) generally refers “to local experience acquired over long time periods of direct human contact with the environment” (Chapman, 2007, 1839). It is important to understand that a universal ATK does not exist, within each family, clan, culture, and region ATK has adapted and changed to be useful to those individuals. The name itself incorporating the word ‘traditional’ can often be misleading, as it implicitly implies that cultural practices are frozen in the distant past when in reality ATK is dynamic and has evolved over time (Chapman, 2007). This is further illustrated by Usher (2000) who states, “by using the term ‘traditional’, one risks implying a static or archaic form of knowledge that is inherently nonadaptive, whereas the acute observations and sophisticated knowledge that some Aboriginal people have of their environment are both evolving and current” (185-186). ATK is typically attributed to Aboriginal community members who spend a great deal of their lives out on the land/waters who have developed a holistic understanding of the relationship human’s have developed with it (Chapman, 2007). Systems of ATK vary so widely, knowledge may be held by a society, a clan, only by men or women, by a family group, each with their own rules for exposing knowledge, thus making it quite adaptable and dynamic (Mauro & Hardison, 2000). Furthermore, it is important to establish that ATK refers to more than the mere environmental components of traditional knowledge but also

incorporates spiritual philosophies, governance principles, and cultural methodologies of Aboriginal communities.

The article written by Usher (2000) entitled “Traditional Ecological Knowledge in Environment Assessment and Management” identifies that ATK can be broken up into four distinct categories of information, which will provide an opportunity to better understand its use within a Fair Trade Fish campaign. Category one encompasses factual or rational knowledge that pertains to the environment (Usher, 2000). This includes factual statements pertaining to weather, ice, coastal waters, animal behavior and the like, which are usually based on observational knowledge from experience (Usher, 2000). This broad category generally refers to a trial and error process whereby individuals have deciphered what works and what does not, even sometimes identifying how and why it works. Category two focuses on factual knowledge, which shows how the environment is currently used and how it has been used in the past (Usher, 2000). This is often intertwined with oral history, which includes important information about history, traditions, identity and assertions of rights and titles (Usher, 2000). Category three, involves the moral or ethical components about how to conduct respectful relationships with the environment and the animals that live within it (Usher, 2000). Finally, Category four focuses on the foundation of the knowledge system, culturally based cosmology. This category concentrates on how to properly organize the information collected from observation and experience to provide explanation and guidance to the people (Usher, 2000). According to Usher (2000), “while this category is the least articulated and hence the last accessible to outsiders, some understanding of it may be needed to interpret or understand the other three categories of knowledge” (186).

It has become apparent that a change in attitude is required to provide credibility for recognizing other forms of knowledge that are not scientifically based (Mackinson, 2001). There have been many improvements in recent years, however, the system and integration of other knowledge sources is far from perfect. However, some progress has been made according to Mauro & Hardison (2000), “the value of indigenous knowledge is becoming recognized by scientists, managers, and policy-makers and is an evolving subject of national and international law” (1263). Unfortunately, in the past many scientists have deemed ATK under the categories of superstition, irrationalism and tribalism, failing to understand the valuable source of information that is in front of them. ATK is however becoming recognized as a form of rational and reliable knowledge that has been developed through generations of intimate encounters with their natural surrounding resources (Mauro & Hardison, 2000). Combining scientific methodology with traditional knowledge sources provides a means in which many of the gaps of current fishery management strategies can be overcome (Mackinson, 2001). ATK will play a fundamental role in the guiding principle in Fair Trade Fish, as it is the missing link that all other sustainable seafood certification systems have ignored. Learning from the adapted knowledge sources of Aboriginal communities may provide an alternative understanding of what fishing practices are sustainable in both an environmental, social and Aboriginal context. It is important to identify that integrating ATK in Fair Trade Fish will create its own obstacles and challenges. For instance, the fact that it is often difficult to identify and generalize ATK within a fisheries management system. “A given practice may be documented from one social group but not the next, or from one time period but not another” (Berkes et al, 2000). This illustrates the importance of creating an adaptable

certification process for Fair Trade Fish, whereby the different knowledge systems from different regions, cultures and/or communities can be properly integrated.

4.4.2 PRECAUTIONARY PRINCIPLE

When creating any kind of management regime for fisheries, whether a sustainable seafood certification system or harvesting regulations, there is going to be some level of uncertainty. In the past fisheries management has had a poor track record with dealing with uncertainty and the effects it can have on the ecosystems (Harwood & Stokes, 2003). One means of overcoming these large levels of uncertainty is through the implementation of the precautionary principle. It is a principle that aims to prevent any serious or irreversible environmental damage to the ecosystem or resource in question as a result of management action (Harwood & Stokes, 2003). “A precautionary approach to fisheries management requires a better understanding of the dynamics of past collapses and the detection of early warning signs” (Mullon et al, 2005). The precautionary principle is not deemed to be a new concept, in fact many may object to giving it a new name when similar concepts have existed within other disciplines (Kriebel et al., 2001). One of the main reasons that the precautionary principles have arisen is due to society’s inability to combat problems such as fish stock depletion. Unfortunately, these problems and others continue to grow at an exponential rate (Kriebel et al., 2001). The potential for catastrophic effects from such detrimental changes in the ocean’s ecological system, has weakened the public perception of the effectiveness of current management regimes, and the policies that are supposed to control such hazards.

Author Gonzalez-Laxe (2004) identifies two major conceptions that coexist in the precautionary principle. “The first one, based on the strengthening of the concept of environmental protection, aims to promote a prevention proportional to the potential risks. The second one looks for the eradication of risks and it may even require the ‘proof demand⁵’ of innocuousness” (Gonzalez-Laxe, 2004, 495). This concept is particularly relevant to a Fair Trade Fish campaigns because it focuses on ensuring that the resource in question is not impoverished to the point where it is unavailable for use by both present generations and future ones. It will be important to identify both long-term and short-term goals in a Fair Trade Fish campaign. Ensuring that the fish that gain certification are not those that exemplify high biological risk of collapse or stock depletion. Thus making it essential to “determine the status of exploitation for every stock, classify the assumable mortality for the fishing activity and spawning biomass limits to describe the security and uncertainty frameworks with respect to the limit reference points, proposing, consequently, the precautionary reference points, and to assess the risks associated to the different levels of mortality rates and measure the levels of inconsistency” (Gonzalez-Laxe, 2005, 497). Accepting that there will always be errors in the total allowable catch or stock estimates, fishery management strategies and certification programs should adopt the philosophy of erring on the side of caution, in order to help rebuild fishery stocks that face a greater risk of collapse.

The present status of global fish stocks is worrying. Although many fishery policies have been reexamined in order to create more sound and effective regulations,

⁵ The ‘proof demand’, also known as the ‘burden of proof’, refers to the “assumption of the prejudicial nature of human actions over the environment, until proven the opposite; and it means to take into account the future generations, avoiding all actions that can cause changes, risks, impacts, and irreversible damages” (Gonzalez-Laxe, 2005, 496)

there are still many faults in the system. Regulations and policies that deal with vulnerable resources such as fisheries need to adopt the precautionary principle as a means of overcoming the high level of uncertainty. The precautionary principle highlights many obstacles including the difficulty of defining biological reference points, often the most effective economic mechanisms in the short term are prevented and the consequences on communities who depend on fishing activities is often not taken into account (Gonzalez-Laxe, 2005). “When the implementation of the precautionary principles is carried out regardless of the economic and social consequences, i.e., in a rigid way, the achieved results come up against the achieved effects. It is necessary to count on producers’ acceptance to get the economic sustainability of fishing companies” (Gonzalez-Laxe, 2005, 498). Illustrating that in order to effectively implement a new label such as Fair Trade Fish, both consumers and producers need to equally participate in supporting, marketing and purchasing products that fall under the standards promoting social and environmental sustainability.

4.4.3 ADAPTIVE MANAGEMENT

Adaptive management is another central component that can be integrated into the fundamental principles of a Fair Trade Fish campaign. The term first appeared in natural resources management literature in the mid-1970s, being heavily based upon adaptive control process theory (McLain & Lee, 1996). Essentially addressing the question of how to construct decision-making devices, or control devices, capable of learning from experience (Bellman, 1961 and McLain & Lee, 1996). Adaptive management is a new perspective to environmental management designed to address and reduce uncertainty

(Murray & Marmorek, 2004). “Adaptive management is a logical, systematic process to help managers gain confidence in their decisions and improve the chances of achieving the desired objectives” (Murray & Marmorek, 2004, 1). It is the understanding to implement a new management style to make the environment once again healthy and prosperous while accepting that due to the nature of change it will never be what it once was. The adaptive management process includes the implementation of effective monitoring, evaluation of results and the use of this new knowledge to adjust future actions (Murray & Marmorek, 2004). Essentially, it is implementing policies as experiments and is an important component of a search for a new meaning for conservation (Lee, 1999). “In conducting these experiments we aim to learn something about the ecosystem’s processes and structures, and we seek both to design better policies and to contrive better experiments” (Lee, 1999). This is an optimal management approach to be applied to a Fair Trade Fish campaign, due to the highly dynamic and uncertain nature of marine ecosystems and fish populations.

Adaptive control devices are best suited for conditions of uncertainty like in a fisheries resource whereby the devices can be modified based on new information allowing for productive feedback (McLain & Lee, 1996).

“Under conditions of uncertainty, effective management requires that societies do more than merely acquire knowledge: they must also change their behavior in response to new understandings about how the world operates. The ability of institutions to respond to new knowledge depends on whether they have access to new information and whether they have the will and capacity to act on that information” (McLain & Lee, 1996, 438).

Access to new information/data and how well that information is utilized is an indicator to demonstrate how well an institution can adapt to change, while maintaining their

fundamental principles. This will be particularly important to the establishment of a Fair Trade Fish campaign that will need to be able to adapt to varying resource status, regions, cultures and communities. According to McLain and Lee (1996), “developing the will and capacity for individuals and organizations to adopt environmentally sound management behavior requires that they be convinced that it is in their best interest to engage in long-term, collective action that maintains or improves the system’s overall integrity and productivity” (438).

Adaptive management has shown to play a significant role in the management of marine and coastal areas and ecosystems. When investigating these complex systems it is vital that one looks at the whole picture instead of an individual focal point. It is becoming increasingly more prudent that the adaptive management approach is adopted in sustainable seafood certification systems, in order to create resilience in these vital ecosystems. It is a strategy that will allow these systems to absorb the unexpected shocks associated with high levels of uncertainty without collapsing or entering into another undesirable state (Charles, 2002). “Adaptive management involves suitable monitoring processes, integration of all sources of knowledge (notably traditional ecological knowledge and fisher knowledge), and mechanisms for incorporating new information, so management actions can be reassessed as needed to adapt to unexpected circumstances to avoid compromising conservation goals” (Charles, 2002). All of which play an important role in the creation of a Fair Trade Fish campaign, which will aim to promote sustainability within both the social and environmental sphere. It is the allocation of knowledge from a variety of stakeholders, whereby the nature of uncertainty is taken into account and applied to the decision making process.

CHAPTER 5: MSC AND FAIR TRADE FISH

As Fair Trade Fish does not yet exist it is important to outline the commonalities and differences that it may have in comparison to the industry giant MSC. The MSC is among the largest of the sustainable seafood certification system in existence today. Therefore, it may provide an important template and lessons learned for the creation of Fair Trade Fish. By identifying both the commonalities and differences, the social objective of the Fair Trade Fish campaign becomes clearer. The growing awareness of the importance of social development and economic security has resulted in the establishment of environmental policies and systems, aimed at creating an ecological management of economic development through mediation of differing interests (Erwann, 2009). Furthermore, as fishing is considered to be one of the most large-scale human alteration of the marine ecosystem and among the top internationally traded products, it is evident that the development of rigorous policies, regulations and certification systems need to be at the forefront, to prevent future exploitation of the resource and the communities that are dependent upon it.

5.1 COMMONALITIES

There are a number of commonalities between MSC and Fair Trade Fish ranging from the aim to promote sustainable harvesting practices, to some of the many challenges they will both face. One challenge being that the proliferation of eco-labels does not necessarily ensure that conservation goals and sustainable harvesting practices will be met (Jacquet & Pauly, 2007). This has been illustrated within the Organic food labeling which is deemed as the most successful food label initiative throughout the world. Yet,

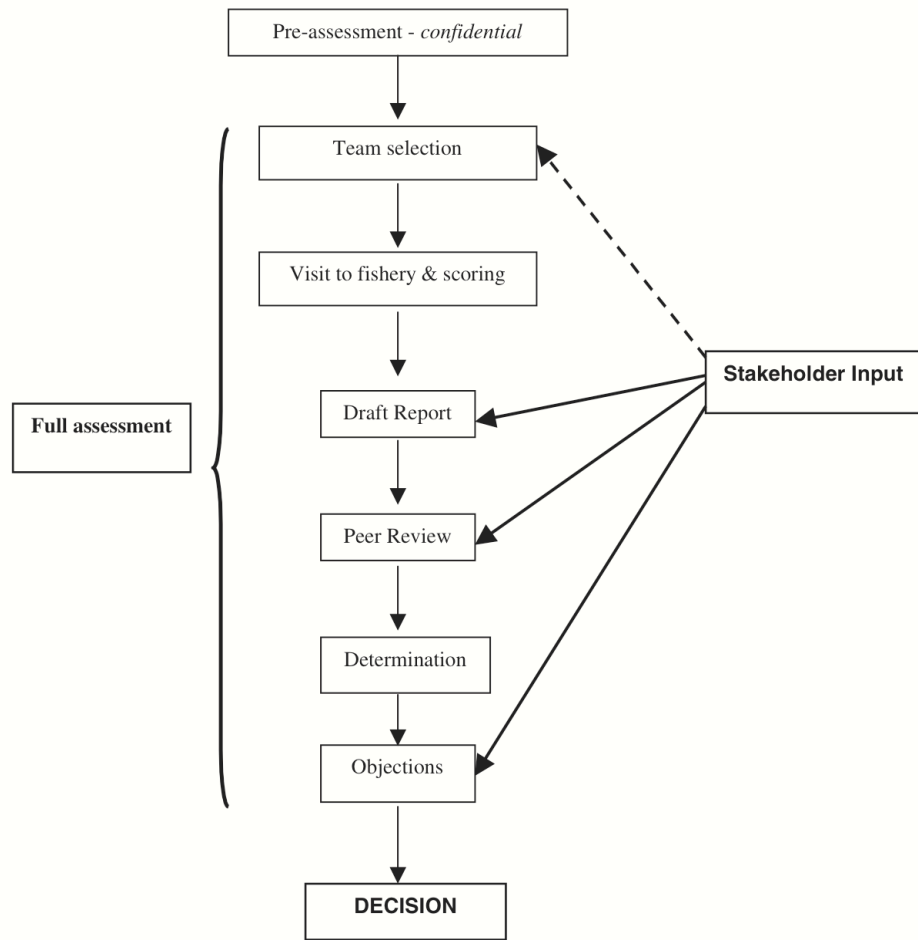
the farming industry throughout the United States continues to increase their use of pesticides and other toxic chemicals to ensure a more profitable yield (Jacquet & Pauly, 2007). It is upsetting that financial incentives and economic development outweigh the extremely severe and harsh side effects of exploiting resources beyond a sustainable yield. The issues of mislabeling, traceability and enforcement have been major areas of contention in the inner workings of MSC and will no doubt be an obstacle for any future sustainable seafood certification system, including Fair Trade Fish. Fishing vessels that fly flags of convenience are an example of how these large-scale fishing fleets can roam the world's oceans, seeking to evade conservation and management policies (Jacquet & Pauly, 2007). "Just as the inability to trace fish impedes the aims of consumer awareness campaigns, so does the inability to trace the industrial boats illegally catching those same fish" (Jacquet & Pauly, 2007, 310). Illustrating some of the unforeseen effects that inspire fishers and fishing companies to escape regulations and potentially misrepresent their seafood product (Jacquet & Pauly, 2007).

There is a considerable risk believing that sustainable fishing practices can be implemented by consumer choice and purchasing power alone. According to Jacquet & Pauly (2007) "the current faith in the magic of free-market mechanisms must be questioned; we will have to manage fisheries with our heads, not our stomachs. Consumers should not be misled that a system of management or conservation based on purchasing power alone will adequately address the present dilemma facing fisheries globally" (312). One major downfall to both MSC and Fair Trade Fish is that consumers do not necessarily rely on the best scientific information when making purchasing decisions (Kaiser & Edward-Jones, 2006). It has been shown that consumers often

purchase off of labels alone, making them susceptible to buying unsustainable products that have been purposely misrepresented as ‘eco-friendly’ or sustainable (Jacquet & Pauly, 2007). A recent study found that more than 50% of environmental advertising is deceptive or misleading (Jacquet & Pauly, 2007). This is extremely problematic for those certification systems that have instilled rigorous protocols and regulations to ensure their product represents and abides by their specific standards. There is a fear that consumers and retailers may lose faith in the ecolabeling scheme if the standards are not strictly enforced, if the product is being mislabeled and is misrepresented or if potentially new candidates are not reviewed to the same standard (Kaiser & Edwards-Jones, 2006). This may result in the need to create an alternative approach where the focus is switched away from consumers and on to retailers and other users of the marine products (Kaiser & Edwards-Jones, 2006). Thus, avoiding the fundamental flaw of certification systems that are dependent upon the consumer to value the label of the goods whereby sufficient sales will then benefit the environment (Kaiser & Edward-Jones, 2006).

Like MSC, Fair Trade Fish will provide detailed procedures for third-party certification, accreditation, stakeholder involvement as well as all steps involved in the certification process to ensure that the label’s stated objectives are met, respected and upheld (Thrane et al., 2009). A Fair Trade Fish campaign will follow a similar flow chart as to the one illustrated in Figure 2. There are a number of important steps to ensure that the certification process is credible, effective and fair. It will be essential to ensure that the accreditation process is tightly controlled, therefore ensuring that the fisheries under assessment conform to all necessary standards and requirements of the Fair Trade Fish campaign (Cummins, 2004). This is been a common challenge in both MSC and fair

trade coffee, however, continuous improvements are being made to improve the benefits of the environmental standards and social development. “By purchasing fair-trade products, consumers are certainly helping to generate important social benefits for farmers and supporting a more sustainable market alternative. As more people learn about



Following a favourable decision, the fishery earns the claim of being *a well-managed and sustainable fishery*.

Figure 2: Flow chart of the main steps in MSC's fishery assessment process (Cummins, 2004, 89)

and engage with fair trade, additional producers and communities will gain access to those benefits” (Jaffee, 2007, 262). Illustrating the significance of having a label and product that is easily marketable, allowing consumers to understand the importance and

reasoning behind what they are purchasing. Furthermore, coercing consumers to question what it is they are eating, where it comes from, who is supplying it and what impact it is having on the ecosystem (Shelton, 2009).

5.2 DIFFERENCES

A key difference between MSC's certification program and Fair Trade Fish is the Aboriginal social component. During the developing years of MSC, certain boundaries had to be determined in order to establish what should and should not be included within its standards and objectives. In essence, "the MSC had to decide if the principles and criteria should only address fishing operations and environmental issues, or if they should also address social and development issues" (Gulbrandsen, 2009, 656). Many commentators were concerned that MSC may not be suitable to combat the certification of fisheries in developing countries given the high percentage of small-scale fisheries and the diversity of fishing operations in the developing world (Gulbrandsen, 2009). There was also a fear that "certification under the MSC could give Southern fisheries a competitive edge over their Northern counterparts, who had to contend with the collapse of many fish stocks in the North (Gulbrandsen, 2009, 656). Ultimately, MSC decided to focus primarily on fishing operations and sustainable harvesting methods instead of social development issues.

Fair Trade Fish may provide an opportunity to create a more community based fishing cooperative, establishing a mechanism for better collective decision making and strategy with respect to harvesting practices and behavior (Kaiser & Edwards, 2006). This may require the government to intervene to help facilitate and subsidize this process to ensure its effectiveness. Chile provides an example "where the government policy has

effectively forced fishers to work collectively to submit applications for management responsibility for defined areas of the sea” (Kaiser & Edwards-Jones, 2006, 396). Furthermore, Fair Trade Fish should ideally further highlight the importance of creating innovative international agreements along with national regulations that focus on traceability from ocean to plate, in order to achieve accurate sustainability and compliance (Shelton, 2009). Given that fisheries are one of the most heavily traded resources in the world, there is a growing need to provide reliable provenance to guarantee that a Fair Trade Fish product is from a fishery that is not overfished while also aiding in social development initiatives and economic security for marginalized communities (Shelton, 2009). “The trading of fish has not just extended spatially to cover most regions of the world; it has also expanded in volume and value” (Alder & Watson, 2007, 47). With the growing dimensions of globalization today, it has become clear that new rigorous trading regulations and agreements pertaining to fisheries and Aboriginal communities needs to be developed.

CHAPTER 6: APPLICATION OF FAIR TRADE FISH

The implementation of a Fair Trade Fish campaign will further draw attention to the fair trade and sustainable seafood movement, addressing Aboriginal, social and environmental problems exacerbated by conventional global markets (Taylor et al., 2005). It will be imperative for Fair Trade Fish to battle and overcome the contradictions and challenges associated with both the fair trade movement and sustainable seafood certification systems, in order to be a success. If not, the growth of Fair Trade Fish will

be shunted by the failures of past organizations, which threaten to undermine the label's legitimacy, its effectiveness and even its future (Villalon-Soler, 2010). The campaign will focus on establishing a trading partnership, based on dialogue, transparency and respect in order to seek greater equity among marginalized people (Utting-Chamorro, 2005). “[Aboriginal] peoples are asking for this respect and support from scientists because the use of their traditional knowledge is necessary for cultural survival, and it is through their cultures that healthy ecosystems are maintained” (Mauro & Hardison, 2000). It is important that Aboriginal communities are able to fully and freely engage in all steps of the certification process if it is to be considered a campaign that reflects the norms, knowledge and traditions of an Aboriginal community (Ward & Phillip, 2008). Fair Trade Fish may actively engaged in promotion of sustainable harvesting practices of captured fisheries, while campaigning for changes in the rules and practice of conventional trade (Utting- Chamorro, 2005). Ward and Phillips (2008) identify that despite how Fair Trade Fish determines its standards and verifies compliance, it must seek to achieve a balance between “market appeal to consumers to drive their preferential purchases; a credible, rigorous and high-level sustainability standard that can be verified and demonstrated; a low cost system for assessment and verification of compliance with the standard” (23-24). The robustness and integration of ATK in the standards and the ability of the certification program to achieve better environmentally and socially sustainable outcomes, is what will separate Fair Trade Fish from existing certification programs (Ward & Phillip, 2008).

6.1 INTEGRATING ABORIGINAL TRADITIONAL KNOWLEDGE

When considering how to integrate ATK into a Fair Trade Fish campaign it is essential to distinguish the value and norms of ATK and their significance to the social structure of the individual community. Aboriginal communities have ways of conceptualizing and acting in the environment that act as expressions of how to invest the world with meaning and significance, which may provide an alternative approach to the dominant consumptive values of Western Society (Mauro & Hardison, 2000).

“From a Western scientific perspective, [ATK] includes empirical facts or associations based on observation and experience, explanations of fact, a culturally specific way of organizing and understanding information, a set of values, and in a very broad sense, cultural norms about how to do things. From an Aboriginal perspective, [ATK] is what people learn from experience, from family and community, and from stories handed down about how to live fully and effectively in their environment. It is thus both knowledge of how things work and a guide to action” (Usher, 2000, 186).

It is important to understand that ATK is qualitative rather than quantitative. According to Chapman (2007), “scientists place a great deal of faith in statistics and in making comparisons between prior conditions and/or with reference conditions. In contrast, [ATK] comprises a very long-term record against which anomalies can be compared with a high degree of certainty” (1839). Furthermore, ATK is intuitive rather than analytical. “Aboriginals with a long-term mental record of the fisheries resources in an area can readily determine changes without having to resort to a great deal of data gathering” (Chapman, 2007). This is the polar opposite of the scientific method, which would strive to obtain representative data.

There are also associated issues surrounding ATK in practice, which revolve around the lack either direction or common agreement on what Aboriginal traditional knowledge is, the type of information it provides, and how it can be accessed and brought into a sustainable seafood certification process (Ellis, 2003). Unfortunately, policies associated with ATK provide to all intents and purposes no guidance for implementation (Ellis, 2003). It is generally understood and assumed by various agencies that Aboriginal people understand the nature and utility of ATK, therefore, for obvious reasons they become the best suited to bring this knowledge into the decision making process (Ellis, 2003). Consequently, Aboriginal participants are expected to bring forward their ATK and interpret it in the context of the scientific-based discussion at hand (Ellis, 2003). This is an extremely complex task seeing as sustainable certification procedures are based in the Euro-Canadian cultural context, not within an Aboriginal cultural context, making it fundamentally different from that of Aboriginal perspectives. One of the primary issues/barriers preventing effective implementation is the language used; in current certification campaigns the language used tends to be heavy with technical and scientific terms (Ellis, 2003).

“The decisions they produce are often based upon Euro-Canadian value systems and scientific evidence, whereas traditional knowledge cultures, they are often based on experience. Consequently, traditional knowledge experts rarely have much understanding of environmental decision-making procedures, let alone the material discussed as evidence in meetings and workshops” (Ellis, 2003, p. 70).

This can create a wedge between Aboriginal communities and scientific-based resource management institutions, often resulting in an Aboriginal community’s apprehension to get involved because of unclear motives due to language barriers.

Increasing support for the integration of ATK in Fair Trade Fish, may help aid the development of Aboriginal economic security; provide for the full and effective participation of Aboriginal knowledge in policy, research, and management; ensure transparency in certification measures; and support cultural and social revitalization efforts and the continued use of ATK (Mauro & Hardison, 2000). Respect for cultural diversity and the treatment of ATK as complementary to Western scientific knowledge are fundamental components when implementing a Fair Trade Fish campaign (Mauro & Hardison, 2000). Figure 3 illustrates a practical means of combining knowledge and data from local knowledge sources, scientific information, and published scientific literature into a constructive form that can be applied in fishery management scenarios (Mackinson, 2001). All knowledge sources should be utilized and incorporated in Fair Trade Fish as a means of ensuring a well-rounded knowledge base maximizing chances of sustainability (Mackinson, 2001). ATK will be at the forefront, as it is a

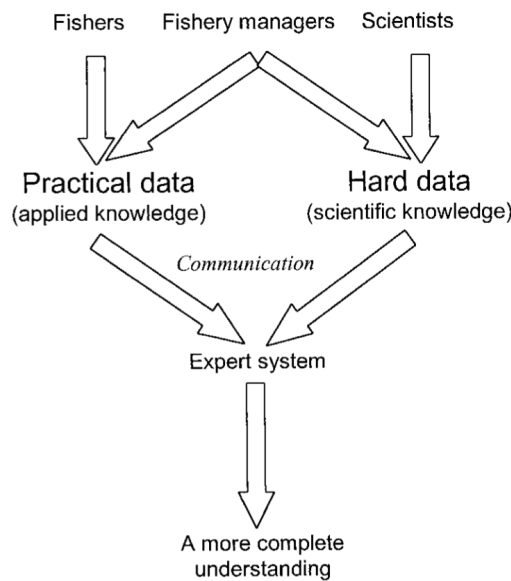


Figure 3: Combining Sources of Data (Mackinson, 2001, 534).

knowledge source that is untutored by the conventional scientific paradigm but is based upon a lifetime of observation and experience of a particular environment and as a result it has functioned very effectively in that environment (Usher, 2000).

A challenge that may face Fair Trade Fish is collecting, organizing and communicating the information found in ATK. Collecting ATK must be done

“systematically, using established protocols, so as to minimize the dangers of over generalizing from limited information and untested assumptions. Neither opinions alone, however firmly or sincerely held, nor facts alone, however accurately recalled or precisely recorded, are sufficient. The policy arenas in which these matters are resolved are ones in which knowledge claims must be tested and validated, not merely asserted” (Usher, 2000, 185).

It is important for ATK to be considered a primary source of information despite the potentially biased perceptions of resource abundance (Mackinson & Nottestad, 1998). Aboriginal communities throughout Canada are still heavily connected and dependent upon their environment and its resources for the livelihood and survival, illustrating the value of that knowledge source (Mackinson & Nottestad, 1998). It is clear that there are a number of fundamental differences between ATK and western science. However, this does not mean that one approach is right and the other wrong. Both of these approaches provide useful information and should be used equally, in order to determine the environmental status and health of the ecosystem, as well as the appropriate measures to be taken to promote sustainability (Chapman, 2007). Simply applying a knowledge-based system offers an alternative approach to represent and apply ATK and other knowledge sources, to help solve some of the problems facing the global fisheries today (Mackinson & Nottestad, 1998).

6.2 FEASIBILITY

In order to properly implement a Fair Trade Fish campaign, a number of components need to be considered, including government regulations, accountability and effectiveness as well as assessment and certification. Many Aboriginal communities have been excluded from considering certification from organizations such as SeaChoice or MSC, due to their small-scale nature, financial burdens or the actions of others that are beyond their control (Gulbrandsen, 2009). Given the nature of fish resources, it is important for fisheries stakeholders (i.e. Aboriginal communities) and government bodies to work together to change regulatory frameworks that have prohibited these fisheries from gaining access to certification programs. “If governments believe that certification is vital for the economic viability and market access of the fishing industry, they may take the initiative to change management rules to allow for the certification of [Aboriginal] fisheries” (Gulbrandsen, 2009, 658). Aboriginal communities have the knowledge, resources and means of implementing a Fair Trade Fish campaign that will strive to improve fishing practices and management approaches to ensure the future survival of this vital resource.

It is clear that there is a growing interest in sustainable seafood certification schemes that aim to provide useful policy tools to promote more environmentally responsible fishing (Ward & Phillip, 2008). Despite its potential, there are several limitations previously noted that may impede the ability for Fair Trade Fish to effectively restructure the role of ecolabels in the marketplace (Iles, 2007). “Globalization of the fishing sector consumes marine resources, changes the nature of business with flow-on effects to employment and property rights and also affects how resources are managed. Collectively these changes impact marine ecosystems, societies and economies in various

ways and with different consequences” (Alder & Watson, 2007, 65). While the varying certification programs are consistently generating new information, most of it remains industry-held, preventing the analysis of whether or not these programs are actually having positive impacts on the environmental or fishing communities (Iles, 2007). There is a clear indication that the industry, policy-makers and politicians need to help better distribute the information gathered and the benefits in fisheries to those who can be most dramatically impacted from its destruction. Marine ecosystems, Aboriginal communities and artisanal fishers, are at the top of the list of those who have seemingly been unable to benefit from the globalization of fisheries (Alder & Watson, 2007). Thus illustrating the usefulness of creating a new marketable certification program that will strive for transparency in order to ensure that information and research monitoring its success and failures is made available to all.

Another valuable component to creating a successful new sustainable seafood certification program is marketing this new ecolabel. According to Ward & Phillip (2008), “it appears that to achieve ‘gold-star’ status with consumers an ecolabelling programme mainly needs to have a good marketing arm, but does not need to create major to ocean ecosystems or fish stocks” (418). Fair Trade Fish will need to follow in the footsteps of past organizations, such as fair trade coffee, which have been able to create well-known labels through their marketing campaigns. “Fair trade products have caught the attention of millions of socially and ecologically conscious consumers through the awareness-raising efforts of many non-governmental organizations, alternative trade organizations, environmental and social movements and others” (Young & Utting, 2005, 140). From a marketing perspective, it will be important to create a marketable brand in

order to scale up the practical impact it can have on Aboriginal producer's lives. The label itself still acts as the number one way to communicate to consumers who have not previously purchased a Fair Trade Fish product before (Schuler & Christmann, 2011). The label informs the consumer that the product was produced, processed, traded and sold in accordance with the principle associated with that specific label, laying the groundwork for Fair Trade Fish products to be distributed through mainstream channels (Schuler & Christmann, 2011). "This quality is a social construction, oriented toward a sector of conscientious consumers willing to pay more if they are guaranteed that a price premium will actually reach producers" (Renard, 2005, 423). Helping to create a symbolic relationship whereby the consumer is more closely connected to the producers of the product they are about to purchase.

CHAPTER 7: CONCLUSION

The effectiveness of these new social marketing campaigns is still unknown due to their infancy, creating areas of contention in fisheries and resource management sectors. Utting identifies two major issues that concern the fair trade movement, whether linked to coffee or the possibility of a new market for fish.

"First, there is a need for greater ongoing empirical data and analysis to address the widespread credibility concerns surrounding responsible trade initiative, particularly at the local-level where the initiative operates. Second, there is not an adequate and consolidated framework to support critical ground-level research of the impact of fair trade and ethical trade" (Utting, 2009, 128).

It is essential to understand that there is no reason for fisheries resources to keep pace with the world's growing population, demonstrating the importance of creating programs that will enhance and aid in rebuilding marine ecosystems, rather than further deplete them (Pauly et al., 2002). There are and will continue to be a number of challenges facing campaigns that aim to promote environmental and social sustainability. Particularly in the fishing industry as it is a globally traded commodity that involves a variety of stakeholders. "Thousands of fishing days, millions of fish, hundreds of thousands of nets and tens of thousands of boats are hard to monitor" (Iles, 2007, 582). As a result, more effective and rigorous regulations need to be implemented to ensure that producers are abiding by the standards set out by the label to minimize hazards such as bycatch, mislabeling and environmental destruction.

There has been a growing interest in ATK due to the recognition that such knowledge can contribute to the conservation of biodiversity, enhance protected areas and ecological processes as well as promote the sustainable use of natural resources (Berkes et al., 2000). "Aboriginals survived and continue to survive on the land and water by not only knowing about the animals and plants, but also how they fit into the complex web of practices, values and social relations that encompass not only them and their habitat, but also humans" (Chapman, 2007, 1840). Using ATK in the principles of a Fair Trade Fish campaign further reiterates the validity and relevance of Aboriginal knowledge, experience, and competence, and aides in reversing the long history in which those attributes were ignored and discounted (Usher, 2000). It is clear that a shift needs to take place to encourage fisheries to join campaigns such as Fair Trade Fish, on the premise that quality can be a more important and profitable attribute than quantity

(Jacquet & Pauly, 2007). This is a significant aspect in changing the way in which resource management plans are conducted, because few institutions actively participate in encouraging consultation measures with local Aboriginal peoples. This will require the creation of new resource management plans that are no longer exclusive but rather inclusive; whereby the barriers that are separating non-Aboriginal stakeholders from Aboriginal stakeholders can be overcome.

The ultimate goal of a campaign such as Fair Trade Fish is two-fold; the main objective is to protect traditional livelihoods while also promoting conservation and sustainability of valuable fishery resources. Stakeholder involvement, namely the participation of consumers exercising a choice between various seafood products, will inevitably impact the decisions that involve commercial fishing (Ward & Phillips, 2008). Creating an opportunity for consumers to actively participate in reducing the profitability of those operators who continue to fish unsustainably while endorsing those who participate in a sustainably managed fishery (Ward & Phillips, 2008). “Consumer demand is critical for increasing the reach of market-based social governance schemes, because demand drives the expansion of output by participating producers or attracts new producers to participate” (Schuler & Christmann, 2011, 138). It is imperative to look into alternative means of promoting cultural survival while also enhancing the sustainability of global fish stocks. It is clear that fishery resources continue to remain as an integral element of both Aboriginal and non-Aboriginal economy, society and culture. As more and more research is being conducted on alternative knowledge systems it has become increasingly more prominent how important it is to create innovative management strategies that take into consideration all aspects of knowledge despite how they are

gathered or who they come from. Everyone, scientists and nonscientists alike, are searching for a more complete and sound understanding of the world's ecosystems, in order to alleviate some of the damage caused over the years. ATK's adaptive approach can help provide the knowledge that is needed to better understand how to preserve existing fish stocks for future generations while also protecting existing traditional livelihoods.

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