

**RESOLVING CONFLICT OVER RISK MANAGEMENT IN THE MARINE
ENVIRONMENT: STRENGTHENING GOVERNANCE INSTITUTIONS**

by

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ABSTRACT

In the marine environment conflicts that arise from ‘wicked problems’ (in sensu Rittel and Webber 1973; Jentoft and Chuenpagdee 2009) are inevitable given the plurality of actors, interests, values and uses, and the division of powers between provincial and federal government agencies in Canada. If conflict is not dealt with, governance objectives may be impossible to attain therefore threatening sustainability of social-ecological systems. One approach to promote sustainability is to develop innovative institutional arrangements for adaptive co-management (Olsson et al 2004; Hughes et al 2005; Folke et al 2005; Armitage et al 2009). An example of such an innovative institution is the Southwest New Brunswick (SWNB) Bay of Fundy Marine Advisory Committee (MAC), which was assembled in 2004 to address conflict between marine users. This dissertation examines the differing perceptions of risk among actors in SWNB, and evaluates MAC tools for monitoring and assessing risk. It then compares these tools to a sustainability indicator framework recently developed by the Canadian Fisheries Research Network. The dissertation analyses the role that conflict plays in either enabling or hindering innovative institutions and their response to risk. I critique the normatively oriented literature on adaptive co-management using the critical perspective of the governmentality literature (following Foucault, Dean and others). In doing so, I ask questions about conflict and power dynamics within the MAC to better understand how people internalize ideas and how it influences their behaviour.

The results from this case study suggest that conflict has created new institutions and empowered new actors to assess risk and to co-operate to solve problems. However, conflict has also profoundly restructured the parameters of political democracy

(Swyngedouw 2005:1993), particularly as seen in the capacity of the MAC to resolve conflict, their mechanisms of participation and their ability to be both transparent and accountable. Based on this case study, I make several recommendations for improving the MAC. Down-scaling governance to 'local' institutions such as the MAC will require understanding the contradictory ways in which the role of conflict both enables and hinders innovative institutions, and how this in turn impacts democratic processes (ibid).

DEDICATION

I dedicate this PhD to children that are told they will never amount to anything and to the adults that tell them they will.

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List of Abbreviations

ADR: Alternative Dispute Resolution
CFIA: Canadian Food Inspection Agency
CFRN: Canadian Fisheries Research Network
CVC: Community Values Criteria
DFO: Fisheries and Oceans Canada
FMS: Fisheries Management Science
ISA: Infectious Salmon Anemia
MAC: Southwest New Brunswick Bay of Fundy Marine Advisory Committee
MOU: Memorandum of Understanding
MPA: Marine Protected Area
MRP: Southwest New Brunswick Bay of Fundy Marine Resource Planning Initiative
MSE: Management Strategy Evaluation
NBDFAA: New Brunswick Department of Fisheries, Agriculture and Aquaculture
NSERC: Natural Sciences and Engineering Research Council of Canada
SABS: St. Andrews Biological Station
SSHRC: Social Sciences and Humanities Research Council of Canada
SOS: Save Oceans Science
SWNB: Southwest New Brunswick
RRCOM: Regional Committees on Coastal and Oceans Management

Chapter 1: Introduction

1.1. The Problem – Conflict in the Marine Environment

Conflict in the marine environment is inevitable. Commercial fisheries belong to a unique category of occupations that depend on common pool resources. The very nature of common pool resources makes them difficult if not impossible to divide, which causes conflict because one fisher's actions likely affect other fishers. Competition may occur over the same resource if fishers use the same gear and thereby target the same species at the same time. However, competition takes place between other users as well because of the variety of activities that happen in the marine environment including: aquaculture, ferry traffic, shipping, tidal energy, marine protected areas and tourism. As a result, competition between marine users can also arise over territory and space, which occurs when activities require access to a space that other categories or groups of people make use of at the same time. (Bavinck 2005; Bavinck and Vivekanandan 2011). Behind every competition over space, gear and resources is a struggle for income and livelihoods (Bavinck 2005, also see Charles 1992; 2001; Bennett et al 2001; Parlee 2011). Disputes over aspirations for wellbeing focus on the extent to which people are capable of meeting their basic needs and pursuing their goals for an acceptable quality of life. It is therefore important to recognize that struggles over wellbeing are subjective, in that wellbeing is defined in relation to objectives (Bavinck and Vivekanandan 2011:594). Specific issues that often lead to conflict include allocation and access to resources, the distribution of benefits, short term and long term management and governance arrangements, and finally, different perceptions and experiences of risk (Bavinck 2005; also see Charles

1992; 2001 and Bennett et al 2001). More broadly, conflicts emerge over different social orders that exist amongst actors in the marine environment. The values of one group may not be a concern for other actors and vice versa. Bavinck (2005) maintains that these types of conflicts may be of an exogenous kind in that they occur outside of and not within the boundaries of the social system. Disputes that arise under these conditions are often more intractable than conflicts that emerge from within the social system and this is because they are rooted in different norms, social realities and economic interests.

In addition to a plurality of actors, the social-ecological system is subject to a complex organization of jurisdictions and marine management bureaucracy. In Canada, The *Fisheries Act* R.S.C., 1985, c.F-14 and the *Oceans Act*, SC 1996, c 31 gives extensive powers to the Minister of Fisheries and Oceans Canada (DFO) to organize and regulate the marine environment. However, the *Oceans Act*, SC 1996, c 31, also stipulates that management must be done in collaboration with “other ministers, boards and agencies, with provincial and territorial government [and] with affected aboriginal organizations, coastal communities...” (also see Pinkerton 1994; Melzer 1998). Where jurisdictional issues pertain to aquaculture development, the federal government’s power is shared with provinces such as New Brunswick through Memorandums of Understanding (MOU) (Phyne 1996; Auditor General of Canada 2004; Wiber 2014). Canada’s respect for Aboriginal rights to fish for food, social and ceremonial purposes means that the federal government must consult with Aboriginal groups when their fishing rights might be affected (DFO 2012a). Additionally, organizations and associations for fisheries, aquaculture, tourism, shipping, and ferry services are crucial “nodes of governance” (in sensu Kearney et al 2007) in that they develop rules that their

members must abide by in order to regulate their day-to-day activities (see Ostrom and Schlager 1992) in the marine environment. As a result, the marine environment and the users of it are bound by multiple *de jure* rights, which are formally recognized under the law, and *de facto* rights which are rules and regulations that are enforced amongst users, but are not necessarily recognized by authorities. These two sets of measures are often poorly coordinated or in direct conflict (Jentoft 2011).

This complex mix of actors, interests, values, uses, legislation and regulation creates ‘wicked problems’ (Rittel and Webber 1973; Jentoft and Chuenpagdee 2009; Glovavic 2015) in that they: are not one dimensional, involve more than one conflict type, and are difficult to define and delineate. Wicked problems have no technical solution, it is not clear when they are solved, and no single actor has all the resources to address them.

1.2. The Solution – Innovative Institutions for Adaptive Co-Management

One approach to addressing wicked problems, is to develop innovative institutional arrangements for adaptive co-management. In theory, innovative institutions for adaptive co-management are suitable to resolve wicked problems because they are characterized by several key features (Olsson et al 2004; Hughes et al 2005; Folke et al 2005; Lemos and Agrawal 2006; Kearney et al 2007; Jentoft and Chuenpagdee 2009; Armitage et al 2009; Lockwood et al 2010; Jentoft 2011; Linke and Jentoft 2014). Those most relevant to this study include conflict resolution; integration of different knowledge systems; and assessments and monitoring. The literature states that wicked problems can be overcome through conflict resolution procedures such as deliberation, argumentation and negotiation of stakeholders’ norms and values. Additionally, sources and manifestations

of power must be identified and addressed in order to improve power dynamics and social relationships. In order to achieve this kind of collaboration and resolution of disputes, management power and responsibility must be shared among user groups including communities, government agencies and non-governmental organizations (Folke et al 2005; Jentoft and Chaenpagdee 2009; Armitage et al 2009; Davies and White 2012; Glovavic 2014;2015). Another key consideration in adaptive co-management is inclusiveness which refers to chances for stakeholders to engage in and influence problem articulation, problem solving, and decision-making through collaboration and co-operation. This suggests combining local and traditional knowledge systems with natural and social scientific knowledge to deal with issues characteristic of governance. Each of these knowledge types is influenced by values. Values can structure governance and management because they enable governors to assess where the marine environment is, where it should be and what means can be used to get it there. However, values are often concealed and because they are diverse and complex, they are open to conflict. Values can only become the basis for decision-making in governance and management if they are articulated, endorsed, and adjudicated by stakeholders (Sarewitz 2004; Bavinck et al 2005; Glavovic 2014). An integral part of this process is the bridging of different knowledge types, values, and dimensions of sustainability (Folke et al 2005). The literature on adaptive co-management states that successful management requires continuous monitoring and assessment because it can identify uncertainty and risk associated with complex socio-ecological systems. As such, managers can take the proper steps in governance processes to reduce, mitigate or control consequences arising from risk and uncertainty and to resolve conflicts (Folke et al 2005; Klinke and Renn 2011).

Assessments and monitoring that offer direction for innovative institutions are inherently value driven, because the question as to whether changes in the marine environment are tolerable or sustainable is principally a human value judgement. In order to understand trade-offs being made between ecological, social, economic and institutional values, and the impact of decisions on various valued outcomes, a comprehensive suite of ecological, social, economic and institutional (i.e. governance) values and objectives (i.e. indicators) is necessary (Dietz et al 2003; also see Keen and Mahanty 2006; Bavinck et al 2005; Charles et al 2010). These three key characteristics of adaptive co-management suggest appropriate conduct for how to achieve the resolution of wicked problems and sustainability of the marine environment.

1.3. The Argument

Case studies are useful insofar as they can help evaluate literature such as that on adaptive co-management. In 2011, a local government employee involved in both the Southwest New Brunswick Bay of Fundy Marine Advisory Committee (MAC), and the NSERC Canadian Fisheries Research Network (CFRN) recognized my interests in governance, conflict and conflict resolution in the marine environment and brought the MAC to my attention. Soon after, I began to research the MAC as a case study as the basis for my doctoral research.

I started the research by reviewing documents and records of meetings generated by the MAC. These revealed that in 2004 the Southwest New Brunswick Marine Resource Planning Initiative (MRP), comprised of individuals from a diversity

backgrounds¹ was established in order to address management challenges associated with conflict between marine resource users. Although they represented diverse groups, members of the MRP were to act in a personal capacity as experts and were to ‘take their Hats Off at the Door’. This practice continues in the current phase of the process. The provincial and federal fisheries departments form what is called the Government Secretariat and their role is to provide technical support to the MAC.

In Phase 1 of the process, the mandate of the MRP was to develop a marine resource plan to guide federal and provincial decisions for the coastal waters of SWNB. As such, in Phase 2, they engaged in consultations with communities in SWNB in order to gain their input into the development of a management plan. Based on these consultations, the MRP then developed a list of uses and values. The final framework was referred to as ‘the Community Values Criteria’ (CVC). They proposed that the CVC could provide a common decision support or discussion tool to assess plan development, management recommendations and evaluation processes. Because the CVC tool required operationalization, the question arose as to whether the MRP should take the form of a decision-making or advisory body. In the end, the recommendation was put forward to government to create a Marine Planning Advisory Council. The MRP suggested that this council should have the ability to accept and examine any proposals for marine activities, listen to presentations from proponents and experts, appoint committees, advisors and working groups as needed, operate through consensus and ultimately provide “open

¹The stakeholder groups include: commercial fishing; fish processing; aquaculture; education; economic development; education; communities; conservation; and First Nations/Aboriginal Government.

explicit advice” on issues related to development and management (MRP 2009:22). In relation to the MRP’s proposal for an advisory council, the Government Secretariat expressed concern about the potential replication of governance processes, adding bureaucratic layers onto existing ones and creating new expenditures during a period of government restraint. As a result, the Secretariat stated that the name of the planning initiative would change to a “Marine Advisory Committee (MAC)” and their function would be to provide advice and recommendations to government on policies, processes and strategic matters of significant public interest associated with new or existing activities from a community based perspective. The CVC would be used to support decision-making (Henry 2012), but it was clear that the MAC would not review specific individual applications for marine planning unless the government requested it, or if it was agreed to by both the MAC and the Secretariat (MAC 2013). Today the MAC continues to operate in this way.

In order to gain more insight into the MAC process, between November 2013 and January 2015 had informal discussions with four informants, engaged in participant observation, conducted twenty-nine semi-structured interviews, and two focus group sessions. From this data, I concluded that the MAC is an example of an innovative institution for adaptive co-management. Further, this data enabled me to define my research question: What is the role of conflict in either enabling or hindering innovative institutions of adaptive co-management?

The literature on adaptive co-management provided a theoretical foundation for analysis of my research question. However, I considered the proposition that the literature on adaptive co-management is normative and talks about ideal states. When theory is put

into practice, it is important to understand how people internalize these ideas and how it influences their behaviour. Therefore, I asked questions about conflict and power dynamics within the MAC from the critical perspective of the governmentality literature (following Foucault, Dean and others) in order to get a deep understanding for how this can happen. Given my research question, I also examined legislation and policy in Canada on marine governance, literature on management and theories about government including publications by Weber, Kooiman et al, as well as literature on conflict resolution and risk management.

With this theoretical foundation, the case study was analyzed in two parts. First, the MAC was examined as an innovative institution for adaptive co-management. This involved comparing the MAC's CVC to a second monitoring and assessment tool being developed by Project 1.1 'Enhanced Fisheries Knowledge for an Evolving Management Regime' of the CFRN called the Fisheries Evaluation Framework. Second, the case study on the MAC contributed to the Project 1.1 Fisheries Evaluation Framework by testing some of its measures of governance effectiveness. With this theoretical lens and dual analysis, I was able to develop three sets of recommendations. I provided practical recommendations to the MAC and the Government Secretariat on how they should move forward as an innovative institution for adaptive co-management. Additionally, I made practical recommendations on how to improve some governance measures of the Project 1.1 Fisheries Evaluation Framework. However, this study also made both theoretical and empirical contributions to the academic literature on adaptive co-management using the grounded experience of the MAC and the literature on governmentality and conflict resolution.

Government and other members of the MAC have achieved higher levels of public engagement through the MRP and the subsequent MAC processes. However, I identified weaknesses and thus provided recommendations on how to address them. First, the MAC needs to explicitly recognize and commit a conflict resolution body, otherwise they will miss opportunities to deal with policy conflicts in the future. Second, the MAC needs to allow for the possibility that consensus may not be the only viable outcome and that resistance might also be an effective way forward. If contestation is repressed, it could find a potentially damaging channel for expression. To enable conflict resolution, resources must be committed and power must be devolved. Third, if members of the MAC continue to participate as non-representatives and retain their ‘Hats Off at the Door’ policy, it is essential that government provide them with the resources and support required to develop and implement a communication plan. Otherwise, members of the MAC will not be externally transparent and accountable to their ‘constituents’. Fourth, explicit consideration must be given to the fact that members of the Government Secretariat cannot ‘take their Hats Off’. While their ‘Hats On’ role had positive consequences, it also had negative implications and both of these need to be explored as it relates to their role at the table. Fifth, institutional or governance values need to be added to the CVC. A lack of institutional values had consequences for members of the MAC and to its success as an innovative institution for adaptive co-management. Without institutional values, measures of ‘good governance’ cannot be assessed. Sixth, the CVC needs to be formally applied in order to explicitly address trade-offs among the diverse values and to provide advice and recommendations to government with full knowledge of

the anticipated consequences. This is particularly important given that government currently makes decisions in light of trade-offs.

My case study tests five governance measures from the Project 1.1 Fisheries Evaluation Framework and they include: Co-Operation; Resources; Transparency; Accountability; and Inclusivity. Weaknesses were identified in the measure for transparency and the measure for inclusiveness. The Fisheries Evaluation Framework allows users to assess whether there are mechanisms in place to ensure transparency and accountability. However, this focuses on the ‘what’ question and missing is the ‘how’ question. Therefore, to strengthen measures for transparency, I recommended that an ‘indicator’ be added to examine how transparency and accountability criteria emerge, in addition to the shortcomings or assets of specific practices. The Fisheries Evaluation Framework also contains measures which enable users to assess whether processes encourage inclusivity and participation. However, the measures do not capture the complexity of stakeholder participation such as that illustrated in the MAC with the ‘Hats Off’ policy. To improve measures for inclusivity, I suggest that an ‘indicator’ be added prompting users to examine how stakeholders are represented and the extent to which it influences their ability to participate.

Finally, I argue that there are two significant gaps in the adaptive co-management literature. First, the literature favours a Habermasian ‘communicative rationality’ approach to dealing with conflict, as opposed to a Foucauldian ‘non-consensual’ approach. This case study and the literature on governmentality (Flyvberg 1998; Burchell et al 1991; Nader 1997; 2001; 2008; Lemke 2000; 2013; Mattai and Nader 2008; Dean 2010; Takeda and Ropke 2010; Linke and Jentoft 2014) demonstrate that

while the Habermasian approach can resolve conflict in some circumstances, it can also become a threat to governance processes because this one dimensional approach suppresses dissent rather than legitimizing it. Second, the adaptive co-management literature views non-representation as a shortcoming in governance processes. And the literature assumes that innovative institutions such as the MAC inherently promote ‘representativeness’, which results in accountability and transparency (Folke et al 2005; Lemos and Agrawal 2006; Plummer et al 2013). In contrast, this case study along with the literature on conflict resolution raise the argument that there are advantages of non-representation. The governmentality literature also illustrates that members of innovative institutions are not always representative and that accountability and transparency are not inherent outcomes of participatory processes (Keohane 2002; Benner et al 2004; Swyngedouw 2005; Hallstrom and Bostrom 2010; Lockwood et al 2010). This case study material and these bodies of literature clearly indicate that innovative institutions for adaptive co-management can at once offer greater promise of democracy, and fundamentally restructure the parameters of political democracy (Swyngedouw 2005). Arguably, the literature on adaptive co-management has failed to consider this janus-faced nature of the role of conflict in both enabling and hindering innovative institutions. If innovative institutions are going to continue, the adaptive co-management literature must identify and explore these contradictory tendencies and determine the implications of it on the democratic content of participatory processes.

1.4. Outline of Dissertation

This dissertation theorizes about the role that conflict plays in either enabling or hindering innovative institutions of adaptive co-management. Chapter two examines the

theoretical foundation for the analysis of my research question. Specifically, it explores legislation and policy in Canada on marine governance, literature on management and theories about government including publications by Weber, Kooiman et al, as well as literature on adaptive co-management, conflict resolution and risk management. The governmentality literature (following Foucault, Dean and others) will be used to bring a critical perspective to the normative literature of adaptive co-management.

In chapter three I outline my methodology. I begin by examining the background to the research problem, I discuss how the topic was selected, and outline the fundamental questions to be answered. I explain why Participatory Action Research was selected as a methodological approach to the problem. I then discuss how I collected secondary data which required reviewing documents and records of meetings generated by the MAC and Government Secretariat, how I obtained ethics approval and my preliminary data collection techniques which included participant observation, introductory discussions with informants, individual semi-structured interviews and focus group sessions. I summarize my exit strategy and then discuss why I chose to use a Grounded Theory approach to textual analysis.

In chapter four I outline the jurisdictional organization of marine management and provide a chronology of events in SWNB to offer a historical background on the area. An examination of the governance structure identifies the stakeholders that are involved in managing the marine environment and establishes their responsibilities. Ultimately this context is important to understand the conditions and circumstances under which the MAC was developed and currently exists.

In chapter five I present the findings from data generated through data collection. I explain that I elected to present the preliminary data results separately from the subsequent conceptual analysis because I want to be clear about what is a finding from my research, and what is an analysis and an interpretation of that result. It also enables me in this chapter to offer a “thick description” (in sensu Geertz 1973). The themes that emerge from informants’ quotes include: Conflict and Distrust, Working Together, Goals and Objectives, Hats Off at the Door, the Role of Government on the MAC, Community Values Criteria, a Change in Mandate of the MRP, Failure to Communicate, and Dealing with Conflict.

In chapter six I revisit the themes from chapter 5 and relate those themes to the pertinent literature. I illustrate how the literature offers theoretical, and analytical tools that help describe the relevance of each specific theme to ‘good governance’ outcomes. I begin the chapter with the theme Values for Management in order to demonstrate that the absence of institutional values for management can have significant implications for the engagement of innovative institutions such as the MAC in governance processes. These consequences are reflected in subsequent themes including: Dealing with Conflict, Hats Off at the Door, and the Role of Government at the Table.

In chapter seven, I outline three sets of recommendations. First, I provide six practical recommendations to the MAC and the Government Secretariat on how address weaknesses so that they can improve public engagement through MAC processes. Second, I make practical recommendations on how to improve transparency and inclusivity as governance measures of the Project 1.1 Fisheries Evaluation Framework. Third, I identify two significant gaps in the adaptive co-management literature which

include conflict resolution and representation. I then make recommendations on how it can improve as a normative literature based on the critical perspective of the *governmentality* literature (following Foucault, Dean and others).

In conclusion, this thesis suggests that more research needs to be done to explore how innovative institutions for adaptive co-management are resolving conflict. More specifically, it needs to determine whether innovative institutions allow for non-consensual forms of conflict to exist, how they play out, and the implications that this has for governance. Further, more substantive research needs to be done on how stakeholders participate in innovative institutions, and whether their participation type (i.e. individual expert, representative, or some other form) enables or hinders their involvement in conflict resolution and governance processes such as accountability and transparency.

Chapter 2: Theory (Literature Review)

This chapter examines literature that provides a theoretical foundation for the analysis of my research question, which is: what is the role of conflict in either enabling or hindering innovative institutions of adaptive co-management? Given my research question, I herein examine legislation and policy in Canada on marine governance, as well as literature on management and theories about government. This includes publications by Weber, Kooiman et al, as well as literature on adaptive co-management, conflict resolution and risk management. This chapter will consider the proposition that the literature on adaptive co-management is normative and talks about ideal states. To the extent that such normative literature provides us with mental maps for a different future, they can be analyzed using the critical perspective that the *governmentality* literature (following Foucault, Dean and others) offers. Therefore, the last section of this chapter will examine the applicable literature on governmentality.

2.1. Legislation and Policy in Canada for Integrated Management and Sustainability

I am interested in whether there are regulations and laws in Canada that support the development of innovative institutions for sustainable resource management and therefore, in this section I will examine the relevant Canadian legislation and policy. While there are various definitions of the term, I will borrow from the 2007-2009 Sustainable Development Strategy which describes sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

Both national legislation and international agreements signed by Canada direct the management objectives of Canadian fisheries and oceans². Under the *Canadian Fisheries Act R.S.C, 1985, c.F-14* as amended³, the guiding principles include the conservation of fish resources, in addition to the economic viability of the fishing sector. The interpretation of this mandate has therefore resulted in a strong commitment by DFO to understanding the biological system with an increase in the development of fish science and biological research. Traditionally, fisheries research has been driven by biological considerations that result from human impacts (Lane and Stephenson 2000:386). With the introduction of the *Oceans Act, SC 1996, c.31* the legislative basis for management has changed to require consideration of cumulative human activities and their impacts on relevant ecosystems. As a result, there has been a shift to more broad-based oceans research (Lane and Stephenson 2000; Jamieson et al 2001).

Arguably, the *Fisheries Act* and the *Oceans Act* together provide solid statutory context for Integrated Management (IM). In signing *Agenda 21* of the *United Nations Conference on the Environment and Development [1992]*, the Canadian government indeed agreed to support and participate in IM. At that time, they also reaffirmed their commitment in the *Oceans Act SC 1996, c.31* and in the 2002 *Oceans Strategy*. Canada's *Oceans Strategy* provides policy and principles for IM (DFO 2002). According to DFO

² Both legislation and international agreements make use of a large number of management terms for which I provide brief definitions in what follows.

³ On November 25, 2013 amendments to the Fisheries Act came into effect (DFO 2015). For details on these changes, see: <http://www.dfo-mpo.gc.ca/pnw-ppe/changes-changements/index-eng.html> and <http://www.gazette.gc.ca/rp-pr/p1/2014/2014-08-23/html/reg1-eng.php>. These websites were last accessed on February 10th, 2016.

(2016), IM is a collaborative way of making decisions on how Canada's marine resources can best be developed and protected. The *Oceans Strategy* (2002:2,11) explains that the aim is to ensure that Canada will:

...maintain the health of marine ecosystems; address user conflicts, limit cumulative effects of human activities within a defined ocean space and maximize and diversify sustainable use of the oceans...At the heart of Integrated Management is a commitment to citizen engagement in the broadest sense; that is governments at all levels, Aboriginal groups, corporate and sectoral interests, community interests, nongovernmental organizations, and Canadians generally. The overall objective is to create governance mechanisms that foster a greater involvement of the people most affected by decisions.

This legislation and policy, particularly the *Oceans Act*, presents a strong basis for participatory governance and co-management to achieve sustainability of the marine environment (Kearney et al 2007).

Sustainability is a concept discussed in a 1997 Report by the Auditor General of Canada which in part, focused on a Sustainable Fisheries Framework for Atlantic Groundfish (Young and Timmins 1997). In that document sustainability is said to be comprised of environmental, social and economic components. The auditors state that while DFO has outlined principles for a fishery of the future, they had not yet developed measurable indicators related to these key guiding principles. The report explicitly called for the DFO to "establish measurable indicators and performance expectations to assess progress in applying guiding principles and integrate those indicators in its planning, reporting and accountability process that responds to the government model" (Timmins and Young 1997 n.p.). In support of pursuing a sustainable marine environment, the *Federal Sustainable Development Act, SC 2008, C.33* was developed. This Act provides the legislative basis for a *Federal Sustainable Development Strategy*. While several

iterations of the *Strategy*⁴ exist, the overarching objective is to deliver on DFO's mandate to ensure that they take environmental, economic and social conditions into account in decision-making. The development of performance indicators is one way the auditors anticipated that this could happen. As such, DFO has committed to implementing Canadian Environmental Sustainability Indicators (DFO 2012c; Environment Canada 2012).

These policies and legislation point to the need to distinguish between *governance*—the mechanisms and processes by which power and decision-making are allocated among different actors—and *management*, involving decisions about use patterns as well as about transforming the resource by making improvements (Kearney et al 2007:82; also see Schlager & Ostrom, 1992; Ostrom et al., 1994; Bene & Neiland, 2005). There are several different bodies of literature that offer concepts and evaluate their applicability in assessing governance and management (in sensu Kooiman et al 2008). I will review the literature on Government (following Weber) and Interactive governance (following Kooiman) and then will move on to the Adaptive Co-Management literature (following Folke et al 2005).

2.2. Government (Following Weber)

2.2.1. Bureaucratic Rationality

Because I am curious about how the Canadian bureaucratic structure either assists or impedes innovative institutions from being developed and implemented, in this section I

⁴ The iterations include: *2001-2003 Sustainable Development Strategy*; *2007-2009 Sustainable Development Strategy*; *Sustainable Development Strategy* for 2012-2013.

will explore the literature on Government following Weber. Weber argues that governmental bureaucratic structures evolved within the national welfare state in defense of a united domain, which was society. Bureaucracy is a mechanism that rationalizes authority and decision-making and is capable of the highest degree of efficiency (Weber 1958; Townley 2008; Al-Habil 2011). Weber makes use of an ‘ideal-type’ methodology which enables him to describe social patterns based on historical examples while also exploring cases that diverge or deviate from the social construct’s stylized representation (Travino 1996; Anderson 2004).

The bureaucratic framework described by Weber exists as a primary approach to governance in Canada and thus he describes elements of modern democratic government structures. It has been argued, however, that Weber’s theoretical constructs are incomplete descriptions of what actually goes on in government, particularly in relation to fisheries (Parlee 2013; Parlee and Wiber 2014; 2015). Weberian theory has been criticized for not addressing the many actors involved in governance beyond bureaucratic authorities, which is particularly important in today’s political climate. Further, even in the frequent ‘absence of government’ (in sensu Borzel and Risse 2010), governance and management of the marine environment exists at various scales and in various modes and Weber’s bureaucracy does not account for this (see Pinkerton 2007).

While Weber’s constructs are an incomplete description of government today, some of the qualities of government Weber identified in his work are still pertinent. One such example is Weber’s description of an ‘ideal-type’ bureaucracy. Weber’s bureaucracy is comprised of, but not limited to: a hierarchical social and political order that is structured according to levels of graded authority and with a firmly ordered system

of super-and subordination; management of the office (i.e. government department or agency) that is dependent upon written documents in addition to laws and administrative regulation that are more or less stable, exhaustive and can be learned; and a set of fixed and official jurisdictional areas where officials fulfill their duties using a functional specialty and thus, are the only qualified staff that can perform these duties. For Weber these typical or 'ideal type' bureaucracies were based on rationality (Weber 1958:220; Travino 1996:165).

There is no general agreement as to exactly what Weber meant by the term rationality, however there are six generally agreed upon interrelated components that make up the concept. The components are identified by Eisen (1978:60; also see Spencer 1970; Travino 1996; Townley 2008) and are described as: 1) Purpose: the conscious aim of an actor to achieve a given end; 2) Efficacy: an action is understood to be rational if it is effective in order to achieve the desired result(s); 3) Control: which is both a means and an objective of rational action; 4) Logic: valid consistency and intention which offers the highest degree of rational understanding; 5) Universality: general rules apply in all circumstances; 6) Methodological: an organization which connects parts to a whole in an approach that is most successful for the realization of desired results. Thus, the bureaucracy and rationality are dependent upon organization, rules, principles, and on compliance to commands defined by an institutional structure that is comprised of norms and authority.

For Weber (1958) and others, the rationality of bureaucracy has limits including: a preference for short-term rationality over long-term rationality; preference for competition over cooperation; fragmentation of interests and values; fragmentation of

responsibilities and authorities; and fragmentation of information and knowledge (Pinkerton 2007:158). Additional limitations include secrecy which is found wherever power interests of the hierarchical structure are threatened. The notion of the ‘official secret’ increases the superiority of bureaucrats or the ‘professionally informed’ by protecting their knowledge and objectives from external review. Bureaucracy is also dependent on specialization and ‘technical superiority’ which requires expert training, habitual and methodically integrated functions, rationalization and bureaucratization. This Weber recognizes, can generate vested interest (Weber 1958; Al-Habil 2011). These limits have implications for society. Bureaucrats develop a governance approach where the state is considered to be in a superior, commanding position while the population or society plays a subordinate and receiving role. The state is hierarchical and rigid, while authority and responsibility are centralized. As a result, leadership and governance are engaged through a ‘top down’ approach (Jentoft 2007). Further, the characteristics of rationality result in potential dysfunctions such as the inculcation of “painstaking obedience”, and the stifling of creativity and flexibility (Townley 2008:51; Weber 1978). One obvious example of a rationality of bureaucracy that has been confronted with several of these limitations is fisheries management in Canada.

2.2.2. Limitations to the Rationality of Bureaucracy: Fisheries Management in Canada

Lane and Stephenson (2000:385) state that since World War II, the fisheries management regime termed the ‘modern fisheries management experiment’ has become much more restrictive and has included an ever increasing set of management measures such as limited entry, total allowable catches, increased state jurisdiction over coastal

waters, and increased monitoring of fisheries and enforcement regulations. These measures have been imposed primarily by centrally controlled national governments. In its current form, the Minister of Fisheries and Oceans has full discretionary power in all matters pertaining to the conservation of fish stocks (ibid:388; see *Canadian Fisheries Act R.S.C, 1985, c.F-14*). The scientific staff and functions of DFO are assembled under the “Science” and “Oceans” branches of the organization and this is characterized by a functional arrangement built along disciplinary lines. Although movement across functions within DFO is encouraged, Lane and Stephenson note that this movement, particularly of the science staff is reduced because of the narrow disciplinary knowledge base that defines each functional group. The intention is to maintain stability, corporate memory, and relative growth within the science and oceans branches compared to other branches of the fisheries organization. This contributes to the relative importance of science, specifically to understanding the biological system and its interactions with the social system, and has resulted in an increase in the development of fisheries science and biological research. Consequently, instructions for managing fisheries operations are often dependent on scientific advice above all other considerations in the decision making process (ibid:386). However, the *Oceans Act, SC 1996, c.31* not only calls for more broad-based oceans research, but also the need for integrated and participatory decision-making. Despite these efforts, Fisheries collapses have continued to occur. Further, the structure and function of DFO continue to be a ‘paternalistic approach’ to fisheries management. This paternalism has caused fractures between regulators and those being regulated, and has decreased opportunities to overcome major challenges such as the

multiple and conflicting objectives of fisheries management, and management bureaucracies that are not responsive to change (ibid:386).

In response to the failure of the ‘modern fisheries management experiment’ and an increased demand for a framework and methodologies for defining multiple objectives and constraints, modeling alternative management scenarios and assessing and managing risk in the marine environment, Stephenson and Lane (2010:630; also see Lane and Stephenson 1995) propose an approach referred to as ‘Fisheries Management Science’ (FMS). This approach adopts management by objectives which integrate ecological, economic, social and institutional factors, structured decision analysis, and participatory governance regimes. Effective FMS however, requires a reorganization of governmental-based, institutional arrangements so that fisheries scientists, managers, harvesters, the processing sector and their affiliated coastal communities can be empowered to provide advice for the integrated management of multiple activities through a comprehensive lens. To date, the plea for a conceptual change in fisheries management toward an FMS approach has been cited with respect to key areas such as holistic and integrated approaches; structured decision-making in complex ecosystems; methods for participatory management; and explicit consideration of uncertainty through risk management decision methods (ibid:631).

Another limitation of Weber’s explanations of the rationality of bureaucracies has to do with how he explains social action.

2.2.3. Limitations to the Rationality of Bureaucracy: Social Action

Weber proposed an understanding of social action that draws a distinction between instrumental or goal rationality and substantive rationality. Instrumental

rationality is determined by expectations about the behavior of human beings in the environment. These behaviours provide the actor with the basis for developing and attaining rationally calculated and pursued ends. As such, an action is entirely instrumental. Western social order has predominantly relied on instrumental rationality. Substantive rationality on the other hand, is developed or established through a conscious belief in or valuation of ethical, aesthetic, religious or other forms of behaviour that are independent of their potential for success (Townley 2008:6; also see Weber 1978; Kalberg 1980).

Habermas's understanding of rationality is in contrast to that of Weber. Townley (2008:6; also see Flyvbjerg 1998) explains that Habermas "wishes to escape the dominance of subject-centered philosophy of consciousness, a non-social concept of rationality, that he sees as informing Weber's analysis of reason". Habermas's argument is that rationality is verbal, discursive, and is therefore social (ibid). He theorized an intersubjective approach to modernity called 'communicative rationality'.

Communicative rationality is a "non-coercively unifying, consensus-building force of a discourse in which the participants overcome their at first subjectively based views in favour of a rationally motivated agreement" (Flyvbjerg 1998:212; Habermas 1987). More generally, communicative rationality is a collaboration process whereby participants voluntarily engage in dialogue with the objective of reaching consensus on an issue.

Validity and truth are ensured where participants adhere to six key procedural requirements for discourse ethics, including: 1) no party affected by the dialogue should be excluded from the discourse; 2) all participants at the table should have an equal opportunity to present and criticize validity claims; 3) participants must be willing and

able to understand the validity claims of others; 4) existing power differentials between participants must be neutralized so that these differences do not influence the consensus building process; 5) participants are required to be transparent about their goals and intentions as they relate to the discussion of strategic action; and 6) unlimited time be devoted to the argumentation processes (Flyvbjerg 1998:213; Habermas 1993).

According to Habermas, 'communicative rationality' is an inherent experience in the life of human beings because social life is predicated on creating mutual understanding. Thus, human beings are inherently democratic (ibid; Habermas 1983).

Insofar as communicative rationality is understood as the development of mutual understanding and agreement through dialogue, it can be valuable in resolving conflict. However, there are criticisms to the approach which require consideration. Flyvbjerg (1998:215; also see Takeda and Ropke 2010) critiques Habermas's theory for being rooted in an insufficient conception of power. He states that Habermas recognizes that argumentation cannot by itself ensure that the conditions for discourse ethics are met. Yet Habermas does not comment on the relations of power that hinder participation in argumentation, or on how power might be changed in order to develop institutional or educational opportunities to address barriers. Flyvbjerg concludes that Habermas is an idealist who ultimately lacks a deep understanding of the power relations needed for political and social change (ibid). Flyvbjerg argues that while Habermas's work was often referred to by Foucault, Foucault's analytics of power is a more effective point of departure for social action. Foucault's analytics of power will be examined in a subsequent section on governmentality. First however, I will turn to the interactive governance literature to examine whether there are elements that might be useful for

assessing what role conflict has in either enabling or hindering innovative institutions for adaptive co-management.

2.3. Interactive Governance (Following Kooiman and others)

Because I am interested in the role that values have in generating conflict in the marine environment and how values might guide decisions made by innovative institutions, here I turn to the literature on Interactive Governance. Interactive governance is said to be the result of social-political-administrative interventions and interactions such that governance is a widely practiced activity and a broadly shared responsibility (see Bavinck et al 2005; Kooiman et al 2008; Chuenpagdee et al 2008; Jentoft 2011). It arises out of negotiations among several actors who understand that none of them individually, whether private or public, have the knowledge and information required to solve complex, dynamic and diverse problems. Interactive governance theory argues that marine systems are always made up of three coherent analytical components: including 1) governing systems comprised of institutions and steering mechanisms; 2) the system-to-be-governed (natural and social) including an ecosystem and the resources that it harbours; and 3) their governance interactions comprised of users and actors who form political coalitions and institutions amongst themselves (Kooiman et al 2008; Chuenpagdee and Jentoft 2009; Jentoft 2011).

Stoker (2004:440-441) argues that “the Kooiman mode of expression is not always crystal clear” and that “it offers a highly abstract discussion with little in the way of historical and empirical foundations”. I concur but believe aspects of this approach are of use. For example, interactive governance offers the concept of ‘images’. In order for governors to adequately manage risk, guide conservation and development, regulate

processes, solve problems, mediate negotiations and create new opportunities, they need to have desired 'images' that guide them. Images are an essential element to understanding the direction, meaning and logic of governance (Jentoft 2007:361). Images in the marine environment come in many types: visions, knowledge, facts, judgments, intention, presuppositions, generalizations, hypotheses, convictions, ends and goals (Bavinck et al 2005; Jentoft 2007). An example of an image is this definition of a sustainable fishery developed by Project 1.1 of the Canadian Fisheries Research Network (CFRN):

One that respects the ecological integrity of the ocean and its resources; is ethical, responsibly governed, economically viable and technologically appropriate; supports communities; draws on local culture, heritage, and diverse knowledge systems; and enhances health, wellbeing and the public good.

An image works as both a point of view and as a point of departure. Therefore, it provides inspiration and direction for how to construct reality. Arguably this would be helpful for drawing out and examining values. Given their subjectivity, the assumption is that human values are virtually undiscussable and escape formal definition (Forester 1999), yet they play a significant role in ecosystem goals (Bavinck et al 2005; Jentoft 2007).

The interactive governance approach also explicitly discusses conflict and conflict resolution. Bavinck (2005), for example, argues that many authors view conflict as one-dimensional, but that conflict in the marine environment is diverse, dynamic and operates simultaneously at several scales. This approach corresponds with the conflict resolution literature, which views the multi-dimensionality of environmental disputes as unique compared to other social conflicts (Susskind and Weinstein 1980). Environmental disputes center on the relationship between natural and human systems, which are

complex and uncertain (Glovavic, Dukes and Lynott 1997:271). Actions or decisions can have “permanent” ecological, cultural, social and economic effects (Susskind and Weinstein 1980). Ecosystems are made up of interdependent components that are linked to and affect other ecosystems, so that effects in one environment may influence other ecosystems, and spread over time and space. Thus, the parties involved with environmental conflicts tend to change and multiply (ibid).

The interactive governance literature outlines some circumstances that cause disputes in managing the fisheries and oceans. Capture fisheries depend on common pool resources that are difficult to divide. This causes conflict as one fisher’s actions are thought to affect other fishers. Competition may occur if fishers use the same gear and target the same species at the same time. Competition may also arise over territory and space. The physical space is not only an arena for the use of fishing gears but also for potential interactions of one gear with another (Bavinck 2005; Bavinck and Vivekanandan 2011). Behind every competition over space, gear and resource is a struggle for income and livelihoods (Bavinck 2005, also see Charles 1992, 2001; Bennett et al 2001). Disputes focus on the extent to which people can meet basic needs and pursue their goals for an acceptable quality of life. Struggles over wellbeing are subjective in that wellbeing is defined in relation to variable objectives (Bavinck and Vivekanandan 2011:594). Specific conflict issues include allocation and access to marine resources and the distribution of benefits, short term and long term management and governance arrangements, and over different perceptions and experiences of risk (Bavinck 2005; Charles 1992, 2001; Bennett et al 2001). The actors involved in conflicts include but are not limited to: large and small scale fishing firms; aquaculture industry;

tourism industry; tidal power industry; provincial, federal and international governments; processors; communities; environmental groups; and others. The values of one group may not be a concern for other actors. Bavinck (2005) argues that these types of conflicts are often exogenous in that they occur outside of or between the boundaries of social systems. These disputes are often more intractable than conflicts that emerge within a social system, as they are rooted in different norms, social realities and economic interests (also see Rappoport 1974).

The interactive governance literature combines Weberian rationality as part of a social system with an ecological system perspective of governing. This is an improvement over focusing exclusively on the human component of marine governance and management, which ignores the implications of decisions on the environment. Interactive governance is a normative approach to governance in that it prescribes norms or standards and thus expresses value judgments about what ought to be. While the interactive governance literature provides suggestions and motivation for how to improve governance in the fisheries and oceans, this approach fails to illustrate how governance might function in practice.

Although the literatures on Government (following Weber) and Interactive Governance (following Kooiman and others) have limitations, some components of their theories are still valuable to examine my research question. For the purpose of this research, specific elements from both bodies of literature will be used in Chapter 6 on Analysis and Chapter 7 on Recommendations to elucidate themes that appear in the data.

2.4. Adaptive Co-management

I am curious about why and how innovative institutions emerge and what their principle objectives are and therefore I will explore the literature on adaptive co-management. Today, it is widely accepted that sustainability of the marine environment requires the integration of ecological, social, economic and institutional dimensions (Garcia and Staples 1999; *Canadian Federal Sustainable Development Act* S.C. 2008, c. 33; Bostrom 2012; Dahl 2012; Begg et al 2015). Adaptive co-management is recognized as an approach to further sustainability in that a key feature is the development of innovative institutions that can respond to rapid change by linking experiential and experimental learning and collaboration (Olsson et al 2004; Armitage et al 2009; Cundill et al 2012; Plummer et al 2013). Adaptive co-management is a form of environmental governance that combines the concepts of adaptive management (Holling 1978; Walters 1986) and co-management⁵ (Pinkerton 1994; Jentoft et al 2009; Berkes 1994; Folke et al 2005). The adaptive management narrative has been primarily about learning-by-doing in a scientific way to deal with uncertainty and risk (Olsson et al 2004; Armitage, Berkes and Doubleday 2007). Although there are several definitions of co-management, it is generally understood to be associated with natural resource management; regarded as

⁵ Given that the literature on adaptive co-management is made up of these two distinct bodies of literature (adaptive management and co-management), themes that appear in the adaptive co-management literature can also be examined separately in the two distinct fields. Therefore, throughout the analysis in this chapter and in subsequent ones, the literature on co-management will appear alongside the literature on adaptive co-management. In logic, this is referred to as Transitive Law.

some form of power sharing partnership between public and private actors; and is not a fixed state but rather a process that takes place over some time (Carlsson and Berkes 2004: 67). Berkes (1994:19) describes the spectrum of co-management in descending order or community control and empowerment starting with: partnership/community control; management boards; advisory committees; communication; co-operation; consultation; and lastly, informing. The principle features of adaptive co-management that derive from these two distinct bodies of literature include innovative institutional arrangements that: are linked both horizontally and vertically and thus embedded in local dynamics and plural normative orders; rely on processes that are experiential and interactive and thus focus on learning-by-doing and learning through complexity and change; that integrate different knowledge systems; engage in monitoring and assessment; create opportunities to connect science and policy; and emphasize power sharing and responsibility among community, regional and national levels in pursuit of collaboration and conflict resolution (Olsson et al 2004; Hughes et al 2005; Folke et al 2005; Lemos and Agrawal 2006; Kearney et al 2007; Jentoft and Chuenpagdee 2009; Armitage et al 2009; Lockwood et al 2010; Jentoft 2011; Zips and Weilenmann 2011). Given my research question, I am particularly interested in: conflict resolution; integration of different knowledge systems; and assessments and monitoring. Therefore, my theoretical exploration of adaptive co-management will be limited to these components.

2.4.1. Conflict Resolution in Adaptive Co-Management

Innovative institutions for adaptive co-management may emerge from different actors and scales, including local as well as regional levels (Folke et al 2005), and arise for

different reasons; for example, some may emerge because of instrumental goals such as the development of a management plan. When prompted by management plans, the innovative process serves as a venue where participants take an active part in creating, implementing and monitoring management plans so that differing uses and values can be transparently addressed and acknowledged (DFO 2002; Davies and White 2012; Kearney et al 2007). The literature also states wicked problems trigger the development of innovative institutions (in sensu Rittel and Webber 1973; Dietz et al 2003; Jentoft and Chuenpagdee 2009; Glovavic 2015). Jentoft and Chuenpagdee (2009; also see Rittel and Webber 1973) argue that fisheries and coastal governance is confronted with problems that are inherently “wicked.” Problems are wicked (as opposed to “tame”) when they are difficult to define and delineate from other and bigger problems and when they are not permanently solved but tend to reappear. Wicked problems have no technical solution, it is not clear when they are solved, and they have no right or wrong solution that can be determined scientifically. Given their complexity, wicked problems necessitate the creation of innovative institutions that focus on collaboration and the resolution of conflicts through deliberation, argumentation and negotiation.

Dietz et al (2003:1909) maintains that:

...people bring varying perspectives, interests and fundamental philosophies to problems of environmental governance, and their conflicts, if they do not escalate to the point of dysfunction, can spark learning and change.

In this vein, the literature states that actors should engage in trust-building dialogues that seek to identify common interests or shared goals. It states that special attention must be given to interactive communication and learning among stakeholders so that norms and values are openly discussed and negotiated, and different ethics, ideologies and

epistemologies are active. Further, sources and manifestations of power must be identified and addressed. The objective is to improve power dynamics and social relationships. As such, deliberative democracy offers a theoretically and practically robust framework for dealing with disputes in the marine environment. The literature clearly argues that in order to achieve collaboration and the resolution of conflict, management power and responsibility must be shared among user groups including, communities, government agencies and non-governmental organizations (Folke et al 2005; Jentoft and Chaenpagdee 2009; Armitage et al 2009; Davies and White 2012; Glovavic 2014;2015).

Following Takeda and Ropke (2010:179) I would argue that the literature on adaptive co-management advocates the use of ‘communicative rationality’ as defined by Habermas. Recall that communicative rationality calls for “collaborative and reflexive processes of building consensus around shared meanings and understandings which are grounded in dialogue” (ibid). That is because ‘communicative rationality’ recognizes that meaning, value, understanding and knowledge are all socially constructed and therefore, they must be resolved using an approach that is discursive and social. Takeda and Ropke (2010) expand on this argument by suggesting that this planning approach attempts to create power neutral forums which require that all parties influenced by a dialogue be included, and that all parties be equally empowered to represent themselves (also see Flyvberg 1998). The goal is to empower a variety of forms of knowledge, rationality and values that are normally excluded from governance processes so that participants are able to engage with each other on an equal footing and eventually develop new consensual ways of thinking, valuing and acting (Takeda and Ropke 2010:179). In accord with

Flyvberg (1998), Nader (2001; 2008) and others, Takeda and Ropke warn that communicative rationality and power neutral forums as a planning approach can distort communication by restricting argumentation, excluding participants, obscuring issues and agendas, or limiting knowledge. For example, an individual could be excluded from an engagement process if they are perceived as not meeting the criteria for constructive participation because of past attempts to have an issue put on the agenda primarily through forms of contestation such as going to the media.

2.4.2. The Integration of Different Knowledge Systems in Adaptive Co-Management

Inclusiveness is said to be a key consideration in innovative institutions for adaptive co-management. Inclusiveness refers to opportunities available for stakeholders to participate in and influence problem articulation, problem solving, and decision-making through collaboration and co-operation. This implies the integration of different knowledge systems (Lockwood et al 2010; also see Folke et al 2005; Hughes et al 2005; Armitage et al 2009; Linke and Jentoft 2014), which helps to address problems that derive from ecological and social uncertainty that are inherent to governance (Armitage et al 2009). Folke et al (2005:445-6) state that knowledge generation for understanding and managing periods of rapid change, the social sources of resilience required for reorganization following change, and strategies for dealing with real uncertainty and surprise are still in their infancy. However, the way that knowledge is being organized and embedded, the relationship of other kinds of knowledge to institutionalized, science, and the role of alternative knowledge sets in assembling new ways of managing marine resources have all become important subjects. As such, there is a growing literature on the potential value of combining local and traditional knowledge systems with natural

and social scientific knowledge to deal with change in resources and ecosystem management.

Both expert and non-expert knowledge are said to play a productive role in addressing ecological and social uncertainty (Folke et al 2005). That is because they bring with them different types of knowledge including: phronesis which is related to practical knowledge or wisdom; episteme which relates to science and refers to theory; and techne which is the technical knowledge or the processes in dealing with practical problems (Townley 2008:215; also see Chevalier and Buckles 2013; Linke and Jentoft 2014). Each of these knowledge types influence and are affected by values. Values are framed by various ethical, cultural, risk and knowledge considerations (Glavovic 2014). Bavinck et al (2005:40,50-51) maintain that values can be both substantive and procedural. They explain that: “substantive values give direction to the development of new images that drive problem solving and opportunity creation, and the visions that drive the building of institutions. Procedural values guide the process of decision-making and interaction”. Thus in the context of marine governance and management, values structure governance in that they provide a value frame, guiding governors in assessing where they are, where they should be and what means can be used to get them there (ibid). Although values effect social practices, principles and norms in marine governance, they are often concealed. And because they are diverse, and complex, values are subject to negotiation, debate and conflict. Values can only become the foundation for governance systems if they are articulated, and endorsed by stakeholders (Sarewitz 2004; Bavinck et al 2005; also see Dietz et al 2003).

This literature clearly suggests that the effective governance of marine environments requires not only factual information about the state of the environment and human actions, but also information about values (Dietz et al 2003:1908). Linke and Jentoft (2014) and others (see Linke et al 2014) argue that currently techno-scientific aspects of managing the marine environment serves as a basis for decision-making in most policy domains. This approach is predicated on the idea that scientific knowledge, predictions and advice can easily be applied in making political decisions and this in turn will result in sustainable practices. However, this model has failed in the past to deliver sustainable outcomes. Linke and Jentoft (2014) attribute this to an inadequate theorization and representation of social aspects and knowledge dimension of a sustainable marine environment. Boundary organizations which are described as institutions that “straddle the shifting divide between politics and science” (in sensu Cash 2001:432; Cash et al 2006) play an important role in bridging different types of knowledge and dimensions of sustainability. Cash et al (2003:8089) state that boundary organizations have a least three features: 1) they involve specialized roles within the organization for managing the boundary; 2) they have clear lines of responsibility and accountability to distinct social arenas on opposite sides of the boundary; and 3) they provide a forum in which information can be coproduced by actors from different sides of the boundary through the use of “boundary objects” (in sensu Star and Griesemer 1989; Star 2010). The literature states that the presence of boundary organizations facilitates the transfer of relevant and useable knowledge and ‘social memory’ among science, policy and the community and that they have been instrumental in creating products that guide management decisions (ibid; Folke et al 2005). Folke et al (2005:463) define social memory as:

...the arena in which captured experience with change and successful adaptations, embedded in a deeper level of values, is actualized through community debate and decision-making processes into appropriate strategies for dealing with ongoing change.

They argue that 'social memory' is important for linking past experiences with present and future policies. Social memory and different forms of knowledge are also required for monitoring and assessment.

2.4.3. Monitoring and Assessment in Adaptive Co-Management

The literature on adaptive co-management states that successful management is characterized by continuous testing, monitoring and re-evaluation. The rationale is that assessments will enhance adaptability and resilience by acknowledging the inherent uncertainty and risk associated with complex socio-ecological systems (Folke et al 2005; Klinke and Renn 2011). Therefore, adaptive co-management is broadly understood as the ability to develop and implement the appropriate steps in governance processes that enables managers to reduce, mitigate, or control incidents of harm resulting from problems of risk and uncertainty, and to address conflicts that derive from this, in an effective, efficient and fair manner (Klinke and Renn 2011:278). Arguably therefore, assessments are concerned with systematically evaluating goal-oriented deliberative intervention as it relates to a social-ecological system (Plummer et al 2012). As such, the assessments that provide direction for adaptive co-management, are inherently value driven because the question as to whether certain changes in the marine environment are acceptable or not, is essentially a human value judgment. As a result, knowledge is needed about diverse values, but also about the effects of decisions on various valued outcomes because every environmental decision requires trade-offs (Dietz et al 2003;

also see Keen and Mahanty 2006; Bavinck et al 2005; Charles et al 2010). For many ecological systems, local and easily captured values have to be balanced against global, regional or state values, and those that are diffuse and hard to capture. For this reason, finding methods to assess and monitor varied values and the objectives that underpin them is significant, yet it remains a challenge for governance (Dietz et al 2003).

Adaptive co-management requires the articulation and the assessment of a comprehensive suite of values, objectives and indicators, including ecological, economic, social and institutional (i.e. governance) dimensions (Begg et al 2015; Charles et al 2010:26; also see Solocomb 1993; FAO 2003; Daigle et al 2006; Bastian-Daigle et al 2008; Berkes 2006; Kearney et al 2007; Cooper, Stephenson and Annala 2009; 2012; Takeda and Ropke 2010; Dahl 2012; Long et al 2015). During the past decade or so, there have been efforts to develop frameworks to both guide and assess the management and governance of marine activities (Bostrom 2012; Dahl 2012; Begg et al 2015; also see Karkkainen, Fung and Sabel 2000; Parlee and Wiber 2015). Some of these development processes have been top down (see Ponte 2008; Foley 2011; Parlee and Wiber 2015). Top down approaches are usually expert led and they explicitly use quantitative indicators because they acknowledge the need for metrics to quantify the complexities of dynamic systems. They do not however, necessarily underline the complex variety of resource user perspectives. Theoretically, indicators that emerge from top down approaches are collected rigorously, analyzed by experts, and assessed for application using statistical tools. This process uncovers trends, both between regions and over time (Beckley et al 2002; Reed, Fraser and Dougill 2006). There are several quantitative tools for identifying indicators and these include statistical data analysis and multivariate statistical

techniques. These types of methods determine which indicators account for most of the observed changes and therefore, those that will likely be the most influential predictors of future change (Beckley et al 2002; Reed, Fraser and Dougill 2006). As such quantitative indicators are numerical, can be plotted on a graph and used as inputs into mathematical modeling (Garcia and Staples 2000:403). In contrast, others have used a ‘bottom up approach’, which stresses the significance of understanding local context in the form of values to set goals and establish priorities (in sensu Beckley et al 2002; Reed, Fraser and Dougill 2006). There are a number of qualitative tools for identifying indicators such as by reviewing expert knowledge and peer reviewed literature, but also through interviews and focus groups (Beckley et al 2002; Reed, Fraser and Dougill 2006). Qualitative indicators are non-numerical in nature and often capture non-quantitative aspects of the marine environment such as institutional and social parameters (Garcia and Staples 2000:403).

The literature on adaptive co-management states that putting communities at the centre of management decisions, which is emphasized in the ‘bottom up’ approach, can help convert values into a shared vision, set of goals and objectives as to how the marine environment should be managed. This approach is said to promote human wellbeing and overcome community push back when planning is imposed from above without considering local needs. Furthermore, it can provide the venue to integrate and collect the knowledge required to make trade-offs in environmental decision-making and provide information about the impact of those decisions on various valued outcomes (Dietz et al 2003; Jentoft 2004; Bavinck et al 2005; Bastian-Daigle et al 2008; Beck 2006; Keen and Mahanty 2006; Kooiman et al 2008; Kearney et al 2007; Adger et al 2009:350; Armitage

et al 2009; Lockwood et al 2010; Berkes 2010; Charles et al 2010; Davies and White 2012; Glovavic 2014; 2015). Ultimately, opening up the governing system to monitoring and evaluation of performance can promote accountability and transparency in both governance and management (Lockwood et al 2010:9). However, this is all predicated on the notion that a framework is implemented and used.

Ranking several alternative indicators is a subjective process that has the potential to create conflict between users and can prevent use of the framework as an assessment tool (see Parlee and Wiber 2015). The subjective value ranking process suggests the need for the articulation of diverse management scenarios to show the likely consequences of trade-offs between them. Science, experts and various tools are available to assess trade-offs in the marine environment such as management strategy evaluation (MSE)⁶ (Begg et al 2015; Funtowicz and Ravetz 1993). Processes such as MSE are perhaps the most widely used method to develop statements about the future using data from the past and present. However, the literature on Post Normal Science warns that:

...science cannot always provide well founded theories based on experiments for explanations and predictions, but can frequently achieve at best only mathematical models and computer simulations, which are essentially untestable (Funtowicz and Ravetz 1993:742).

⁶ MSE in the broad sense involves assessing the consequences of a broad range of management strategies or options and presenting the results in a way that lays bare the trade-offs across a range of management objectives (Smith 1994:249). Particularly the Bayesian method (as opposed to frequentist method) of MSE promotes the incorporation of subjective knowledge in the form of stakeholder beliefs, participatory, graphical modelling of parameters and model structure uncertainty. Many of the attributes of Bayesian methods operate to facilitate effective multi-way communication across a variety of knowledge types, which has the potential to promote more meaningful stakeholder engagement and value-focused deliberations (Reid and Parlee 2014:2).

Another reason that science cannot provide all of the answers is that the scientized debate suppresses the open discussion of value preferences. Such debates often fail to show how values will be elicited and adjudicated in selecting those scenarios that society should actually pursue (Sarewitz 2004).

Takeda and Ropke (2010:181) explain that post normal science recognizes that expert oriented decision-making and “objective” responses are no longer ethically appropriate to address issues regarding complex systems, uncertainty and large risks in terms of social-ecological impacts. That is because in the ‘normal’ state of science, uncertainties are implicitly managed, values are assumed and foundational problems are hidden and go unaddressed (Funtowicz and Ravetz 1993). That is not to say modeling processes such as MSE should not be used. In addition, however, new methods involving discourse-based approaches (i.e. Habermas’s communicative rationality) can be used to develop diverse management scenarios where conflicting values and trade-offs between them are made transparent and discussed (i.e. scenario comparison). These participatory and interactive processes should include not only scientists, but also local communities and other groups interested in the systems being managed (Cundill et al 2012:14; also see Klinke and Renn 2002; 2012; Glavovic 2014). This is particularly important where policy issues of risk and the environment present the most urgent problems (Funtowicz and Ravetz 1993) and where innovative institutions for adaptive co-management are authorized to address them.

The literature (Folke et al 2005; Kearney et al 2007; Armitage et al 2009; Davies and White 2012) states that it may take a decade or more for innovative institutions of adaptive co-management to mature to the point where all of their potential benefits

contribute to self-organizing systems of government. For example, Stephenson et al (1999) argue that the Southwest Nova Scotia herring fishery emulated co-management for quite a long time and achieved a significant amount. Equally, the value of these arrangements can deteriorate very quickly for several reasons, including the shift in harvest intensity by a particular group, unexpected regulations or restrictions on harvesting, or the failure to meet a commitment. Therefore, the interactions associated with collaborative arrangements are not necessarily fixed in time or space, and they will vary with context. Federal legislation will not be sufficient to achieve the goals (conflict resolution; the integration of different knowledge systems; and monitoring and assessment) set out by adaptive co-management. Adequate resources in the form of funding, time, energy, and expertise are also required in order to enable leadership. Leadership is key in maintaining a focus on collaboration and opportunities for learning. Resources must also support facilitation, meeting and networking activities, and other aspects of adaptive co-management processes. Without adequate resources, actors are likely to suffer from burnout and withdraw from the process which jeopardizes any current and future progress in managing for sustainability.

2.5. Literature on Conflict Resolution

It is evident from the literature on adaptive co-management that stakeholder participation in resolving disputes is an essential part of the concept. In connection to my research question “what role does conflict play in either enabling or hindering innovative institutions of adaptive co-management”, I am interested in how conflict can be resolved using wider stakeholder involvement as opposed to rights-based processes. Therefore, I will next turn to the literature on conflict resolution. It is important to point out that there

is a relationship between the literature on conflict resolution (ex. Fisher, Ury and Patton 1991; Moore 1996; Susskind, McKernan and Thomas-Larmer 1999; Deutsch and Coleman 2000; Johnson, Johnson and Tjosvold 2000; Pirie 2000; Maiese 2003) and the literature deliberative democracy (Sabel, Fung and Karkkainen 2000; Karkkainen 2001/02; Sideaway 2005; Sheedy, Mackinnon, Pitre and Watling 2008). Collectively referred to as the literature on citizen engagement, however they are distinctive through their application in scale and scope. The conflict resolution literature promises to transform individuals into problem-solving citizens, while citizen engagement literature promises to transform problem-solving techniques of conflict resolution into democratic governance (Cohen 2008:507). Further, both fields are concerned with power, but in different ways. The conflict resolution field is more optimistic than the deliberative democracy field particularly in relation to the capacity of carefully constructed processes and communication skills to transform the nature of power as the process unfolds, so long as participants adhere to basic theoretical and methodological principles. One such principal is that stakeholders participate as representatives of an institution or social groups. A deliberative democracy approach on the other hand, sees the shedding of the trappings of power as enabling stakeholders to freely engage with one another without the constraints associated with representation (see for example Laws 1999). Arguably therefore, the conflict resolution literature pays careful attention to micro-processes which is a set of assumption that the deliberative democracy literature currently ignores (Cohen 2008:505). Where the literature on deliberative democracy demonstrates initiative is in the up-scaling of principles and techniques of collaborative problem solving to address conflict at the national, regional or global levels. As such, the skills that the

conflict resolution field values such as voluntarism, participation, and horizontal dialogue stand ready to become dominant, rather than alternatives to top-down approaches (ibid:505). These distinctions between the two bodies of literature are important. Although their implementations differ with the conflict resolution field influencing the micro sphere, and the deliberative democracy field influencing the macro sphere, they jointly share many historical antecedents, methods and normative commitments (ibid:507). In order to highlight the overarching goal of conflict resolution, the shared commitments between the two literatures are presented under the guise of literature on conflict resolution throughout the rest of this dissertation.

The literature states that when thinking about conflict and its social functions, it is important to consider who should be involved in the dispute resolution process, in addition to when and how actors should be engaged. Increasing public participation to resolve conflicts, specifically by reaching consensus, is grounded in two concepts. First is the democratic ideal that people ought to be involved in decisions that influence their lives. This requires that a systematic approach to public involvement be embedded in the deliberate design of processes and effective participation strategies. It also entails agreeing on processes in advance, having clear aims at each stage, receiving a desired level of involvement from parties at the right time and engaging in the most valuable and useful techniques to secure involvement. Public involvement can also change the way a government or agency enacts their objectives and adapts to shifting social values by refining problems and considering a broader range of alternatives. (Sidaway 2005; Susskind 2009). Another advantage to public involvement is that decision-makers can work more effectively when they have active citizen involvement and support for their

proposals. The rationale is that policies are more likely to be fully accepted and implemented when representatives of interest groups are involved in determining solutions to mutually recognized problems or conflicts. This is because a well-structured process of dialogue and deliberation provides a chance for parties to disagree and express themselves in a supportive environment (Sideaway 2005). Thus, potential is created for parties to learn and understand why others hold the position they do, which builds trust in relationships. The result is thought to be less time and resources spent on resolving conflict that emerges from government decisions (Sheedy, Mackinnon, Pitre and Watling 2008:10). More importantly, decisions that are made under these conditions are more likely to be sustainable because they are developed by those whom are affected by them. This follows the recent theoretical shift from a “top-down” model of government to horizontal governance which requires the government to take a holistic approach to policy, moving beyond departmental silos to accept and support citizen-centered policy analysis and solutions. Therefore, governments are no longer expected to have all the answers but they are responsible for the role of coordinating and facilitating a collaborative process of policy development inclusive of public, private and voluntary sector actors (ibid:9).

Although these are good arguments for involving stakeholders with multiple interests and concerns in environmental dispute resolution processes, they do not explain how to select ‘appropriate’ stakeholders to participate (sensu Susskind and McCreary 1985). The conflict resolution literature states that the complexity in the selection process lies in the fact that there are a number of different methods for identifying ‘legitimate’ stakeholders. For instance, public interest group representatives can be selected through

the reliance on networks of existing organizations, by *ad hoc* elections, or by having administrators, regulators or mediators select representatives or individuals who have credibility with the other groups that are involved (Susskind and Weinstein 1980:338). Another approach is to determine primary, secondary, and tertiary stakeholders. Primary stakeholders are those who are most dependent on the resource, and most likely to take an active part in managing it. Secondary stakeholders are those with powerful voices and may include local government officials and those who live near the resource but do not depend on the resource. Shephard (2004:6) suggests that conservation organizations and national level government officials might be considered tertiary stakeholders. In Canada however, the legislative framework for managing marine resources makes the Minister of DFO a primary stakeholder with ultimate decision making authority. ‘Legitimate’ stakeholders can also be determined by establishing those with claims to legal protection, those with political clout, those with power to block negotiated agreements and those with moral claims to public sympathy (Susskind and Cruikshank as cited by Sidaway 2005:77).

The literature suggests that it is not only important to establish why public participation is important, and who should be involved, but also to define the meaning of participation. Susskind and Weinstein (1980:339) state that it is imperative to be precise about the meaning of participation because not all participants can and should participate in an environmental dispute resolution process to the same degree or over the same period of time. Those that are most directly affected will want to be and should be permitted to participate from the onset of any process, in greater depth and with greater frequency than those with less immediate personal concerns (Susskind and Weinstein

1980:338). Another rationale for defining fair and effective stakeholder involvement lies in the commonly cited relationship between stakeholder participation and compliance with prescribed roles and responsibilities, or with regulations that result from agreements (Davis 2011:105). Weak involvement of key stakeholders and lack of support for decisions made can result in the rejection of an agreement (see Gunton, Thomas and Day 2007). Insufficient and uneven early involvement can cause confusion around roles of a caucus and committee that had been developed to address the issues of concern (Davis 2011:113). Some environmental dispute resolution case studies demonstrate innovative approaches to integrating and involving stakeholders at different times throughout the process leading to successful resolutions (see Burgess and Smith 1983; Burgess 1983). The important point is that decisions regarding who should participate, when and how are not made and imposed by the third party, they were arrived at via a mutual, interest-based, problem solving process. These case studies more broadly illustrate that it is important to focus on techniques and theories for the selection, involvement and participation of stakeholders.

In addition to considering who should participate, when and how, the literature states that an approach must be reflected on and selected. Although rights or entitlement-based approaches such as court adjudication are usually the first to come to mind, other legitimate processes include arbitration, non-violent direct action such as activism and protests, negotiation, conciliation and mediation (see Morris 2002; Pirie 2002). There are different approaches to mediation such as interest-based (Fisher, Ury and Patton 1991), rights-based, facilitative, evaluative, activist (Forester 1994; Forester and Stitzel, 1989; also see Morris 2002), narrative (Cobb, 1994; Winslade and Monk 2000), or

transformative (Dukes 1993; Bush and Folger 1994; Lederach 1995). The approach cited most often to address conflicts among users of natural resources is joint problem solving. In joint problem solving, parties are brought together to exchange views, share information, clarify differences and define 'joint problems' (Susskind and Madigan 1984). Parties are encouraged to look beyond their own interests to examine the interests of the other parties in order to develop a rich array of options that mutually satisfy competing interests (Susskind and McCreary 1985). Another approach is constructive controversy. The literature states that constructive controversy involves deliberative discourse aimed at discussing the advantages and disadvantages of proposed actions and synthesizing novel solutions. This approach is based on several premises. When individuals are presented with a problem or decision, they develop a conclusion based on limited information. When they present their conclusion and receive positive feedback, they deepen their understanding of their position and use higher-level reasoning strategies. If, however, individuals are confronted with different conclusions from their own based on other information, experiences and perspectives, they become uncertain about the correctness of their own conclusion and enter a state of uncertainty. This triggers an active search for more information and new experiences in order to resolve their uncertainty. By adapting their perspective and reasoning through understanding and accommodating the perspective and reasoning of others, individuals develop a new conclusion (Johnson, Johnson and Tjosvold 2000:66). Ultimately constructive controversy and joint problem solving aim to create honest and open communication of relevant information among participants so that parties recognize the legitimacy of other interests so as to develop a resolution that is relevant to the needs of each side. Further, it

creates a trusting and friendly venue whereby actors increase their sensitivity to similarities and common interests (in sensu Pirie 2000:46).

A very different approach to conflict is avoidance. Avoidance occurs when an individual does not immediately pursue their own concern or those of the other person. It takes the form of diplomatically sidestepping an issue, postponing an issue until a better time, or withdrawing from a situation all together. Although it can have positive implications, it is generally understood to be unassertive and uncooperative (Thomas and Killman 2000). The course of conflict can take on other destructive features as well (Pirie 2000). Destructive controversy or conflict derives from competition. Although the process of destructive controversy begins the same as a constructive process, the uncertainty created by being challenged results in close minded, defensive rejection of other points of view (Johnson, Johnson and Tjosvold 2000:66). Destructive conflict is characterized by its tendency to expand and escalate. Maiese (2003), Pirie (2000) and others agree that the escalation in conflict refers to an increase in the intensity of a conflict and in the severity of the strategies used to pursue it. It is driven by changes in the number and size of the immediate issues; the number of parties; the number and size of principles and precedents seen to be at stake; the costs; the exemption from norms of acceptable behavior; and the intensity of negative attitudes towards an opponent (Pirie 2000:45). Often because of an escalation in conflict, what caused the conflict to begin with is forgotten or becomes insignificant compared to the new issues that emerge (Pirie 2000:45).

From the above description, I would suggest that the characteristics of constructive controversy and joint problem solving are similar to Habermas's

“communicative rationality”. It can be argued that constructive controversy and joint problem solving both have foundations in consensus building. In the conflict resolution literature, consensus building has been defined as:

...a collaborative approach to making decisions in which the interested (or disputing) parties identify common ground and work voluntarily toward finding a mutually acceptable solution towards a contentious problem (Environmental Council as cited by Sideaway 2005:66).

Consensus building draws on interest-based theory (sensu Fisher, Ury and Patton 1991) in that it is a negotiation process that is intended to eliminate misunderstandings, clarify interests and establish common ground. Consensus building literature emphasizes that the decision-making group is inclusive, that decisions are reached jointly by all parties, and that emphasis is placed on ensuring that the process is fair (Sidaway 2005).

The literature on conflict resolution also offers significant insights into the issue of conflict type (in sensu Moore 2003). The recognition that multiple conflict types exist is important because conflict resolution experts associate each conflict type with distinct conceptual and procedural considerations. They argue that a failure to identify and to respond in a manner consistent with each conflict type results in failure to address the conflict as a whole (Pirie 2000; Moore 2003). In order to identify conflict type, however, the literature states that conflict needs to be “named, blamed and claimed” (Felstiner, Abel and Sarat 1980). Felstiner, Abel and Sarat (1980) explain that an unperceived injurious experience must be transformed into a perceived injurious experience (named), the perceived injurious experience must be transformed into a grievance (blamed), and the grievance must be denied or dismissed (claimed) (Felstiner, Abel and Sarat 1980).

Thus, conflicts must be explicitly identified as such, and a decision must be made as to the type of action that should be taken.

Moore (1996:60-61; also see Pirie 2000: 64-69) identifies five types of conflict and potential actions to be taken to address them. The first is data conflict. Data refers to facts, information and knowledge and conflicts therefore arise because of a lack of data or incomplete data; misinformation or inaccurate information; different views on what is relevant and different assessments of data. Possible interventions could include reaching an agreement on how to collect data and what data is important; developing common criteria to assess data; or using a third-party expert to break deadlocks over data. The second is interest conflict. Interests refer to a person's needs, desires, concerns, hopes or fears. Interests may be substantive or procedural. Conflicts emerge when there is an actual or perceived interference in having one's interests satisfied. Possible methods for resolution include focusing on the interests that need to be met in any resolution; developing creative solutions that meet the needs of all parties; searching for ways to expand options for satisfying more than one interest. The third is relationship conflict. Because relationships involve continuing or past social interactions that vary in duration, physical proximity, purpose and emotional involvement, conflicts of this nature are caused by negative repetitive behaviour; poor communication or miscommunication; misperceptions or stereotypes and assumptions about behaviour. Methods to address relationship conflict include improving the quality and quantity of communication; blocking negative repetitive behaviour; and separating relationship conflicts from other sources of conflict where possible.

The fourth conflict type is value conflict. Values are attitudes, beliefs, or principles that determine, influence or justify one's behaviour, choices or judgments. Forester (1999) states that values are connected to identity, they appear to be inherently personal, subjective, and developed as a matter of tradition and socialization. Value conflicts are the result of claims that one value should dominate, or the claim that one value is superior or inferior to another; or relate to competing ideologies. Because values are profoundly connected to who we are and aspects of the world that we cherish, they are not open to change by persuasion or rational argument (ibid). Therefore, strategies to deal with value conflicts include allowing parties to agree to disagree; recognizing that value conflicts are difficult to resolve by consensus; looking for interests or goals that are common to the conflicting values; separating value conflicts from other sources of conflict when possible; or identifying non-consensual dispute resolution forums such as adjudication. The fifth and final conflict type described by Moore is structural conflict. Structures refer to institutions, organizations, systems, practices or other physical or psychological forms of ordering human affairs. These types of conflict arise due to unequal control, ownership, or distribution of resources; unequal power or authority; limited resources; or inequalities arising from various political, social and economic orders. When structural issues are not addressed, the conflicts will continue to resurface despite changes in stakeholders. Possible interventions therefore include attempting to modify or change structures responsible for the conflict; utilizing interest-based processes to engage participants in designing new structures to address the issues; and separating structural conflicts from others sources of conflict when possible.

Moore's strategy to separate specific conflicts from other sources of conflict is similar to Fisher, Ury and Patton's (1991) suggestion to "separate people from the problem". They explain that if stakeholders view themselves as adversaries, it is difficult to separate their relationship from the substantive problem. Anything one stakeholder directs at another is taken personally, which has negative implications for their interactions. However, when people are separated from an issue such as an organizational policy or procedure, stakeholders can address a problem with free and open-minded discussions without jeopardizing their relationship (Fisher, Ury and Patton 1991; Moore 1996).

The literature on conflict resolution demonstrates that conflicts are not one-dimensional and therefore most conflicts can involve more than one conflict type. This is important to consider in addressing 'wicked problems' given that they arise within the relationship between natural and human systems, which are complex and uncertain.

2.6. Governmentality

In order to examine what the role of conflict is in either enabling or hindering innovative institutions for adaptive co-management, I wanted to understand how power may affect the resolution of conflicts by stakeholders involved in innovative institutions. Therefore, I turn now to the literature on governmentality. Arguably, the literature on adaptive co-management is prescriptive in that it suggests appropriate conduct for how to achieve conflict resolution and sustainability of the marine environment. However, when theory is put into practice, it is important to understand how people internalize these ideas and how it influences their behavior. The governmentality literature allows for a deeper understanding of how this happens. Governmentality deals with how we think about

governing, with the different rationalities and mentalities that play out in institutions, procedures, calculations, and tactics, that allow the exercise of a very specific albeit complex form of power' (Foucault 1979; Rose and Miller 1990; Dean 2010).

Governmentality is not a model or a framework, but a distinctive critical perspective and style of thought (Lemke 2013:51). Lemke (2000:7) argues that the theoretical strength of the concept of governmentality lies in the fact that it construes neo-liberalism as a political project that seeks to create a social reality (Lemke 2000:13). In understanding the mentality of neoliberal arguments, Foucault turns to historical investigation, situational ethics, context and *real politik*⁷ (in sensu Dean 2010; see also Flyvbjerg 1998:220). For Foucault, historical analysis allows us to become aware of social arrangements that create problems or benefits for civil society. It follows that these social arrangements can be contested or promoted. Flyvbjerg (1998:222) states that this is Foucault's point of departure for social and political change. Foucault coins the concept of 'governmentality' as a 'guideline' for the analysis he offers by way of historical reconstructions (Lemke 2000:2).

2.6.1. Analytics of power

The concept of governmentality as a "key notion" of Foucault's work, plays an important role in his analytics of power in several regards: it offers a view on power that centres on either consensus or on conflict; it links technologies of the self with technologies of domination, the constitution of the subject to the formation of the state; and it helps differentiate between power and domination. Foucault identifies three types

⁷ Italics is that of Dean (2010).

of power relations: Power as a Strategic Game, Government and Domination (Lemke 2000). In order to keep this section concise, only the first two will be examined in greater detail.

2.6.2. Power as a Strategic Game

‘Power as a Strategic Game’ can take many forms, including ideological manipulation or rational argumentation. Foucault is curious about the preconditions for consensus or the prerequisites of accepting and engaging in processes such as Habermas’s ‘communicative rationality’ (Lemke 2000:4; also see Flyvbjerg 1998). Arguably, the coercive abilities of strategic games such as communicative rationality lies not in their institutional or structural character, but in their deep internalization by members of society (Nader 1997:724). Foucault therefore pays attention to the preconditions for actual discourse, to substantive ethical values and to the problem of how communicative rationality gets a foothold in a society where overt forms of resistance such as protests, blockades, demonstrations or soliciting media attention may be just as likely an outcome (Flyvbjerg 1998:218).

Nader (1997; 2001; 2008) provides one explanation for how communicative rationality takes a foothold. She states that in North American society, conflicts and disagreements are understood to be bad and to be avoided at all costs. Harmony ideologies such as communicative rationality are a mode of control in that they can be used to suppress people’s resistance by socializing them toward conformity by means of consensus-building mechanisms, by valorizing consensus and by silencing people who speak out with anger. Although this approach can stifle dissent for a while, if dissent is too tightly bottled up, it will lead to explosive interactions and have consequences

opposite to those that were intended (Nader 2001). Alternatively, Foucault and others argue that democracy is best cultivated not by assuming away power, but rather by expressing and legitimating differences in power and in interests (Flyvbjerg 1998; Takeda and Ropke 2010; Linke and Jentoft 2014). A strong civil society allows for the unrestricted liberty to engage in resistance, struggle, and contestation, which are characteristic of activism and social change (ibid; Burchell et al 1991; Dean 2010). The literature states that ‘counter conduct’ has a value in political processes and it reminds us that democracy did not just emerge from rational discourse and consensus, but also from conflict. Contestation and resistance have historically brought an urgency to the transformation of regimes of practice that are deemed unjust. They do this by proposing alternative futures and by giving new possibilities to our thought (Flyvbjerg 1998; Rose 1999; Dean 2010; Takeda and Ropke 2010). Therefore, conflict, in contrast to consensus, is for Foucault the most solid basis for the practice of freedom (Flyvbjerg 1998:223). This requires however, that democracy and civil society position conflict and power at the centre of social life. And Flyvbjerg (1998) argues that forms of public life that are practical, with individuals who are committed and prepared for conflict, offer a more resilient model for civil society than do forms of public life that are discursive, detached and consensus dependent. Lemke (2000:5) reminds us that strategic games such as communicative rationality do not necessarily mean that power is exercised against the interests of the other party in a power relationship. And it does not mean that power relations always result in a removal of liberty or of options available to individuals. Foucault also argues that “power is an omnipresent dimension in human relations, power in a society is never a fixed and closed regime, but rather an endless and strategic game”

(Burchell et al 1991:5). It is this 'power is always present' approach that enables Flyvbjerg to argue that Foucault's analytics of power is an effective point of departure for social action.

2.6.3. Government as a Power Relation

The second type of power relation identified in Foucault's work is 'government', which refers to more or less systematized, regulated and reflected modes of power (technologies) that go beyond the spontaneous exercise of power over others, but instead follow a specific form of reasoning (a rationality) which defines the aim of action or the adequate means to achieve it (Lemke 2000:5). The audit is an example of a technology, in this case a technology of performance (Dean 2010:223). While the audit, also referred to as a 'performance based approach', or 'an indicator approach' derives from the techniques, values and principles of the financial audit, it is increasingly used in other contexts such as the environment and more specifically the fisheries (Chuenpagdee and Jentoft 2009; Parlee and Wiber 2015).

Advocates for this managerial approach maintain that the rise of the audit can be attributed to citizens who have demanded more accountability from distant bureaucracies (Karkkainen, Fung and Sabel 2000). But the institutional origins of the demand for environmental audits ultimately derive from a complex mixture of pressures. These influences include a shift in regulatory methods; public concerns about the environment; a significant number of consulting practitioners operating in the field; the threat of lawsuits; and a history of demands for quality initiatives. Above all else, the new environmental management system demands a cost effective approach to dealing with and processing risk (Power 1996; also see Dean 2010).

Risk can be analyzed from two perspectives: an ‘analytics of government’ and cultural anthropology. Following Foucault, Dean and others, an ‘analytics of government’ examines risk as a component of assemblages of practices, techniques, and rationalities concerned with how we govern. Risk is therefore a calculative rationality that is tethered to diverse methods of intervention and techniques for the regulation, management and shaping of individual and societal conduct with specific ends and definite effects, some of which are unanticipated (Dean 2010:207). The government of risk has four dimensions that need to be considered: how we come to know about and act upon different forms of risk rationality; how such conceptions are linked to particular practices and technologies; how such practices and technologies will give rise to new forms of social and political identity; and how such rationalities, technologies and identities become secured in political programmes that invest individuals and societies with a certain character (ibid:217).

From a cultural anthropological perspective, risk is understood as an omnipresent dimension (Beck 2006; but also see Giddens 1990; 1999; Boholm 2003). As a result, modern society has become a risk society in the sense that it is increasingly engaged in creating, debating, preventing and managing risks (ibid:332). This raises questions about what the literature understands to be a threat versus a risk, from where risk emerges and how it is currently being addressed. A threat can be understood as a perceived possibility of something negative happening; that is, the potential for harm to come to people, places or organisms. Risk however, is the calculation of the probability of that threat materializing which influences behaviour (Beck 2006). Boholm is consistent with this calculus approach to risk, as she (2003:160) defines it as “the statistical probability of an

outcome in combination with severity of the effect construed as a ‘cost’ that could be estimated in terms of money, deaths, or cases of ill health”. However, she goes on to expand this definition from the perspective of sociologist Gene Rosa (1998 as cited by Boholm 2003:166) who defines risk as “a situation or even where something of human value (including humans themselves) has been put at stake and where the outcome is uncertain”. From this perspective, Boholm (2003:161) suggests that risk perception can be both subjective and objective in nature. Subjective risk is judged in terms of emic, locally defined, values and concerns. Objective risk on the other hand, refers to phenomena in the natural world that can have harmful effects according to universal scientific criteria (also see Castel 1991). The literature argues then, that a realistic concept of risk must consider the amalgamation of both objectivity and subjectivity. This distinction between calculated threat, risk and the certainty of danger, hazard or catastrophe is one that is made more broadly in the literature (Castel 1991; Giddens 1999; Boholm 2003; Beck 2006).

Interestingly, the literature suggests that there has been a shift in what is influencing perceptions of risk. Giddens (1999: 3) explains that industrial society was long dominated by perceptions of *external risk*⁸. This is the risk of events arising from outside society that may affect individuals unexpectedly but that happen frequently enough that they are broadly predictable. However, Beck argues that today there are few aspects of the physical world that have not been influenced by human intervention. Thus society is now preoccupied with *manufactured risk*, which refers to new risk environments for which history offers very little previous experience. Manufactured risk

⁸ Italics is that of Giddens.

is created by human development, particularly in the fields of science and technology (ibid:4).

Despite this shift in what is influencing perceptions of risk, it is important to note that risk is particularly contextual and fluid and what is or is not considered a risk depends largely on other things such as social relationships, power relations, cultural beliefs, trust in institutions and science, knowledge, experience, discourses, practices and collective memories. These elements both influence and are affected by values. As such, to categorize (or calculate) something as a risk implies values (Giddens 1999; Boholm 2003). And, where there is a conflict over different types of risk, there is also a clash of values (Giddens 1999; Boholm 2003).

A great deal of political decision-making is now about managing risks and conflicts over values. How risk should be managed however, is a philosophical question (Giddens 1999). The realist camp is convinced that technical calculations of risk (i.e. objective risk) constitute a true representation of observable hazards. As such, it is the task of science to assess and disclose sources of potential harm, identify measurable correlations and assess the probabilities of harm (Klinke and Renn 2002:1073; Boholm 2003:161). The constructivist camp on the other hand, suggests that because people judge risk in terms of experience, culture, and values (i.e. subjective risk), people's beliefs and opinions will deviate from such scientific assessments; further, it could be argued that truly objective calculus of risk does not exist. At best, risk can be checked against standards of consistency, cohesion and internal conventions of logical deduction (Klinke and Renn 2002; Boholm 2003). Klinke and Renn (2002:1072) state that it is for this reason that risk must be considered heterogeneous phenomena that preclude standardized

evaluation and management. At the same time however, risk management and policy would be over burdened if each risk activity required its own strategy of risk evaluation and risk management. They suggest that what managers require is a method for evaluation and management that ensures the integration of social diversity and multi-disciplinary approaches, while also allowing institutional routine and easy to implement procedures (ibid). This suggests that there is no simple recipe for calculating and managing risks (Klinke and Renn 2002). This literature does not prescribe how risk should be managed other than to say politics must give some institutional forum to this dialogical engagement because it is largely being addressed by special interest groups outside of the political domain. Boholm (2003: 175) suggests that the value of the cultural anthropology literature is that:

...with its analytical capacity to bring into the open and problematize taken-for-granted assumptions and given meanings, in combination with its ethnographical methods [it] can contribute by untangling the intrinsic situatedness of risk.

Dean (2010:207) argues that the cultural anthropology literature on risk and the governmental account of risk as a calculative rationality have something to offer our understanding of the fate of the social. However, they each have something to teach one another as well. The cultural anthropology reveals certain limitations in the existing applications of the analytics of government. To solely highlight the specificity of particular practices and rationalities of risk would deny the potential that risk can be understood more generally through processes of the transformation of contemporary governmental practices. Therefore, Beck, Giddens and Boholm provide a 'thought-figure' that might be usefully adapted to governmental concerns. However, the cultural anthropology literature can learn from the focus on the analysis of the particular

practices, techniques and rationalities such as the audit, also referred to as a ‘performance based approach’, or ‘an indicator approach’ through which risk becomes constructed as a governable entity.

Rationalizations for audits and indicators are not only couched in discourse on risk and the management of it, but also in a discourse of science, objectivity, independent certification, transparency and systems management. However, Ponte (2008), Foley (2012), Buthe (2012) and others believe that these methods of auditing need to be understood in relation to market dynamics, the influence of special interests and pressure groups, the role of NGO’s, scientific and expert communities, and local politics in shaping actual compliance. In short, the political economy of audits and indicators in the market must be examined and understood (in sensu Ponte 2008:160). This raises the question as to who is in the market for audits and indicators? Who demands and who supplies them? How does this affect power dynamics?

The critical literature on audit culture (following Dean and Foucault) draws attention to the power relationships within the audit system (Parlee and Wiber 2015; Merry and Coutin 2014). Parlee and Wiber (2015) argue that with an increase in number and type of stakeholders involved in governance, the audit has the potential to increase the power of some at the expense of others (also see Power 1996; Shore 2008; Davis et al 2012). Specifically, relative power is increased when actors can prioritize objectives based on their plans and strategies; develop the indicators and the metrics used; control the calculations undertaken; and dictate how the analysis is used in policy development. The information and ideas that an individual or group can assemble and/or control, play an important role in the power that they can exercise over those whose role it is to be

‘entries in the chart’ (Rose and Miller 2008; Dean 2010; Davis et al 2012; Parlee and Wiber 2015).

It is therefore important to think about how producing technologies of performance such as the audit influence the kind of knowledge they provide, and how they impact the distribution of power between and among those who govern (the audit users) and who are the governed (the targets of audit) (Davis et al 2012:4; Parlee and Wiber 2015). A focus on governmentality enables an examination of the way that particular governmental programs are devised, the technique they assemble— technologies of government or power, technologies of agency, technologies of performance— and how they transform, succeed or fail; the kind of thought, knowledge, expertise, strategies, means of calculation, or rationality that are employed in practices of governing; how thought seeks to transform practices; how practices of governing give rise to specific forms of truth and how thought seeks to render particular domains and problems governable (Li 2005; Dean 2010). Technologies of government can only shape and not fundamentally determine how society and individuals think and make decisions because people are agents and therefore have the ability and power to interpret, act, and mobilize and be mobilized (Edwards 2003).

Lemke (2000:2) argues that there is a semantic link between governing and modes of thought and therefore it is not possible to study technologies of power without an analysis of the political rationality that underpins them. Central to the political rationale that identifies problems and links them to solutions in a systematic manner is the practice of ‘rendering technical’ (Li 2011). When something is ‘rendered technical’, it can be diagnosed, which sets the direction for solutions and for action (in sensu Rose 1999; Li

2005). Rendering technical requires experts and expert language. According to Dean (2010) it is the individuals, collectives, organizations, networks and groups that position themselves as experts who have the power and specialized knowledge required to know how others should live. If the conduct of individuals from any realm of society (civil, private, government) appears to require control it is because experts find an aspect of their actions problematic. Experts problematize new aspects of existence and simultaneously suggest that they can help overcome the problems that they have discovered (Miller and Rose 1992:43). Therefore, experts enter into a kind of double alliance—on the one hand they ally themselves with political authorities and focus on their problems, problematize new issues and translate political concerns. On the other hand, they try to form partnerships with individuals and collectives with the goal of translating their concerns and judgments into a language where experts can claim the power of truth and recommend techniques by which individuals might manage better (ibid:68).

This literature on the link between political rationalities and technologies of power suggests that the relationship is much more complex than simple application or transfer. The difference between the envisioned aims of a program and its actual effects does not refer to the purity of a program and the impurity of rationale, but to different realities and heterogeneous strategies (ibid: 9). The analytics of government is important because it enables an examination of how forms of rationality inscribe themselves in practices or systems of practices, and what role they play within them (ibid:7).

2.6.4. Domination as a Type of Power

The third type of power identified by Foucault is ‘Domination’. This is a particular type of power relationship that is both stable and hierarchical, fixed and difficult to reverse. Foucault uses the term domination to describe what we ordinarily call power. Domination refers to those asymmetrical relationships of power in which the subordinated persons have little room to manoeuvre because their liberty is extremely limited. It is important to point out that domination is not the primary source of power, but rather the implications that arise from technologies of power (Lemke 2000:5,6).

2.7. Participation in Governance-Beyond-the-State

The governmentality literature argues that the so-called “retreat of the state” is in fact a prolongation of government and that neo-liberalism is not the end of politics but a transformation of politics, one that restructures the power relations in society. What we observe today is not a diminishment or a reduction of state sovereignty and planning capacities, but a displacement from formal to informal techniques of government and the appearance of new actors on the scene (Lemke 2000:11).

There are two interrelated processes that are discussed in the governance literature that describe this transformation of politics and the emergence of new actors in governance. The first is referred to as “roll-back neo-liberalism”. This involves the retreat from governmental control of resources and state regulation and the facilitation of privatization through the sharing or delegation of authority to non-governmental agents (Handler as cited by Aguirre Jr., Volker and Reese 2006:2). Pinkerton et al (2008:343) state that: “this is sometimes characterized as a withdrawal (or roll-back) of state intervention in favour of ‘market rule’”. The second is “roll-out neo-liberalism”. This

involves the “purposeful construction and consolidation of neo-liberalized state forms, modes of governance, and regulatory relations” (Peck and Tickell as cited by Aguirre Jr., Volker and Reese 2006:2). Roll out neo-liberalism can involve the ‘up-scaling of governance’ (Swyngedouw 2005) whereby the formation of new trade, financial regulations and even environmental policy initiatives are set by international institutions, private firm coalitions and civil society organizations, as diverse as the International Monetary Fund, the World Trade Organization, and Wal-Mart and Costco (Anderson 1998; Aguirre Jr., Volker and Reese 2006; Jacquet and Pauly 2007; Parlee and Wiber 2011). Roll out neo-liberalism can also involve the down-scaling of governance to ‘local’ practices and arrangements, which incorporate new social actors in the governing arena and affords the space to retain and apply the rights, strategies and tools of communities (Swyngedouw 2005; Pinkerton et al 2008). The focus in this section will be on “roll-out neo-liberalism” and the involvement of local actors in governance processes.

This “emergence, proliferation and active encouragement of institutional arrangements of ‘governing’ which give a much greater role in policy making, administration and managing” (Swyngedouw 2005:1992) is described as ‘governance beyond the state’ because of the involvement of non-state, civil society and market-based configurations in governance processes. Such arrangements of governance are no longer organized vertically and with permission from the state, but as self-organized horizontal networks (Swyngedouw 2005:1992; also see Jacquet and Pauly 2007). This shift towards a complex coordination of state and market has “blurred the boundaries” between and within the public and private sectors (Goodwin 1998). As such, the state is no longer the only source of governance, but part of a world that is now constructed of many

“jurisgenerative institutions” (Anderson 1998; also see Swyngedouw 2005; Chuenpagdee and Jentoft 2009).

There are significant benefits that emerge from “roll-out neo-liberalism”. Firstly, governments no longer exercise the influence and power over the public that they did prior to globalization. Traditional methods such as putting pressure on stakeholders or calling on citizens to listen to their leaders can easily backfire in today’s political, economic and social environment. Additionally, backroom deals are no longer acceptable as the public demands higher standards of transparency and accountability in governance and policy making (Lenihan 2012). Neo-liberalism does not abandon the will to govern but rather upholds the belief that the failure of government to achieve all of its objectives can be overcome through new strategies and initiatives (Miller and Rose 1992).

Secondly, new arrangements under neo-liberalism enable a type of governance that can increase the capacity of the state by bringing non-state actors into the process of making and implementing public policy. This approach makes the state more efficient as the state limits itself to ‘steering’ and leaves the ‘rowing’ to other actors (Offe 2009; also see Rose 1999; Swyngedouw 2005; Dean 2010). Public and private sectors play a supporting role in that they are recruited to cooperate in the fulfillment of public tasks according to their specific competences and resources. This exhibits an institutional composition that is based on the inclusion of private market actors, civil society groups and part of the ‘traditional’ state apparatus. It is this institutional configuration that generates advantages for governance because this model considers the assembly of ideological, economic and cultural resources from actors that operate outside of the state (Swyngedouw 2005). This leads to horizontal networks that are based on interactive relations between autonomous

yet mutually dependent actors that share a high degree of trust, despite the presence of internal conflict and of agendas that are not necessarily complimentary. In these polycentric ensembles, power is distributed at a variety of geographic scales in processes of rule-making, rule setting and rule implementation (ibid). Stoker (1998) and Swyngedouw (2005) argue that the continuous interactions between the three domains – private market, civil society, the state— implies that they are characterized by a common purpose, joint action, a framework of shared values and a wish to achieve collective benefits that cannot be achieved by acting independently from each other. The collaboration that exists between these bodies makes governance more effective because it broadens the base from which information is being drawn. Because a diversity and multiplicity of stakeholders are approached as knowledgeable actors in the public policy making process, there is an increase in the information and experience that is being made available. This generates more accurate problem definitions, a greater number of ideas and solutions which translates into a higher probability of developing innovations. Also, governors are able to draw from and employ a broader set of tools to make them more equipped and thus capable of dealing with the diverse, complex and dynamic nature of problems. Perhaps most importantly, these assemblages have the potential to make governors more sensitive to the specificities of local contexts (Bavinck et al 2005; Edelenbos 2005; Jentoft 2011). Indeed, this interdependence is recognized more and more as a basic governing principle in a continuous process of negotiation (Edelenbos 2005). The three major hybrid forms of collaboration that tend to emerge include: co-management which is between state agencies and communities; public-private

partnerships which involve state agencies and market actors; and private-social partnerships that engage market actors and communities (Lemos and Agrawal 2006).

While there are benefits that emerge from “roll-out neo-liberalism”, there are also criticisms. Swyngedouw (2005:1992) argues that the new networked arrangements that have emerged under neo-liberalism and that allow governance-beyond-the-state to function, are Janus faced because they work simultaneously in two directions. While they enable new forms of civil participation, they also “redefine the nature and meaning of democracy”. One such example is the implications that arise from actor categories. Hallstrom and Bostrom (2010:118) explain that in multi-stakeholder work, a key feature is the need to create actor or stakeholder categories in order to classify all participants engaging in an activity, to allocate tasks, responsibility and decision-making power. Multi-stakeholder organizations can be understood by exploring the motives, strategies and power of participating stakeholders. The literature highlights two stakeholder types worth examining: secretariats and experts. The responsibilities of the secretariat include day-to-day activities and they are assumed to merely follow procedural rules, assist and perform an executive role, all with neutrality. However, Hallstrom and Bostrom (2010:88) point out that the staff of secretariats have access to specific resources and are therefore in a unique position to exert influence⁹ develop power, which in time enables them to “take actions” and to assume authoritative positions. The secretariats then

⁹ Although this entire section on categorization does not fit well with Foucault’s notion of power as interactional and not as a thing that some actors have and others do not, it is nevertheless how the literature talks about power. Therefore, it is how power will be discussed in this section.

gradually assume tasks and responsibilities and make more decisions. Secretariats are comprised of individuals with specialized expertise, and it is through this investment in expertise that the bureaucracies establish authority, autonomy and attempt to exert control over conduct of others. 'Experts' refer to individuals assumed to act in a personal capacity, and not as representatives of a specific interest group. When it was analyzed how representation was affected by stakeholder categorization, problems with equality were detected. Stakeholders did not always remain with the group to which they were originally appointed, thus they engaged in a 'switching strategy'. This was attributed to some individuals having dual employment and therefore identifying differently depending on the situation, while others were able to gain influence by disguising their real interests (ibid:119-20). The authors warn that if participants use a switching strategy, there is a risk of the legitimacy of the multi-stakeholder structure being weakened in the long run because of the power differentials that arise. This causes the structure not to function as it was intended. These two examples – secretariats and experts-- demonstrate that stakeholder categories are not just organizing and legitimizing activities, but they also contain power dimensions (ibid).

The uncertainty over whether to follow an 'expert' or 'representative' approach creates dilemmas for the individuals holding those positions, and it also creates problems within and between organizational units. Issues for individuals and organizational units become evident in examining how they relate to accountability and transparency. In Canada, the democratic political system has distinct mechanisms such as voting and opposition parties that work through a system of 'checks and balances', which establish and ensure accountability. However, networked governance arrangements such as multi-

stakeholder organizations fundamentally lack explicit lines of accountability on two levels: among the individual constituent elements of the network and to those excluded from any particular network (Stoker 1998:24). While individuals involved with a particular group may be unhappy with the arrangements that their representatives or leaders have agreed to, they find it hard to communicate or act on their discontent. They feel as though they are prevented from doing so because they do not want to jeopardize the powerful nature of the bond provided by the network of which their group is part. Even if all of the individuals that belong to a group or organization are content, problems of accountability can still emerge because all networks to some degree are exclusive. They are encouraged and make decisions based on the self-interest of their members rather than a broader concern for the public interests and those that are excluded from the network (ibid: 24), such as captains or skippers in the fishery who sit on advisory boards versus crewmembers who do not. These problems are exacerbated because of the dispersed and obscure systems of representative accountability. Where network participants are not representatives, it is difficult for their 'constituencies' and the broader public to disentangle the lines of participation and mechanisms of consultation and accountability, particularly external accountability. External accountability refers to accountability to people outside the acting entity, and who are affected by decisions (Keohane 2002). As a result, effective representation becomes difficult to verify and nearly impossible to challenge (in sensu Swyngedouw 2005). As such, the ability to avoid being externally accountable can be viewed as a power dimension of stakeholder participation (Keohane 2002). Therefore, stakeholder categories constitute a principle of inclusion and exclusion in organizing activities and they tell us something about who is

and who is not allowed to participate in decision-making processes (Hallstrom and Bostrom 2010: 118).

2.8. Conclusion

The purpose of this chapter was to explore the literature that provides a theoretical foundation for the analysis of my research question which is: what is the role of conflict in either enabling or hindering innovative institutions for adaptive co-management? Several bodies of literature were reviewed in this chapter including Government (following Weber) and Interactive Governance (following Kooiman). These two bodies of literature were found to have limitations. However, some components of their theories are still valuable to examine my research question and therefore specific components from both bodies will be used in subsequent chapters to help explain themes that appear in the data. The literature that appears to offer the most effective direction in thinking about my research question includes the literature on adaptive co-management (following Folke et al 2005), conflict resolution, risk management and governmentality (following Foucault, Dean and others). In these bodies of literature, I found a common language and set of values surfacing including: sustainability, collaboration, power and shared decision-making, conflict resolution, knowledge, risk management, assessments and monitoring. The literature on Adaptive Co-Management captures these principles and therefore it is an appropriate framework to use as a lens when examining my research question. However, the literature is normative in nature and talks about ideal states. To the extent that those statements become mental maps, they can be analyzed using the critical perspective and style of thought of the governmentality literature (following Foucault, Dean and others).

Chapter 3: Methodology

In this chapter I explain the background to the research problem, how the topic was selected and describe the fundamental questions to be answered. Further, I discuss secondary data collection which involved reviewing documents and records of meetings generated by the MRP/MAC and Government Secretariat, how I obtained ethics approval, and my preliminary data collection techniques which included preliminary observation, introductory discussions with informants, individual semi-structured interviews, and focus group sessions. I argue throughout this chapter that Participatory Action Research, a pluralistic data collection procedure, and Grounded Theory enabled me to appropriately define my final research question and develop methods and a theory in response to it.

3.1. Background to the Research Problem

The previous chapter on theory established that adaptive co-management is recognized as an approach that can further sustainability of the marine environment. Innovative institutions for adaptive co-management in the marine environment can emerge for several reasons, one of which is to address conflict between actors. An example of an innovative institution that emerged in this context is the Bay of Fundy Marine Resources Planning Initiative (MRP), which evolved into the Bay of Fundy Marine Advisory Committee (MAC). The New Brunswick Department of Fisheries, Aquaculture and Agriculture (NBDFAA), and Fisheries and Oceans Canada (DFO) established the MRP as an incentive for stakeholders in Southwest New Brunswick (SWNB) Bay of Fundy Region to address conflicts between them. Asking questions about conflict and power

dynamics within such a group from the critical perspective of the governmentality literature (following Foucault, Dean and others), required several methods appropriate to explore the characteristics of the phenomenon under analysis and to develop an explanation about them. How I came to select the topic of research, develop specific research questions, and identify the methods used to answer those questions are all explained in the subsequent sections of this chapter.

3.2. Topic Selection

I came to know something about the MAC (previously referred to as the MRP) in June of 2011 at the Coastal Community University Research Alliance (CURA) conference in Halifax. Dr. Robert Stephenson, a local government employee involved in both the MAC and the CFRN, brought the MAC to my attention. He explained that the federal and provincial fisheries departments together established the MRP/MAC in 2004 and that it involved individuals from various backgrounds. The objective of the MAC was to collaboratively develop a plan to manage for multiple marine uses and to address conflict. With a proposed case study of the MAC in mind, I was asked to join Project 1.1 of the CFRN. This large diverse research group was engaging in three layers of analysis. First, they were researching case studies to build capacity for action to address issues at the local level. Second, they were comparing across case studies to influence future policy directions on particular themes such as socio-economics and governance. Third, they were using this research to develop an evaluation framework to assess the state of the fisheries with international implications for best practice. In October 2011, I attended my first CFRN Project 1.1 meeting where we discussed how particular case studies could

contribute to the three levels of analysis. It was agreed that the MAC case study could theoretically contribute to all three levels.

3.3. Fundamental Questions to be Answered

Prior to defining my final research question, at the outset of the research, several questions were considered in selecting the research methods:

1. What are the differing perceptions of risk among actors in SWNB and how do different perceptions lead to conflict? How is risk/conflict being addressed?
2. What are the perceptions of actors regarding the conflict resolution outcomes of MAC activities?
3. [As tools for monitoring and assessment]¹⁰ What can the experiences of developing the MAC's Community Values Criteria (CVC) and the Natural Sciences and Research Council of Canada (NSERC) Canadian Fisheries Research Network (CFRN) Project 1.1 Fisheries Evaluation Framework learn from one another?
4. What enables or hinders emerging governance institutions such as the MAC from effective and meaningful engagement in governance and conflict resolution?

Early research results allowed me to refine and finalize my research question: What role does conflict have in either enabling or hindering innovative institutions of adaptive co-management?

¹⁰ Tools for monitoring and assessment was not in the original text, I have added it here to illustrate the relevance of this question to the literature on adaptive co-management.

3.4. Selecting a Methodological Approach to the Problem

Having settled on a case study based on the MRP/MAC, I was drawn to using Participatory Action Research (PAR), given both past experiences with the method, and considering several reasons that this would be an appropriate method for the MAC case study. PAR is based on reflection, data collection, and action that aims to improve inequalities through involving people who, in turn, take actions to improve their own circumstances (Baum, MacDougall and Smith 2006). It is an alternative to conventional forms of research found in positivist or 'normal' science (in sensu Funtowicz and Avetz 1993) in that it promotes methodological pluralism which draws on the paradigms of critical theory and constructivism (Baum, MacDougall and Smith 2006:854; also see Chevalier and Buckles 2013:153). Multi-method designs can be more effective than single method approaches in bringing out multiple voices and diverse theoretical perspectives to elucidate a social reality, including the views of under-represented groups. Chevalier and Buckles (2013:153) point out that this pluralistic perspective is not a statement about the inherent superiority of using a multi-method approach, but rather is a declaration about what drives the inquiry process. An essential part of doing PAR is deciding what is the best fit between alternative methods given the contribution that an inquiry can make to a transformation of knowledge and social reality.

PAR is also distinctive in its theoretical objectives in three ways. First, it focuses on research whose purpose is to enable action. Action is arrived at through a reflective cycle in which participants collect and analyze data, then determine what action should follow from that analysis. The subsequent action is further researched and a continual reflective cycle perpetuates data collection, reflection and action. Second, PAR pays

particular attention to power relationships throughout the research process. As such, the researcher deliberately seeks to empower research participants so as to blur the lines between them. In this way the process and outcomes from the research are determined collaboratively so that the research can help participants cope with real problems in meaningful contexts. Third, PAR contrasts with less dynamic approaches that remove data and information from their context and for whom the real properties of things are those that can be measured, counted and quantified. PAR challenges the claim that science can be free of uncertainty, independent of values and the exclusive property of a technocratic elite (Chevalier and Buckles 2013:2; Marshall and Rossman 2006:6). Alternatively, PAR draws on the work of phenomenology, which emphasizes the importance of lived experiences and the ways we understand those experiences to develop a worldview (Marshall and Rossman 2006:104).

PAR is well suited to my research problem because theoretically it complies with the principles and practices of adaptive co-management including: multi-stakeholder involvement; experiential and interactive learning; validation and integration of different knowledge systems; monitoring; power sharing and responsibility both vertically and horizontally in pursuit of collaboration and conflict resolution (see Chevalier and Buckles 2013). It is not surprising then, that much research on Integrated Management and the trans-disciplinary management of coastal regions is facilitated by this methodology (in sensu Graham, Charles and Bull 2006). PAR's approach to power is particularly suited to the research question because it is a good fit with Foucault's theoretical position on power, which in turn allowed me to critically analyze the literature on adaptive co-management. Baum, MacDougall and Smith (2006:855) state that Foucault's position is

particularly relevant to PAR because he conceptualizes power as the result of interactions between people, from the practices of institutions, and from the exercise of different types of knowledge (see Foucault 1980; Lemke 2000). More specifically, Foucault's work demonstrates that the mundane knowledges, techniques and procedures that enable the surveillance of self and others allow individuals and the broader society to be normalized and governed (Miller and Rose 2008:5; also see Foucault 1977; Baum, MacDougall and Smith 2006). Arguably, the methods and theory of PAR challenge the system of surveillance and knowledge control, which can be furthered through conventional forms of research. When communities pursue control of a research plan and help to choose the focus on issues and ideas, they are establishing themselves as more powerful agents (Baum, MacDougall and Smith 2006:855). Selecting PAR as an appropriate research approach required that I learn more about the history of the MRP/MAC and the experiences of current MAC participants.

3.5. Secondary Data Collection

In order to learn more about the history of the MAC, and to understand the significance of their role in marine governance and management, I attended a course on Ecosystem Based Management being taught by Dr. Stephenson at St. Andrews, New Brunswick, wherein I undertook a review of the MAC using publicly available documents. This involved a discussion and critique of how well the objectives of the MAC conforms to an ecosystem approach. This analysis involved an examination of documents and records of meetings that had been generated by the MAC. This secondary data was valuable for three reasons. These documents allowed me to identify the universe from which to sample, that is the population of past and present members of the MAC

and its affiliate committees such as the Government Secretariat. MRP documents provided me with the names of individuals and their affiliations, which included: Commercial Fishing; Aquaculture; Fish Processing; Tourism; Transportation; Energy; Conservation/Environment; Local Government; First Nations/Aboriginal government; Education; Communities; Economic Development; provincial and federal governments. This 'technical' and 'nontechnical literature' was also an important source of data because it provided information about the context within which participants operate (Mills, Bonner and Francis 2006:5). As a result, I was able to develop an initial set of questions for the next phase of research, based on the themes that emerged from these secondary data sources.

Interestingly, the timing of my assessment coincided with a fundamental change in the mandate of the MAC. In February 2012, the Government Secretariat informed members of MRP that their name would change from the Bay of Fundy Marine Resource Planning Initiative (MRP) to the Bay of Fundy Marine Advisory Committee (MAC), and they would no longer be developing a management plan to address multiple uses. Instead, they were mandated to provide advice and recommendations to government on policies, processes and strategic matters of significant public interest associated with new or existing activities from a community based perspective. This added a new dynamic to the fundamental questions with which I started my research. I was curious about the original goals and objectives of the MRP and whether they were addressed. I was also interested in whether this change would influence the types of issues that the subsequent MAC would be dealing with and what might allow or prevent them from achieving their new

mandate. Before collecting primary data to investigate these questions, I gained ethics approval for my project.

3.6. Ethics Approval

In the spring 2012 I sought and obtained a ‘Stage 1’ ethics approval (REB File # 2012-029). This enabled me to collect preliminary data from participatory observation and from informal discussions with four informants, which took place in July, August and September of 2013. As a result, I was able to gain information needed to develop questions for the next phase of my research, which involved individual semi-structured interviews and focus group sessions. In order begin that phase, I submitted a ‘Stage 2’ ethics application for which I received approval in October, 2013 (REB file #2013-105). With a signed letter of informed consent from informants, this ethics approval also permitted me to audio record the individual semi-structured interviews and focus group sessions to ensure accuracy of the information conveyed.

3.7. Preliminary Data Collection

3.7.1. Participant Observation

The ethics application required a summary of the proposed research, indicating clearly the role of research subjects and the procedures to which they would be subjected, including the primary data collection methods and data analysis techniques that I would be using. I wanted this to be shaped by what was important to members of the MAC and Government Secretariat so that they could make use of the research results. Therefore, over summer and early fall 2013, I turned to participant observation and introductory

discussions with informants to examine the context in which participants interacted, to learn about their everyday lived experiences, and how that might shape their opinions, knowledge and values, and to determine what types of issues were important to them and why.

The literature on participant observation (Patton 2002; Marshall and Rossman 2006; Fontein 2014 in Konpinski) states that it demands first hand involvement in the social world chosen for the study. Immersion in the setting permits the research to hear, to see, and to begin to experience the reality as do the participants. Ideally, the researcher spends a considerable amount of time in the setting, learning about daily life there. This immersion offers the researcher the opportunity to learn directly from their own experience and the experience of others as circumstances arise. Personal reflection is integral to the emerging analysis of a cultural group, because it provides the researcher with new vantage points. Opportunities to participate and observe situations that are familiar may make those situations ‘strange’ and reveal the hidden assumptions, behaviors and habits that are normally taken for granted. However, participant observation in unfamiliar contexts helps the researcher become acquainted with and to adopt the assumptions, behaviors, and habits thus making them ‘familiar’. The value of participant observation is that it can bring to light the non-verbal clues that are integral to social processes and cultural dynamics. These are elements that other methods might not expose.

Participant observation can also assist the researcher to negotiate access to participants and organizations through formal and informal gatekeepers (in sensu Marshall and Rossman 2006:74). In the context of this case study, I needed to negotiate

access to members of the MAC and Government Secretariat. However, members of the MAC and Government Secretariat are also affiliated with others 'of their type' through membership in associations, organizations, government departments, agencies and so on. Therefore, it was also important to gain a rapport with affiliated institutions, albeit to a lesser extent. The literature on participant observation states that negotiating access not only facilitates contact and permission to engage with potential informants, but it also helps address the problem of reactivity or behaviour change which occurs when people know that they are being studied. As such, the researcher is more likely to uncover new topics of interest that may have been overlooked otherwise (Bernard 1994 Marshall and Rossman 2006).

As the literature suggests, to engage in participant observation I had to be in the same geographic space as the individuals in the universe from which I was going to sample. Therefore, in May, 2013 I moved to St. Andrews in SWNB. St. Andrew's is at the centre of the planning area for the MAC, which has been defined as "having an eastern boundary limit of the Saint John Harbour authority jurisdictional border and a western boundary limit of the Canadian-United States international border and from the high water mark to the mid-bay line in the Bay of Fundy" (MRP 2005:8). This physical location is connected to people through activities in shared space. Most of the members of the MAC and the Government Secretariat live in and around St. Andrews (in sensu Spradley 1980) and the Fundy North Fishermen's Association offered me office space. Because fishing is one of the main activities in SWNB Bay of Fundy area, I was interested in learning more about what species are fished, how and by whom. This was a good opportunity to learn about the day-to-day activities of the commercial fishermen

and the association. Fundy North's office is housed in the same building as the Conservation Council of New Brunswick's Fundy Baykeeper and the Office of the Chief of the Passamaquody First Nation. Therefore, I had the opportunity to learn about their interests and pursuits as well. In June, 2013 I attended the Fundy Seafood Forum which was held in St. Andrew's. At the forum I met some members of the MAC and Government Secretariat and heard discussion of issues such as control over information that goes up on the public website and whether everything posted on the website should pass through the MAC committee first; how MAC meeting agendas are government led; and whether the MAC processes should be controlled by citizens.

My connection with Fundy North Fishermen's Association facilitated my going out on a lobster fishing boat. I was taught how traps are set and recovered, the legal size of a lobster and how to measure it, how to place elastic bands on lobster claws and how to fill bait bags (that was my job!). I was also informed about research being undertaken as part of a project with the CFRN whereby female lobsters carrying eggs were measured and the colour of their eggs evaluated to understand female fertility. In mid-August I went on a boat to learn how herring is caught in weirs and how such herring is harvested into boats. As a result of my experience on these two fishing boats I gained an appreciation for what lobster and herring fishing entail and how difficult it is, even on a nice summer day.

As a result of a new program under DFO¹¹ stipulating that the fishing industry members across Canada were responsible to obtain and pay for any gear tags or tabs used in commercial fisheries, in August I accompanied the staff of Fundy North Fishermen's Association to distribute lobster tags to their members throughout different communities in and around St. Andrews. Throughout the summer months, my friends and I went fishing off the wharf on Deer Island and with the assistance of some local people we caught mackerel and squid. I also went to the Thursday Farmers Market on a regular basis to interact with members of the community and to take in the local food and craft talent.

Although I had negotiated access to several individuals and venues frequented by MAC members by the end of the summer, I had not yet been invited to attend and observe an MAC meeting. This was disconcerting since the meetings could potentially provide me with the insight needed to respond to my fundamental questions and to develop my final research question. In October 2013 I met with some members of the Government Secretariat to ask if I could attend MAC meetings and those held just for the Secretariat. Concerns were raised such as: the capacity in which I would attend; whether I would be allowed to take notes; if they would permit me to audio record the meetings; if they would require consent by all members for my presence; and issues surrounding confidentiality. There was concern expressed about the lack of a single hypothesis, and

¹¹These service delivery changes were enacted in November of 2012 but program began after March 31, 2013. For more details, see <http://www.dfo-mpo.gc.ca/fm-gp/sdc-cps/nir-nei/tags-etiquettes-eng.htm> (last accessed February 15, 2016).

that I was entering the research without any knowledge or prior research. Members of the Government Secretariat expected that I would take a ‘quantitative study’ approach in which inquiry into the MAC as a case study would be based on testing a theory composed of variables, measured with numbers and analyzed with statistical procedures, in order to determine whether the predictive generalizations of the theory held true. Thus, they expected that I would follow a traditional, positivist, experimental or empiricist paradigm (in sensu Craswell 1994:2,4). As a result, members of the Government Secretariat were at first reluctant to allow me to attend meetings and more broadly, to research the MAC as a case study. These concerns were ameliorated when my thesis supervisor and one of my committee members intervened to clarify my approach and direction with Secretariat members. They explained that the paradigm of study that I would use was qualitative and constructivist. As such, my final research question, patterns, and theories that help explain the MRP/MAC as a phenomenon, will emerge from informants and be context bound, rather than be identified by me as the researcher *a priori*¹² (ibid:7).

In January 2014 members of the Government Secretariat invited me to observe meetings. Between January 2014 and December 2015 I attended five MAC meetings and one meeting held with members of the Government Secretariat. There were several advantages to attending these meetings. I observed the types of themes being discussed and by whom. I also saw the interactions and power dynamics between members of the MAC and Government Secretariat such as who sat where, who led the meetings and how, and the types of actions that encouraged engagement or not. This allowed me to discover

¹² Italics is that of Craswell.

and analyze the rules, norms, actions, thoughts, rituals and routines that participants may experience on a subconscious level without explicitly talking about them or that are hard to capture in a conventional interview because they are not recognized as part of the 'story'. As a result, I was able to establish appropriate topics for enquiry in semi-structured interviews and focus group sessions and to gain an intuitive understanding of the meaning of my data (in sensu Guest, Namey and Mitchell 2013).

3.7.2. Introductory Discussions with Informants

While participant observation provided me a bit more understanding of what was going on in the most recent phase of the MAC, I needed to supplement that with informal conversations with a few key informants. This would also allow me to determine what was important to them (in sensu Jeffery and Konopinski 2014:25). I was specifically interested in speaking with informants who had been members since the onset of the process in September 2004. Therefore, in July 2013 I contacted a stakeholder from commercial fisheries to discuss how and why the MRP evolved into the MAC and whether this has had implications for committee objectives. After our conversation, this commercial fisheries informant suggested that I speak with an individual from conservation/environment who had been a member throughout the duration of the process. I met with this recommended informant in mid-August 2013.

In order to learn more about the goals of the MRP/MAC from the perspective of the Government Secretariat, I examined documents and records for the names of federal and provincial fisheries employees who had been involved. I had an informal conversation with one individual from NBDFAA and with one individual from DFO. We discussed how the MRP was developed and whether the goals have changed or remained

the same. In the conversation with the member from DFO I raised similar themes to determine whether the federal member of the Government Secretariat had a similar or different position on issues compared to the provincial member. I thought this would be important because it would influence the types of questions that I would ask in subsequent interactions with members of the Government Secretariat.

3.8. Interviews and Focus Groups

3.8.1. Semi-Structured Interviews

By the end of summer 2013, I had analyzed documents and records of meetings generated by the MAC, engaged in some participant observation and had informal conversations with four key informants. The resulting information, themes and concepts were beginning to generate several different hypotheses or research questions that required testing through other methods of data collection such as semi-structured interviews (see appendix 1). Such interviews would allow me not only to address issues of interest that I wanted to explore but also allow for meaningful data from informants on issues and experiences of importance to them. This would give both the informant and me the ability to follow leads when they arose (Bernard 1994; Marshall and Rossman 2006; Fontein in Konopinski 2014).

In November 2013 I started conducting semi-structured individual interviews with past and present members of the MAC¹³. Between November 2013 and April 2014 I

¹³ Please note, this also includes past members of the MRP.

conducted twenty-nine semi-structured interviews. In terms of the sample that I was building, informants included¹⁴: Commercial Fishing; Conservation/Environment; NBDFAA; DFO; Economic Development; Aquaculture; Education; Communities; and First Nations/Aboriginal.

In a March interview with an informant from the Communities stakeholder group, we discussed the CVC, specifically why it was created and how. This informant suggested that I consider holding a focus group session with the individuals involved in the CVC development process in order to gain more insight. In response, I invited six individuals to participate in a focus group session in April 2014. Only one individual did not attend because of weather related problems.

3.8.2. Focus Group Sessions

The advantage of focus groups as a method of data collection is that they are socially oriented which enables the researcher to study participants in an atmosphere that is natural and relaxed. This was particularly the case with these participants because they had pre-established relationships. Based on the data I had collected from documents and records generated by the MAC, participant observation and informal discussions, I

¹⁴ The MAC Terms of Reference state that the Advisory Committee's composition may include individuals with knowledge or expertise in the following areas: Commercial Fishing; Aquaculture; Fish Processing; Tourism; Transportation; Energy; Conservation/Environmental; Local government; First Nations/Aboriginal; Educational; Communities; and Economic Development. In some cases, the informants have identified themselves under these headings. Where informants did not do so, I have inferred their area of knowledge or expertise based on their profession and the way they describe their participation in the community. Some members may have knowledge/expertise in more than one area.

developed a list of questions for the focus group participants to discuss (see appendix 2). This format was useful because participants were able to hear each other's responses and could make additional comments beyond their own original responses as they heard what others had to say. However, participants did not have to agree with one another and this expanded the themes that emerged (in sensu Patton 2002:386). This method was also valuable because it offered me as the facilitator, the flexibility to explore unanticipated issues as they arose in the discussion and to check tentative conclusions (in sensu Marshall and Rossman 2006:115). The literature on qualitative research states that this method can have disadvantages, one of which is power dynamics between participants. Power dynamics can become problematic when participants are not of the same status, rank level or professional affiliation (Peek and Fothergill 2009). The participants involved in the April 2014 focus group session varied according to their achieved status and professional experience; there was a significant imbalance in favour of natural science versus social science. I was aware of this disparity when I invited these individuals to participate. In order to address it, at the onset of the session I asked each participant to briefly describe how each of them became involved with developing the Community Values Criteria (see appendix 3). In the focus group, this brought the imbalance between natural and social scientists to their attention. This power dynamic was later alluded to by participants when discussing procedural aspects of putting the CVC together. This focus group session lasted approximately one and a half hours.

In January 2015 I held a second focus group session with two employees from DFO. This was prompted by a very brief sidebar discussion I had with one of these employees at the December 2014 MAC meeting. Because both DFO employees had the

same professional affiliation and the same status, I did not believe that power dynamics would negatively influence the participants or the dialogue. I pursued this invitation as an opportunity to hear about an issue that was of concern to these informants. It also provided me the chance to ask for clarification on a couple of related issues (see appendix 4). The focus group session lasted for just over an hour.

3.8.3. Feedback to Members of the MAC and Government Secretariat

In early April 2015 I was given the opportunity to comment on plans by the Government Secretariat to find an independent consultant to undertake a review of the MAC to measure progress towards the initial proposed outcomes. I examined the draft project proposal for the evaluation/review and was able to comment on whether there were parts of the project that I thought my work would address. At a subsequent MAC meeting, held in December 2015 both the consultant's evaluation report and a Briefing Note (see appendix 5) on my research outcomes were discussed with a slide deck.

3.9. Exit Strategy

In preparation for the completion of my dissertation, I started to plan a gradual exit strategy (in sensu Marshall and Rossman 2006:91). I had been invited by members of the Government Secretariat to share my results, and I felt obligated both personally and ethically to share my research results with them and with members of the MAC. The December 2015 MAC meeting gave me one opportunity to present my findings to the group and to compare these with the results from the Outcome Evaluation conducted by a

third party contractor¹⁵, which were also presented at the meeting. Much of the conversation after the presentation revolved around how the CVC could be improved and how to apply it to an activity such as an MPA network. Key discussion also centered on my finding that conflict resolution seems to be occurring even if the MAC is not a conflict resolving body (Minutes from Dec 9, 2015 meeting). Participants were interested in how this was possible.

To adhere with the principles of PAR, I worked with my research informants and members of the CFRN to identify several recommendations for the MAC and Government Secretariat, for the Project 1.1 Fisheries Evaluation Framework, and the literature on Adaptive Co-Management. In order to determine how my informants wanted to receive information about my findings, I had asked them this question at the end of each individual semi-structured interview. Informants identified several methods including: a presentation at a public forum such as the Bay of Fundy Ecosystem Partnership (BOFEP) Science Workshop; a write up in the local fishermen's newsletter; a summary report to NGO's; face-to-face discussions with individuals; and academic publications. Taking into account these suggestions, in 2014 I co-published an article in *Current Opinion in Environmental Sustainability* with the Bay of Fundy Marine Advisory Committee as supportive case material. In February 2015 I developed a poster comparing the CVC to the Project 1.1 Fisheries Evaluation Framework for the Fishermen and Scientists Research Society 22nd Annual Conference. In September 2015 I developed

¹⁵ Calhoun, Sue (2015) Three-Year External Review (2012-2015) of the SWNB Marine Advisory Committee (MAC), prepared for the MAC Secretariat.

a second poster highlighting the CVC for the University of New Brunswick 2015 Homecoming Research Showcase. In November 2015, I presented my research results to members of the Canadian Fisheries Research Network. In June of 2016 I presented some of my dissertation findings at the BOFEP Science Workshop in Fredericton, New Brunswick. I also plan on publishing write ups in fishermen's newsletters and in submitting a summary report to NGO's.

3.10. A Grounded Theory approach to Textual Analysis

While collecting data, it occurred to me that I had started the research for this case study by collecting data rather than with a single hypothesis. After reacquainting myself with the literature on Grounded Theory, it became apparent that my techniques conformed to a constructivist approach to Grounded Theory.

Grounded Theory is the discovery of theory through the analysis of data. Charmaz (2006:130) states that a constructivist approach (as opposed to an objectivist approach) places priority on the phenomena of study and sees both the data and analysis as generated from shared experiences and relationships with research participants. Constructivists study how, and occasionally why research participants construct meaning and actions in particular situations. A logical extension of the constructivist approach entails learning how, when, and to what degree the studied phenomenon is embedded in larger and often hidden positions, networks, situations and relationships. Consequently, distinctions between people becomes evident in addition to the arrangements of power, communication, and opportunities to maintain or perpetuate these differences. A constructivist view assumes a fixed, yet dynamic world and recognizes diverse local domains and multiple realities. Further it seeks to address how people's actions influence

their local and larger worlds. Therefore, a constructivist approach aims to demonstrate the complexities of particular lived experiences, views and actions (ibid:132).

The particular form of reasoning invoked in Grounded Theory makes it an abductive method, because it includes both reasoning about experience for making theoretical propositions and then checking them through further experience (ibid:103). As such, the research is laid out in such a way that new hypotheses can and do appear at every level, that the interpretation of the data is not finalized at an early stage but that new codes, categories, and theories can be developed and redeveloped if necessary (ibid). Abductive reasoning is a data analysis method that can be used to solve problems. It begins by setting in motion a goal state which is characterized by an issue or question to be solved; for example: what role does conflict have in either enabling or hindering innovative institutions of adaptive co-management (Schvaneveldt and Cohen 2010)? By posing the question, ideas related to the problem are triggered and interconnections among the ideas can lead to an increase in the associations between ideas and elements of the question. It is by asking how well various hypotheses would explain the available evidence that one can determine which hypothesis merits approval. Ultimately, under this principle, an explanation or solution is valid if it is the best possible explanation for a set of data (Lipton 2000). From this perspective, the broad approach of Grounded Theory is more a philosophical approach than a hands-on method. Given this description and my natural evolution towards using a multi-method approach, I chose to use a Grounded Theory approach to textual analysis with respect to interview and focus group transcripts and documents drawn from secondary sources.

3.11. Conclusion

In reviewing the above methods and phases of my research it is evident that negotiating access with formal leaders within organizations is a continuous struggle and it requires perseverance and persistence (Marshall and Rossman 2006:74). More importantly however, this chapter demonstrates my procedures for data collection and analysis. I analyzed documents and records from meetings that were generated by the MRP and MAC. I engaged in participant observation, observing individuals both within their broader communities where they conduct their day-to-day activities and within the context of their participation as members of the MAC and Government Secretariat. I had informal conversations with four key informants to determine what was important to them and to obtain explanation about some fundamental topics that I saw emerging from the analysis of documents and participant observation. These first three data collection methods enabled me to establish enough context to develop relevant questions so that I could engage in semi-structured individual interviews. Comments made during a semi-structured interview and an informal discussion at an MAC meeting prompted me to collect data using two separate focus group sessions as a final technique.

It is important to point out that these data collection methods did not necessarily occur in a linear fashion, but rather they often took place concurrently. The simultaneous collection and analysis of data using a mixed methods approach adheres to Participatory Action Research and Grounded Theory. Baum, MacDougall and Smith (2006:856) state:

...critical theorists use critical reflection on social reality to take action for change by radically calling into question the cultures that they study.

This critical edge, they argue, is central to PAR. I did this by engaging in self-reflection and action and by facilitating this amongst members of the MAC and Government

Secretariat. Our continuous communication throughout the duration of my research allowed us to review issues that arose and to present them as opportunities for a collective and effective learning system whereby planning, inquiry and evaluation provided the grounds for meaningful decisions about what to address and how (in sensu Chevalier and Buckles 2013:49). A perpetual process of reflection and action also prompted me to interact proactively with the theoretical literature outlined in Chapter Two while engaging in analytical strategies that are key to a Grounded Theory approach to textual analysis. These strategies include: purposive and circumstantial sampling; initial coding and categorization of data to identify important words or groups of words; focused coding whereby the most significant initial codes were sorted, synthesized and integrated; memo writing which included thoughts throughout the process; theoretical sampling to focus and feed constant comparative analysis; and constant comparative analysis of incident to incident, incident to codes, codes to codes, codes to categories and categories to categories (Birks and Mills 2011). Insights from the literature were interwoven throughout the process and as a result, I was able to narrow my fundamental questions to be answered until I arrived at my research question: “What is the role of conflict in either enabling or hindering innovative institutions of adaptive co-management?” and developed a theory in response to it. The results will unfold throughout subsequent chapters of this thesis and will elucidate this theory.

Chapter 4: Jurisdictional Organization and Chronology of Events in Southwest New Brunswick

In this chapter I outline the jurisdictional organization of marine management and a chronology of events in Southwest New Brunswick (SWNB) leading to the development of the SWNB Marine Advisory Committee. This region is the focus of my case study. An examination of the governance structure will identify the stakeholders that are involved in managing the marine environment and will establish their respective responsibilities. A chronology of events will offer a historical background of the study area. Additionally, it will provide an examination of events that have impacted the social and ecological system. This context is important in order to understand the conditions and circumstances under which the Bay of Fundy Marine Advisory committee developed and currently exists.

4.1. The Planning Area

In New Brunswick, there are approximately 5,501 kilometers of coastline which stretches between the Gulf of St. Lawrence to the Bay of Fundy. This coastal marine shoreline comprises over 87% of the New Brunswick boundary and nearly 60% of the population lives within 50 kilometers of the shores. The coastal areas supply a diversity of opportunities for economic, social, recreation and management activities including:

commercial fisheries¹⁶, aquaculture, shipping, heavy industry, ferry traffic and tourism (Wiber and Recchia 2010). It also supports a rich diversity of plant and wildlife. Access and use of the New Brunswick coastal waters is a significant part of the culture and history of the people in this province (Sustainable Planning Branch 2002). Given the amount of shoreline in the province, the specific planning area of concern in this case study is defined as “west of Saint John New Brunswick and East of the Canadian- United States international border and from the high water mark to the mid-bay line in the Bay of Fundy” (see appendix 6) (MAC 2014).

4.2. Jurisdictional Organization

Jurisdictional organization and control over marine management in this planning area and more broadly in Canada, is complex due to the division of powers between provincial and federal agencies (Wiber 2014). The *Fisheries Act* R.S.C., 1985, c.F-14¹⁷ gives extensive powers to the Minister of Fisheries and Oceans Canada (DFO) to decide who fishes, how many fish can be harvested, the types of fishing methods that can be used, the length and timing of the fishing season and several other aspects involved in fishing activities (Parlee 2011). DFO thus has the authority to determine what Schlager

¹⁶ Commercial fisheries are distinct from aquaculture and include: groundfish (halibut), anadromous species (gaspereau and shad), invertebrates (lobster, scallop, crab, clams, urchins), and herring. Other fisheries in that area include: sea cucumbers, periwinkles, dulse, rockweed and in the rivers, sturgeon and eel. It should be noted that throughout this dissertation, informants may refer to commercial fisheries as traditional fisheries.

¹⁷ For details on 2012 changes to the Fisheries Act see: <http://www.dfo-mpo.gc.ca/pnw-ppe/changes-changements/index-eng.html> last accessed March 24, 2016.

and Ostrom (1992) call the rules of access and rules of withdrawal. Also under the *Fisheries Act*, DFO and its partner Environment Canada, have the statutory responsibility for the protection of fish and fish habitat. More generally, federal responsibilities include scientific research, fish health and inspection and the protection of fish habitat (Wappel 2003).

The *Oceans Act*, SC 1996, c 31 provides a framework for current and future oceans management initiatives. Specifically, section 31 requires the Minister of DFO (2012:n.p.) to:

...lead and facilitate the development and implementation of plans for the integrated management of all activities or measures in or affecting estuaries, coastal waters, and marine waters that form part of Canada or in which Canada has sovereign rights under international law.

The integrated oceans management program is supposed to enable federal and provincial authorities, industry, Aboriginal groups and various other users to collaboratively develop management plans that incorporate economic, ecological, social and institutional criteria in decision-making. The intended¹⁸ outcome of marine management under this legislation is to ensure that all activities are practiced in a way that preserves the ecological health of the oceans while allowing for sustainable use of it (ibid).

In 1989 DFO signed a *Memorandum of Understanding* (MOU) with the Province of New Brunswick, which addresses jurisdictional issues pertaining to aquaculture development. Although the two levels of government share responsibility for regulating

¹⁸ It is important to note that the *Oceans Act*, SC 1996, c 31 is an enabling Act, not a regulatory Act. It has been argued that this is perhaps the reason that it has not had the impact that was hoped for.

aquaculture development, DFO maintains responsibility for issues related to research, development and habitat protection. It also has the authority to conduct environmental assessments and ensure that all sites meet the requirements of the *Fisheries Act*. The province has control over the licensing and leasing of aquaculture sites (Phyne 1996; Auditor General of Canada 2004). In New Brunswick there are several other departments involved in the approval of aquaculture including Transport Canada, Canadian Food Inspection Agency, New Brunswick Department of Natural Resources, and the New Brunswick Department of Energy. Each of these bureaucracies is represented on an intergovernmental committee which reviews aquaculture applications (Phyne 1996). In 1997 the Sustainable Fisheries Framework was released which provides the foundation for “ensuring Canadian fisheries are conducted in a manner which support conservation and sustainable use” (DFO 2009; also see Young and Timmins 1997). The framework is also comprised of tools to monitor and assess activities towards securing an environmentally sustainable fishery, and to identify areas that require improvement (DFO 2009).

When the *Oceans Action Plan* was introduced in 2005, an oceans governance model was established. The model includes federal government departments, federal/provincial/territorial and regional committees and provides forums for collaboration and joint action in support of the management of all activities that affect marine areas (DFO 2012c). Regional Committees on Coastal and Oceans management (RCCOM) specifically deal with oceans management issues on a regional scale (ibid). The governance structures include federal/provincial/territorial governments and the objective is to facilitate collaboration and cooperation between and across departments

with respect to activities, issues and opportunities related to oceans management (Auditor General of Canada, 2014). Collaboration in marine management does not just occur horizontally within and between government departments and agencies. It also occurs vertically and one such example is the Traditional Fisheries and Aquaculture Working Group which was formed in 2008 in SWNB. While it quickly dismantled in 2009¹⁹, the group included members of local fishermen's organizations and aquaculture operators in the area, as well as government representatives. Their objective was to support the coexistence and mutual sustainability of both fisheries and salmon aquaculture. As part of its mandated activities, this group sought to identify and guide research relating to interactions between commercial fisheries and aquaculture, operational impediments and increased regulatory burden. This committee was a tool to improve social acceptance of and to address conflict between the two industries (Province of New Brunswick 2010; Wiber, Young and Wilson 2011). To guide DFO's vision in their collaborations with aquaculture stakeholders, *Canada's Aquaculture Policy Framework* was introduced in

¹⁹ One informant reports that this working group fell apart after the use of Cypermethrin in aquaculture led to lobster die-offs in 2009. The working group now meets informally within NBDAAF convening meetings. The current informal group is again at a crossroads, fishermen are really frustrated and some key members are refusing to come to meetings because of the continual loss of fishing gear due to aquaculture activities and the refusal to follow agreed protocols to prevent such gear loss. The Province only convenes the meetings; they provide no significant facilitation nor conflict resolution, despite repeated requests by stakeholders. The informant also notes that, there have been several of these groups in the past, all with different names and Terms of Reference but with the same goals. They have all failed and disbanded.

2008. It broadly defines how DFO will work with stakeholders in the marine environment to create the required conditions to support responsible growth and sustainable development of the aquaculture industry. This policy framework is also proposed to: “guide the development of operational policy for the application of DFO’s regulatory responsibilities in relation to aquaculture; and inform any changes to DFO’s legal and regulatory frameworks” (DFO 2008a:n.p.).

4.3. Chronology of Events in the SWNB Planning Area

In this section I discuss several developments and issues that over time have affected relations between stakeholders in SWNB, and that therefore provide context for the MRP/MAC discussions. It starts with a history of actual and potential uses, policies and problems that have emerged in the planning area including: commercial fisheries, salmon aquaculture; marine parks and Marine Protected Areas (MPA); infectious salmon anemia (ISA); sea lice and its treatment; tidal power; marine debris; closure of the St. Andrews Biological Station (SABS) library; and the layoff of Fisheries and Oceans Canada (DFO) scientists. Next, I discuss the streamlining of governance and management in the planning area which occurred with the development of the Bay of Fundy Stakeholders Forum. This forum evolved into the Southwest New Brunswick Bay of Fundy Marine Resource Planning Initiative (MRP), and then the Southwest New Brunswick Bay of Fundy Marine Advisory Committee (MAC). In what follows, I present these events and issues in chronological order, but note here that they often intersected and contributed to tensions in the region, even in cases where they were not addressed specifically in MRP/MAC discussions.

The commercial fishery has a long history in SWNB. The inshore commercial fishery emerged when Europeans first settled the region in the mid-18th century. As Wiber, Young and Wilson (2011:4) note, many of today's inshore fishermen are fifth and sixth generation. The species they harvest included groundfish (cod, pollock and haddock), anadromous species (gaspereau and shad), invertebrates (lobster, scallop, crab, clams, urchins), and herring. Herring and cod were early target species and by the 1800s, lobster was in high demand. Over time there have been significant modifications in fisheries technology and fish processing. There has also been a decline in many groundfish stocks. Despite these changes, commercial inshore fisheries remain the socio-economic base of the economy in SWNB (ibid; also see Stephenson 1990). The Bay of Fundy commercial fishery, including its processing and marine construction services sector, employs approximately 3,500 people (DAAF 2000). Although there are numerous species that continue to be harvested, the most significant fisheries in the region are lobster, scallops and halibut (individual interview).

In the 1980s, salmon aquaculture emerged and rapidly expanded in SWNB. It has grown from one cage in 1978 to over 90 sites today (DAAF 2014). The salmon aquaculture industry in New Brunswick provides employment for an estimated 1,500 people in both direct and indirect industries including feed production, cage and net manufacturing, boat building and motor sales, fish processing and others (DAAF 2014).

In 1986, the first policy on National Marine Parks was developed and received Ministerial Approval under Parks Canada²⁰ (Parks Canada 2009; also see Butler 1994). This followed on earlier efforts to develop a Marine Park in the Bay of Fundy that had stalled by 1985 because of opposition from residents in the area (Butler 1994).

In 1986 it was becoming evident that the interactions between commercial fisheries and aquaculture in the SWNB planning area were posing an interesting set of management problems. As was previously discussed, the management responsibility of the two industries is divided between provincial and federal governments. Additionally, however, there was an absence of a rational and comprehensive management strategy to maintain capacity in the commercial fisheries, allow for the growth of aquaculture and minimize conflict between the two industries (Stephenson 1990). An informal survey and discussions with members of commercial fisheries and aquaculture suggested that there were three main areas of conflict: competition over space; potential negative effects caused by the operation of aquaculture sites; and inconsistencies and differences in regulation and management (ibid:40).

In 1996 Infectious Salmon Anemia arrived in the region and severely affected the aquaculture industry, resulting in a significant economic loss. This required the slaughter and industrial disposal of millions of farmed salmon (Page et al 2005; Harbourwatch 2012). In 2000, in response to the growth of aquaculture, and to problems such as

²⁰ For information see <http://www.pc.gc.ca/eng/docs/pc/poli/princip/sec2/part2b/part2b1.aspx> (last accessed February 26, 3016).

Infection Salmon Anemia, the Province of New Brunswick implemented the *Bay of Fundy Marine Aquaculture Site Allocation Policy*. This policy addressed several challenges including: improving production efficiencies; standardizing fish health management practices; and ensuring environmental sustainability (Chang et al 2007; DAAF 2000). However, it also called for the allocation of more marine space to aquaculture, which led to resistance from the fishing industry and further conflict between the two industries.

In 2002 a *Coastal Areas Protection Policy for New Brunswick* was developed to protect the province's coastal areas. It explains how future development and activity will be governed (Sustainable Planning Branch 2002) and guides reviews and applications of regulation where provincial approval is required, such as with environmental impact assessments and crown land approval (Capozi 2011). In 2005, DFO began to focus on Marine Protected Areas with the release of *Canada's Federal Marine Protected Areas Strategy*. The Strategy was in pursuance of Section 35(2) under the *Oceans Act*, SC 1996, c 31 whereby DFO agreed to lead and coordinate the development and implementation of MPAs. The *Marine Protected Areas Strategy* states that Canada is committed to establishing a network of MPAs by 2012. The intent of the strategy is to clarify the roles and responsibilities of federal departments and agencies, including DFO, Environment Canada and Parks Canada Agency (DFO 2005a). As a result of this policy, the Musquash Estuary was officially designed as Canada's sixth MPA on March 7th, 2007 (NCC 2016).

In 2008, a new user group and activity was introduced to the planning area in SWNB. Irving oil announced in May that it had received approval from New Brunswick's Department of Natural Resources to lease Crown lands for a two-year study

which would explore the feasibility of tidal power development in the Bay of Fundy. The oil company partnered with a group of scientists at the Huntsman Marine Science Center in St. Andrews to examine the consequence of tidal power on aquatic life and commercial industry. They also sought to study the tidal patterns and climatic conditions to establish which of the 11 areas would best be able to harness tidal power (CNW Group 2008; Saunders 2008).

On November 19th, 2009 Environment Canada was informed that lobster fishers in Grand Manan and Deer Island were finding dead and dying lobsters in their traps. Environmental enforcement officers collected samples of the affected lobsters. Fishermen, environmentalists and the media questioned whether aquaculture operators in the area had illegally used a pesticide that is toxic to lobster. Subsequent results proved that the dead lobsters had been exposed to Cypermethrin²¹, a pesticide not approved for marine use in Canada, but used in other countries to control sea lice (French 2010; Environment Canada 2013). The tensions that re-emerged between commercial fishers and aquaculture after this incident reinforced the need for appropriate integrated management institutions that meaningfully involved local community members (Wiber, Young, Wilson 2011).

²¹One informant notes that the formulation of Cypermethrin used was a United States product designed for use in land-based agriculture. This product is extremely concentrated in comparison to the marine formulation used in other countries to control sea lice.

Without explanation, Irving Oil abandoned their Tidal Power initiative in 2010²². However, Ocean Renewable Power Corporation, a company from Maine, then conducted research in the area (CBC News 2010b). Although tidal power had already been discussed for the region, there was no policy to guide its development. As a result, in 2011 the provincial government released the New Brunswick Tidal Energy Policy entitled *Allocation of Crown Lands for Tidal In-Stream Energy Conservation Projects (2011-2015)*. The purpose of this policy is to establish an administrative framework for the development of tidal power on Crown lands (NBDNR 2011).

In May of 2012, the Government of Canada announced that the DFO's budget was going to be reduced by nearly \$80 million. As a result, sixteen scientists and librarians received layoff notices at DFO's Saint Andrews Biological Station (SABS). Additionally, the library at SABS was set to close and services were consolidated on the West Coast, Halifax and Ottawa (CBC 2012a). Not only was the Federal Government affecting fisheries and oceans research through austerity measures but it was also making changes to the *Fisheries Act*. On June 29th, 2012, amendments to the *Fisheries Act* received Royal Assent and in November 2013 the amendments came into effect (DFO 2014a). Amongst other things, the legislation transformed DFO's approach to fisheries protection in order to:

...focus the Act's regulatory regime on managing threats to sustainability and ongoing productivity of Canada's commercial, recreational and Aboriginal fisheries; provide clarity, certainty and consistency of regulatory requirements

²² One informant suggested that this initiative was designed to offset the high carbon footprint of the second oil refinery Irving was proposing. But when the refinery project was postponed indefinitely they seemed to lose interest in tidal power.

through the use of tools such as standards and regulations (DFO 2013a; DFO 2013b; DFO 2015).

Arguably, these amendments to the *Fisheries Act* have fundamentally weakened Fish habitat protection (Ecojustice 2012; Hume 2012).

In July and August 2012 Save Oceans Science (SOS), a non-partisan citizens group in Saint Andrews and surrounding area was formed. Their objective was to learn about the impact of the significant cuts made to DFO science (CNW Group 2012). Concurrent to the SOS initiative, scientists from public and private sectors continued their fight to save the library at SABS from federal cuts (CBC 2012b). At the provincial level, talks of Tidal Power in the Bay of Fundy were beginning to re-emerge. Oceans Renewable Power Company proposed that they could harness the power of the tides off the coast of Eastport, Maine to generate electricity (CBC 2012c). Although no development was proposed for New Brunswick, the company met with Fundy North Fishermen's Association on Deer Island to address concerns should the company eventually propose projects in the province (ORPC 2012; Personal Observation).

In the April of 2013, four years after the deaths of nearly 1,000 lobsters in the SWNB planning area were reported, Kelly Cove Salmon Ltd., a division of Cooke Aquaculture (Cooke Aquaculture 2014), pled guilty to illegally releasing Cypermethrin into marine (fish bearing) waters (Environment Canada 2013). The court ordered Kelly Cove Salmon Ltd. to pay a total of \$500,000 which is said to be one of the largest and most significant penalties ever imposed in Canada under the *Fisheries Act* (ibid). In the fall of 2013, some of the 600,000-volume collection at SABS had been digitized while the library was emptied and officially closed (Capt. Trevor Greene 2014; Personal Observation).

4.4. Bridging Governance and Management in SWNB

Earlier in this chapter Stephenson (1990) and Wiber, Young and Wilson (2011) were cited as suggesting that there was an absence of and thus a need for an integrated management institution in SWNB to address issues between commercial fisheries and aquaculture and more broadly cumulative environmental impacts. In 2001, following the introduction of the *Bay of Fundy Marine Aquaculture Site Allocation Policy*, the Bay of Fundy Stakeholders Forum was established. The purpose of the forum was to provide a vehicle for information sharing and communication among forum members. It was also meant to provide an opportunity for members to discuss provincial policies and strategies as they related to the development of a sustainable aquaculture industry in the Bay of Fundy, and to identify areas of concern among each group. Lastly, the forum was given the mandate by the federal and provincial fisheries ministers to offer recommendations and propose areas for research in order to resolve issues of concern and provide input to research priorities. Ultimately the purpose was to improve dialogue among multiple interests (DAAF 2003). The organizations involved in the forum included: provincial and federal departments with jurisdiction over fisheries, provincial and regional economic development agencies, First Nations, Salmon farmer's associations, Fishermen's associations, and non-governmental environmental organization²³ (DAAF 2003). The

²³ Organizations involved in the Bay of Fundy Stakeholder Forum are: Office of the Commissioner of Aquaculture Development; Fundy Region Development Commission; Fisheries and Oceans Canada; department of Environment and Local Government; Department of Agriculture, Fisheries and Aquaculture; New Brunswick Salmon Growers Association; Seafood Processors Association; Atlantic Salmon federation; NB Council of Atlantic Salmon; Campobello

forum proved to be a useful mechanism for information sharing. However, interviews with former members of the forum suggest that there were several concerns expressed about its function and process. The meetings were said to be very contentious, especially between members from fisheries and aquaculture. Also, they were described as more of a complaints session than a venue where issues were being addressed. Thus, the forum was perceived as a legitimate attempt at conflict resolution that did not work. There was also the perception that by the time applications had been brought to the forum, decisions had already been made. Finally, there was a sense that real issues of concern were being avoided and thus going unaddressed.

Both the provincial and federal departments of fisheries recognized that there was a need to go beyond information sharing towards a proactive planning mechanism (MAC 2014). There was also pressure from user groups in SWNB to engage with them more broadly on issues. At the same time, Integrated Management was being discussed widely and there was funding available under the *Oceans Act* and *Canada's Oceans Strategy* to coordinate and engage stakeholders in discussions about management through participatory governance and decision-making (individual interview 2013). In May 2004 at the Bay of Fundy Stakeholders Forum, the concept of the MRP with terms of reference

Fishermen's Association; Premier's Round Table on the Environment and the Economy; Grand-Manan Fishermen's Associations; Conservation Council of New Brunswick; Easter Charlotte Waterways; Fundy Weir Fishermen's Association; Fundy North Fishermen's Association; Lobster Storage Association; Aquaculture Association of New Brunswick; NB Aboriginal Peoples Council; St. Mary's First Nation; Woodstock First Nation; Tobique First Nation; Oromocto First Nation; and the Union of New Brunswick Indians (Government of New Brunswick 2003). For more information visit <http://www.gnb.ca/cnb/news/afa/2003e0928af.htm> (last accessed March 14, 2016).

were introduced. With buy-in and support for the idea, the Bay of Fundy Marine Resource Planning process was launched in September 2004 and Phase 1 began (MAC 2014).

4.5. Phase 1: The Introduction of Bay of Fundy Marine Resource Planning Initiative

At the onset of Phase 1, the mandate of the MRP was to develop a marine resource plan to guide federal and provincial decisions for the coastal waters of SWNB. Specifically, the purpose of the plan was to “ensure that competing demands for marine resources are addressed while acknowledging community needs and access to resources, and recognizing the principles of social, economic and environmental sustainability” (Parker 2008:4). The provincial and federal departments with jurisdiction on these issues were to support the implementation of the plan (MRP 2005). The early phase of the process included provincial and federal departments in addition to stakeholders that had been involved in the Bay of Fundy Stakeholders Forum. In an effort to approach the MRP process from a new perspective, members were instructed to ‘take their hat off at the door’. While the members represented diverse groups, they were to operate in a personal capacity as experts. This is a practice which has continued into the current phase of the process. Throughout phase 1, the committee accomplished several assignments. The MRP developed a vision statement and guiding principles; they identified the legislative, policy and management context within which the MRP would exist; they outlined the scope of the management plan; they clearly and formally defined the boundaries of the planning area; they developed elements of a marine resource use plan; and they took steps towards the formulation of the plan (MRP 2005). Some of the elements of the Marine Resource Use plan are worth noting because they provide an illustration of what

the MRP wanted to accomplish and how. The MRP proposed to engage the public in consultations in order to gain their input into the development of a management plan. Based on these consultations, the MRP would then develop a list of ‘values and uses’ to assess plan development, management recommendations and evaluation processes. The committee called for a set of recommendations which would define marine space activities, resource uses and potential sensitive areas in the planning area. The plan implementation would define exactly how, when and by whom the plan would be operationalized and would coordinate with legislation and review mechanisms. Given the marine use conflicts that had taken place in the planning area, they also wanted to provide a mechanism for resolving them. The MRP anticipated that the plan would need to be reviewed and amended, so they suggested a term review every five years. The final element was an evaluation approach to establish the overall effectiveness of the plan in managing marine space at the end of a five-year term (MRP 2005). Phase 1 of the MRP process took place between 2001 and 2004.

4.6. Phase 2: The Development of a Process and a Plan

The final report for Phase 1 of the MRP was released in September 2005.

Recommendations put forward in this report launched Phase 2 of the process. In 2006 a Steering Committee and a paid Chair were appointed to guide the development of the MRP. Tourism, environment and academia were added to the membership of the MRP and a Government Secretariat was developed to formally bring government departments to the table. The mandate of the secretariat was to provide technical resource support to the MRP. The secretariat continues in the same capacity today and is comprised of employees from the New Brunswick Department of Fisheries, Agriculture and

Aquaculture (NBDFAA) (science and management divisions), the Provincial Department of Environment, and DFO (science and management divisions) (MAC 2016c). In April 2006 a letter and public survey developed by a third party (Corporate Research Associates) were distributed to 12,300 residents in SWNB (Parker 2008; MRP 2009). The letter expressed the importance of the Bay of Fundy and outlined its diverse range of uses. It also explained that conflicts have arisen as a result of limited resources and space in the Bay. As a result, there was an appeal in the letter to consider developing a marine resource management plan for the area (MRP 2016b) through full public participation. Recipients of the letter were then encouraged to fill out a survey. Approximately 1000 citizens responded and presented a broad list of values to which they thought a plan should attach importance. Also at this time, a website was launched with information on the committee and the process that they were undertaking. To accompany the public surveys, community consultation forums were proposed to be held in early 2007. However, the timeframe was modified so that communication materials could be developed. Additionally, this permitted the Chair to consult one-on-one or in small groups with key individuals, sector groups and local government throughout the planning area (Farquharson 2008). From February until April 2008 community consultations forums were held on a weekly basis in the evening at neutral venues such as community schools and community halls. The seating was set up in a u-shape style and large font laminated information and markers were placed around the room. This design was meant to encourage open discussion and direct input on the information. In total the face-to-face consultations were held in eight different venues and encompassed fifteen communities on the mainland and Islands (Farquharson 2008). At these consultations many of the

values identified in the survey were affirmed. Additionally, areas of concern and environmental aspects to protect were ascertained. The specific issues identified included: management and decision-making; marine ecosystem conservation; marine access; sustainable livelihoods and healthy coastal communities; and research and monitoring (MRP 2009). Three institutional themes were also established in the community feedback which the MRP have used to endorse and pursue better governance, including: 1) greater community engagement in government decision-making; 2) consideration of community values in decision-making; and 3) increased transparency and accountability (Henry 2012). The information collected was extensive and served as the foundation for all planning recommendations (MAC 2014c).

Following these consultations, in March 2009 the objectives and recommendations that were presented to and approved by the community were synthesized and put into a document entitled *Preferred Future of the Bay: Recommendations toward a Community Based Plan for the Management of Marine Activities and Space in Southwest New Brunswick Bay of Fundy*. This document represented the work done by the MRP in Phase 2 (MRP 2009). While this guiding document was useful, public feedback had to be transformed into a set of clear objectives and recommendations (Farquharson 2008). A technical subcommittee was developed comprised of four natural scientists and one social scientist (individual interview) in order to consolidate the public feedback into four categories (ecological, cultural, social and economic) and sixteen individual values against which any proposal or policy could be measured on a scale of one to five. The final framework was referred to as “the Community Values Criteria” (CVC) (see MAC 2016d).

Because the CVC tool required operationalization, the question arose as to the kind of institution and people that would be required to implement it. This issue created a debate as to whether the MRP should take the form of a decision-making or advisory body (Four Individual Interviews in 2013). In the end, the recommendation put forward in the *Preferred Future of the Bay* was to create a Marine Planning Advisory Council. This council would accept and examine any proposals for marine activities, listen to presentations from proponents and experts, appoint committees, advisors and working groups as needed, would operate through consensus and ultimately provide “open explicit advice” on issues related to development and management (MRP 2009:22). To promote and pursue accountability, it was advised that government ministers refer to council recommendations in decision-making and to communicate as much information with the council and public as possible. Two other recommendations were outlined. The MRP proposed the development of a process to expand and apply the draft CVC that had been created and sought an early workshop to establish a comprehensive list with complete indicators. Once the CVC was expanded the MRP argued, it could be applied by government agencies. The application of common decision criteria could lead to an integrated approach to management. It could also be applied as a decision support or discussion tool by the MRP on ‘test’ cases. The MRP (2009:12) stated that ultimately:

The criteria are intended to minimize subjectivity during discussions leading to recommendations by the Marine Planning Office and/or the Advisory Council. Proponents may use the criteria to determine what information will be used to review their application before submitting their development proposal, leading to greater predictability and reducing conflicts in the planning area.

To support and compliment the proposed advisory council and CVC, the third recommendation was to create a communication strategy and planning office. These mechanisms would inform the public of proposed activities and include them in

development in the planning area. It was suggested that the communication strategy should specifically draw on expertise to review current government communication mechanisms. The focus would be on transparency and knowledge transfer for greater accountability. Finally, the communication strategy would build on the current web presence and reach out to youth (ibid). The Marine Resource Planning Initiative Steering Committee forwarded their recommendations to relevant federal and provincial agencies for review.

In April 2010, the Regional Director General, Maritimes Region of DFO, Faith Scattolon, and Deputy Minister, NBDFAA Jim MacKay, replied to the proposal put forward in the *Preferred Future of the Bay* document. Their response indicated that the provincial and federal governments supported working with the Steering Committee on several goals including the proposal for an advisory council and its potential function, defining and assessing the community values criteria as a decision-support tool, and designing a communication strategy (MRP 2011). Following this, an agreement was made between the federal government and the government of New Brunswick to undertake Phase 3 of the MRP initiative.

4.7. Phase 3: Finalizing the MRP Process

In accordance with recommendations put forward in *The Preferred Future of the Bay*, several workshops and meetings were organized. In May 2010 a two-day workshop was held in St. George. The purpose of the workshop was to explore the decision-making processes of the various departments in government. Several presentations were made by regulators on their existing decision-making processes, including: site allocation for aquaculture, tidal power, wharves and small craft harbours, Integrated Fisheries

Management Plans, Exploratory Fisheries, and Weir licenses. More particularly, the decision-making processes were considered in relation to the broad range of potential community values (MRP 2011:8).

In October, the Steering committee presented draft terms of reference for a proposed advisory council to senior members of the RCCOM (ibid). RCCOM members were only able to provide preliminary feedback. As a result, the secretariat facilitated a more thorough review amongst provincial and federal departments. In total, ten provincial and six federal departments provided comments on the terms of reference²⁴ (ibid). While waiting for a response on their terms of reference, in November 2010 the MRP held a special meeting devoted to the CVC at the St Andrew's Biological Station. The purpose was to explore the concept and application of the framework. Dan Lane of the University of Ottawa was invited to illustrate how multiple criteria such as those presented in the CVC can be used in decision-making processes (ibid). In December, the steering committee and secretariat organized a meeting involving representatives from DFO and Parks Canada to explore the type of work the departments were doing related to ecologically and biologically significant areas. Several presentations were held including one on the national framework for Canada's Network of MPAs (ibid). Based on the

²⁴ The provincial departments include Departments of: Agriculture, Aquaculture and Fisheries, Environment, Local Government, Natural Resources, Education and Early Childhood Development, Business New Brunswick, Transportation and Infrastructure, Intergovernmental Business New Brunswick Affairs, Trade Assistance Program, Aboriginal Affairs Secretariat. The Federal departments include Fisheries and Oceans Canada, Environment Canada, Atlantic Canada Opportunities Agency, Parks Canada. The Canadian Environmental Assessment Agency and Transport Canada also commented on an earlier versions of the Terms of Reference.

interest and momentum of the MRP and the application and use of the CVC, another workshop focusing on the CVC was held in St Andrew's over the period of two days in March 2013. In preparation for the workshop, the MRP steering committee developed a draft working paper that further articulated the CVC and adapted the criteria to become objectives that could be used within various decision-making processes. The workshop involved academics and government exploring the concept and application of the CVC in order to communicate ideas and lessons learned and to develop a shared understanding of what the community values are and how they can be used in decision-making processes. Participants discussed the reasons that community values matter and whether values expressed by the community were convergent or divergent from other values (ex. Expert knowledge, governing bodies, democratic processes, bureaucratic values). It was concluded that the CVC would initially be used by the proposed advisory council for the preparation of recommendations to government. It was also suggested that the CVC would be used by government in their decision-making processes if appropriate (ibid). By the end of the workshop it became evident that while values are of significance at the community level, conflicting values are an inherent part of society and as they often lead to disputes, they require resolution (ibid). In July 2011, the work undertaken by the MRP in Phase 3 of the process was outlined in the *Report on Phase III of Marine Resources Planning Initiative: Towards Community-Based Planning of Marine Activities and Space in Southwest New Brunswick Bay of Fundy*. This report contained new Terms of Reference based on comments made by the government departments in the winter of 2011. It also included recommendations from Phase 3 of the MRP process, which included: support the establishment of an advisory council within the SWNB planning

area; continue the secretariat to lend support for efforts of the advisory council; provide an annual budget; build a communication strategy, and continue to explore the remaining recommendations outlined in the *Preferred Future of the Bay* document (ibid). The report was submitted to the DFO and NBDFAA.

After a period of internal deliberation within government, concerns were raised about the potential replication of governance processes, adding bureaucratic layers onto existing ones and creating new expenditures during a period of government restraint. The Secretariat then suggested several changes. The name of the planning initiative would change from “council” to a “Marine Advisory committee (MAC)”. With continued support from the Government Secretariat, the MAC was approved as a three-year pilot project. It would have co-chairs, including a citizen and an individual drawn from relevant federal and provincial departments. There would be three instead of ten meetings per year, and the twelve appointed members were increased to fifteen to ensure a “better cross-sector view”. Finally, in year three, an assessment by a third party of the MAC would take place to determine whether it “added value” to existing processes.

The mandate of the MAC was to “provide advice and recommendations” to government on policies, processes and strategic matters “of significant public interest associated with new or existing activities from a community based perspective”. The CVC would be used to support decision-making (Henry 2012), but it was clear that the MAC would not review specific individual applications for marine planning unless the government requested it, or if it was agreed to by both the MAC and the secretariat (MAC 2013). In February 2012, the prospective MAC members responded with several questions about the proposed way forward set out by government. They inquired about

the reason that the communication strategy, arguably one of the most important recommendations put forward by the MRP, had not been taken up. The members did not understand how existing processes could be duplicated since the CVC filled a gap by employing a broad set of common objectives across a diverse range of activities. They also asked why of the 15 MAC members, only one would be from the commercial fishing sector. Members maintained that the fishing industry had more familiarity with the planning area than any of the other sectors. Their last point of contention was with the number of meetings proposed. Informants stated that three meetings a year was inadequate if the MAC was going to have any real effect. Despite these fundamental concerns, Phase 4 of the MAC process went forward.

4.8. Phase 4: Transforming the Plan and Process into Practice

In this current phase, the MAC meets three times a year to discuss upcoming changes to policy and legislation and to review the proposal that had been brought forward and then make recommendations (Individual interview). At an MAC meeting in July 2012, government brought the issue of MPAs to the table. The DFO explicitly acknowledged that they were seeking advice or recommendations for the development of an MPA Network in the Scotia Shelf Bioregion. In response, the MAC developed a ‘Consensus Based Advice/Recommendations’ on the issue (MAC 2013).

In May 2013, the issue of the roles and responsibilities of the Canadian Food Inspection Agency (CFIA) in relation to the Infectious Salmon Anemia Virus was placed on the agenda, given concerns with an outbreak of the disease in Nova Scotia. Although CFIA could not comment on specific cases, they made a presentation on their roles and responsibilities and a discussion between the presenters and MAC members then ensued

(Individual Interview; MAC 2013b). While no recommendations or advice were generated on this subject, one informant suggested it was still a valuable exercise for the group.

The issue of Marine and Coastal Debris was discussed at the May 2013 meeting after MAC members expressed concerns. Several government departments (NBDFAA, Department of Natural Resources and DFO) made presentations on their roles and responsibilities in addressing the problem and it became evident that the MAC could have a roll because of a gap in policies and practices related to marine debris. As a result, a Marine Debris working group was developed to meet bi-weekly with three MAC members, the Fundy Baykeeper, a member of the Atlantic Canada Fish Farmer's Association, and three employees from the NBDFAA. At the end of September 2013 the working group released their recommendations and advice to the MAC and the Government Secretariat (MAC 2013c).

In summer 2013, a review was undertaken by the Government Secretariat to identify and address concerns that MAC members had after the first of three years of the MAC process (MAC 2013c). The data was collected through interviews with MAC members and the information was then summarized by the Secretariat (Government Secretariat 2013). There were six key issues, three of which are particularly worth noting. The first is "Government is committed to respond in writing on how recommendations put forth by the MAC have been adopted or used". Where the recommendations do not apply to the federal or provincial fisheries departments, the co-chairs are dedicated to speaking with their respective counterparts to support follow up. The second issue relates to MAC members who have not participated in meetings. The

secretariat agreed to encourage involvement through the use of teleconferencing. The third issue related to the MAC website, and specified that it should include a profile of each subject under consideration by the MAC, framed in terms of the CVC. These key recommendations for improvement were presented and discussed at the September 25th, 2013 MAC meeting.

At the December 17th, 2014 MAC meeting several issues were discussed. An update on Marine Debris was provided that explained that an ad-hoc intergovernmental committee had been struck²⁵, comprised of any federal and provincial departments with a mandate. However, the committee was facing difficulties as they lacked a strategy, funding and a coordinator. The topic of MPAs Network Development, and Ecologically and Biologically significant areas in SWNB was also raised once again. Three DFO employees presented on the topic and circulated a document detailing actions. The DFO stated that they were going to look to the recommendations on MPA development put forward by the MAC in February 2013, but that they would like more detailed feedback from MAC members as well. Several roles for the MAC were outlined: providing direct guidance on designing an MPA network; engaging in special meetings on data inputs, strategic objectives and potential conservation priorities.

On April 28, 2015 the MAC meeting addressed additional topics. ISA was on the agenda again and members discussed an update on policy and compensation associated with the virus. A presentation by DFO, The Canadian Coast Guard and Environment Canada addressed World Class Tanker safety and generated a lot of discussion. There were questions about whether ‘response planning’ was an area where the CVC could be

²⁵ I have notes from an Intergovernmental Marine Debris meeting dating back from December 12, 2013.

applied and where the MAC could provide advice and recommendations. Federal Aquaculture regulations were also on the agenda. In particular, there was interest in what the federal and provincial governments were separately responsible for and whose interests are prioritized under the new regulations. The agenda also included an update on Marine Debris, and MAC members were informed that at an intergovernmental meeting, it was decided that the Huntsman Marine Science Centre would put on a Marine Debris Strategy workshop and that a coordinator would be chosen to implement the strategy. There was also an update on MPA networks, where it was announced that an MPA working group²⁶ had been formed and that it had developed questions for the MAC about conservation areas. Dialogue centered on the fact that an MPA network will encounter stiff opposition from some marine users and raised again the broader question as to how the MAC might be involved in addressing this issue. The Secretariat also announced that the 3-year MAC review would be completed over the summer, although no decision had yet been made on who would conduct the review.

On September 24, 2015 a Marine Debris Reduction Strategy Workshop was held for the southwestern area of the Bay of Fundy, organized by two coordinators who had been hired. The purpose was to “share information on the marine debris issue and discuss its management in the SWNB marine planning area to gain a better understanding of the problem, identify the opportunities, and define priorities and action items” (Huntsman

²⁶ The MPA working group was comprised of members from the MAC, the Fundy Baykeeper, a member of the Atlantic Canada Fish Farmers Association and employees from NBDFAA who are also members of the Government Secretariat.

Marine Science Centre 2015). A regulatory overview was outlined and local and regional activities were examined including monitoring and data collection, strategies to deal with derelict fishing gear, waste management and recycling, education, and comparable comprehensive Marine Debris programs. Further, priorities were set and action items prioritized (Personal Observation).

On December 9th, 2015 I was granted the opportunity to present my findings to the MAC and to compare these with the results from the Outcome Evaluation conducted by a third party contractor²⁷ which was also presented at the meeting. Much of the conversation after the presentation revolved around how the CVC could be improved and how to apply it to an activity such as an MPA network. Key discussion also centered on my finding that conflict resolution seems to be occurring even if the MAC is not a conflict resolving body (MAC 2015b). An update was also given on ISA including a generic site plan in the event of ISA. This prompted discussion about protocols associated with the site plans to address the virus. A brief presentation was also made about a proposal developed by the MPA Working Group. The proposal outlined three options for the role the MAC could play in supporting public engagement associated with MPA network planning. These three options were discussed and debated. Finally, the Marine Debris Coordinator provided an overview of the work that has been done to date with respect to the Reduction Strategy Workshop held in September and funding proposals that had been submitted (MAC 2015b).

²⁷ Calhoun, Sue (2015) Three-Year External Review (2012-2015) of the SWNB Marine Advisory Committee (MAC), prepared for the MAC Secretariat.

4.9. Conclusion

It is evident in this summary that the jurisdictional organization in the SWNB planning area is complex due to the division of powers between provincial and federal agencies and the number of government department agencies and other users involved in management. This is made even more complicated by the multiple pieces of legislation, regulation, policy, programs and management structures that exist at the national, provincial and local levels. Although this elaborate set of institutional arrangements exist, until the development of the Bay of Fundy Marine Advisory Committee, there was an absence of a rational and comprehensive management strategy to maintain capacity in the commercial fisheries, allow for the growth of aquaculture and minimize conflict between the two industries.

The four distinct phases of the MRP/MAC illustrate the processes, plan and practices involved in streamlining governance and management in SWNB. Throughout these four distinct phases of the MAC process, several issues relating to governance and management emerged and they include: infectious salmon anemia; tidal power, government austerity measures; the closure of the Saint Andrews Biological Station library; federal and provincial elections; the Community Values Criteria; Marine Protected Areas; marine debris; the vision and mandate of the Marine Advisory Committee; interactions between commercial fisheries and aquaculture; and mechanisms for conflict resolution. Interestingly, two of three areas of conflict between commercial fisheries and aquaculture identified in an informal survey taken by Stephenson (1990) in the 1980s have presented themselves more recently. Specifically, the conflicts include competition over space.

The purpose of this chapter was to describe the governance structures and to identify the actors that are involved with the MAC and Government Secretariat. It also presented a historical timeline of events in order to provide some context for the interactions and relationships among the actors. In subsequent chapters these interactions and relationships will be explored and analyzed in more detail so as to develop a theory about what role conflict has in either enabling or hindering innovative institutions of adaptive co-management.

Chapter 5: Results

This chapter presents the findings from data generated during twenty-nine interviews²⁸ and two focus group sessions held with past and present members of the Bay of Fundy Southwest New Brunswick Marine Advisory Committee (MAC) and the Government Secretariat. Informants were from diverse backgrounds including: Commercial Fishing, Conservation/Environment, Economic Development, Communities, First Nations/Aboriginal Government, Aquaculture, Education, Fisheries and Oceans Canada (DFO) and New Brunswick Department of Agriculture, Aquaculture and Fisheries (NBDFAA). It is important to note that during data collection, issues continued to evolve. Each stage of data gathering – participant observation, the analysis of documents generated by the MAC, introductory discussion, individual interviews, the focus groups -- informed and generated additional questions for each subsequent stage. For methodological and theoretical reasons associated with Grounded Theory, themes that arise from quotations taken from interviews and the focus groups have been arranged into a list. The themes that emerge from informants' quotes include: Conflict and Distrust, Working Together, Goals and Objectives, Hats Off at the Door, the Role of Government on the MAC, Community Values Criteria, a Change in Mandate, Failure to Communicate, and Dealing with Conflict. In this chapter, the themes, the relationships among the themes and patterns associated with the role that conflict has in either enabling or hindering innovative institutions for adaptive co-management will be elucidated.

²⁸ These include informal conversations and semi-structured individual interviews.

In Grounded Theory studies, analysis and interpretation can be interwoven with factual results (Marriam and Simpson 2000:177). I have elected however, to present the preliminary data results separately from the subsequent conceptual analysis. There are two reasons for this. First, I would like to be clear about what is a result or finding from my research, and what is an analysis and interpretation of a result (ibid). Second, in this results chapter I will be able to offer a “thick description” (in sensu Geertz 1973) of the case study including detail, context, emotion and the web of social relations connecting individuals so that their voices, feelings, actions and the meaning of their interactions can be clear for the reader (Patton 2002:503). In the subsequent analysis chapter, the focus will be on a comprehensive analysis and interpretation of results from my research in comparison with literature on adaptive co-management, governmentality and conflict resolution.

5.1. Interview Informants: The Sample that I built

In the summer and early fall 2013, I engaged in preliminary discussions with four key informants in order to gain a better understanding for the evolution of the MAC. Between November 2013 and January 2015 I conducted a series of individual semi-structured interviews and two focus group sessions. Table 5.1 illustrates the type of interviewees and how often they were interviewed.

Table 5.1 Pseudonyms, Categories of Informants and Frequency of Interviews

Pseudonym ²⁹	Expertise/Knowledge ³⁰	Preliminary Discussion	Individual Semi-Structured Interview	Focus Group #1	Focus Group #2
Arthur	Commercial Fishing	√	√		
Clare	Conservation/Environment	√	√		
Martin	NBDFAA	√	√		
Lucas	DFO	√	√ √		
Steve	Economic Development		√		
Linda	Aquaculture		√		

²⁹ In compliance with ethical research obligations and to protect confidentiality each informant who participated in an individual interview has been given a pseudonym. Although the participants of the two focus group sessions have different opinions, the nature of the focus group sessions made it difficult to identify specific comments made by individuals while transcriptions were being made or while notes were being taken. While the identities of the individuals who participated in the focus group sessions will be protected, they are not being given pseudonyms. Instead, quotations will be marked as having been made by a focus group participant.

³⁰ The MAC Terms of Reference state that the Advisory Committee’s composition may include individuals with knowledge or expertise in the following areas: Commercial Fishing; Aquaculture; Fish Processing; Tourism; Transportation; Energy; Conservation/Environmental; Local government; First Nations/Aboriginal; Educational; Communities; and Economic Development. In some cases, the informants have identified themselves under these headings. Where informants did not do so, I have inferred their area of knowledge or expertise based on their profession and the way they describe their participation in the community. Some members may have knowledge/expertise in more than one area.

Andre	DFO		√ √		
William	Aquaculture		√		
Jacob	NBDFAA		√		
Rebecca	NBDFAA		√ √		
Mary	NBDFAA		√		
Gillian	Education		√		
Aaron	Education		√		
Deborah	Communities		√ √		
Kathy	Conservation/Environment		√		
Tracy	DFO		√		
Colleen	First Nations/Aboriginal		√		
Dominique	Commercial Fishing		√ √		
Timothy	DFO		√		
Elias	Conservation/Environment		√ √		
5 Participants	Natural and Social Scientists			√	
2 Participants	DFO				√

Each of these twenty-nine interviews and two focus group sessions were conducted at a venue approved by the participants. Each individual interview and focus group session began with a statement about the purpose for the meeting, followed by written and oral consent from the informant(s). My pre-established questions (i.e. those

on my interview schedule) were developed based on issues that materialized during the preliminary interviews, participant observation and documents generated by the MAC. One such topic was the origin of the Bay of Fundy Southwest New Brunswick Marine Resource Planning Initiative (MRP) and how it transformed into the MAC process.

5.2. Conflict and Distrust

When informants were prompted to discuss what triggered the development of the MRP, they raised many different issues that were causing uncertainty and conflict. Many began by discussing the history of aquaculture development and the consequences of it in the area. The rapid nature of the growth of aquaculture was one problem. William (aquaculture) explained that at the onset of aquaculture development, the NBDFAA tried to put through as many applications as possible before federal legislation was enacted and this caused conflict over space:

...some of the priorities we were given by [the provincial] government at the time was to process as many [aquaculture] applications as we could...priority was to be given to licensed commercial fishermen but over the course of this period it became very confrontational in the sense that it was competition over space...we still had a lot to learn about the interaction between aquaculture and fisheries...the reason for that [to process as many aquaculture applications as possible] was because...senior people saw that once the federal statutes came into effect, they would become barriers to development. Barriers being a more cumbersome process for access to sites. So if you take a look at the development of aquaculture in the region, what you will see is that New Brunswick was in terms of the numbers of sites and the commercial development of aquaculture... light years ahead of Nova Scotia and Newfoundland. If you do comparisons in terms of conflict and conflict management [Nova Scotia] didn't have the same issues that we had here in New Brunswick, although they had the same fisheries.

Jacob (provincial government) spoke directly about power issues and confusion over the roles and responsibilities for the marine environment of government departments. He mentioned that this confusion happened at the same time that the

aquaculture industry was being hit with infectious salmon anemia (ISA) and sea lice. He attributed conflict between commercial fisheries and aquaculture to this complex mix of risks:

We eventually had an aquaculture company that essentially owned all of the sites in the Bay, or all but a handful, and that company was perceived to have significant power and influence...again the traditional fishers were always concerned that they didn't have power ... That was another bit of a nuance because Fisheries and Oceans was at the time trying to figure itself out...are we there to support? To protect the resource? To support the growth and development of the traditional fisheries sector? And what about aquaculture? Because they were a bit schizophrenic as well in trying to figure out what their mission was...So that was another dynamic that was at stake. There was probably a feeling on the Province's part that Fisheries and Oceans was a stronger supporter of the traditional fisheries than what they actually needed to be. It's the balance issue. And that was at the time we did work on an MOU to try and figure some of this stuff out...everything was happening at the same time. The aquaculture industry had gone from 20 owners to 3 or 4 and were doing huge consolidations. Then [they were] trying to grow at the same time and ISA [infectious salmon anemia] hit...and subsequently sea lice hit and then the industry started expanding...Everyone was in a state of uncertainty...

Dominique (commercial fisheries) cited a different issue that caused conflict in the past. She suggested that the approach taken by Park's Canada to the introduction of an Marine Protected Area (MPA) was inappropriate and caused problems for those dependent for their livelihoods on resources in that area:

We've been involved a few times with MPA stuff and kind of been burned by it a few times...way back Park's Canada came in, in the 80s I was going to say... They parachuted in and they were going to set up a Marine Park without talking to the people that make their living there right? So it was really bad. So they didn't do it, it was a total disaster.

According to other informants, new conflicts emerged just as these long standing conflicts escalated. Arthur (commercial fisheries) described an old problem with a new twist: ISA. He noted that the aquaculture industry response to ISA caused problems between commercial fishers and aquaculture, and in his recall of the situation, he also

admitted to a lack of trust for the Canadian Food Inspection Agency (CFIA) in dealing with ISA given previous interactions with them:

One [problem] we considered was the salmon with ISA, and the idea that they were kept in a pen. The theory is you eradicate them as soon as you know because they can infect wild salmon...it [also] became known that they can affect other species, herring and cod... So when we heard they were being held for 2-3 weeks beyond the kill order in order to be prepared for processing, we asked that that be put on the agenda. I did particularly because to me that is just not right...this was a process to try and help the processing industry rather than the environment, which I felt was [CFIA's] concern, not whether the company makes money off of these fish but whether the environment was being preserved. I felt CFIA's focus was displaced and part of it was our experience with the cypermethrine, when the CFIA tested down to the level that was harmful to humans and they said that was their mandate. So to me this was the same situation.

Clare (conservation/environment) raised both marine debris and sea lice as the basis for existing conflict between commercial fisheries and aquaculture:

For some of the traditional fishers, they still have some conflicts and things, some of them have to do with marine debris, but there is still sea lice and they are going to be treating [sea lice] in some way so there are some huge unresolved issues that are still out there.

Linda (aquaculture) also mentioned sea lice treatments as an issue that escalated conflict and added specific insights as to the causes. She suggested that the two industries failed to communicate after lobster kills due to Cypermethrin led to a criminal prosecution.

This lack of communication fueled distrust and misunderstandings:

There came to a butting of heads on the issues regarding sea lice treatments and the fishermen walked away and refused to participate...I think this is very unfortunate. I think the [aquaculture] industry association had approached them several times because then what happened was the fishermen would ask questions of the government and [asked if] the government would meet with them. Several times the association would [then] say, if you want we will come and make a presentation. But there have been two solitudes that came out of it, which is unfortunate...because what happens then is misperceptions fester. There were some lawsuits that happened at that time that certainly didn't help, there was a lot of reasons why there was distrust between the two sectors.

The above quotations illustrate the types of conflict that exist in the Bay of Fundy marine planning area, as well as who was involved in such conflict.

5.3. Working Together: Goals and Objectives

Most informants reported that the MRP was developed as a direct result of the above conflict given the history of aquaculture development in the area and its interactions with commercial fisheries. The general idea was that bringing all parties to the table to talk issues over would result in rational decision-making. Jacob (provincial government), for example, noted that both the provincial and federal fisheries departments were concerned about conflict. To address it, they initiated a process that was designed to bring marine users together to gain an understanding and appreciation for one another and reduce power imbalances:

So you had significantly divergent interests in the Bay and the difficulty [was that] the minister was receiving group upon group coming from the Bay to Fredericton for us to solve their problems... My role was to try to find a means by which those people who had a stake in the Bay got together to figure out a way to resolve their issues... I met with Fisheries and Oceans, the director general... she [said] yeah let's find another way of working so the industries that rely on the resources of the Bay can mutually co-exist and flourish... For me [it was] about causing the various divergent views to come together at one table... a lot of it was about one sector trying to get the other sector to understand what they were doing and to try and have some sympathy and empathy... I think a lot of this, the history of it was either based on misinformation or mistrust or power... You had to mitigate that in terms of the role government plays, which is not to respond to those who are perceived to have deeper pockets, but to respond to everyone with some equity and transparency and fairness... so we had to be very careful to ensure balance, to try to ensure balance...

From the perspective of community volunteers, however, the mandate was broader. Deborah (communities), for example, recognized the role of conflict between commercial fisheries and aquaculture but also suggested that the intention was not just to

include them at the MRP table, but to involve a diversity of other marine users, who in working together would develop a management plan:

The conflicting spatial issues between aquaculture and the fisheries, that's really where it came from. Then they really wanted to include and incorporate the other key stakeholders and other activities in the area as well...[The] original goals from the volunteer level was to have all the key stakeholders sitting in a room developing a process for making decisions about water and land use management, resource management... It was to sit down and come up with a process of what you wanted to see of how this area could be managed.

Martin (provincial government) provided a similar assessment:

The purpose of the MRP was to give the public some say in how and where things should be developed, to engage stakeholders in participatory governance and decision-making. A Marine Spatial Planning Approach was probably the process that was envisioned...

Andre (federal government), on the other hand, had a different take on the role of conflict in setting up the MRP:

It wasn't set up to address conflict, it was set up to discuss a plan and as I recall the group was sort of challenged by this idea that if you can come up with a plan that you can all agree to, the governments would back you up. The question was and the opportunity was, is there a plan that we can develop that is better than the status quo, right? And so that was the challenge.

5.4. Hats Off at the Door

Given the sectors represented on the MAC, I was curious about what form participation took. I had heard about the 'Hats Off at the Door' policy, where MAC members sit as individuals with knowledge or expertise in a specific area rather than as representatives of their stakeholder group. When Andre (federal government) was asked to comment on this, he said he supported the 'Hats Off at the Door' policy because he had seen a shift from conflict that impeded relations between individuals to a situation where members can engage in constructive communication about marine management:

In the early days the room was quite charged because of the conflict that existed... But then I saw quite a big evolution in that the group started to appreciate one another and started to talk about the need to maintain both aquaculture and fisheries and then it became a discussion about, the bottom line is not about more space, the bottom line is being able to be viable... As in any of these processes... it had to first go through this dancing of getting to know one another and through the development of trust, mutual focus on a strategy and that kind of thing which developed over time... [Now] you've seen them able to discuss very sticky issues. They'll be blunt when they have to be... but it's not as emotionally charged and people are able to be very objective and then they know when they are speaking from a position or when they are speaking more broadly with a maturity in the group.

William (aquaculture) also supported the 'Hats Off' policy as the best way forward because it enables MAC members to exercise their own personal judgment:

I think this is the best way to do it because if you represent an association you have to be prepared to sacrifice personal values. It's like being a politician because [they] have to sacrifice personal values for the greater good of their community, or in Canadian politics, for the greater good of the party... From my perspective the MAC only works if you take your hat off, take the association hat off...

Elias (conservation/environment) explained that he supported the policy because he does not have to limit his input to those standards developed by his organization and because it facilitates the involvement of various industries that might not otherwise communicate with one another. However, he also had mixed feelings, as he wondered whether the policy applies to everyone involved in the MAC, such as the Government Secretariat. He also noted that it could obscure power disparities:

I think in a way it's good because... I feel free to talk about those other things. That might be one of the reasons I was asked to be there. Whereas if I am representing my organization... I would much rather not be sitting there... because... whether we have a policy on something does matter. If I'm not representing [my organization] then it's a little different... I like that idea but I would be very, very surprised if for instance someone from DFO were to go off party lines. I wonder if that happens? Because I know that it's not terribly safe to do so in government... I like the idea... It's a way that you can come up with different solutions and I think the value of the MAC is that it's got different people in the room... [But] I find it very unlikely that someone in a management

position with DFO is really going to put something forward that is going to make their life more difficult once they put their hat back on... And the thing with 'Hats' is that it's ignoring the imbalances of power too, right?

Rebecca (provincial government), on the other hand, saw the policy as inconsistent given that members are supposed to make contributions based on their expertise:

This is contradictory and presents a difficulty. How are participants supposed to take their 'Hat Off at the Door' and provide advice as experts in a field or on a subject?

Dominique (commercial fisheries) explained the disadvantage of the policy is that members may not feel obligated to communicate with their organizations because they are not participating as representatives. She also expressed concern with the notion that in the MRP phase, individuals were supposed to develop a marine management plan for the region without any accountability to the groups with which they were affiliated. She did not take issue with the approach, however, if the MAC is working on a specific topic (eg. Marine Debris), so long as it is not regarded as a consultation:

I think when you have someone sit as a representative, there is responsibility to report back and there is an implied communication flow. I don't disagree with it [Hats Off policy]. I think it's an interesting thing to do. I disagreed with it when it was coming up with a comprehensive management plan for the whole region. Because I don't think it's fair that individuals do that. I think their concept was if you came as an individual you were less biased. You weren't responsible to your association so you didn't have to have a party line. You could be honest and come up with the very best situation. But the reality is you are not, representing anyone. So it is 10 people and their idea for a management plan. Sure, if they are working on [a specific recommendation] then I think that's fine. So long as that is not considered 'the' consultation, because those people are not representing anybody.

Interestingly, three informants touched on the fact that individuals don't come to the table with just one set of expertise, but with multiple sets, which makes the 'Hats Off at the Door' policy challenging to abide by. Tracy (federal government) suggested that MAC members are to provide advice on a comprehensive range of interests in reference

to the Community Values Criteria. She admitted however, that this was difficult and sometimes unsuccessful because people have to separate themselves from their interests:

The idea is that people are there with knowledge from a particular sector...[but they provide] advice not in terms of the interests from their particular sector...[but from] broader interests and relate it back to the community values and try to look at it from that perspective. Try to provide advice from that angle. Does it work? Sometimes yes... [but] that's a hard thing to ask people, isn't it?... Just think of things in my own personal life where I'm participating in discussions and I have a very personal view but you want to offer advice that is in the best interest of the overall group of an initiative that you are discussing. It's really, really difficult to do. So, does it work? Sometimes and sometimes not. That's just human nature.

Andre (federal government) stated that MAC members participate and offer insight based on a diversity of complex interconnections associated with where they live and their relations to others in the community:

I feel like I've got a lot of 'Hats' in this and indeed I think a lot of members would claim to have multiple layers, if you would like, of stakeholder involvement. We are citizens of this area, we are involved in one way or another in several of the communities and they intersect or overlap.

William (aquaculture) linked individual experience with personal values and suggested that each individual will come to the table with their own set:

So I'm coming to the table, I've got experience in aquaculture yes, but I don't grow fish. Our work is environment, environmental sustainability and I have family values having grown up on the coast, or part of my life on the coast so I bring certain values to the table... But by the same token [another member] who is a lobster fisherman brings other values to the table. You've got [another member] who is a scientist who brings something else to the table...

'Hats Off at the Door' may offer some advantages, but there are serious questions raised in these comments about whether MAC members and particularly the Government Secretariat are able to adhere to the policy.

5.5. The Role of Government at the MAC Table

In order to understand how the Government Secretariat and the MAC work together, I asked informants whether they could explain the role of the Government Secretariat in relation to the MAC. Gillian (education) was forthcoming about her lack of knowledge with respect to what role the Government Secretariat plays. Her comment suggests that the Secretariat functions independent of and outside of the MAC process. She elaborated on this by suggesting that the Secretariat is in an authoritative decision-making position; they are reticent about sharing their thoughts or information with the MAC and they only cooperate with each other and not with the MAC:

Well first of all, I don't 100% know what the Secretariat is. I know who it is but I've never asked the question what it is or what it's function is. I'm assuming they are the decision makers and there is a ranking and hierarchy within the Secretariat. The way I picture it is they listen to us discuss these issues, taking note of what they might personally agree with or disagree with... I think sometimes [the Secretariat] have information that might be helpful to the discussion but unless they are asked, they don't necessarily volunteer that information. It could be just in terms of their understanding of the function and maybe that is perfectly legitimate. Maybe they don't want to collaborate. They just want to hear from us and then go and they will collaborate amongst themselves and make a decision. Or maybe it's not even that. Maybe they will hear the perspectives around the table, [determine how] it will intersect with their own professional role and then feed it back into the process. The final decision is made by the Minister or the Deputy Minister... I'm not confident that I know what the relationship is supposed to be between the MAC and the Secretariat. I'm just saying that this seems to be the way that it is working.

Martin (provincial government) explained that it is the responsibility of the Government Secretariat to facilitate both horizontal and vertical collaboration and to endorse and assist MAC activities and recommendations through processes such as the Regional Committees for Coastal and Oceans Management (RCCOM):

The role of the secretariat is to coordinate governments to respond to the recommendations brought forward... [There are] Regional Director Generals of various departments, federal departments, which are the decision-making

authority for the regions from within Ottawa. [These departments include] Environment Canada, Transport Canada, and Fisheries and Oceans and so on. We have an RCCOM process where issues in the marine environment are discussed and dealt with, which includes deputy ministers of various departments. Our own deputy minister is the one that facilitates input from the province of New Brunswick and we do our best to collaborate with various departments on issues and we look to DFO to do the same type of thing federally. [RCCOM] has a good relationship. We do discuss issues. We're open and candid. I find that there is very good collaboration amongst departments in dealing with issues. One of the issues that you have is different objectives and mandates within departments. [RCCOM] brings those together [in] trying to resolve things.

Lucas (federal government) also proposed a role for the Secretariat in assisting in the direction of discussion at meetings and thus adding to the substantive content:

I think that's largely it, I guess we kind of scope the issues themselves when issues come up. We're trying to scope it, organizing the presenters, asking them to discuss things in terms of CVC type of criteria and things like that. It's more than just taking minutes for example. I think it's really trying to digest the material and have it ready to discuss at the meetings.

Mary (provincial government) viewed the role of the Government Secretariat as being procedural. Her response also stressed that members of the Government Secretariat are honest and transparent with information, which is a very different perspective from that presented by Gillian:

So we're always there and we're doing logistics and keeping conversations going. It's not to hide stuff. Its not to distort or move stuff into another direction...we have that logistical support to have that voice of the people that are always there. Would we want to get to the point where the Secretariat is much less there and never points anything into the agenda?

Procedural issues were discussed in several contexts such as how individuals are selected to be a member of the MAC and whether anyone was missing at the table. Andre (federal government) suggested that MAC members propose the name of an individual to sit on the MAC, but it is the Government Secretariat who appoints individuals:

When there is a gap, they think of possibilities to fulfill this role and I think people are generally thinking whether they would work with the team. It is not explicit but the names that come forward -- yes that person has a track record, or we feel would contribute to the group... No, I think it's an MAC recommendation but they are still appointed by the two levels of government officially.

William (aquaculture) also discussed how individuals are selected to participate on the MAC. He provided an example of one individual from the conservation/environment stakeholder group that the Secretariat blocked from participation:

Yes, [he] is not on the MAC. Several of us have recommended that he should be, but there is a reticence on government's part. I'm trying to have [him] on the MAC...[he] has been outspoken against some activities in the aquaculture industry and you know, that's the only thing I can put my finger on... But quite frankly if the industry can't withstand the public scrutiny, things have to change. And I would say that about any sector. I applaud [him], [he] should be there...

Gillian (education) also commented on the absence of this person MAC, commenting that members are entrusted by the community to engage with other marine users they deem to be important. In her view, because the person from conservation/environment had been identified as a key player by MAC members, he should be included in the MAC process.

Gillian felt that the decision to exclude the person was alarming, particularly with respect to legitimate governance processes:

I think it's [the provincial government employee] that is blocking [the individual from conservation/environment] from being a member and I don't know exactly why. In terms of process, again that is another flag to me. The committee...represent[s] the community based on trust... Members of the committee have consistently said he would be a great person to be part of this and yet someone from the Secretariat or the Secretariat as a whole...are blocking his participation...

Another procedural issues which emerged and was discussed by informants was how issues were brought to the table and what role the Government Secretariat and MAC members had in determining how they would be addressed. Comments reflected topics of particular interest to individual informants. Tracy (federal government) maintained that

issues are taken up when they: relate directly to DFO's mandate; are relevant to the jurisdiction of other governments or departments; or are within the purview of the MAC:

We've taken particular issues to the MAC for input, issues that are directly within DFO mandate... There are topics on the agenda that are not necessarily within our mandate. Sometimes we can be a contributing partner if there is a science question that relates to work DFO does, or if there's a need or a desire on the federal side to reach out to other federal departments. We can help support that... So the Secretariat plays a key role in that... Any member on the MAC can suggest an agenda item. For example, at the last meeting of the MAC, as you know, there was time on the agenda to talk about things that perhaps the MAC should discuss... So [topics] come in from both directions. From government having a policy issue on which they want to consult with the MAC, [or] MAC members beyond the government members having issues of interest. We have a discussion around is this something that's within the TOR; is it something that is best dealt with at a different forum?

Martin (provincial government) noted how tidal power was addressed at one point, albeit superficially:

A tidal power presentation was given to the MAC by the Department of Natural Resources but the MAC has put few recommendations forward...

Aaron (education) noted having brought up the issue of ocean energy a couple of times, yet it remains unaddressed because MAC members have not highlighted it as a concern. More importantly, the government of New Brunswick does not identify it as a priority, even though adjacent provincial and state governments do:

So one of the other things that I cared about was ocean energy. And actually I brought that up very early on and two or three other things were listed at that time for what we should do at the next few meetings. Ocean energy was in the end not rated at the top but it was discussed at one meeting. My interpretation from that meeting was that government does not see being involved in that, at this point, as a priority. And that was another one that bothered me. It seemed to me that the issue was not properly brought forth... But of course, Nova Scotia and Maine are moving forward on this and it's a policy thing. In the end, if the government policy only supports it on paper—which it does—but you know all of the things that Nova Scotia does specifically to facilitate the development of ocean energy -- it's into tax credit structure and all of those kinds of things.

Mary (provincial government) provided insight into why government did not think Tidal Energy was a priority:

The province of NB really weren't excited about those [tidal power discussions]. Part of it was they weren't complimentary to what our industry wanted. Fisheries really didn't want to see it all that much... So basically the province of NB killed tidal power. Province sector advice fed in through Fundy North and others was [that] we hate the idea of tidal energy, which was a sector advice that was sent forward. As a consequence, speaking notes were generated that stated they hate the idea of tidal energy. And plus, Irving wasn't there to say this is a new opportunity. No one was there [promoting so] why would we be supporting something like that?

Another issue of interest that has emerged is MPAs. Tracy (federal government) suggested that it is of interest to government and that it has been placed on the agenda:

Federal and provincial governments, we bring forward agenda items [for example] the MPA...

MPA's, however, have only received intermittent attention until recently.

Although the Saint Andrew's Biological Station (SABS) Library was an issue of interest to several MAC members, several informants said that there were problems in having it placed on the agenda. William (aquaculture) attributed the difficulty to members of the Government Secretariat. Specifically, he proposed that the Secretariat members felt that a decision had already been made, so it was not worth discussing in the MAC forum:

Here is a real life issue, the library at the biological station... A number of people in the MAC identified that as a concern. They wanted it discussed at the MAC, so it came down through here, the agenda that came out, and I had identified it as an issue, the agenda that the secretariat pulled together did not include discussion... I raised the question why and asked it to be put back on because there were several people here who asked for it to be discussed. That elicited negative feedback here from DFO, well both actually. We had concerns raised by both. There were concerns raised in the sense that that is not to be on the agenda, the issue has been dealt with so we don't want it on the agenda, we don't want it discussed...

Aaron (education) found the lack of discussion of the SABS library closure shocking and proposed it was not properly addressed because government deemed it was not within the purview of the MAC's terms of reference:

One of the things I found surprising is some of the issues and one in particular that I had brought up, were, I don't want to use the wrong word, but in the end they were not dealt with because it did not conform supposedly to the guidelines... This particular issue concerned the closure of the Biological Station Library. That was really the issue, the specific point of a larger issue on how that basically is making it difficult to undertake science education and research.

Tracy (federal government) admitted that she was not sure what the objective of a discussion with the MAC would be and stated that if it was to provide advice or recommendations to government about the closure of the SABS library it would have put her into an uncomfortable position. She suggested an alternative approach but pointed out it was never taken up:

So as you know, the library at the Biological Station in St. Andrews closed. And there have been changes across the country, in terms of DFO programming and some of that impacted on some work done at the Biological Station. So last year there was a discussion at the end of the meeting as there usually is about items that might be brought forward for a subsequent agenda. There was a request brought forward for discussion around the level of resources provided [and drawing into that] the closure of the library. And, my intervention was that that decision was taken, it was a budget decision. I wasn't really clear about the MAC having a discussion on the item and [what] the expected outcomes of that were. Because, if as a federal co-chair of this group, if the possible outcome would be that the MAC would discuss this and then provide some sort of recommendation that the decision should be re-examined, it really put me in a conflict position. So what I had suggested as an alternative [was]...we could have the director of the Biological Station in St. Andrews come to the MAC and go through in a very detailed way, what are the key science program activities that are taking place? And that would then provide information from which you can get into a more detailed discussion on that particular issue. It hasn't been on the agenda yet.

Infectious salmon anemia (ISA) was an issue raised more than once by informants as being of concern. Arthur (commercial fishing) wanted it addressed by the MAC:

One we considered was the salmon with ISA...we asked that that be put on the agenda...So they brought in CFIA to explain how the system works...

Rebecca (provincial government) suggested it had been put on the agenda a second time because it had not been dealt with sufficiently the first time:

This issue [of ISA] had been dealt with; however, it was recently raised again and [some] asked [for it] to be put on the agenda because there are issues that were not addressed adequately the first time around.

Marine debris was raised as an issue of concern to both MAC members and the Secretariat. Andre (federal government) commented that perhaps this topic was taken up because it impacts such a broad spectrum of people, yet was not being addressed by authorities:

The Marine Debris one was interesting. I know it had been brought up a couple of times, I don't quite know what sealed it, but that was one that people rallied around. We see that this one is important to us all [and] it's not being dealt with adequately, it's falling between stools. We think there is something we can do about this and they put a lot of energy into it and they did it really well...

Dominique (commercial fisheries) proposed that input from government influences the issues to be addressed. She stated that she would like to see more controversial issues addressed by the MAC, and that the process by which issues are taken up by the MAC should be more transparent:

I think it's political...I mean it has to be the right issue that affects everyone, that everyone can work on. There are some issues that I would love to see addressed but I think they involve some really big players like Irving and I just don't think they are going to be [addressed]. That's just the political climate. You may as well go for things that they can do...It would be nice if there was a clear and publicized process about bringing issues to the MAC... It's worked out well, they have chosen their issues well but it hasn't been clear. For instance, the Marine debris issue, it was our issue. It was forwarded to the MAC without ever telling me. I heard about it because [MAC member] is on the committee. Actually I think I heard about it [from] someone in the provincial government [who] said, oh well now the MAC is looking at that.

The procedural issue of control over setting the agenda was also raised in conversations with informants in connection with the role of government at the MAC table. Clare (conservation/environment) argued that at the onset of the MAC process, government controlled the agenda and that individuals invited by government to make a presentation dominated all available time:

I think at the beginning it became a little bit too much of a government-run agenda and certain things, we do have a website and certain things from the website have not made it to the table. I'm hoping they will in the future... One of the problems we did identify is that because the Secretariat decides, or brings people in to make these presentations, some of them have been exceedingly long and so you don't have much time to discuss and move an issue on...

Lucas (federal government) admitted that divisive issues were being taken off of the agenda:

Politically [governments] don't want to be controversial and therefore [government] sometimes takes issues off the table for discussion. But [I] feel that the whole purpose of the MAC is to overcome these types of challenges, that issues should be brought forward by government so that they can solicit advice...

Andre (federal government) suggested that MAC members are solicited for agenda issues at every meeting but also conceded that government has controlled the agenda in the past. He maintained though, that this is not a problem but has helped MAC progress through issues:

I think that there are many times when some people have wondered if the Secretariat have maybe taken too much leadership or had too much influence. But I would encourage you to ask others of that... I don't think that's a big deal. I don't think that that's changed things negatively at all. I think it's helped keep things moving... Having a couple of champions and having people who are dedicated goes a long way. In general, the government people have encouraged this thing to keep going. If they had neglected it, it would have fallen flat... Yes, topics of discussion are being brought to the table by different sources. Some from within. Every meeting [members are asked] what would they like to talk about, even between [meetings] [the Secretariat] asks the members what do you think are important issues?

Timothy (federal government) on the one hand recognized that the Secretariat has been condemned for controlling the agenda. On the other hand, he rationalized government control by suggesting that as a committee, the MAC is subject to providing recommendations on issues of concern to government:

Ok, well the Secretariat; we were criticized for coming up with agenda items without getting enough input for what people wanted, and it was kind of like well, this is the government's agenda. So we tried to reach out more to get ideas of what to talk about. So, then... we found that it's better to do a few things well than to bite off too much. Because I noticed there seemed to be all kinds of agenda items and they were talked about but no one ever had a chance to work on them or talk about them and the members were feeling like, well what good is this? We're just moving on and on and never finishing anything... We go to the whole committee and ask for things. We were before I believe too. But I don't know if they were being listened to as much as they should have been. But the purpose of this committee was that we, and I don't know if they understand this well enough, that when we have things come up, we're looking for their advice. And that's the way an advisory committee works. We like to go to them for advice if we have an issue and we want to get what they are thinking.

Informants were prompted to discuss what the role of government was versus the role of other MAC members in deciding whether an issue should be taken up for discussion once it has been brought to the MAC table. Clare (conservation/environment) suggested that although government explicitly asked for advice and recommendations on offshore oil, it was deemed to be inappropriate because it is not of concern to surrounding communities:

At the last meeting [a provincial government employee] brought up a new policy on offshore oil and wanted it put on the next agenda. Some MAC members said that if there is no potential for oil and gas in the area then what is the point? [The provincial employee] responded that it would be helpful for government... That doesn't necessarily reflect the interests of the community...it is not an issue in this area, sure if we had thousands of hours to contemplate [it] maybe some of us would like to look into it and give our wonderful opinions on it. But truly it is not a burning issue in a community where there is no offshore oil. So it's not that we are just saying that we are only interested in things in our back yard, but there are huge issues...

Lucas (federal government) raised two issues that pose difficulty for the MAC in developing recommendations and advice including time constraints and the proximity of MAC members and the Secretariat to decision making authority within governments:

One issue that adds a level of complexity and difficulty to implementing recommendations is that [policy] notifications are made and then there are only 30 days to view the process and comment. This notification and 30 days does not necessarily overlap the 3 meetings a year that are held and then the recommendations that are put forward. This is a big challenge... The frustration is that it's hard to jump into a topic if people don't know the background of the topic. So if you spend a meeting on the background then it's really 3 months later that you may have some discussion around it so it's almost half a year for a topic and that may require another discussion... But I guess that's the challenge at the federal level of government. For New Brunswick, you are closer to the power at the provincial level and being able to influence it. Whereas at the federal level, it's pretty hard to influence things at the national level based on local priority... The odds of our changing federal legislation based on our concern in one spot is pretty rare.

Rebecca (provincial government) suggested that the challenge was in pre-empting policy:

In order for the MAC to bring more issues forward, make recommendations and advise government on policy issues, they have to pre-empt policy development and change. But this is difficult, this is where the secretariat should bring issues to the table... This is a constant dilemma that both the secretariat and MAC face: who should place what on the table and when?

In one DFO focus group session, participants acknowledged that once things were on the table, numerous challenges remained, including: government can block issues; and engaging with the MAC on a topic is perceived as a risk or an added step in the governance process:

Developing the agenda takes time, topics require research and the RDG of DFO and DAAF DM have to sign off on it... For example, there were approximately 40 emails sent between DFO and CFIA to have CFIA come to the MAC table to discuss ISA [infectious salmon anemia]. There were concerns about the media being present. CFIA may have perceived their participation at the MAC table as a risk and threat rather than an opportunity to educate. The Secretariat thought there was opportunity for MAC to influence [Submerged Crown Lands Policy for the Province of New Brunswick] but a guy from Natural Resources came and said no there was no opportunity, the decision had already been made. This is why more

information is needed on agenda issues before they are confirmed topics. It is a bit nebulous how processes are influenced a lot of time. Sometimes government see involvement with MAC as an extra step where existing consultation mechanisms may already be in place. Departments that feed into the MAC sometimes don't see the value of having the MAC address an issue, or they are worried about sharing information with the MAC. Perhaps the RDG and DM could support issues being brought to the table a bit more, within their department or at RCCOM.

The only solution offered by the two DFO participants was that the RDG of DFO and the DM of NBDFAA should demonstrate their support for the issues by bringing them forward inter and intra departmentally.

5.6. Community Values Criteria

The Community Values Criteria (CVC) emerged in the documents generated by the MRP and MAC as a significant product to be used throughout both phases. In a focus group comprised of scientists who served on the technical advisory committee, participants were asked about the evolution of the CVC. The focus group participants explained that a technical advisory committee was set up specifically for the purpose of dealing with the information that had been collected through a survey that had been distributed in April 2006 to residents in SWNB. The participants suggested that the survey served as the foundation for the CVC, in that it articulated what it was that the community valued about the marine environment:

...there was the technical advisory committee we set up and it wasn't set up to do this specifically, this is just what happened.

Yeah, so most of the values, the community values [criteria] came from the survey, the initial survey.

They came directly from that, that's right, but I do remember that as we were trying to get the headers from the columns, some particular value[s] fits into [a category], so we had to come up with a term that captured a couple of them that might have been the same value...

Participants explained that the categories for the CVC (ecological, cultural, social and economic) are based on the type of questions asked in the survey. The values chosen for the CVC were those most often selected as responses to the questions posed in the survey and were therefore accepted as most significant to people in the area:

And we had to look at the responses and answers and say, oh look 50 people say yes to this one, 10 to this one, so there is some weighting throughout based on the responses...

Throughout their discussion, participants not only discussed the substantive content of the CVC but also the procedural aspects of putting the CVC together. They suggested that because most of them were ecologists, the indicators under that classification might be stronger than those under the other categories. They explicitly stated that, as ecologists they had difficulties identifying values that might be appropriate for the cultural and social categories, but that they needed to be included regardless:

...I won't speak for everybody, but generally from our background, we were looking at it from the perspective of ecology. I was never trained in any sociology... That's why all of our examples were stronger in the ecological columns. I know I personally struggle with trying to find examples of, or be very clear in what we were doing in the cultural and social, especially in the economic...

I think everybody brought their own perspective and biases to the table when we had the discussion.

Participants also suggested that the reason there is no governance or institutional category in the CVC is because questions related to this classification were not included in the survey. In the application of the CVC they also wanted to avoid the biases of politics so that they CVC could be applied objectively.

After I had reviewed the transcripts from the focus group session, as well as several interviews and documents generated by the MRP and MAC about the CVC, I was

still unclear on how the information from the three phases of consultations in SWNB were included in the CVC. I then followed up with an interview of one of the focus group participants. The informant explained that a draft version of the CVC had been brought back to communities through two phases of consultation. The values were discussed, debated and their significance in the area was confirmed:

Values were presented for discussion at consultation to say here is what we summarized, [the] community values, and people would discuss those.... [Information was] presented in community open forums... [They were] informed of the website. [They were informed] this is what we are doing in marine resource process. [Here is] what's been done to date, what do you think? What is your advice? Did we miss anything? What else do we need to include? These two questions were most important. Every island and community [was] consulted with at least once... The framework was in place before the consultations... Consultations started that April [and] the framework was included in it. [We] wouldn't have gone into consultations without the framework.

When I asked participants if they had looked at policy or academic journals for guidance on developing the CVC they responded:

No.
We were way ahead of ourselves.
Yeah we were! I mean, there was nothing that could guide us.

Participants from the focus group session also discussed how and when the CVC might be applied. They anticipated that the CVC might be used in two ways. First, it was a MAC tool that could facilitate discussion of all four categories of concern (ecological, cultural, social, economic) in order to inform government decision-makers about proposed developments.

So at the end of any evaluation process, you would end up with a score that would help with the decision-making in an objective process...

If they were going to develop a particular industry...I thought it was going to be used in a way that if an area scored highly in some of these ecological aspects, that that would be key in how the cultural, social and economic aspects were looked at ...

It was meant so that ...they would have an objective tool that would help guide the decision-making process without them having to adhere to it specifically. So it was flexible enough that would allow discussion to occur that would take into consideration all of those backgrounds and needs...

Second, a developer could use the CVC to understand how the surrounding communities would evaluate their proposed project and to determine the implications of the project for the area:

But also...if a developer was posing something they could look at this and rate their project themselves and they could say well, is it really worth doing because it causes such a bad impact if it comes out with a really low number or high number. So for a developer they come armed with knowledge already and they come to the table they know that there are certain things they will be doing negatively or positively...

Informants were asked how the CVC is being used today. Martin (provincial government) stated that attempts have been made to formally use the CVC to develop recommendations and advice for MPA networks, but not to assess decisions or management. He also suggested the social and economic categories and indicators are being considered in policy and decisions:

When [the] MPA network issue was on the table as a topic for discussion at the first MAC meeting, there was a structured approach to taking each one of [the] criteria so that as a group they could make a recommendation based on the values identified in the CVC... The CVC is not being used to measure decision-making and management in a formal way, but I would be quick to add the social and ecological values are being addressed in policy and decisions, whether CVC is being formally used to do recommendations or not...

Clare (conservation/environment) proposed that the CVC are not being applied in any formal capacity as there has been a change in the MAC mandate to provide advice and recommendations on policies. Yet the CVC is not being applied in this manner either. She maintained however, that these values are still being referred to and thought about:

We almost never refer to them at meetings because we're talking about things rather superficially. They are still there, they are still important...we really haven't said: "well the community wanted to do this, we got everyone on board and we put recommendations to government. This is what happened or didn't happen, looked at again in conjunction with the CV and how did it work?" We haven't done that... It doesn't mean that it's valueless. We would still like it to work, but I don't know where it is... We don't look at applications, so we're really looking at policies. So we haven't got there yet... It's probably in the back of everyone's mind.

Several informants indicated that MAC members represent the values of the CVC and that there is benefit to this in addressing issues that are brought to the MAC table. Lucas's (federal government) quote is a representative example of this. He articulated that the formal use of the CVC may not be required if a diversity of individuals are included in participatory processes such as working groups because they represent the criteria and values of the CVC:

... if you just had the economic people involved in marine debris you are only getting one perspective, because the CVC says you need to have the social and environmental [as well]. But I think if you have a working group that is broad based then you are kind of embodying those perspectives within the discussions that take place. Whether you need kind of an artificial framework where you need a checkbox I don't know.

Informants were prompted to discuss the reasons that the CVC is not being formally applied. Arthur (commercial fishing) used an analogy to explain that the difficulty lies in the abstract nature of the CVC and its application to specific contexts:

We tried to take the list of community values [and] apply it to a situation... I don't know that we did an aquaculture application...but we tried to apply the CVC and we didn't do very well. Because they are very broad and it's hard to apply in a specific sense. I'm just trying to think of an example of what I mean... This is clumsy, but looking at the trees and looking at the forest. You see an alder and it's just a nuisance and you don't want it and you cut it down. But it is part of the forest, and how do you decide?

Andre (federal government) suggested several other reasons why the CVC is difficult to implement, including: management objectives; opportunity to apply it to a management plan; education needed on Integrated Management; and data to inform indicators:

I think there is an inherent problem with that because, personally, we [the MAC] haven't framed the objectives with performance indicators... It is not unreasonable to think that it hasn't been implemented yet. It is not easily implementable... We haven't allowed or empowered the MAC to deal with [for example] the herring plan in relation to the CVC... If allowed to do that we would fall short in the energy, and in the training of a lot of our people. A participatory management scheme working at that level means that people would need to know a lot about Integrated Management... So there would be an immediate need to coach people on a process... Secondly the data requirements would be huge. Right now we don't have the data streams...

In the focus group session, the issue of data needs was also raised as a concern.

William (aquaculture) offered a different explanation by pointing out that rating the values using metrics is a subjective process, and this caused problems for the group:

If there is a statement that comes out of the MPA, how does that statement fit with the CVC and [how to] apply that statement to each of the criteria... We tried to go through that process and it didn't work because if you had a simple statement that said this is important for these reasons, you might agree with it, but the person beside you has a different view of things.

Aaron (education) noted a lack of leadership and experience to help them work through the process:

I am not sure that I have the answer but I have a hunch... I don't really see a champion that is I guess, for the lack of a better word, well versed in it. In the sense that 'I have done it a hundred times and here is how we are going to do this. ABCD'.

Participants of the focus group session provided very different reasons as to why the CVC is not being used. They argued that there is not enough time at meetings and it was not used in the one venue where it could have been appropriate, which was in developing recommendations and advice for marine debris. They also indicated that the

frame of reference is different when it is applied to evaluate different situations, for instance, policy versus the development of a marine activity:

If I think of how I imagined this might one day be used, I'm not sure that we're anywhere near the context where we could. Like when I think about the MAC meetings, there's no opportunity, or process, or time, or anything. Like the one semi-productive thing we did was the marine debris working group thing, and we didn't use [the CVC] for that.

My impression is this was made for one concept and the concept of the MAC has changed since then... My impression was that this was designed to work with specific projects or developments, whereas now the whole thing now is on policy...

I found it interesting that the CVC was not being formally applied and that there was difficulty in trying to apply it. Informants stated that several attempts had been made to educate members on its use.

Deborah (community) explained that she would coordinate with other MRP members to take the CVC home and apply it to an activity or development and then examine their results together in order to understand the different perspectives:

Not in public, we did within ourselves...so we would do little mini tests and say ok this is going to come in here so we are going to take this home, see what your weights are and score it and it was working really well, I was quite pleased with it. From different perspectives, we were trying to get different perspectives.

Martin (provincial government) remembered participating in a workshop to learn about the application of the CVC as a tool for decision-making with indicator metrics:

[We] went through a process of number, justifying a numbering process, trying to bring a scientific approach to decision-making, discussed different tools for decision-making... [We] had a workshop to develop it and discuss it and tried to ensure that people understood how it was to be done and revise it and modify it.

Timothy (federal government) noted that the objectives of this two-day workshop were on improving discourse with communities so that their values, and specifically the CVC, could be integrated more effectively into government decision-making processes:

Yeah, we did a big 2-day workshop on the CVC... Outcomes of the workshop [included] enhanced communication; how governments consider or do not consider CVC in their decision-making; better understanding of potential methods to identify what is important to citizens; better understanding of how multiple factors can be incorporated into process and decision-making; ensuring the greatest number of citizens values are reflected in decisions. That was the three main objectives. Then there were various speakers there. Someone in the United States had been using it and they were a speaker there, I think by phone... Dr. Daniel McKenna, Chantel Gagnier, Dan Lane... Oh here, Dr. Betsy Smith, USA EPA, that would be Environmental Protection Act, multi-criteria decision-making support...

These comments demonstrate that the CVC was designed so that it could be applied in very specific ways. Although significant effort has been put into educating members of the MAC and the Government Secretariat on the implementation and use of the CVC, it has yet to be formally used for the purposes for which it was designed.

5.7. A Change in Mandate of the MRP

In discussing the original goals of the MRP, many informants brought up the issue of whether the MRP should be a decision-making body or an advisory body. Obviously this question was a subject of debate from the outset of the MRP process. Opinion varied on this issue, and on the subsequent approach that government took to the planning process.

Martin (provincial government) stated that at the onset of the process the MRP had almost been given the same power as the Minister to make decisions:

Phase 1 was almost to the point of delegating the decision-making authority for existing regulatory frameworks and taking the Minister's power and giving it to a governing body, this was pushed for initially.

Jacob (provincial government) suggested that the MRP was not intended to be a decision-making committee and that there would be risk involved in having them take this role:

This was not designed to be a decision-making committee, it was designed to be a committee that shared and discussed, caused some consensus on outstanding issues, but if you were trying to formulate this as a decision-making committee, it gets a little more risky.

Arthur (commercial fishing) pointed out that the question as to whether the MRP should be a decision-making or an advisory body is still a controversial issue. His opinion was that in taking power away from government, there was the possibility that citizens would be unable to make better decisions than elected leaders:

[The] discussion at one point in the MRP was whether the [MRP Committee] should be making those decisions or [the] government ...this is still a point of contention...[My] opinion was that in formalizing the MRP as a decision-making body, two things would happen: One, power will be taken away from government. Two, citizens couldn't do a better job than representatives of elected leaders...

In Lucas's (federal government) view, the MRP ended up as an advisory body partially due to the fact that there was concern that the MRP would duplicate already existing governance processes:

The objective was for the [MRP] to review big projects; however, there was no consensus from the [MRP] community members ...There has always been this tension about whether the [MRP] should make decisions, approvals versus comment and advise, which is what it has evolved to be-- part of the issue is that there are already consultation processes in place such as environmental assessments, species specific advisory groups etc... What is the point of having another?

In relation to whether the MRP should be a decision-making or advisory body, I wanted to understand why recommendations for a Marine Advisory Council put forward to the Government Secretariat in 2012 were not accepted and why there was a change in mandate from the MRP phase to the MAC phase. Informants were prompted to discuss what led to this outcome and the potential consequences of it. Clare (conservation/environment) suggested that the recommendations for an advisory council

were stifled because of financial restrictions, but also because governments were reluctant to hand over power to the MAC. She stated that as a result, the resources being provided are insufficient to accomplish that which the MAC has set out to achieve:

Because what we were looking for was community based decision-making that was transparent and accountable. And because of budget constraints and perhaps some hesitation, because that actually is sharing power with communities, there was some hesitation about that so the MAC is very different from what we had proposed. So that was my hesitation. I didn't feel that it had enough resources and enough potential for being effective.

Martin (provincial government) acknowledged that members of the MAC wanted decision-making powers and he also recognized that government was concerned with the financial obligations required to support them. He also offered the rationale that government were concerned about devolving power to the MAC:

Even though there were several people that wanted that [to have authority delegated to the MAC], the cost was being challenged at the time, and there is always the discussion about who is to benefit from provincial resources? Is it the community? The province as a whole? If you look at it as the province as a whole, the way the government body is, should function the best. But if you want it to be community decision-making, it changes the way things should probably be done... The pushback from government was, we can't afford it, it's too expensive, we're going through a renewal process [and] budget constraints. And actually there were concerns about delegating too much authority... and there was concern about having this group make decisions on every application.

Timothy (federal government) also proposed that the federal government was reluctant to expend all of their resources to support one initiative, especially if the MAC could fulfill their mandate without such resources:

Why would we pick this one area and not all the others? The cost. Before we commit too deep...it's quite a radical change, the pilot...the common term we [the Secretariat] heard was walk before you run. If that works well, who knows what can go beyond that. But sometimes if you commit too far; it was so new... we [could] still accomplish the same thing with less duplication and less cost but still achieve the same kind of results.

Fiscal restraint and the reluctance to delegate power to the MAC were not the only elements cited as influencing the change in mandate. Also mentioned were commitments to human resources. And again, there were divergent views here among respondents.

Some non-government members obviously felt that the lack of government support signaled that the process was unraveling. Deborah (communities), for example, proposed that by 2008, the DFO had almost completely dissociated from the MRP process and the province had taken over. Then, after an election, the new Minister for the NBDFAA decided that the mandate of the MRP would be minimized:

Time goes fast, so it would have been December of 2008... I believe at that point in time Fisheries and Oceans had almost distanced themselves enough from that process and the province had taken over pretty well completely in finalizing the project... It was just a quiet pushback for whatever reason. If you ask me my personal opinion, I would have to say that quiet pushback was coming from a ministerial level in the province, just to say we're not going to do this... There was a change in government. So I think that made some definite impact, especially provincially. The incoming government didn't have the same support agenda for these... You could see after the change in government that that wasn't going to [happen]... and actually I was told personally by the new minister that that wasn't going to happen.

William (aquaculture) suggested that the lack of funding was evidence that government was not committed to the process. He questioned why he should continue to participate if government is not fully engaged:

So quite frankly when I saw the terms of reference come out for the MAC and the level of financial support at 3500\$ and I'm looking at... I'm volunteering my time to this process... So I sit there and say I'm not so sure that I see the same level of commitment on government's part, not just me, I'm just using myself as an example, but it's everybody else around the table is making a commitment to the process. So if government isn't prepared to do that, why would I continue with this process?

While Deborah and William questioned the commitment of government, Clare (conservation/environment) felt that she would remain involved because the DFO RDG

and the NBDFAA DM are committed as co-chairs. She explained that commitment is important because it allows MAC members have access to power inside government:

... the reason why I decided to continue is, they would have two government co-chairs and one is [the DFO RDG] and one is [the NBDFAA DM] and I suspect that people like [the commercial fisheries member] go to the meeting because what you do get from this is... access to the top and that is huge. Particularly if you have interests of [the fisheries association] that you want to bring forward... To me the most valuable thing about this is that we have these two very powerful people there.

Tracy (federal government) justified fewer resources in the MAC phase than in the MRP phase because they were initially trying to establish their niche in the context of other governance processes, so as not to duplicate those that already existed:

So, now today, it's much different in terms of the commitment of time, and I think probably it's only logical to think that we had to spend that much time working through what is this working group about? How does it connect to existing governance processes? What is the value added that it can provide? What is the frame in which it provides its advice? And that is where the community values came in. So a lot of those discussions [about] what sort of role it would have and how it would function... the commitment and time is much different than it was I would say about 5 years ago.

When I asked Tracy if she thought a change in government had anything to do with it, she responded that she did not think the elections had any influence on the commitment of government to the MAC process. She attributed the change in the MAC mandate to the niche in which the MAC would work, which she viewed as to provide advice and recommendations to government on policy. She admitted, however, that government resources and individuals undeniably influenced the mandate of the MAC:

My provincial colleagues might have a different perspective on that... I think the evolution has been influenced by the discussions around what is the best value added from a group like this. I think that is why today, if you look at the terms of reference for the MAC, it's about providing input on policy across a broad range of stakeholders. The MAC has started to look at [and] engage itself in areas where clearly there is a gap in terms of responsibility at the federal or provincial level. I think that's a good thing, that's again, value added. So as much as anything I

think that's what's gotten us to the place that we're at today. But I would be kidding myself if I didn't say that's also influenced by resources - time, people and money.

Rebecca (provincial government) denied that the provincial government has decreased their commitment and indicated that the time she has allotted to the MAC has increased over time. She also pointed out that her participation is confirmed through her goals as an employee of the provincial government:

The MRP process required minimal commitment because I was only involved at a nominal level. Now that I sit on the Secretariat I spend a fair amount of time working on MAC/Secretariat issues, on average 4-5 hours a week. It is part of my work plan to support the MAC and its objectives.

Given the lack of clarity on the original goals of the MRP, I asked informants whether the goals had remained the same or underwent change in the MAC phase of the process. Martin (provincial government) felt that the goals of the MAC are clear. He indicated that the mandate of the MAC is to develop recommendations, inform policy and encourage public engagement with the use of the Community Values Criteria (CVC):

Currently, there is an advisory body and their mandate is to inform decisions through recommendations... Their terms of reference include the concept that policy should reflect the CVC... The advisory committee also focus on decision-making and public engagement.

Andre (federal government) expressed a very different view from that of Martin. He suggested that because the MAC is new, its purpose and potential is still unclear. He also proposed that MAC is an experiment in Integrated Management, which again implies working together:

I say it's an experiment in [Integrated Management] and it hasn't yet reached its full potential. Because it's been given this new form, the MAC, it's very new, it's been given small things to chew on and it's finding its way... [It is a] broader participatory group, dealing with an issue that affects multiple sectors in a comprehensive way, using the CVC as a lens, able to give advice to multiple

levels of government in a public forum. This is advice that will be on the web, it is objective advice.

Colleen (First Nations/Aboriginal) felt her personal role was to facilitate communication between her community and the MAC. She suggested that the broader goal of the MAC was to assemble a diversity of users so they could work together and achieve a common objective:

[Acting] on behalf of my community... I didn't really know about what to expect or what was going on, but after listening to the discussion and what took place... [my role is as] a liaison between our... community members throughout the province who are interested in participating in initiatives such as this. So this one is the Bay of Fundy, but I see it as a model for other communities to use in any other parts of the province. So I know we're not there yet, but that's what it might become potentially... I liked that it was a table of community members, ...that's what drew my interest, was the idea that it would be a bunch of us sitting around the table figuring out how do we do this together kind of thing? Where do we go from here?...I do have a goal, I would like to be able to share it with our community members and get them more involved and interested on whatever level they could. That is a goal for me.

Tracy's (federal government) proposed another goal in suggesting that the purpose of the MAC is to share information:

I think it has shifted because it had that very broad expectation at the outset and it has now shifted to... providing input on policies that are relevant to that geographic area... At a very basic level, I think the starting point is a place to provide information to a broad group of stakeholders. I go back to the point we talked about earlier about the aquaculture and the traditional fisheries sector. Certainly some of the challenges that have existed and continue to exist today occur when information is not available and people are left with the impression that things are not transparent. Maybe they are not if information is not available. So, at a very basic level, [the MAC is] a venue so that factual information can be provided to all stakeholders on issues of interest and concern... I think it's really valuable... I think everybody benefits from hearing directly from others. So, those are from my perspective, the key benefits for [the federal government].

These comments demonstrate that from the perspective of many original members, the mandate of the MAC has changed from the early goals of the MRP. They also suggest that the perceived goals and objectives of the MAC are varied.

5.8. Failure to Communicate

Throughout this research, I was interested in accountability and transparency of information, decisions and processes of the MAC and the Government Secretariat. This was of concern to me for two reasons: first, the MAC are mandated to provide advice and recommendations to federal and provincial governments on relevant policies, processes, strategic matters, or issues of significant public interest related to new and existing activities from a non-sector community-based perspective; and second, the Government Secretariat members are supposed to use the advice and recommendations from the MAC to, for example, change or ratify policies or processes as a result of their advice (MAC 2013d). In order to gain insight into these matters, informants were requested to speak to how information and decisions that are made by the Government Secretariat and the MAC are communicated to the larger community and whether they think this is a transparent way of doing things.

Arthur (commercial fishing) explained that during the MRP phase, members suggested that a planning office be set up to address issues pertaining to management and development in the area. He suggested that the mandate of the MAC has been weakened because this recommendation was not recognized and operationalized:

[The] concept of MRP has been watered down, initially the MRP had wanted a planning person in St. George at the provincial fisheries office, [a] representative would be dedicated to the MRP and all issues would go through this person.

Linda (aquaculture) saw the planning office as a tool for the communication of legitimate information to various marine users:

Information is a big one—if there was a central office, and there isn't today, but if there were, that was one of our goals, that people could step in and say, 'I heard this, I heard that'. You could get some of that information... So it would be an

information source for different sectors to get good information about what is going on in that area.

William (aquaculture) proposed it could have bridged bureaucratic silos:

The whole moral of this office is to be the point of contact for the silos, you really have to have an office that is a point of contact, not just for the provincial governments, or if you've got a question...

In relation to the concept of a marine planning office, informants also discussed that they had also envisioned a broader communications plan or strategy. Arthur (commercial fisheries) proposed the MAC has not been able to liaise with communities the way they had anticipated because the communication plan was not fully generated or implemented. He suggested the reason it was not fully developed was because there were inconsistent opinions about the future mandate of the MRP:

The communication plan was not fully developed because there were conflicting views on what the committee could be. [For example] should it be a place where people could drop in and discuss issues and the committee would be a governing body that would go into communities to help formulate advice that would go back to the Government Secretariat? It was suggested that the MRP could get bogged down with this... [The] MRP didn't get the office and have not been able to communicate to the extent that they thought they would.

Clare (conservation/environment) highlighted fiscal restraint as another potential reason that the communication plan was not acknowledged as recommended and implemented. She expressed concern not only with the fact that it was not accepted, but that the MAC have deviated from the qualities that the communication plan was intended to promote:

The communications plan was initially an incredible piece of work; however, it was cut with the loss of funding... It is one thing to take away the function but it is another to diverge from the philosophy of that and [I] feel that both are being done.

Martin (provincial government) recognized the importance of the communication strategy and attributed the inability of information to be adequately reported to the broader public to the absence of it. He also questioned how this impacts the ability of the MAC to influence policy:

The website is not receiving attention, only two comments have been posted... This raises the question as to what the ability of the MAC is to change policy... Information and decisions are not well communicated with the community; communication strategy was one of the key things the MRP wanted.

Lucas (federal government) disclosed that there are no resources to maintain an active website and although the topic of a communication plan requires consideration, it is not being discussed by the MAC or the Secretariat:

There is no capacity to run a website like that. At one point we had the minutes, well I guess the minutes are all up on the website. I guess [a provincial employee] posts things there but using it as a forum to which people can solicit input and provide input. I don't think there is that capacity right now. Again, it's probably an important topic, but it's one of those topics that doesn't really seem to get discussed perhaps as much as it should. Maybe if there was someone that had the capacity to do that and could do it easily it would be ok, that's a no brainer let's just do it... From the federal level things would have to be translated and it would be a nightmare to have it as a government website.

In association with how successful the MRP, MAC and Government Secretariat are at communicating their activities, informants were prompted to discuss how well known the MAC is to the broader community. Clare (conservation/environment) made reference to the fact that during the MRP phase, their ability to communicate was much better than it is in the present MAC phase. As a result of the low profile, she suggested that the MAC is not well known to most people in the area:

If you ask 50 people in town what the MAC is and whether they have a website I think you would have 49 or 50 people saying: "what?" It had more profile at the beginning. It had open houses, offering their opinion, asking what are the issues, this was a while ago, 7 or 8 years ago. Now the profile is so low there is not much you can say. The website has been in the paper but I don't think anyone knows

it's really there. It is not a tool anyone in the community would consider using if they were concerned about something.

Rebecca (provincial government) also believed that the larger community are unaware of the MAC and their activities but for a different reason. She suggested the MAC has not accomplished enough to report it to surrounding communities:

Currently I do not believe that the larger community are aware that the MAC exists and that it has a mandate and I suggest that the MAC and secretariat are hesitant to bring information to the community without something substantial to provide [to] them. As of now no big decisions or recommendations have been made so there is not much to report.

5.9. Dealing with Conflict

The issue of conflict resolution also emerged several times, particularly in relation to the original goals of the MRP process and its precursor the Bay of Fundy Stakeholders Forum. As I was interested in whether the MAC was effective at dealing with conflict, I asked informants whether they thought that was the case.

Tracy (federal government) maintained that the MAC is not a venue to address conflict because there are existing processes in place for that. She also stated that there is less conflict in the area to worry about because the aquaculture industry is no longer in an expansion phase:

Do I see it as a forum for resolving conflict? Not necessarily, no... The intent is not for the MAC to duplicate existing processes. So, if we take aquaculture and traditional fishery as an example, there is a process for aquaculture site review. The fishing industry is consulted on that. I think in terms of where we were when this process first started... aquaculture industry was still in a bit of an expansion phase and that is no longer the case... The aquaculture industry has stabilized a bit so I think that makes the opportunity for conflict a little bit less than it would have in the past. So, back to your question. Do I see it as a place for resolving conflict? I don't personally, no, because I think those issues are dealt with in existing processes.

Aaron (education) on the one hand stated that the MAC would be an appropriate venue to deal with conflict even though their objectives might suggest otherwise. On the other hand, he maintained that the MAC should not focus on resolving conflict because it is not their mandate. He recognized the inconsistency in his thinking and considered how conflict should be addressed if it was to emerge among members of the MAC:

Has it addressed conflicts? I think it tried. Is it the place to do that? I don't know what other place there is? I think it would be a good place to do that but I think basically the guidelines say it isn't... the way I kind of interpret it. The MAC shouldn't be about conflicts, so if there is a problem, we shouldn't say, let's get MAC on this. We are not a conflict resolution group. We are an advisory group, but that doesn't mean that we can't deal with things that are of concern. But I certainly don't think that MAC should advertise itself or become a conflict resolution group. I agree on that point of view. We are really not set up to do that. But those things are not black and white as you and I both know. So the question then becomes how do you deal with it when there becomes a conflict?

I was curious where informants would go if the MAC was not the venue to address conflict. They were prompted to discuss this. Martin (provincial government) recognized that government has an obligation to address conflict and explained this responsibility comes from policies prescribed in legislation and regulations. Yet, he maintained that government might not be able to meet their obligation and that conflict could escalate because policies may not yet be developed to guide direction for enforcement. Further, the resources might not be there to enforce compliance:

Policies are enforced through acts and regulations but if policy is not reflected in those it makes it more difficult to enforce them. This is made even more complex by the fact that there is not much funding in government for enforcement. Conflicts emerge because of the inability to enforce compliance... The sharing of government policies with the broader society makes people more receptive, reduces conflict... Addressing the policy on how things are resolved is dealing with conflict... MAC has an input into how policies are developed so they [align] with values of the community.

Dominique (commercial fisheries) said that the most reliable strategy for having their concerns heard and addressed is to bring their issues to the attention of media and to a [provincial government employee] who sits on the Government Secretariat.

Interestingly, Linda (aquaculture) also indicated that their industry brings conflicts involving these two actors to the same provincial government employee. Dominique however, did not attribute the assistance that commercial fisheries have received to the MAC:

The most promise really is us going to the media and saying whatever the aquaculture industry is doing at the moment because they hate negative publicity. We don't have the capacity to do that all the time and it's not good to have these two industries fighting in the public eye all the time. I just don't think that's good for our industry... So now... because [a provincial government employee] is really good about bringing everyone together... [the provincial government employee] is not as heavy handed as we would like. We would like her to enforce regulations and conditions... We haven't really solved any big problems yet but we're at least to the table. Relations are not great but they are, maybe more workable, they are definitely more workable then they were 3 years ago.

Mary (provincial government) stated on the one hand that the MAC is not the venue to address disputes. On the other hand, she argued that if no other venue exists, then government needs to ensure that structures and processes are in place to facilitate the involvement of all relevant users in addressing conflict:

You still have to have law and all of those other things, but you still have to have engagement and the opportunity to do that is not going to happen at MAC either... You have to create them [structures]... Government can't be god and make all the decisions... Government is there and is designed to recognize...is the community hurting? At times there certainly are groups that do not have loud voices at the table. For whatever reason they don't have an opportunity to be there. Government must make sure that the fabric of the community is not hindered. We could take the example of an obscure group like the sea urchin fishermen, or something like that, that doesn't have a voice. As government you can't just say well you are not here so we aren't going to talk.

Informants were asked how they would like conflict to be resolved. Arthur (commercial fisheries) responded that individuals need to learn about the needs and interests of others because this will influence their willingness to genuinely engage in constructive dialogue and make concessions:

I believe that yes, that this [resolution of conflict] happens. As people talk they become more aware of each other's points of view and are more open to compromising on certain issues. So the better you know people the more honest discussion you can have and the more you try to resolve it...

William (aquaculture) proposed that a leader with strong facilitation skills is important because they are able to promote constructive discourse, which can result in compromise. He also maintained that individuals need to separate people from the problem:

You also have to have strong leadership when it comes to managing the meetings themselves, so you have to have a level of control over the direction, and you have to understand when to stop the discussion. So when it becomes confrontational you have to understand that, or recognize it and discuss the issues. It's not personal here. All that dynamic has to come into play... I think they want to have that open dialogue because it is through the course of dialogue that the word compromise, you have to be prepared when you come to these meetings, come with one opinion and be prepared to change your views based on evidence you hear at the table.

Linda (aquaculture) suggested a slightly different strategy. She highlighted that conflict often emerges because people's interests have not been heard and they have been shut out of decision-making processes. Therefore, a structure and process must be in place to ensure that marine users are able to participate in decision-making:

...by sharing information and I think also people just need to be heard. It gave people a place and a chance to say something and comment. That is one of the biggest problems in a community, if decisions are being made and they feel they have no say whatsoever, or decisions are being made somewhere else about their community. People get really upset about that.

Gillian (education) stated that conflict amongst members of the MAC is inevitable and to address it, people need to be explicit about their concerns and gain intimate knowledge of one another:

I think probably people would have expected ...conflict between members of the MAC because they...[are] bringing [different] perspectives... And you know it's not because enough trust has been established. It's more because people are polite and although I find it refreshing, I always do appreciate people that can be very forthright and can say things that are accusatory... I think that is a really important part in the process, I think people should be able to put those things on the table... Now, the aquaculture, tensions between fishing and aquaculture, I was concerned that from the very beginning whether the two groups could ever sort of work together... I think the way for it to change is to get to know people personally.

The current mandate of the MAC is to provide advice and recommendations to federal and provincial governments on relevant policies, processes, strategic matters, or issues of significant public interest related to new and existing activities from a non-sector community-based perspective. Given this mandate, informants were prompted to discuss the types of advice and recommendations that have been developed by the MAC thus far and the implications on conflict of developing recommendations. Arthur (commercial fishing) highlighted the recommendations developed for MPA's. He suggested it was important to MAC members that recommendations be developed in order to influence the process before a decision has already been made:

I guess there are a couple of things that we have looked at so far that we made recommendations on, one being marine debris... The other one was MPA's and we more or less said that we would like to be ahead of the curve, but the planning is often done behind closed doors and then the results are posted and open houses are generally not there to receive information. They are there to tell you why they have arrived at the decision they did. So we were suggesting that let's try this one... So we didn't have that much controversy over making the recommendation.

Lucas (federal government) proposed that it is still too early to determine how the recommendations will be operationalized but stated they were recognized by government and government have responded to the MAC with respect to how they hope to make use of them:

The Marine Protected Areas stuff was, there were recommendations made associated with that. But the process itself was still early so it was easy to say well we will be engaging the public, we will be engaging early, we will be discussing these issues we will be talking with these groups. In some ways there are recommendations made and they were accepted as well and a response was provided back to the MAC with how DFO in that case, would respond.

Tracy (federal government) responded that the MAC's recommendations on MPA networks will inform the material being released by the government to the public:

We took it [to the MAC] I think twice so far. It might have been three times... We had a lot of good feedback the first time about some clarity we should ensure is in the material when we're releasing it for public consultation. We were able to provide some clarity in terms of the discussion, in terms of questions. And, you know we would certainly see that some of that feedback would influence the next iteration of those documents.

Recall that an attempt to implement an MPA in the area was identified as a 'past conflict'. These quotations illustrate that the MAC have considered how they would like to see the topic of MPA's dealt with in the future.

Although recommendations and advice were not developed for ISA, the problem was still discussed by informants as an issue that has been addressed by the MAC. Arthur (commercial fishing) explained that the MAC table served as a valuable venue to receive accurate information directly from CFIA about how they are addressing ISA and why. He pointed out that CFIA were hesitant in their formal presentation to provide details; however, when he sat down for lunch and spoke with them, they were more forthcoming:

I felt CFIA... did well; they made their presentation. I mean this information stuff is beyond me. It gets me down because you are limited as to what you can say in

public. I mean we know the case was written up in the newspaper... But there was also misinformation in the newspaper, misinformation on the internet, people were expressing opinions and so on. But CFIA when we came to the meeting said: "we can't discuss a specific case but we can talk generally about our process". But, afterwards...they were more than willing over lunch to tell me about it. I got way more information about it, that specific case, than I could in the public forum. So it did provide a venue to ask a specific question about a specific case, and get a specific answer.

Clare (conservation/environment) indicated that initially commercial fisheries thought the aquaculture industry were not interested in addressing the issue of ISA. Yet, when each outlined their interpretations of the problem at the MAC table, they realized that they had a common interest; they both wanted CFIA to deal with ISA in the same way:

There was an interesting thing... Where the issue came up of once ISA is discovered on a site, how soon do you get rid of those fish... The traditional fishers were very critical that the fish didn't leave the site soon enough. Turns out that the people who own the site are also critical [but] for a different reason. They also don't want those fish on the site... In fact their interest was exactly the same but it was a regulatory problem that was causing the delay... To me that is important and how much people like [the MAC member from commercial fisheries], and [the MAC member from the aquaculture] industry go out and say we agree on this and we can work together on this... It is a communication issue in the sense that this is something we can agree on and that is nice.

Lucas (federal government) considered the consequences had ISA not been addressed by the MAC. He recognized that although no recommendations or advice were developed by the MAC on the topic of ISA, without the discussion perhaps the issue would have been brought forward for government to deal with, or conflict could have emerged:

Talking about ISA. Even though there was no major recommendations that were made or controversy, just having the presentation, having the discussion maybe brings it down. Whereas without that, maybe they would have written a letter to the minister, or something to the media. That would have just kicked off a huge, a big mess that would have to be a lot of time and resources spent on that.

Again, ISA was identified earlier as a conflict situation that was on the cusp of escalating in the planning area. These quotations propose that the ISA issue has been at least partially addressed at the MAC table.

Recall that marine debris was also identified as an issue that causes conflict between marine users in the planning area. Several informants discussed the circumstances under which conflict developed and whether the recommendations for marine debris would help to resolve the conflict. Martin (provincial government) stated that his department resisted the development of recommendations by the MAC on marine debris, but suggested both levels of government will operationalize them in policy and management:

Internally [there was] negative feedback about the approach that is being used to address the issue of marine debris... [Nevertheless] provincial and federal governments are willing to take recommendations that are brought forward and implement them into policy and management approaches.

Andre (federal government) noted that marine debris was an issue addressed by the MAC because it was not being adequately dealt with elsewhere. He mentioned several governance attributes that enabled the development of marine debris recommendations: the diversity of players at the table, a participatory process, consideration of the CVC and that the recommendations were given to multiple governments and departments for consideration:

[The MAC] took an overview look at an issue that was falling between stools and it did it in a very comprehensive way. It looked at the literature, it spoke to people...and it gave advice then to multiple levels of government on how to solve a problem... What's different about the way the MAC approached it? I think you had a broader participatory group, dealing with an issue that effects multiple sectors, in a comprehensive way, using CVC lens, able to give advice to multiple levels of government in a public forum. This is advice that will be on the web, [and] it is objective advice... [It was a] participatory governance process and they

are adding value because [this is] not able to be done by any current management regime to date.

Dominique (commercial fisheries) explained that marine debris is an issue that she and others have been trying to deal with but that they have met with some challenges. She then explained that once it was brought to the MAC and framed from a neutral perspective, it became a collective issue that the relevant users groups agreed to address:

We had this issue with aquaculture debris. Basically cages and parts of sites that were left abandoned became a hazard for fishing. So, we started having meetings with the Bay Keeper and the Province to try and deal with this and we kind of hit some walls... [The province] said they would bring it before the MAC... It's been a huge issue for a long time. The aquaculture industry is a big problem, but the fishing industry also creates marine debris. It gives the aquaculture industry a chance to say "we are doing something" and there are lots of other people polluting, not just us, and that works.

Elias (conservation/environment) viewed the process of developing the recommendations of value because he personally could not have assembled individuals from the diversity of backgrounds that participated. He suggested that the dialogue that took place with respect to compliance, will lead to greater attention and progress to resolve the issue. However, he also identified a discrepancy in the way that the conflict was being addressed. On the one hand the topic was framed in a neutral way by government. But on the other hand, there was explicit recognition that one industry in particular was a larger contributor of marine debris:

There's no way I would have convened those players in a room. I wouldn't have got people from the department. I wouldn't have had the opportunity to get such a candid conversation with the enforcement branch at Department of Agriculture, Aquaculture and Fisheries. I think we will move things forward incrementally...and maybe part of what the MAC may be able to provide is the opportunity for folks in the community to meet and discuss this with government. And once we recognize what government is not going to do, it may be a place for us to organize and do it anyway... The way to deal with conflict is to assume that both parties are equally responsible, [and this] seems to be the approach from

government... Sometimes there was a very candid recognition that one industry is by far the culprit in this case, but then there was also this sense that we had to make fair sounding recommendations.

Aaron (education) offered a much different perspective from the others. He questioned whether the MAC has the power or authority to impact policy and practice with the recommendations that they propose:

Truth be told, MAC really doesn't have any leverage in this other than to make that point known... I don't know if it is power, but we really don't know where any of this is going to go. This is one of the things that is obviously lacking, but when you read the guidelines it is very obvious from the get go that this committee doesn't really have the power.

I was interested in whether any decisions and recommendations made by the MAC on the above issues fed into government decision-making, management and policy development. Informants were asked to explain how this might take place. Tracy (federal government) explained that if recommendations developed by the MAC are relevant to members of the Secretariat, they are brought before the departments first for consideration. If the recommendations are connected to the mandate of other governments or departments, they are brought to the appropriate venue such as the RCCOM for dissemination:

It depends to some extent on the nature of the issue. If it is something that is very specific to DFO's mandate or to NB fisheries then it's provided obviously to [the NBDFAA DM] and I. But if there is an issue that requires some broader consideration by other departments, again that is something that we would take back to the RCCOM...[to] those departments directly involved, like ourselves. And NB fisheries would be doing that because we are meeting on a regular basis with the MAC.

Lucas (federal government) spoke more directly about the recommendations for marine debris developed by the MAC. He explained that senior input from the

Government Secretariat was used to involve governments and departments with authority on the topic in discussions given in MAC recommendations:

At the last meeting, we had Transport Canada and Environment Canada participate. We had NB Department of Tourism, Environment, Natural Resources and then Fisheries and Aquaculture... One of the things we recognized was that the recommendations are going to come back to the chairs, for any of these issues right? But the chairs only represent 2 departments so they have to be able to talk to their colleagues and counterparts where these issues extent beyond these two departments, which most of them will. Marine debris is a good example of where it did extend beyond those two departments... We drafted letters for [the DFO RDG] to send to the RDG's of Environment Canada and Transport Canada. We used a similar letter for...the Deputy Minister, who is also the co-chair, to send to his deputy ministers in other departments, explaining the background on the issue, and asking to identify a staff person from their department to participate in this process. And based on that we had some people show up for these meetings. So we wanted to leverage that senior input, encourage these departments to provide departments that are relevant. Not just people, but people that have some clout related to marine debris to participate.

Mary (provincial government) mentioned a formal feedback mechanism in place requiring the Government Secretariat to report to the MAC on how recommendations are being addressed:

There has to be that vehicle to move the recommendations inside and to keep the profile up... There is [also] a reporting mechanism that is part of the protocol. So the reporting mechanism that has been designed is housed within the minutes that are generated. Recommendations that are formalized [are] posted on the website [and reported] to the MAC subsequently. So Marine Debris recommendations were made, they were posted and the recommendations were acted upon by government. Government then took those recommendations back, did some stuff to them and then came back to MAC and said this is what we have done so far with the promise to report and to ask for continued input.

Lucas (federal government) stated that the formal feedback mechanism does not require government to deal with every recommendation put forward by the MAC. He suggested that it does, however, promote transparency and accountability of the Government Secretariat to the MAC for decisions being made:

If recommendations are made to government, it is on government's onus to respond in writing as to how the recommendations were going to be addressed. [Not] that every recommendation is going to be addressed... But at least government can say, well you made recommendations on marine debris. This is how we are responding to it. Maybe we didn't do everything you wanted but this is what we were able to do... That provides some transparency and clarity and I think a little accountability too... I think having a formal mechanism through which government responds is a very positive thing. And so that was one of the things that we tried to highlight, when we did that review.

Interestingly, in reference to the marine debris recommendations, Aaron (education) suggested that the Government Secretariat have not communicated to the MAC whether the recommendations are being operationalized or not:

I think the next step is, here we have the marine debris thing, it documents what we should do. We need a co-ordinator, we need a department to lead this thing because someone has to be a champion of it. And my worry right now is that we are at that stage right now. We have come out with a document that at least states what is required. And, the last 6 months, we haven't really seen how this is going to move forward.

5.10. Conclusion

Throughout this chapter themes emerge associated with working together, a change in mandate of the governance institution, type of stakeholder participation, a communication plan, community values, dealing with conflict, and recommendations and advice to government. The chapter documents the interactions, interconnectedness, interrelationships and interdependencies between the state and civil society. It chronicles the agreements, expectations and sources of power that develop between these actors, the role of actors in administration, management and policy making, the mechanisms of accountability and transparency, and the multiple levels on which these constructions exist. Finally, it examines how and why particular programs and initiatives are developed and operationalized, how they transform, succeed or fail, the thought, knowledge,

expertise, strategies and rationalities employed in practices of governing, how ideas seek to transform practices, how practices of governing give rise to specific forms of reality and how beliefs seek to render particular domains and problems governable (in sensu Dean 2010). In the following chapter the themes that have emerged from the data will be examined and analyzed using theoretical lenses drawn from adaptive co-management (Folke et al 2005), governmentality (following Foucault, Dean and others) and conflict resolution.

Chapter 6: Analysis

Conflicts over values in the marine environment are expected because stakeholder's individually and collectively value things very differently. Adaptive co-management practices have been widely accepted as a legitimate method to govern marine resources, and specifically to address conflict generated because of differing perceptions of risk (Olsson et al 2004; Folke et al 2005; Armitage et al 2009; Cundill et al 2012; Plummer et al 2013). Following the spirit of Grounded Theory, various steps in my analysis allowed me to refine my research questions and thus strengthen the grounded nature of the findings. In the context of this case study, one question that the data raises is the role of conflict in either enabling or hindering innovative institutions of adaptive co-management. I will highlight informant discussions of conflict and power dynamics to show how asking questions about these elements allows us to learn about governance.

There are constraints and limitations to my study that require consideration. The first is a disclosure that for the first and last year of my PhD research I was funded under Project 1.1 "Enhanced fisheries knowledge for an evolving management regime" of the National Sciences and Engineering Research Council (NSERC) Canadian Fisheries Research Network (CFRN). The MAC as an innovative institution for adaptive co-management was chosen as a case study because it provided a practical example to evaluate three areas of CFRN Project 1.1 research interest: emerging requirements for sustainability; enhanced knowledge; and enhanced participation in collaborative management (Project 1.1 2016). Additional support was received from the Social Sciences and Humanities Research Council of Canada (SSHRC) Doctoral Fellowships Program.

The second limitation is that I support the idea of Alternative Dispute Resolution (ADR) as a way to address conflict and further governance in the marine environment. My bias is the result of having studied ADR at the graduate level. My Masters' research was analyzed through a transformative approach to conflict resolution (following Dukes 1993; Bush and Folger 1994; and Lederack 1995). I took 160-hours of training to be a certified Third Party Neutral through the Canadian Institute for Conflict Resolution. Two of my PhD courses were on ADR, specifically focusing on approaches to deal with conflict arising from cultural and environmental issues. And I am a volunteer mediator with the Office of Human Rights and Positive Environment at the University of New Brunswick. My education and experience with ADR does not prevent me from objectively assessing the case study or in determining the extent to which ADR does or does not exist or work currently in the relationship among the parties. This also does not prevent me from considering other alternative methods and their merits on governance and the resolution of conflicts in the marine environment. I will turn to the literature on governmentality (following Foucault, Dean and others) for the critical perspective and style of thought required to differentiate between conflict and consensus approaches. It does mean however, that I am predisposed to using conflict as the lens through which to view the case study. This focus on conflict will limit my discussion of the many other governance topics that emerge from the literature on adaptive co-management; but given my background in conflict resolution, I use conflict in order to analyze the results from Chapter 5. In this chapter, then, I revisit those themes that derive from documents generated by the MAC, participant observation, interviews and focus groups, as discussed earlier in Chapter 5. Further, I relate these themes to the pertinent literature that derives

from adaptive co-management, governmentality, conflict resolution. I will show how the literature provides theoretical and analytical tools that help to explain the relevance of each specific theme to ‘good governance’ outcomes.

I will begin the chapter with the theme Values for Management. The purpose is to demonstrate that an absence of articulated and agreed institutional values for management can have significant consequences for the engagement of innovative institutions such as the MAC in governance processes. These consequences are reflected in the subsequent themes which include: Dealing with Conflict, Hats Off at the Door, and the Role of Government at the Table.

6.1. Values for Management

Informants stated that although social conflict was the catalyst that prompted the creation of the Bay of Fundy Marine Resource Planning Initiative (MRP), they envisioned that part of the resolution process should entail working together to develop a management plan:

The conflicting spatial issues between aquaculture and the fisheries, that’s really where it came from. Then they really wanted to include and incorporate the other key stakeholders³¹ and other activities in the area as well... [The] original goal from the volunteer level was to have all the key stakeholders sitting in a room developing a process for making decisions about water and land use management, resource management... It was to sit down and come up with a process of what you wanted to see of how this area could be managed.

Deborah, Communities

³¹ It is important to note that the term stakeholder is complex and that such arrangements are often imposed from above. As a result, there is often distrust, particularly when rules and norms are not agreed to but decided based on non-codified and often informal ad-hoc principles (see Swyngedow 2005:1995; also see Hallstrom and Bostrom 2010:79).

Recall from Chapter Four on Jurisdictional Organization and Chronology of Events that an integral part of the exercise was to determine what the surrounding communities valued about the marine environment. This necessitated consultation and the involvement of a technical sub-committee to analyze and present the data that was collected (MRP 2005). After reviewing results from a first round of consultations, the Technical Sub-Committee decided that the most effective and efficient way to present and make use of the values was in the form of a table. A draft version of the Community Values Criteria (CVC) table was then brought back to the communities, in two rounds of subsequent consultations, to discuss, debate and confirm their significance.

On this point, the MRP's experience coincides with information in the literature. Sharp differences in values expressed by diverse stakeholders in the marine environment make conflict inherent in marine management (Dietz et al 2003). Environmental systems and the different values humans attach to them are too complex and contentious to be effectively governed by a single authority. Both international legislation such as Agenda 21 from United Nations Conference on the Environment and Development (UNEP, 1992, chapter 23.2) and national legislation such as Canada's Oceans Act S.C. 1996, c.31, argue that systematic input is required from those who are directly dependent on the environment for their resources. Collaborative initiatives are not only promoted to resolve conflict that emerges from value differences, but also in support of instrumental goals such as the development of management plans (Davies and White 2012). Management plans provide the institutional platform and space to negotiate and discuss differing values.

Values about the marine environment are often implicit and unconscious and are taken as a given within a cultural context (Bavinck et al 2005; Dahl 2012). Further, because values appear to be connected to identity, they are inherently personal, subjective developed as a matter of tradition and socialization, they are not amenable to change (Forester 1999). Adaptive co-management as a form of IM is inherently value driven, and since values are not universal, they need to be made explicit (Dietz et al 2003; Bavinck et al 2005; Keen and Mahanty 2006; Charles et al 2010; also see Forester 1999). While a process is needed to integrate divergent views and subjective rationalities into an effective structure, there is no clear procedure on how to amalgamate social values in a pluralist society such as Southwest New Brunswick (SWNB) (Klinke and Renn 2002). Habermas's communicative rationality recognizes that meaning, value, understanding and knowledge are all socially constructed (Glavovic 2015; also see Takeda and Ropke 2010; Linke and Jentoft 2014). As a result, communicative rationality calls for collaborative processes to facilitate reflection on and reconciliation of divergent social values (Glavovic 2014; 2015; also see Takeda and Ropke 2010). It is founded on participant exchange through information sharing, discussion and debate to stimulate well-informed views about matters of collective concern that will evolve with social learning. Deliberation processes can take place in formal and informal public settings, but they need to be authentic and inclusive if they are to have a legitimate impact on social choices (Glavovic 2015:82). Using a "bottom up approach" to dialogue, which stresses the significance of understanding local context in the form of values to set goals and establish priorities (in sensu Beckley et al 2002; Reed, Fraser and Dougill 2006), the MRP was able to make people aware of their own basic values. Further, they were able to

present those values more explicitly to the broader community in the form of the CVC. In this case, it is evident that the CVC was developed in accord with the adaptive co-management literature. It also coincides with the current practical decision-making structure for marine management in Canada described by Lane and Stephenson (1995; 2000) which involves engaging scientists, managers and other marine users through institutional arrangements to identify objectives that integrate ecological, economic, social and institutional factors and to develop alternative management scenarios based on an evaluation of those objectives.

The literature on adaptive co-management, which among other things, focuses on the concept of resilience, states that an open dialogue about values is critical because the question as to whether certain changes in the marine environment are acceptable or not is essentially a human value judgment dependent upon those ecological, economic, social and institutional issues identified as important. Putting communities at the centre of management decisions, as was the case in developing the CVC, can help convert values into shared vision, goals and objectives as to how the marine environment should be managed. This approach can promote human wellbeing and can help overcome community pushback that emerges when planning is imposed from above without considering local needs. Furthermore, it can provide the knowledge required to make trade-offs in environmental decision-making and provide information about the impact of those decisions on various valued outcomes. Thus, values also give structure to governance in that they provide a frame, guiding governors in assessing where fisheries are, where they should be and the means that should be used to get there (Dietz et al 2003; Jentoft 2004; Bavinck et al 2005; Daigle et al 2006; Beck 2006; Keen and Mahanty

2006; Kooiman et al 2008; Kearney et al 2007; Bastian-Daigle et al 2008; Adger et al 2009; Armitage et al 2009; Lockwood et al 2010; Berkes 2010; Charles et al 2010; Davies and White 2012; Glovavic 2014; 2015). The implications of explicit values such as the CVC for management and governance in the marine environment are all predicated on their formal application or use in decision-making.

Although my informants did not discuss risk *per se*, the literature on risk management argues that an explicit focus on values helps to explain varied perceptions of risk (Boholm 2011; also see Giddens 1999; Klinke and Renn 2011; Davies and White 2012). People understand and judge risks in terms of emic, locally defined values and concerns, but by definition, the concept of risk integrates factual and normative components. Communities such as those in SWNB have gained experience and collective knowledge about ‘external risks’ (ranging from cyclical changes in the political party in control to downturns in the fish market) that happen regularly so that they are broadly predictable. ‘Manufactured risk’, on the other hand, refers to new risks for which history provides little previous experience. Although communities have gained some collective knowledge of the potential impacts of actions or activities, they cannot anticipate all possible risks. As a result, it is impossible to include all conceivable options for intervention. Communities such as those in SWNB have to be selective in choosing what is worth considering and what to ignore (in sensu Klinke and Renn 2012). Given the subjective nature of risk, this is open to negotiation and contestation. Today a good deal of political decision-making is about managing risk and the conflicts that derive from it. Although risks might not originate in the political sphere, they nonetheless have to be politically managed (ibid, also see Giddens 1999; Boholm 2011).

Recall from Chapter 5 on Results that the CVC was originally designed to help the MRP assess proposals for development so that they could then advise on government decisions. Further, the CVC was to help project proponents gain information as to how their proposal would be evaluated by communities in the area. From this perspective, the CVC was supposed to help the MRP, governments and proponents decide which developments were too risky and which developments were worth pursuing. Thus, risks and values were supposed to be at the centre of political discussions. The CVC as a conceptual and organizational framework for integrated and participatory decision making, and as an appropriate methodology for dealing with diverse sources of information and interdisciplinary objectives is currently missing from most approaches to marine management (Lane and Stephenson 1995). However, informants state that the MAC is not formally applying the CVC towards this end:

[The] CVC is not being used to measure decision-making and management in a formal way, but I would be quick to add the social and ecological values are being addressed in policy and decisions, whether CVC is being formally used to do recommendations or not.

Martin, Provincial Government

We almost never refer to them at meetings because we're talking about things rather superficially. They are still there, they are still important... It doesn't mean that it's valueless. We would still like it to work, but I don't know where it is... We don't look at applications so we're really looking at policies so we haven't got there yet... It's probably in the back of everyone's mind.

Clare, Conservation/Environment

It is evident from these quotations that the CVC is not being systematically utilized to assess proposals for development. Clare implicitly attributes this to the change in mandate that occurred at the end of Phase 3, when it was made clear that the MAC would not review applications for marine planning but would provide guidance on

policies³². However, this informant indicated there was a second reason that the MAC have not formally applied the CVC:

If there is a statement that comes out of the MPA, how does that statement fit with the CVC and apply that statement to each of the criteria... We tried to go through that process and it didn't work because if you had a simple statement that said this is important for these reasons, you might agree with it, but the person beside you has a different view of things.

William, Aquaculture

Here, William points out that rating the values on the CVC is a subjective process and this has presented the MAC with some significant challenges in trying to make formal use of it. Instead, the CVC is informally applied in the development of recommendations and advice to government on policy. Informants explained how participants of the working groups³³, which include members of the MAC, the Government Secretariat and members of the broader community with knowledge, authority or jurisdiction on the topic, represent the diversity of values found in the CVC. Therefore, the CVC is inherently being considered in discussions while developing recommendations. However, the original objective, which was to bring value disputes that are often concealed into the foreground of the political process, is still being hindered to some degree. Arguably, formal application of the CVC is a crucial factor in turning environmental policy controversies into successful action in management and governance (in sensu Sarewitz 2004; also see Davies and White 2012). But how can the MAC address the problem of subjective value rankings? Implementation of the CVC must be sensitive to both subjective and evolving value rankings (i.e. change over time).

³² It is important to note that the values on the original CVC in the 'The Preferred Future of the Bay' Document (MRP 2009) been modified to reflect more policy related questions. Each value now begins with "will policy".

³³ As previously explained, working groups have been established to develop recommendations and advice on Marine Debris and Marine Protected Areas.

Risks must be considered as heterogenous phenomena that preclude standard evaluation; however, risk management and policy would be overwhelmed if each risky activity required its own strategy of risk evaluation and management. Klinke and Renn (2002:1071-2) propose that:

what risk managers need is a concept for evaluation and management that on the one hand ensures integration of social diversity and multidisciplinary approaches, and on the other hand, allows for institutional routines, and easy to implement protocols.

The CVC considers a full suite of ecological, social, cultural and economic values in a transparent and simple manner. And the MAC provides the forum for open dialogue of the values and objectives promoted in planning exercises. The subjective value ranking process suggests the need for the articulation of diverse management scenarios to show the likely consequences of trade-offs between them. Science, experts and various tools are available to assess trade-offs between values and the objectives that underpin them, such as management strategy evaluation (MSE) (Begg et al 2015; Funtowitcz and Ravetz 1993). However, scenarios for comparison can also be developed solely using a “communicative rationality” approach. For example, the CVC could serve as the basis for discussion about an activity such as an MPA network. Stakeholders could examine each value in reference to an MPA network and decide how they might be influenced in four different scenarios. The first scenario would elicit conversation about the status quo (i.e. no network), the second scenario about a small network of MPA’s, third a big network of MPA’s. Or forth, it could be about MPA’s with and without fishing activity. This scenario development and comparison process not only makes trade-offs explicit but results in decisions being made in full knowledge of anticipated consequences. And any unintended or hidden consequences are prevented as far as possible (Begg et al 2015).

This is important given that the current mandate of the MAC is to provide advice and recommendations to government because this advice will be used in a decision-making environment that makes choices in light of trade-offs.

Therefore, in order to make use of the CVC in management and governance, a combination of deliberative processes and technical expertise is required. As such, ‘expertise’ takes its place at the table with local and environmental concerns to identify solutions to problems which can then be operationalized and enforced (Funtowicz and Ravetz 1993; Klinke and Renn 2002; 2011; Sarewitz 2004; Takeda and Ropke 2010; Linke and Jentoft 2014; Linke et al 2014). The MRP/MAC’s CVC appears to be a step in the right direction to manage and govern for adaptation, resilience and risk.

6.2. A Comparison of the CVC with the Project 1.1 Fisheries Evaluation Framework

IM is described as a multi-disciplinary approach to reconcile the sustainability of the marine environment and a collaborative planning process that seeks to address the interests of multiple stakeholders and resources being managed. IM processes such as adaptive co-management require the articulation and assessment of a comprehensive suite of values, objectives and indicators including ecological, economic, social and institutional (i.e. governance) dimensions (Begg et al 2015; Charles et al 2010:26; also see Solocomb 1993; FAO 2003; Daigle et al 2006; Berkes 2006; Kearney et al 2007; Cooper, Stephenson and Annala 2009; 2012; Takeda and Ropke 2010; Dahl 2012; Long et al 2015). During the past decade or so, there have been efforts to develop frameworks to both guide and assess the management and governance of marine activities (Bostrom 2012; Dahl 2012; Begg et al 2015). As described previously, the CVC is an example of

this. Another similar initiative is the Fisheries Evaluation Framework³⁴ developed by Project 1.1 of the CFRN.

In order to critically examine substantive content of the CVC and the Fisheries Evaluation framework to see what similarities and differences exist between the two, they were compared and contrasted³⁵. The Fisheries Evaluation Framework includes ecological, economic, social and institutional domains, dimensions, elements, indicators and attributes³⁶. Domains refer to the primary, high-level field of study and interest (ecological, socioeconomic, and institutional). Dimensions are the broad subject headings within each field. Elements are a statement describing a desired end state for a particular component of the dimension. Indicators are used to qualitatively and quantitatively measure and monitor performance with respect to an element. Finally, attributes are the various options that can be used to convert generic indicators into fisheries-specific ones (Student Indicator Working Group 2014). In comparing these aspects of the Fisheries Evaluation Framework to the CVC, there are several notable similarities.

In discussing ecological dimensions, both the framework and the CVC highlight the impact of anthropological activity on: sensitive habitat or benthic species; species at risk; and eutrophication as significant areas of focus. In the economic dimension, both the

³⁴ It is important to note that the development of the Fisheries Evaluation Framework has been an iterative process and has so far taken at least four forms. I am comparing the CVC to Version 2.0 because my work was completed before the other versions emerged. It is also important to point out that the framework is now referred to as the 'Framework for Comprehensive Fisheries Evaluation'.

³⁵ Gaps identified in the Fisheries Evaluation Framework will be addressed in the final chapter on Recommendations.

³⁶ It should be noted that in the original document, the elements are actually referred to as goals. However, in the 2.0 Draft the term was changed to element.

framework and the CVC identify the following as important: public perception; employment; costs and benefits to demographic area; and financial self-sufficiency or viability. The CVC makes a distinction between social and cultural dimensions while the Fisheries framework does not. Specifically, the CVC includes cultural values about the impact of an activity on a site of known heritage and archeological interest and the impact of an activity on indigenous traditions. Similar values do not appear to be captured in the Fisheries Evaluation Framework. Otherwise, the cultural and social aspects of the two frameworks overlap, including evidence of consistency of proposals with local norms and values; equitable access to marine space; contributions of activities to community health; and public perception of collaboration (see appendix 7).

The Fisheries Evaluation Framework is both normative and descriptive in that it includes a comprehensive suite of needs and requirements identified through CFRN student research case studies³⁷, a review of academic literature and Canadian and international policy and legislation. Interestingly, although the CVC is situated locally in time and in space, when it was compared to the Fisheries Evaluation Framework it conforms to the national and international obligations that were identified in that work. Further, this comparison reveals that if the CVC is turned on its side, it resembles the

³⁷ A CFRN Student Indicator Working Group comprised of students from Project 1.1, Project 3.3 and Project 1.4 expanded previous iterations of the Fisheries Evaluation Framework by incorporating elements from case studies to expand the scope, introduce greater detail, and provide additional structure (Workshop Materials, 2014). CFRN Project 1.1 is referred to as “Enhanced fisheries knowledge for an evolving management regime”, the Projects under 3.3 are collectively referred to as “the Management Strategy Evaluation projects” and Project 1.4 is referred to as “Effects of socio-ecological complexity on dynamics of harvested fish stocks”. For more information, see: <http://www.cfrn-rcrp.ca/Public-Projects-EN>

CFRN Fisheries Evaluation Framework. Every CVC value, with the exception of the two cultural values noted earlier, are found in the Fisheries Evaluation Framework. The most significant identifiable gap is in the CVC. When compared to the CFRN framework, it is evident that the CVC is missing an explicit institutional domain with associated values. When members of Focus Group #1 were asked about this gap in the CVC, they responded that this was done deliberately to avoid the biases of politics so that the CVC could be applied objectively. They also suggested it likely had to do with the fact that the Technical Sub-Committee was comprised predominantly of ecologists:

...I won't speak for everybody, but generally from our background, we were looking at it from the perspective of ecology. I was never trained in any sociology... That's why all of our examples were stronger in the ecological columns. I know I personally struggle with trying to find examples of, or be very clear in what we were doing in the cultural and social, especially in the economic.

Participant, Focus Group #1

It is evident in analyzing the CVC that while the interests and knowledge of the Technical Sub-Committee resulted in strong ecological, economic and social values, it contributed to an absence of institutional values.

The international literature increasingly recognizes that the three pillars -- ecological, economic and social -- need to be complemented by a fourth pillar reflecting an institutional dimension. In theory, governance values and the objectives that underpin them can guide and measure characteristics of 'good governance' (see for example DFO 1998; 2002; 2004; 2009; Garcia, Rise and Charles 2014). Such values reflect aspects of the relationship between a government and its society, in addition to stakeholders and their constituencies. They provide a normative framework within which these relationships can be judged; and measure how well the actual relationships at the local,

regional or national level adhere to that normative framework (Dutta 2012:438).

According to the literature, the ecological dimension and to a lesser degree the economic dimension are well articulated in international work to achieve sustainability, but the same is not true of social and institutional criteria (Dahl 2012; Bostrom 2012; Begg et al 2015). Bostrom (2012) and others are of the conviction that social and institutional dimensions are more difficult to analyze, understand, define and incorporate into sustainability projects and planning than the other dimensions of sustainability. Bostrom (2012) cites several reasons for this challenge. Social and institutional sustainability are arguably vague, subjective and ideological, particularly when compared to ecological sustainability, which has more concrete objectives and is easier to measure. Further, social and institutional goals are more often in competition with, rather than compatible with, the ecological. For instance, attempts to prevail over social inequalities and develop human capabilities could easily result in increasing the use of natural resources to the disadvantage of conservation. This is exacerbated by the fact that the key pillars originated and were conceptualized separately.

Here in Canada, for example, sustainable development is governed by various administrative systems which include both departments and agencies (i.e. Environment Canada, Fisheries and Oceans Canada, Department of Industry) that focus significantly on ecological dimensions while few if any objectives are social or institutional (in sensu Bostrom 2012:9). While attempts are made to include environmental goals and concerns through sector integration, similar systems are not set up to address the social and institutional concerns. Similarly, the measurement and monitoring of economic development, social welfare and environmental conditions are normally institutionally-

distinct practices. The final barriers that make social and institutional criteria hard to develop and implement concerns the fact that inadequate attention is being paid to the relationship between procedural and substantive dimensions. It is often assumed that there is a positive internal linkage between these concepts. However, in accord with conflict resolution engagement literature (for example Dukes 1993; Moore 1996; Susskind 2009), the way that a sustainability project is organized – who is allowed to participate, when and how — will obviously affect the way that substantive sustainability aspects are considered. As Casula Vifell and Soneryd (as cited by Bostrom 2012:11) note: “[I]f no actors explicitly addressing the social dimension are invited, this pillar is likely to remain weak”. If only one person explicitly addressing social and institutional issues is invited to participate, institutional values are likely to remain weak, or in the CVC case, be absent all together. Without institutional values there is risk that improvements to governance such as conflict resolution, and transparency and accountability could be traded off unintentionally in favour of the ecological, social, cultural and economic dimensions (in sensu Bostrom 2012). I would argue that the absence of an institutional category in the CVC had unanticipated consequences for the MAC. These consequences will be illustrated in the following sections in reference to Dealing with Conflict; Hats Off at the Door; and the Role of Government at the Table.

6.3. Dealing with Conflict

As mentioned above, social conflict was the impetus for the creation of the Bay of Fundy Marine Resources Planning Initiative (MRP):

So you had significantly divergent interests in the Bay... My role was to try to find a means by which those people who had a stake in the Bay got together to figure out a way to resolve their issues... I met with Fisheries and Oceans, the

director general...she [said] yeah let's find another way of working so the industries that rely on the resources of the Bay can mutually co-exist and flourish...For me [it was] about causing the various divergent views to come together at one table... I think a lot of this, the history of it was either based on misinformation or mistrust or power... You had to mitigate that in terms of the role government plays...to respond to everyone with some equity and transparency and fairness...

Jacob, Provincial Government

It is apparent from this quote that the provincial government, in collaboration with the federal government, brought marine resource users together to resolve conflict. The quote also suggests that government did not assume that power relationships between actors and their influences at the table were equivalent. Instead, government agents examined and explicitly acknowledged the sources of power (in sensu Bastian-Daigle et al 2008) and worried that the influence of power on collaboration would be negative (Armitage et al 2009; Plummer et al 2013). To address power differentials, Jacob explains that he tried to create conditions for a “power neutral forum” (in sensu Takeda and Ropke 2010; Linke and Jentoft 2014) whereby actors were given equal time to speak and where information was shared amongst all user groups. The goal was to expand power for all user groups, rather than allowing one group to dominate at the expense of others (in sensu Pirie 2000; Coleman 2000).

In this sense, the MRP experience was consistent with advice in the literature. Conflict in the marine environment is inevitable given the plurality of actors, interests, values, risks and uses, and the division of powers between provincial and federal government agencies in Canada. As the theory chapter explained, the more intractable conflicts arise from ‘wicked problems’ (Rittel and Webber 1973; Jentoft and Chuenpagdee 2009) as they: are not one dimensional, involve more than one conflict type, and are difficult to define and delineate. Wicked problems have no technical

solution, it is not clear when they are solved, and no single actor has all the resources to address them. However, decisions about wicked problems still have to be made. Recall that the literature on adaptive co-management states that in order to address wicked problems, innovative institutional arrangements that adopt a collaborative approach need to be developed (Olsson et al 2004; Hughes et al 2005; Folke et al 2005; Lemos and Agrawal 2006; Kearney et al 2007; Jentoft and Chuenpagdee 2009; Armitage et al 2009; Lockwood et al 2010; Jentoft 2011; Zips and Weilenmann 2011).

Following Flyvbjerg (1998) and Takeda and Ropke (2010), the adaptive co-management literature appears to favour a Habermasian approach to dealing with conflict, as opposed to the Foucauldian approach. Recall that Flyvbjerg describes the Habermasian approach as one that advocates dealing with conflict through dialogue, governed by ‘communicative rationality’, where participants overcome their subjectively based views in favour of a rationally motivated agreement. Participants require equal opportunities to present and criticize and existing power differences between participants must be neutralized. This approach to institution building appears to underlay the initial development of the MRP.

However, as the institution evolved into the Marine Advisory Committee (MAC), the mandate changed, in that the objective now is to develop advice and recommendations for federal and provincial governments on relevant policies, processes, strategic matters, or issues of significant public interest related to new and existing activities from a non-sectoral, community-based perspective (MAC TOR 2015). With this new mandate, informants unanimously agreed that the MAC was not the appropriate venue for dispute resolution, for the reasons one informant explained below:

The MAC shouldn't be about conflicts, so if there is a problem, we shouldn't say, let's get MAC on this. We are not a conflict resolution group. We are an advisory group, but that doesn't mean that we can't deal with things that are of concern. But I certainly don't think that MAC should advertise itself or become a conflict resolution group.

Aaron, Education

Despite this repurposing of the institution, and the criticism by Nader and others that Habermas's 'communicative rationality' stifles conflict rather than addressing it, there is data to suggest that members of the MAC continue to rely on a 'communicative rationality' approach to resolving disputes in the process of developing recommendations and advice for government. To illustrate this, I return to three topics being addressed by the MAC that were identified by informants as having caused conflict in the past and that could conceivably do so again in the present. The first is Marine Protected Areas (MPA):

We've been involved a few times with MPA stuff and kind of been burned by it a few times... Park's Canada came in, in the 80s... They parachuted in and they were going to set up a Marine Park without talking to the people that make their living there right? So it was really bad. So they didn't do it, it was a total disaster.

Dominique, Commercial Fisheries

This informant articulates how the Marine Park approach taken by Park's Canada was considered inappropriate and caused anxiety among those that depended on the resources for their livelihoods.

Following Moore (1996), this signals a structural conflict in that inequalities arose from structural arrangements in the political order and in social relationships³⁸. More specifically, inequalities arose over the kinds of social relationships in which interacting

³⁸ Butler (1994) argues that the proposal for a marine park by Parks Canada resulted in a value conflict between fisheries (including aquaculture) and government. While this may be true, I suggest an alternative perspective on this issue.

parties were involved, the range of property they held, and the embedded nature of these property relationships. F. von Benda-Beckmann, K. von Benda-Beckmann and Wiber (2009:25) argue that these elements have a much stronger influence on individual dealings with property than does property rules and types of rights. Following Muttenter (2009:271), the marine environment in SWNB can be thought of as being composed of multiple autonomous 'going concerns'. While there may be a large spectrum of considerations that are relevant to the social relationships of interacting parties in SWNB, only two will be discussed here. One is the protection of marine biodiversity, ecosystem function and conservation of marine resources (DFO 2015). The other going concern is the commercial fishing of multiple species for local, domestic and international consumption, and that supports the livelihoods of small-scale fishermen and their communities (Fundy North 2016). While these activities are thought of as distinct, they spatially overlap. Those with an interest and mandate to implement Marine Parks, including Parks Canada, Environment Canada and DFO, have spatial claims that compete with commercial fisheries, resulting in conflict (see also Bavinck 2005). But there is an added complexity to this conflict as well. The political relationship between these government agencies and commercial fishers is embedded within a social-ecological structure (in sensu Gunderson and Holling 2002; Folke 2006). Given their fishing licenses, the commercial fishers have rights to use and economically exploit the area. Further, Parks Canada (representing the state) has the right to supervise, represent in outside relations, and allocate or limit access to the area. These state rights are traditionally understood as superior to and fundamentally encompassing of the former (F. von Benda-Beckmann, K. von Benda-Beckmann and Wiber 2009). Such division in

rights may not be inherently conflictual, but in this case conflict arose given the way that Parks Canada attempted to use their political and social position to reinforce their rights over ocean space. They engaged in a ‘power over’ approach in their interactions with commercial fishermen. As I explained in Chapter Two, a ‘power over’ approach is described as coercive, competitive and zero-sum in that one group gains power at the expense of another (Coleman 2000). This ‘power over’ approach generated interest-based concerns among fishermen, and this in turn led to resistance to Marine Park proposals.

Given these past grievances, any attempt to reintroduce the topic of MPAs in the planning area had the potential to create conflict (Pirie 2000; Maiese 2003). Moore (1996) notes that where there are structural conflicts, possible interventions involve attempting to modify or change the structures responsible for conflict. Arguably, such an intervention has reduced conflict over the MPA issue in SWNB. The MAC’s mandate enabled them to create a working group which developed recommendations on MPAs in order to influence the process before a decision was made. Following these recommendations, DFO³⁹ has publicly announced their intentions to develop a network of MPAs and have sought early, active and meaningful public participation in the design of such a network (MAC 2012). They also sought MAC’s guidance on designing such an MPA network and in engaging stakeholders (personal observation; DFO 2015). They now appear to be considering the range of social, cultural and economic values that may be affected should an MPA network be developed (DFO 2015). Further, their research on

³⁹ DFO currently oversees the development and implementation of an MPA in the area (DFO 2015), but this responsibility is shared with Environment Canada and Parks Canada (DFO 2015) such that the three departments are involved in a collective planning effort.

evaluating ecologically and biologically sensitive areas in the Bay of Fundy contained information that had been compiled during the three phases of consultation undertaken by the MRP and that were inscribed into “*The Preferred Future of the Bay*” document (Personal Observation; DFO 2014b). In contrast to the 1980s plans by Park’s Canada, then, DFO integrated the MRP/MAC recommendations into their planning.

Infectious Salmon Anemia (ISA) is the second topic addressed by the MAC and identified as having caused conflict in the past. However, unlike MPAs, formal recommendations and advice were not developed for this issue:

One [problem] we considered was the salmon with ISA.... The theory is you eradicate them as soon as you know because they can infect wild salmon... This was a process to try and help the processing industry rather than the environment, which I felt was CFIA’s [the Canadian Food Inspection Agency] concern, not whether the company makes money off of these fish but whether the environment was being preserved. I felt CFIA’s focus was displaced, and part of it was our experience with the Cypermethrin.... So to me this was the same situation.

Arthur, Commercial Fishing

Arthur suggests that CFIA did not follow its mandate when dealing with Cypermethrin.

As a result, he became suspicious that CFIA was more interested in benefiting the aquaculture industry than in protecting the environment. Chapter Four outlines the Chronology of Events and covers the history between commercial fisheries and the aquaculture industry in SWNB. This relationship is characterized by a lack of trust stemming from lobster kill-offs associated with the illegal use of Cypermethrin by the aquaculture industry. Given this history, participants from Focus Group #2 theorized that CFIA may have viewed participation at the MAC table as a risk and threat rather than an opportunity to educate (Focus Group #2). It is obvious then that all three parties felt a high level of distrust around this issue, which suggests the presence of a relationship conflict. As the literature on conflict resolution notes, most conflicts take place in the

context of an ongoing relationship that involves continuing or past interactions that can be characterized by elements of trust and distrust between individuals (Fisher, Ury and Patton 1991; Moore 1996; Lewicki and Wiehoff 2000). As Moore (1996), Pirie (2000) and others suggest, it is not surprising that the relationships around ISA were affected by conflicts related to distrust associated with a history of experiences with repetitive negative behaviour and poor communication or miscommunication. Some informants noted that these relationship conflicts were exacerbated by a data conflict given misinformation circulated in the media, on the internet, and discussed amongst individuals in the community.

According to informants, in order to address the possibility that distrust and misinformation would lead to escalated conflict, when the topic was brought to the MAC table, DFO representatives from the Government Secretariat brought in CIFA representatives so that CFIA, the commercial fishers and the aquaculture industry could engage in constructive controversy and deliberative discourse (in sensu Johnson, Johnson and Tjosvold 2000). This information exchange changed thinking among some MAC participants, as Arthur and Clare recount below:

CFIA ... came to the meeting... I got way more information about it, that specific case, than I could in the public forum. So it did provide a venue to ask a specific question about a specific case, and get a specific answer.

Arthur, Commercial Fishing

The traditional fishers were very critical that the fish didn't leave the site soon enough. Turns out that the people who own the site are also critical [but] for a different reason... in fact their interest was exactly the same but it was a regulatory problem that was causing the delay... To me that is important... It is a communication issue in the sense that this is something we can agree on.

Clare, Conservation/Environment

These comments also suggest that all three stakeholders in this case were motivated and open minded and thus now have a more thorough understanding and appreciation for each other's position. The discourse identified the regulatory cause of the issue, which in turn was linked to a deficiency in the management structure. As Clare points out, the stakeholders can now put recommendations or advice forward from a united perspective on the issue.

Marine debris was the third issue that was cited by MAC members as the basis for conflict. In this case, cages and other parts of aquaculture installations abandoned when companies fail have become a hazard for navigation and for fishing. Wiber et al (2010:601) maintain that when individual agencies and organizations with overlapping responsibilities and mechanisms are not effective at solving a problem, silo organization becomes a management barrier. Documents generated by the MAC point out that:

...the issue of marine debris and its management is complex and includes the roles and jurisdictions of various levels of and departments of government, industry, NGOs and community members (MAC 2014).

The layering and overlap this creates between Federal and Provincial regulatory responsibilities causes confusion for the public, particularly over what corrective actions can be taken by respective authorities (MAC 2013). Despite efforts to deal with it, marine debris continues to be problematic. This suggests that marine debris is a structural conflict which can be associated with divided, overlapping and unclear jurisdictions; the institutional structures prevent forward momentum (Parlee 2011; also see Moore 1996; Pirie 2000). If one party is blamed or judged, they may feel threatened, become defensive, and choose not to engage in a discussion of the issue (Stulberg 1981; Love 2000).

Adopting an interest based process to engage participants in designing new structures, and framing of issues in a neutral manner can be important considerations in building bridges between silos (Moore 1996; also see Wiber et al 2010). Once individuals with an interest and jurisdiction over marine debris were brought to the MAC table, efforts were made to frame it from a neutral perspective. Dominique and Elias explain below how this occurred:

[The province] said they would bring it before the MAC... It's been a huge issue for a long time. The aquaculture industry is a big problem, but the fishing industry also creates marine debris. It gives the aquaculture industry a chance to say "we are doing something" and there are lots of other people polluting, not just us, and that works.

Dominique, Commercial Fishing

The way to deal with conflict is to assume that both parties are equally responsible, [and this] seems to be the approach from government...sometimes there was a very candid recognition that one industry is by far the culprit in this case, but then there was also this sense that we had to make fair sounding recommendations.

Elias, Conservation/Environment

Bringing individuals to the table and framing the problem in a neutral context had important implications. Expanding the scope of the issue (in sensu Sandstrom, Crona and Bodin 2014), created the opportunity to collectively and collaboratively address marine debris and to bridge the separate structures that were failing to address the issue (in sensu Moore 1996).

Subsequently, a Marine Debris Working Group was established to identify administrative, policy and regulatory gaps. In deciding who would be included in the Working Group, an explicit effort was made to include individuals with a diversity of knowledge and from various backgrounds. This included two government agencies with jurisdiction over marine debris and an employee from an NGO with significant

information on the topic. The process was also deliberately structured to facilitate coordination and integration both horizontally and vertically by linking to existing infrastructure (in sensu Sandstrom, Crona and Bodin 2014:63).

Marine Debris is a good example of where it did extend beyond those two departments...we drafted letters for [the RDG] to send to the RDG's of Environment Canada and Transport Canada. We used a similar letter for...the Deputy Minister, who is also the co-chair, to send to his deputy ministers in other departments... And based on that we had some people show up for these meetings...people that have some clout related to marine debris to participate.
Lucas (federal government)

The assemblage of these stakeholders, particularly the government members, was significant. It encouraged formal buy-in for the process from all working group members. Further, the participatory process enabled participants to have an open discussion about the issue.

Participants were able to discuss and debate the diverse values, goals and objectives that encouraged conflict over marine debris in the first place (in sensu Rittel 1972). This process of “joint-problem solving” (Susskind and McCreary 1983) allowed working group members to look beyond their own interests in order to “invent options for mutual gain”, and to develop recommendations for mitigating marine debris (in sensu Susskind and McCreary 1983; also see Fisher, Ury and Patton 1991). Sandstrom, Crona and Bodin (2014:73) state that when goals are framed to handle a diversity of values and to arrive at a common vision, as is the case here, there is increased stakeholder acceptance of the process and the outcome. While provincial government informants were not completely satisfied with the procedures that were taken to develop the recommendations, both they and the federal government representatives agreed to consider and potentially operationalize them, as is shown in the quote below:

Internally [there was] negative feedback about the approach that is being used to address the issue of marine debris... [Nevertheless] provincial and federal governments are willing to take recommendations that are brought forward and implement them into policy and management approaches.

Martin, Provincial Government

There is an interesting contrast between present statements about the MAC as an inappropriate venue to deal with disputes, and previous assumptions about the role of the MRP. The transformation of discourse (in sensu Burchell et al 1991) has impacted the way that the MAC perceives itself, its ability and its goals and there are potential consequences of this for their future ability to address conflict. Discourse and language allow things to be “rendered technical” (Rose 1999; Li 2005). The conflict resolution literature refers to this as “naming, blaming and claiming” (Felstiner, Abel and Sarat 1980). When something is “rendered technical”, it can be diagnosed, which sets the direction for solutions and for action on those (in sensu Rose 1999; Li 2005). The members of the MAC did not explicitly “render technical” the topics of MPA’s, ISA or marine debris. Instead, all three contentious issues have been addressed using “communicative rationality” and the use of local knowledge, including collaboration and communication between MAC members and the broader community members who have authority and jurisdiction on issues. The fact that the approach taken by the MAC and the Government Secretariat is not entirely consistent with conflict resolution literature or the governmentality literature suggests some discontinuity between the stated objective of the MRP and how in fact the MAC has been able to address conflict.

The sources of discontinuity are suggested by the following informants:

[My] opinion was that in formalizing the MRP as a decision making body, two things would happen: One, power will be taken away from government. Two, citizens couldn't do a better job than representatives of elected leaders...

Arthur, Commercial Fishing

The pushback from government was, we can't afford it, it's too expensive, we're going through a renewal process [and] budget constraints. And actually there were concerns about delegating too much authority...and there was concern about having this group make decisions on every application.

Martin, Provincial Government

The argument could be made that this apparent reluctance on the part of government officials to share power originated in a perceived threat such that the formation of a viable alternative decision-making body would shift the system of governance. In Canada, the *Oceans Act S.C. 1996, C.31* allocates principal responsibility for coordinating oceans affairs to the Minister of Fisheries and Oceans. As such, the ultimate decision-making authority and accountability remains in the hands of the Minister. Government agencies are hierarchical in structure, with the Minister at the top, and they function according to instrumental values and technical considerations. Legally, they cannot fetter responsibility of the Minister and therefore they are inclined to perceive the sharing of power and resources with institutions such as the MAC as zero-sum as to the effects on the distribution of power between actors (Stoker 1998; Melzer 1998; Wilson 2008; Bene and Neiland 2006; Kearney et al 2007).

However, the governmentality literature argues that power is an omnipresent dimension in human relations and that power in society is never a fixed and closed regime, but an endless and open strategic game (Burchell et al 1991). In this view, democracy is best cultivated not by assuming away power, but rather by expressing and legitimating differences in power and in interests (Flyvbjerg 1998; Takeda and Ropke 2010; Linke and Jentoft 2014). A strong civil society gives free rein to resistance,

struggle, and contestation, which are characteristic of activism and social change (ibid; Burchell et al 1991; Dean 2010). A thorough understanding of civil society and of democracy must position conflict and power at its centre. Flyvbjerg (1998) argues that forms of public life that are practical, with individuals who are committed and prepared for conflict, offer a more resilient model for civil society than do forms of public life that are discursive, detached and consensus dependent.

From this perspective, in bringing MAC members to the table without committing resources and devolving power over conflict resolution, the federal and provincial governments are trying to suppress Foucauldian, non-consensual forms of conflict in favour of Habermas's "communicative rationality". As noted in the Theory Chapter, Nader (2001) argues that in North America, conflicts and disagreements are to be avoided at all costs. "Communicative rationality", or what Nader calls 'coercive harmony' can suppress people's resistance and socialize them into conformity via consensus and cooperation. But coercive harmony can stifle dissent such that it will find another, more destructive outlet (Nader 2001; Mattai and Nader 2008; also see Flyvbjerg 1998).

Taking a Habermasian approach to conflict resolution has broader implications for members of the MAC and the Government Secretariat as well. Arguably, the Habermas approach to conflict insufficiently conceptualizes power. Flyvbjerg (2008) points out that Habermas has little to say about relations of power that create barriers to discursive decision-making, or about how those barriers may require that institutional and educational settings be changed to redistribute power. When the MAC members took a rational discourse approach, without placing power and conflict at the centre of their discussions, they failed to recognize the *de facto* function that they were enacting. This

failure hinders MAC members from adopting a resilient model that prepares them to effectively deal with conflict. Consequently, there is the potential that they miss opportunities to interrogate differences in power and in interests that result in conflict. Arguably, their adherence to a Habermasian approach is having unintended and unanticipated consequences for local governance, which will be examined in the next two sections of this chapter.

6.4. Hats Off at the Door Policy

MAC members were asked to practice a ‘Hats Off at the Door’ policy. This requires that MAC members “provide individual perspective, knowledge and expertise from their diverse backgrounds” (MAC TOR 2015), rather than act as representatives of their stakeholder group. Note that Hallstrom and Bostrom (2010:119) state that an expert is assumed to act in a personal capacity while a representative must represent a specific group. The MAC’s Terms of Reference also state that some members may have knowledge or expertise in more than one area (ibid). In interviews, informants commented on this:

I feel like I’ve got a lot of ‘Hats’ in this and indeed I think a lot of members would claim to have multiple layers if you would like of stakeholder involvement. We are citizens of this area, we are involved in one way or another in several of the communities and they intersect or overlap.

Andre, Federal Government

So I’m coming to the table, I’ve got experience in aquaculture yes, but I don’t grow fish. Our work is environment, environmental sustainability and I have family values having grown up on the coast, or part of my life on the coast so I bring certain values to the table.

William, Aquaculture

This ability to wear more than one ‘hat’ is what Hallstrom and Bostrom (2010:120) refer to as a “switching strategy”. The authors warn that under these

conditions, the legitimacy of the multi-stakeholder structure can be undermined given power asymmetries and the structure will not function as it was meant to function (ibid). Thus, stakeholder categories are not merely an organizing and legitimizing activity but also contain a power dimension (Hallstrom and Bostrom 2010). Adaptive co-management literature states that in order for a plurality of interests and values to be effectively incorporated, innovative governance institutions must ensure equitable and representative participation (Pinkerton 1994; Conley and Moote 2003; Carlsson and Berkes 2005; Jentoft et al 2009; Childs et al 2013). Furthermore, representative participation works in favour of accountability goals. The transfer of power to representative and accountable local institutions is a necessary element of effective decentralization. However, transferring power without accountable representation is dangerous (Berkes 2010).

In what follows, I examine the consequences of the power dimensions that arise from the ‘Hats Off at the Door’ policy as a discursive practice (in sensu Burchell et al 1991; Rose and Miller 1992).

I think in a way it’s good because...I feel free to talk about those other things. That might be one of the reasons I was asked to be there. Whereas if I am representing my organization...I would much rather not be sitting there...because...whether we have a policy on something does matter. If I’m not representing [my organization] then it’s a little different...

Elias Conservation/Environment

I think [Hats Off] is the best way to do it because if you represent an association you have to be prepared to sacrifice personal values. It’s like being a politician because [they] have to sacrifice personal values for the greater good of their community, or in Canadian politics, for the greater good of the party... From my perspective the MAC only works if you take your hat off, take the association hat off...

William, Aquaculture

These quotations suggest that the ‘Hats Off’ practice has helped reduce conflict because MAC members are not bound by organizational policy and they do not have to sacrifice personal values in favour of group values, but instead can exercise personal judgment. This ability not to have to commit to characteristics of representation are seen as a strength (Laws 1999). The policy ultimately compels members to “separate people from the problem” (in sensu Fisher, Ury and Patton 1991). Fisher, Ury and Patton (1991:20) explain that if stakeholders view themselves as adversaries, it is difficult to separate their relationship from the substantive problem. However, when people are separated from an issue such as an organizational policy or procedure, stakeholders can address a problem with free and open-minded discussions without jeopardizing their relationship (Glaser 2005; Fisher, Ury and Patton 1991).

In theory, this should shift interactions from conflict to constructive communication, whereby opposing points of view are advocated and vigorously argued (in sensu Johnson, Johnson and Tjosvold 2000). Andre maintains that this is exactly what happened:

In the early days the room was quite charged because of the conflict that existed... But then I saw quite a big evolution in that the group started to appreciate one another... You’ve seen them able to discuss very sticky issues. They’ll be blunt when they have to be...but it’s not as emotionally charged.

Andre, Federal Government

With this discursive policy, participants were able to engage in constructive controversy to creatively solve problems by satisfying interests rather than trying to discuss positions (Johnson, Johnson and Tjosvold 2000; Morris 2002; also see Pirie 2000; Moore 2003). Fisher, Ury and Patton (1991) maintain that this approach works for a few reasons. For example, positional claims are right-based claims and as such can only result in “yes” or

“no”. However, they argue that underneath every rights-based claim are multiple interests that give rise to it. While some interests will be distinct and different, agreements are possible where interests are shared or where responses to interests are different but complimentary. When this occurs, opportunities exist to invent options for mutual gain (Fisher, Ury and Patton 1991). Therefore, the ‘Hats Off at the Door’ approach to participation ultimately enabled MAC members to view problems from a new perspective, which has had some positive implications for the resolution of disputes.

On the other hand, for some informants, the ‘Hats Off at the Door’ practice prompted concerns about participation, accountability and transparency:

I think when you have someone sit as a representative, there is responsibility to report back and there is an implied communication flow.... I think their concept was if you came as an individual you were less biased. You weren’t responsible to your association so you didn’t have to have a party line. You could be honest and come up with the very best situation. But the reality is you are not representing anyone.

Dominique, Commercial Fishing

Dominique suggests that because MAC members are not representatives, they are not obligated to communicate with their ‘constituencies’. This poses problems for external accountability. The various groups and individuals that sit as MAC members also have widely diverging opinions about organizing feedback to their constituencies. And, because they are not representatives, it is difficult for their ‘constituencies’ and the broader public to disentangle the lines of participation and mechanisms of consultation and accountability (in sensu Swyngedouw 2005). This is particularly problematic when Government states that they would like to use existing mechanisms such as the MAC in ‘consultations’ relating to marine activities such as the MPA network (Personal Observation December 17th, 2014; April 28th, 2015; also see DFO 2015). This

accountability dilemma is exacerbated by the fact that the MAC did not receive support for their communication plan.

According to the adaptive co-management literature, decentralized governance processes are supposed to promote accountability (Folke et al 2005; Lemos and Agrawal 2006; Plummer et al 2013). Here, accountability broadly refers to the allocation and acceptance of responsibility for decisions and actions, and the demonstration of whether and how these responsibilities have been met (Lockwood et al 2010:993). External accountability more specifically refers to accountability to people outside the acting entity, and who are affected by decisions (Keohane 2002). In partnership arrangements of governance-beyond-the-state such as the MAC, external accountability is assumed to occur through their involvement in particular segments of civil society, including their affiliated organizations, associations, and community groups (Swynegdouw 2005). However, concerns have also been raised in the literature about the degree to which discursive practices such as the ‘Hats Off’ policy undermine societal goals related to higher levels of democratic participation, particularly including the threat to lack of external accountability (Keohane 2002; Lemos and Agrawal 2006).

Multi-stakeholder arrangements such as the MAC do not constitute political arenas in the traditional sense in that they lack a ‘government as a centre’ of authority. Because the MAC is not characterized by representative participation, by definition it does not have the same traditional capacity to realize legitimacy and accountability that for example, sovereign states do (in sensu Hallstrom and Bostrom 2010:23; also see Benner et al 2004). The literature states that where accountability is unrealizable through representative participation and is informal, citizens’ need for accountability and

transparency is even more significant (Lockwood et al 2010). The MAC was therefore faced with a ‘legitimacy’ gap that required creating systems of accountability.

Interestingly, members of the MAC recognized this and had attempted to develop and implement a mechanism for accountability:

The communications plan was initially an incredible piece of work; however, it was cut with the loss of funding...it is one thing to take away the function but it is another to diverge from the philosophy of that and [I] feel that both are being done.

Clare, Conservation/Environment

The communication plan was not fully developed because there were conflicting views on what the committee could be. [For example] should it be a place where people could drop in and discuss issues and the committee would be a governing body that would go into communities to help formulate advice that would go back to the Government Secretariat? It was suggested that the MRP could get bogged down with this...[the] MRP didn’t get the office and [they] have not been able to communicate to the extent that they thought they would.

Arthur, Commercial Fisheries

These informants attribute failure to enact the communication plan (i.e. their mechanism to externally communicate with ‘constituents’) to a lack of support from the Government Secretariat. Because MAC members do not have a mechanism for individuals who may be influenced by a decision to learn about the decision-making process, including subject matter, structure and current status, the MAC’s means to achieve accountability and transparency are severely weakened (in sensu Dingwerth 2004:26).

6.5. The Role of Government at the Table

Recall that the MAC is served by a Government Secretariat, which consists of members from federal and provincial governments. The role of the Secretariat is described in the Terms of Reference (2015) as: “to support the Advisory Committee functions, including communications and correspondence with government departments”.

It is evident from interviews with informants that there is some uncertainty as to how this plays out in practice:

I guess we kind of scope the issues themselves when issues come up. We're trying to scope it, organizing the presenters, asking them to discuss things in terms of CVC type of criteria and things like that. It's more than just taking minutes for example. I think it's really trying to digest the material and have it ready to discuss at the meetings.

Lucas, Federal Government

So we're always there and we're doing logistics and keeping conversations going. It's not to hide stuff, it's not to distort or move stuff into another direction... we have that logistical support to have that voice of the people that are always there. Would we want to get to the point where the secretariat is much less there and never points anything into the agenda?

Mary, Provincial Government

These government informants propose that the Government Secretariat has both procedural and substantive responsibilities. Hallstrom and Bostrom (2010:88) confirm that organizing and convening meetings, establishing the agenda and handling rounds of comments in connection with agenda items is part of a Secretariat's day-to-day responsibilities. They also maintain that Secretariats are assumed merely to follow substantive and procedural rules, and to assist and perform their supportive technical role from a neutral perspective. But how does the 'Hats Off at the Door' policy apply to government participants in the MAC? Informants commented on this:

I like that idea but... I find it very unlikely that someone in a management position with DFO is really going to put something forward that is going to make their life more difficult once they put their hat back on... And the thing with 'Hats' is that it's ignoring the imbalances of power too, right?

Elias, Conservation/Environment

Because the 'Hats Off' policy does not apply to government, they cannot be neutral. This is corroborated by the literature which states that Canada's Parliamentary system derives from British tradition and a fundamental principle of this system is that

civil servants such as those on the Government Secretariat are fully accountable to Ministers. And Ministers are fully accountable to Parliament for all their actions and that of their departments. As such, government representatives on the Secretariat must work within the confines of the plurality of rules, structures, laws, norms and socio-cultural processes of the Canadian system (Marleau and Montpetit 2000; House of Lords 2012). Based on this Weberian rationale, they are unable to ‘Take their Hats Off at the Door’. Interestingly, the ‘Hats Off’ policy coincides with deliberative democracy which suggests it is a way to equalize power among participants during collaborative processes (see Clayton, Oakley and Pratt 1997; Tamarack Institute 2002). But, it is inconsistent with much of the conflict resolution side of the engagement literature which argues that a ‘Hats Off’ approach is a retreat from shared collaborative power to a more top down form of bureaucratic governance (Susskind, McKernan and Thomas Larmer 2000). This discrepancy between the two fields is perhaps captured through a Foucauldian perspective. For Foucault power is interactional and therefore outcomes cannot be simply be analyzed as a care of disempowering members of the MAC. Interactional power struggles are much more complicated as is demonstrated in the dual outcomes of the ‘Hats On’ role for government.

One advantage is that with their ‘Hats On’, the Government Secretariat plays a boundary spanning role, and their double alliance can in theory be both enabling and hindering. For some informants, the government role is supportive:

The role of the Secretariat is to coordinate governments to respond to the recommendations brought forward... We have an RCCOM [Regional Committees for Coastal and Oceans Management] process where issues in the marine environment are discussed and dealt with, which includes deputy ministers of various departments. Our own deputy minister is the one that facilitates input from the province of New Brunswick and we do our best to collaborate with

various departments on issues and we look to DFO to do the same type of thing federally. [RCCOM] has a good relationship.

Martin, Provincial Government

If recommendations are made to government, it's on government's onus to respond in writing as to how the recommendations were going to be addressed... Maybe we didn't do everything you wanted but this is what we were able to do...that provides some transparency and clarity and I think a little accountability too... I think having a formal mechanism through which government responds is a very positive thing.

Lucas, Federal Government

However, while the *Ocean's Act* has given Fisheries and Oceans Canada (DFO) the lead role in integrated oceans management, this is to be done in collaboration with “other ministers, boards and agencies, with provincial and territorial government [and] with affected aboriginal organizations, coastal communities...” (*Oceans Act S.C. 1996, c.31*; also see Pinkerton 1994; Melzer 1998). This goal is a comprehensive way of planning and managing human activities so they do not conflict with one another (DFO 2002; DFO 2004). Government in Canada, as in other nation states is no longer the only actor making decisions (Folke et al 2005; Swyngdouw 2005). A key consideration is inclusiveness, which refers to opportunities available for stakeholders to participate in and influence problem articulation, problem solving, and decision-making through collaboration and co-operation (Hughes et al 2005; Armitage 2009; Lockwood et al 2010).

This requires innovative governance arrangements that enable non-state actors such as members of the MAC to become involved in processes of making and implementing public policy. As Offe (2009) and others have argued, this approach makes for a more efficient state that leaves much of the ‘heavy lifting’ to other actors (Rose 1999; Swyngdouw 2005; Dean 2010). However, as Jentoft (2011) notes, this can be problematic, as it must take place within a wider governance endeavour that is a

calculated, collaborative, intentional goal-oriented process that encompasses the participation of public, private and state actors. In resulting efforts to steer governance, Miller and Rose (2008:55) suggest that political rationality plays an important role. Political rationalities are changing discursive fields within which the exercise of power is conceptualized and the moral justifications are given for particular uses of power and the limits of politics. From this perspective, the ‘Hats Off at the Door’ policy is useful to Government Secretariat members in that they are better able to direct processes, programmes and instruments. For example, the policy has allowed the Government Secretariat to enforce a discursive policy amongst MAC members that reduces the government need to deal with conflict.

Further, with their ‘Hats On’, or given their inability to switch categories (in sensu Hallstrom and Bostrom 2010), the Government Secretariat acts as a boundary organization⁴⁰ (in sensu Cash et al 2003) and the members of the Secretariat have entered into a double alliance (Miller and Rose 2008:28). They ally themselves with members of the MAC and translate their concerns and decisions so they might better manage issues in the marine environment. On the other hand, the Government Secretariat members also ally themselves with their agencies, departments and governments and focus on their problems, translating political concerns into management options. Thus, in the context of

⁴⁰ Cash et al (2003:8089) state that boundary organizations have at least three features: 1) they involve specialized roles within the organization for managing the boundary; 2) they have clear lines of responsibility and accountability to distinct social arenas on opposite sides of the boundary (i.e. government departments, agencies and the MAC); and 3) they provide a forum in which information can be coproduced by actors from different sides of the boundary through the use of “boundary objects”.

governance-beyond-the-state, and as Swynegdouw (2005) reminds us, governance is Janus-faced.

It is obvious from informant interviews that the government role has assisted the MAC to resolve conflict in two ways. First, Government Secretariat members are able to promote MAC recommendations to other government agencies through processes such as the RCCOM. Second, the government role requires the Secretariat to report back to the MAC about how recommendations are being used and addressed. According to Sandstrom, Crona and Bodin (2014) it is necessary to link arrangements such as the MAC to formal government structures and procedures and the Secretariat performs this function. It ensures compatibility between federal, provincial and local interests and this cooperation and coordination is vital for the efficient and strategic resolution of problems. From this perspective, the 'Hats On' double alliance of the Government Secretariat enables members of the MAC to better deal with conflict.

However, in a Janus-faced way, the 'Hats On' role of government is also perceived to hinder members of the MAC from fully engaging in governance. Habermas states that validity and truth are ensured where participants in a given discourse respect that no party affected by decisions is excluded. This assumes that in deliberative democracy institutions, individuals will respect these requirements and stakeholders will be allowed to come to the table to express their argument (Flyvbjerg 1998). Under MAC procedures, potential candidates for MAC membership can be identified by existing members and are appointed by Government Secretariat (MAC TOR 2015). When non-government informants were prompted to discuss this procedure, some commented on a problem case:

I think it's [the provincial government employee] that is blocking [the individual from conservation/environment] from being a member and I don't know exactly why. In terms of process, again that is another flag to me. The committee...represent[s] the community based on trust... Members of the committee have consistently said he would be a great person to be part of this and yet someone from the Secretariat or the Secretariat as a whole...are blocking his participation...

Gillian, Education

Yes, [he] is not on the MAC. Several of us have recommended that he should be but there is a reticence on government's part. I'm trying to have [him] on the MAC... [He] has been outspoken against some activities in the aquaculture industry and you know, that's the only thing I can put my finger on... But quite frankly if the industry can't withstand the public scrutiny, things have to change.

William, Aquaculture

In this case, the informants point out that a stakeholder from conservation/environment was excluded because he had challenged the aquaculture industry on their environmental practices in the past. Arguably, the stakeholder from conservation/environment was seeking to get the issue put on the public agenda, not primarily by rational consensus, but through open contestation (in sensu Flyvbjerg 1998:226; also see Takeda and Ropke 2010). It was possible to argue then that he did not meet the criteria of constructive participation. The provincial government member of the Secretariat apparently tried to constrain conflict by blocking the participation of the conservation/environment stakeholder, which in effect silenced that voice⁴¹ (Flyvbjerg 1998; Mattai and Nader 2008). The double alliance of the Government Secretariat influenced who they wanted to participate at the MAC table and who should be excluded from participating (Fung and Wright 2001; Hallstrom and Bostrom 2010).

⁴¹ It should be noted that the conservation/environment stakeholder was eventually invited to join the MAC; however, this only occurred after the Secretariat provincial employee who blocked the appointment was no longer involved.

There are two potential consequences of ‘discouraging radicalism’. First, potential appointees to the MAC may “forum shop” to have their issue addressed elsewhere. This is where users and stakeholders ‘shop’ for the proper forum for the resolution of disputes when they: cannot find venues to help them address conflict; are not satisfied with venues; or are the losers in another forum (K. von Benda-Beckmann, 1981; Bavinck et al 2013). This is illustrated for example in a comment made by Dominique from Commercial Fisheries:

The most promise, really, is us going to the media and saying whatever the aquaculture industry is doing at the moment because they hate negative publicity.

Clearly “forum shopping” is taking place in the marine planning area as the media is a potential alternative forum to air disputes. The second consequence of ‘discouraging radicalism’ (in sensu Kerner 2010), is illustrated when potential appointees to the MAC, and arguably also those internal to the arrangement (ex. those involved in working groups), must distort their political agenda if they want to participate and contribute to recommendations and advice on policy. In the process, the political agendas of those actors become skewed. In both forum shopping and in distorted political agendas, contentious issues are not expressed and legitimised but rather are stifled. Both the conflict resolution literature (Thomas and Killman 2001; Bartos and Wehr 2002) and the Foucauldian perspective on power and conflict state that the consequences of avoidance are likely to be negative.

These consequences coincide with Flyvbjerg’s (1998) criticism of “communicative rationality”. Not all conflicts can be resolved through dialogue and consensus may not be a viable outcome. Furthermore, Flyvbjerg and others (Burchell et al 1991; Rose 1999; Dean 2010) argue that the communicative rationality approach

ignores the fact that individuals who express resistance or ‘counter conduct’ may have value in the political process. This literature reminds us that democratic change has not emerged solely from rational discourse and consensus, but also from contestation and resistance, which have historically urged the transformation of regimes of practice that are deemed unjust. They do this by proposing alternative futures and by giving new possibilities to our thought (Flyvbjerg 1998; Rose 1999; Dean 2010; Takeda and Ropke 2010).

Informants also raised the setting of agendas as another issue where the ‘Hats On’ role of government hindered MAC members from positive engagement in governance. The literature states that a deliberative decision-making process should first construct an agenda. Procedurally, this involves proposals from stakeholders about what group priorities should be, justified in terms of their capacity to advance common interests (Fung and Wright 2001; also see Strauss 1999; Bavinck et al 2005; Jentoft 2007; Biermann and Pattberg 2008; McFadden 2008). Fung and Wright (2001:19) explain that choices will be fair if groups adopt reasonable proposals rather than those based on self-interest or political influence. Participants can then discuss the strategies that will best advance the group agenda and adopt those that are most promising.

There are several ways issues can be put on the MAC agenda. MAC members can raise issues that are of interest to them, or that are emerging in their communities or industries; the Government Secretariat can bring topics forward that are emerging in government circles; and anyone can make suggestions through the MAC’s website. In order to prevent privileging some issues over others (in sensu Takeda and Ropke 2010), the MAC is co-chaired by a citizen and either the Regional Director General of DFO, or

the Deputy Minister of NBDFAA. Clearly, this procedure has challenges with respect to setting the agenda, as two informants explained:

I think at the beginning it became a little bit too much of a government-run agenda... We do have a website and certain things from the website have not made it to the table. I'm hoping they will in the future... Because the Secretariat decides, or brings people in to make these presentations, some of [the meetings] have been exceedingly long and so you don't have much time to discuss and move an issue on.

Clare, Conservation/Environment

Ok, well the Secretariat; we were criticized for coming up with agenda items without getting enough input for what people wanted, and it was kind of like: "well, this is the government's agenda". So we tried to reach out more to get ideas of what to talk about... I don't know if [people] were being listened to as much as they should have been. But the purpose of this committee was that we, and I don't know if they understand this well enough, that when we have things come up, we're looking for their advice. And that's the way an advisory committee works.

Timothy, Federal Government

It is evident from these comments that both government and non-government informants believe that Government controls the agenda.

Timothy's argument specifically suggests that MAC members are limited to addressing agenda items that are of government concern. There is also data to suggest that where they are not of concern, or are contentious, the Government Secretariat resists having them placed on the agenda. This is illustrated in the case of the St. Andrews Biological Station (SABS) Library issue. Several MAC members wanted it placed on the agenda but had difficulties in doing so:

The library at the biological station... A number of people in the MAC identified that as a concern... The agenda that...the Secretariat pulled together did not include [that] discussion... I raised the question why and asked it to be put back on, because there were several people here who asked for it to be discussed. That elicited negative feedback here from DFO, well both [levels of government?] actually.

William, Aquaculture

One of the things I found surprising is some of the issues and one in particular...did not conform supposedly to the guidelines... This particular issue concerned the closure of the Biological Station Library.

Aaron, Education

Tracy, a Federal Government employee, commented on this issue:

My intervention was that that decision was taken. It was a budget decision. I wasn't really clear about the MAC having a discussion on the item and [what] the expected outcomes of that were. Because, if as a federal co-chair of this group, if the possible outcome would be that the MAC would discuss this and then provide some sort of recommendation that the decision should be re-examined, it really put me in a conflict position.

Here, Tracy expresses concern about a potential conflict for government participants and doubt about what the expected outcomes might be if the MAC were to have a discussion on the topic.

Townley (2008) explains that in decision-making under uncertainty, knowledge of the range of options can also be uncertain; that is, their probability is unknown and therefore the outcomes are unknown. Tracy's response could be seen as an attempt at 'domination' in that she did not recognize a capacity for action and adjust to it. Instead she attempted to prevent the MAC from addressing the SABS issue (in sensu Rose 1999:4). However, recall from the previous section on 'Dealing with Conflict' that other contentious issues such as MPAs, ISA and marine debris, were brought to the MAC table by both MAC members and the Government Secretariat and addressed. It can be argued then that a different rationale is required to explain why it was difficult for MAC members to have the SABS library placed on the agenda for discussion.

Dean (2010) states it is important to remember that government is not purely technical; that *real politik*⁴² comes into play as well. In this case, members of the Government Secretariat are subject to the bureaucratic framework as described by Weber (1958), which continues to exist as the primary approach to government. Townley (2008:50) maintains that the effectiveness of the bureaucratic administration depends on the principle of hierarchy whereby each lower unit is under the control and supervision of a higher one. The top of the hierarchy is the Minister of DFO who has discretionary powers as authorized by the *Fisheries Act R.S.C, 1985, c.F-14*. As a federal employee, Tracy had to protect the decision made by her Minister (see Kearney et al 2007). Bureaucracy also functions according to ‘calculable rules’ such that the incalculable must be eliminated (Townley 2008). Arguably, the Government Secretariat tried to exclude the library topic because it was incalculable or to limit the discussion so as to make the outcome calculable. For example, once the SABS library was put back on the agenda, Tracy suggested that the Director of SABS should come in to speak to the MAC, but MAC members did not follow up on this option. In this case, Tracy’s ability to respond effectively was limited by her double alliance, and this in turn blocked the ability of the MAC to address a politically controversial issue to their satisfaction.

6.6. Conclusion

In discussing differing perceptions of risk and the types of conflict that emerged as a result with members of the MAC and government secretariat, several themes emerged. The first theme was the deliberate exclusion of an institutional dimension in the CVC

⁴² Italics is that of Dean (2010).

which arguably had consequences for the MAC. Because there was no dialogue at the outset about what member's value, and therefore identify as a risk to governance processes, there was no normative framework from which the MAC could assess the relationships between the State, the Government Secretariat, members of the MAC and their constituents. Consequently, insufficient attention was paid to relations and manifestations of power. This had significant implications for the ability of MAC members to engage in conflict resolution and governance processes such as participation and it weakened the capacity of the MAC to be transparent and accountable to their constituencies. Had there been a dialogue about the types of institutional values that should have been included in the CVC from the outset, I argue that some of the unintended and unanticipated consequences that have emerged in the above three themes could have been predicted and addressed earlier.

With respect to the second theme "Dealing with Conflict", federal and provincial governments developed the MRP to address conflict, but as an advisory committee, the MAC is not considered an appropriate venue for dispute resolution. Despite this, the MAC is in fact addressing contentious issues. Using rational discourse, they have dealt with ISA and developed recommendations for government on topics that have caused conflict in the past including MPAs and marine debris. These processes also included collaboration and communication between members of MAC and the broader community who have authority and jurisdiction on the issue, or who have local knowledge. Their approach is not consistent with conflict resolution literature, which states that conflict types need to be identified so that they can be addressed both conceptually and procedurally using a process that is consistent with each conflict type. This suggests

discontinuities between the MRP's stated objective to resolve conflict and how in fact the MAC has reduced conflict. The source of the discontinuity could be the reluctance by both the federal and provincial government to commit resources and give power over conflict resolution to the MAC. Arguably the governments are trying to suppress non-consensual forms of conflict in favour of rational discourse, cooperation and consensus. However, there is a danger that this approach will stifle dissent and create resistance, struggle, contestation, and exclusion. If dissent is too tightly repressed, it will find another outlet.

With respect to the third theme which was the 'Hats Off at the Door' policy, informants argue that this practice helped to reduce conflict because MAC members are not bound by organizational policy and they do not have to sacrifice personal values in favor of group values, but can instead exercise personal judgment. 'Hats Off' ultimately enables people to engage in "constructive controversy" and "separates people from the problem". The literature however, advocates representative participation because it promotes accountability. Interestingly, informants raised concerns about the influence of this practice on participation, accountability and transparency. Specifically, they suggested MAC members are not obliged to communicate with 'constituencies' and this poses problems for 'external' accountability. MAC members have widely diverging opinions as to how their constituencies will receive feedback. And because they are not representatives, it is difficult for the broader public to understand mechanisms of consultation and accountability. This is particularly problematic when the Government states that they would like to use existing mechanisms such as the MAC in 'consultations' relating to marine activities. This accountability dilemma is exacerbated

by the fact that the MAC did not receive support for their communication plan from the Government Secretariat. Given the lack of a common mechanism to satisfy individuals who want to learn about the decision-making process, the MAC's aim to achieve accountability and transparency is severely weakened.

With respect to the fourth theme of "The Role of Government at the Table", Integrated Management is supposed to be driven by DFO in collaboration with others. A key consideration is inclusiveness, such that stakeholders can influence problem articulation, problem solving and decision-making. The role of government at the MAC table is understood by informants to be both procedural and substantive and the literature states this is assumed to be a neutral role. However, government members cannot be neutral. The role of government enables MAC to resolve conflict because the Secretariat members are able to promote MAC recommendations with other agencies and governments (eg. Regional Committees on Coastal and Oceans Management (RRCOM)). It also requires the Secretariat to report back to the MAC members about how recommendations are being addressed. 'Hats On' for government members also hinders important stakeholders from engaging in governance, as when a provincial member of the Secretariat blocked a member of the conservation/environment sector from participating. This Secretariat member was inappropriately influencing who could participate and how. "Hats On" by government members also effected agenda setting, as is illustrated by the SABS library issue.

In the final chapter, I will use a summary of my analysis in this chapter to make three sets of recommendations: first to members of the MAC and the Government Secretariat so that they can mitigate deficits and maintain a high level of public

engagement through the MAC process; second, to the CFRN Project 1.1 members so that they can further the development of the Fisheries Evaluation Framework as a normative tool to assess the sustainability of the Canadian Fisheries; and third, to academics who wish to improve the adaptive co-management literature so as to enhance ‘good governance’ of the marine environment.

Chapter 7: Recommendations

In the previous chapter the role of conflict in either enabling or hindering innovative institutions for adaptive co-management was analyzed by asking questions about conflict and power dynamics. In this analysis the Bay of Fundy Marine Advisory Committee (MAC) Community Values Criteria (CVC) was compared to the Canadian Fisheries Research Network Project 1.1 Fisheries Evaluation Framework⁴³ and it was discovered that the CVC is missing an institutional dimension. The deliberate exclusion of this dimension was found to have consequences for the MAC. Specifically, it negatively impacted their ability to engage in conflict resolution and governance processes such as broad participation, transparency and accountability. As I have shown, the literature suggests some reasons for this impact: discontinuity between the stated objective to resolve conflict and how in fact conflict has been reduced⁴⁴; reluctance by both levels of government to commit resources and devolve power over conflict resolution; the suppression of non-consensual forms of conflict in favour of rational discourse; non-representative participation, which influenced external accountability and transparency; and a non-neutral government role which enabled them to influence who could participate and how, in addition to controlling the agenda.

⁴³ Recall that the development of the Fisheries Evaluation Framework has been an iterative process and has so far taken at least four forms. I am comparing the CVC to Version 2.0 because my work was completed before the other versions emerged.

⁴⁴ Note that in some cases informants denied that conflict resolution had ever been an objective.

Although failure to address these issues has hindered the MAC from reaching their full potential as an innovative institution for adaptive co-management, due attention to principles of conflict resolution and adaptive co-management, in addition a better understanding of the critical perspective and style of thought of governmentality (in sensu Lemke 2013), could remove some of the barriers that have prevented effective governance. I argue that these principles can help address the deficiencies with which members of the MAC and Government Secretariat are currently confronted and can thereby achieving better standards of ‘good governance’. Following the principles of Participatory Action Research, this chapter will draw upon the lessons learned in the previous chapters to make three sets of recommendations: first for members of the MAC and the Government Secretariat so that they can mitigate deficits and maintain high level of public engagement through the MAC process; second, for the members of Project 1.1, so that they can improve the Fisheries Evaluation Framework as a normative tool to assess the sustainability of the Canadian Fisheries; and third, to academics on how to improve the adaptive co-management literature so as to enhance governance of the marine environment.

7.1. What this Case Study Suggests: How can the MAC Move Forward?

Canada’s *Oceans Act S.C. 1996, c. 31* states:

The Minister, in collaboration with other ministers, boards and agencies, with provincial and territorial governments and with affected aboriginal organizations, coastal communities...should facilitate the development and implementation of a national strategy for management...based on principles of b) integrated management.

The *Oceans Action Plan* (DFO 2005b) states: “Integrated management is a comprehensive way of planning and managing human activities so that they do not

conflict with one another... It is an open, collaborative and transparent process". The MAC process is consistent with this approach. Furthermore, the MAC fills a vacant niche of advice for integrated management of multiple activities with a comprehensive 'community lens' (i.e. the CVC) (in sensu Lane and Stephenson 1995; 2000; Stephenson and Lane 2010). However, there are issues that require significant attention and remediation. In the previous Analysis Chapter, these issues were examined through three themes ('Dealing with Conflict', 'Hats Off at the Door', and 'The Role of Government at the Table') identified as key to developing new institutions.

The purpose of the first section of this chapter is to make recommendations to the MAC and the Government Secretariat⁴⁵ on how they should move forward as an innovative institution for adaptive co-management. Government and other members of the MAC have achieved higher levels of public engagement through the original Bay of Fundy Marine Resources Planning Initiative (MRP) and the subsequent MAC processes. If both levels of government and members of the MAC want to maintain these high levels of public engagement they need to recognize the deficits identified here and address them.

<p>Recommendation 1: Explicit recognition of and commitment to a conflict resolution body.</p>

⁴⁵ It is important to note that in the Chapter 6 Analysis I made a significant distinction between the Government Secretariat and the MAC and therefore the results and recommendations will be relevant in different ways.

As was illustrated in the previous chapter, the MAC and the Government Secretariat were committed to serving as a conflict resolution body in Phase 1 of the process; however, by Phase 3 this recognition and responsibility had disappeared. The resulting deficit has made conflict difficult to deal with in a transparent manner. Therefore, to mitigate this deficit, I recommend that members of the MAC and Government Secretariat explicitly recognize and commit to being a conflict resolution body.

Arguably, if members of the MAC and the Government Secretariat do this, they will invest in the capacity to and be ready for conflict. This involves identifying conflict types and addressing them with distinct conceptual and procedural considerations (Felstiner, Abel and Sarat 1980; Moore 1996; Susskind, McKearnan and Thomas-Larmer 1999). Furthermore, a capacity for problem solving and conflict resolution offers a resilient model for civil society, which in turn creates engaged communities and responsive governance (Dukes 1993; Flyvbjerg 1998). Ultimately, with this explicit mandate, members of the MAC and the Government Secretariat can be prepared to address policy conflicts in the future.

Recommendation 2: Allow for the possibility that consensus may not be the only viable outcome and that resistance and contestation might be productive ways to move forward. Where institutions to deal with conflict are developed, resources must be committed and power must be devolved over conflict resolution.

The analysis in the previous chapter suggested that members of the MAC and Government Secretariat favour a 'communicative rationality' approach (Flyvbjerg 1998; Takeda and Ropke 2010; Linke and Jentoft 2014) to conflict resolution. While informants stated that the current MAC is not a conflict resolving body, they are in fact addressing conflict using rational discourse, which is non-coercively unifying and consensus based. This disconnect between the MRP's stated conflict resolution objective and how in fact the MAC has dealt with conflict was attributed to the unwillingness by both levels of government to commit resources and give power over conflict resolution to the MAC. This resulted in the claim that the governments are trying to suppress non-consensual forms of conflict in favour of dialogue and agreement. Nader and others suggest this type of process can open the door to the abuse of power. Power is not evenly distributed amongst stakeholders, nor do they all have equal access to resources. Further, each stakeholder and their constituents have different types of relationships with government and therefore their capacity to influence government varies considerably. The example of the attempt by the Government Secretariat to stifle dissent by excluding a stakeholder who publicly criticized the aquaculture industries environmental standards is an example of the concerns expressed by Nader, Takeda and Ropke and others. Recall that if resistance is too tightly repressed, it could find another, potentially more damaging channel for expression (Flyvbjerg 1998; Nader 2001; Mattai and Nader 2008). Therefore, I would recommend that members of the MAC and particularly the Government Secretariat allow for the possibility that consensus may not be the sole and best approach for resolving conflict, and that resistance and contestation should not be stifled in favour of a deceptive harmony.

It is important to point out that this recommendation does not suggest that consensual forms of conflict resolution are bad or are not needed. Innovative institutions such as the MAC are indeed needed, and rational discourse has its uses, as is evident from the Analysis in Chapter 6. It does indicate however, that non-consensual forms of dealing with conflict such as activism and arbitration should also be considered legitimate and constructive ways forward in dealing with some conflicts, and will be all the more likely if voices are not heard at the co-management table (Flyvbjerg 1998; Nader 2001; Mattai and Nader 2008; Linke and Jentoft 2014). Not all disputes can be resolved through consensus. A separate but related consideration is if there is genuine interest in developing institutions to address conflicts between stakeholders through ‘communicative rationality’, Government must commit resources and devolve power over conflict resolution, otherwise the exercise is considered “window dressing” (in sensu Arnstein 1969).

Recommendation 3: If members of the MAC retain the ‘Hats Off at the Door’ policy, it is important that support and resources be provided by government for the development and implementation of a communication plan.

In the previous chapter it was argued that the ‘Hats Off at the Door’ policy created problems for MAC’s ability to be externally accountable and transparent with their different constituencies. This was exacerbated by the fact that members of MAC did not receive support from the Government Secretariat for a proposed communication plan. Although members of the MAC are not representatives per se, they are engaging with and

learning from others in the MAC venue. Swyngedouw (2005:1995) highlights this in suggesting that innovative institutions are “presumably horizontal, networked and based on interactive relations between independent and interdependent actors who share a high degree of trust, despite internal conflict and oppositional agendas, within inclusive participatory or organizational associations”. However, members of such innovative institutions are also affiliated with others ‘of their type’ through membership in associations, and organizations. The governmentality literature reminds us that constituents need to be able to make the connection between lines of participation and mechanisms of consultation and accountability, and to ask questions about the decision-making processes (in sensu Keohane 2002; also see Swyngedouw 2005; Lemons and Agrawal 2006). Therefore, members of innovative institutions such as the MAC have an obligation to be transparent with and accountable to constituents about what is going on ‘at the table’. Without this, a democratic deficit will be created and the parameters of political democracy will be changed, thus undermining the very promise of greater democracy and grassroots empowerment that innovative institutions offer (in sensu Swyngdouw 2005). The literature on adaptive co-management states that adequate funding, time and resources must be provided so that decentralized governance processes can achieve this democratic goal (Melzer 1998; DFO 2002; Kearney et al 2007; Koontz 2006; Armitage et al 2009). Therefore, I recommend that if members of the MAC retain the ‘Hats Off at the Door’ policy, it is essential that government provide support and resources for the development and implementation of a communication plan so that members of the MAC can be accountable to and transparent with their constituents. Funding by government for a communication plan also demonstrates that as a ‘boundary

organization' (in sensu Cash et al 2003) they have not forgotten what their democratic objectives are while they participate in *real politiks* (actual political processes). Further, to balance the 'Hats Off' deficiency, I suggest that there be some allowance of discussion with 'Hats On' so long as it is explicitly made clear that members will be speaking from this perspective.

Recommendation 4: Give explicit consideration to the fact that members of the Government Secretariat cannot 'Take their Hats Off at the Door' and of the implications this has for their role at the table.

In the analysis chapter, the 'Hats Off at the Door' policy was analyzed not only as it relates to members of the MAC, but also to members of the Government Secretariat. It was argued that the 'Hats Off' policy does not apply to government and therefore they cannot be neutral. This raises the question as to how the 'Hats Off' policy is going to work in real life. As the analysis demonstrated, the Government Secretariat must work within the boundaries of the Canadian Parliamentary system and the plurality of rules, laws, norms and socio-cultural processes that characterize it. At the same time, however, the Government Secretariat are linked to and have allied themselves with the members of the MAC who have become involved in processes of making and implementing public policy. The governmentality literature and the literature on governance more broadly, states that while this practice might make the state more efficient, it also takes place within a wider governance exercise that is calculated and goal oriented, and that includes the participation of public, private and state actors (Rhodes 1996; Swyngdouw 2005;

Jentoft 2011; Offe 2009). This results in unintended and unanticipated consequences. In an effort to steer governance processes, the 'Hats Off' policy became useful for the Government Secretariat in that they enforced it amongst MAC members to reduce conflict. It also influenced the Secretariat's ability to decide not only who could participate and how, but who would set the agenda. In a more positive fashion, the inability of the Government Secretariat to take their 'Hats Off' enabled them to be accountable to both MAC members and their government departments and agencies. The Secretariat's participation in RCCOM processes and their requirement to communicate back to the MAC as to whether their recommendations were used or not are examples of this. This government role was both positive and negative and not neutral. Given that the Secretariat's role at the table is not neutral, I recommend that explicit consideration be given to the fact that Members of the Government Secretariat cannot take their 'Hats Off at the Door' and to the implications that this has for their role at the table. This disclosure prevents a sleight of hand whereby the Government Secretariat pretend (either intentionally or unintentionally) that they have their 'Hats Off', and allows members of the Secretariat and the MAC to recognize the Secretariat's limitations as a 'Boundary Organization' (in sensu Cash et al 2003). However, a discussion of this nature should also address the positive effects that this government role can have. Ultimately, the purpose of this recommendation is to make the management system more robust by designing it to make it less sensitive to structural uncertainty (in sensu Charles 2007:92). This raises the question as to whether this 'Hats On' position can be moderated. I would suggest that unless the Minister(s) provide members of the Secretariat with permission to take their 'Hats Off', it cannot be abated. And, permission from the Minister is not likely

to happen because of the Bureaucratic nature of government and more specifically because of Ministerial discretion as authorized by the *Fisheries Act R.S.C, 1985, c.F-14*.

Recommendation 5: Institutional values need to be added to the CVC.

At the beginning of the previous Analysis Chapter, it was argued that the lack of institutional elements and values within the CVC had led to consequences for members of the MAC and to its success as an innovative institution for adaptive co-management. The consequences included: limiting the ability of MAC members to engage in conflict resolution and governance processes; weakened capacity to be transparent and accountable to MAC constituencies; and lack of consideration for the fact that the Government Secretariat is not neutral and the implications of this for their role at the MAC table. These deficits are reviewed in the above paragraphs. Arguably, had there been institutional values on the CVC from the onset, perhaps some of the unintended and unanticipated consequences that emerged in this research could have been predicted and addressed earlier. This accords with the international literature which states that a specific attention to a governance dimension and associated values can guide and measure characteristics of ‘good governance’. Values of this type reflect aspects of the relationship between a government and its society, in addition to stakeholders and their constituencies; they provide a normative framework within which these relationships can be judged; and measure how well the actual relationships at the local, regional or national level adhere to that normative framework (Dutta 2012:438). In the absence of an institutional dimension and values, an assessment of ‘good governance’ is difficult and

not likely to occur. Therefore, I recommend that institutional values be added to the CVC. Given the challenges identified in the themes ‘Dealing with Conflict’, the ‘Hats Off at the Door’ policy, and ‘The Role of Government at the Table’, the following are some institutional values on which to reflect:

- a) What are the conflict resolution approaches available to deal with disputes?

In assessing this value, consideration should be given to both consensual and non-consensual forms of conflict.

- b) Is there evidence that conflict is being stifled or avoided?

This could include distortion of political agendas; escalation in conflict; and forum shopping.

- c) How do categories of stakeholders’ influence participation levels?

This could be both positive and negative and might include help to resolve conflict, inappropriate control over the agenda, and over who can participate and how.

- d) Is there evidence of and support for effective mechanisms of accountability and transparency?

Mechanisms might include a communication plan; a website for public information; coordination and organization of feedback to constituencies; progress reports; clear instructions on how constituencies can bring issues forward.

<p>Recommendation 6: The CVC needs to be formally applied in order to explicitly address trade-offs among diverse values and to provide advice and recommendations to government with full knowledge of the anticipated consequences.</p>
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In Chapter 6, informants suggested that the subjective processes involved in ranking values on the CVC was difficult and that this was one reason that the CVC was not being formally applied. The literature on post normal science, risk management and adaptive co-management suggest that in order for environmental controversies to be turned into successful action in management and governance, frameworks such as the CVC must be implemented and used. Recall from the analysis in the previous chapter that the literature on risk management argues an explicit focus on values helps to explain varied perceptions of risk. People understand and judge risks in terms of emic, locally defined values and concerns (Boholm 2011; also see Giddens 1999; Klinke and Renn 2011; Davies and White 2012). Thus values and risk are inherently connected and today a good deal of political decision-making is about managing risk and the conflicts that derive from it (Giddens 1999; Klinke and Renn 2011). But because risk is a heterogenous phenomenon it precludes standard evaluation. Yet, risk management and policy would be overwhelmed if each risk needed its own approach to evaluation and management. Therefore, what is required is a concept that ensures the integration of social diversity, multidisciplinary approaches, and institutional routines and protocols that are easy to implement (Klinke and Renn, 2002). It was argued that the CVC considers a full suite of ecological, social, cultural and economic values in a transparent and simple manner and that the MAC provides a venue where values and objectives can be discussed and promoted in planning exercises. Using an expert-based exercise such as MSE and a ‘communicative rationality’ approach can help the MAC and the Government Secretariat to develop scenarios for comparison (ibid). This not only makes trade-offs between values and activities explicit but results in decisions being made in full knowledge of

anticipated consequences. And the unintended or hidden consequences are prevented as far as possible (Begg et al 2015). This is particularly significant given that the MAC has been authorized to provide recommendations to government, who will make decisions in light of trade-offs (See Lane and Stephenson 1995; 2000; Stephenson and Lane 2010).

7.2. What does the Case Study and Literature Suggest about the Project 1.1

Fisheries Evaluation Framework and Why is that Important?

The purpose of this section is to identify strengths and weaknesses of the CFRN Project 1.1 Fisheries Evaluation Framework (version 2.0) and to provide recommendations where appropriate. It is evident from the Analysis in Chapter 6 that my findings are primarily in the Institutional Domain and the recommendations will therefore reflect this. The recommendations have been developed using the grounded experience of the MAC in addition to the literature on governmentality, adaptive co-management and conflict resolution.

Identifying strengths and weaknesses in the Fisheries Evaluation Framework is important for a number of reasons. A central feature of neo-liberal political philosophy is the technology of performance. Technologies of performance make things calculable and comparable so that they can be optimized (Dean 2010). Based on this description, I would argue that sustainability frameworks such as the CFRN's Project 1.1 Fisheries Evaluation Framework serve as a technology of performance. The Fisheries Evaluation Framework is a comprehensive set of elements, indicators and attributes that broaden commonly considered indicators from the ecological and economic domains to include social and institutional aspects of fisheries sustainability. The framework can thus be

used to monitor, assess and understand ecosystem status, impacts of human activities and effectiveness of management measures in achieving management objectives. Further, it can be used as a facilitation tool and organizing structure to discuss and debate inevitable, yet often implicitly addressed issues such as trade-offs between dimensions and elements, and cumulative impacts (Student Indicator Working Group 2014). In this sense, the Fisheries Evaluation Framework is also normative in that it prescribes norms or standards and thus expresses value judgments about what ought to be.

The way we think about exercising authority and using the framework as a technology of performance draws upon the expertise, vocabulary, theories, ideas, philosophies and other forms of knowledge that are given and available to us (in sensu Dean 2010:25). It is therefore important to think about how the conditions of producing technologies of performance such as the Fisheries Evaluation Framework influence the kind of knowledge that elements and indicators provide, and how the Framework influences the distribution of power between and among those who govern (the users) and who are the governed (the targets) (Davis et al 2010:4; Parlee and Wiber 2015). More specifically, consideration must be given to what is at stake when we try govern in a particular way and try to employ certain ways of thinking and acting (in sensu Dean 2010:49; see also Beckley and Burkosky 1999). The following recommendations for the Project 1.1 Fisheries Evaluation Framework will take this critique about technologies of performance into consideration.

7.2.1. Domain: Institutional

The inclusion of an institutional domain, elements and indicators in the Project 1.1 Fisheries Evaluation Framework implies that it is a key ingredient in the sustainable

development and management of marine resources. The case study research from Chapter 6 and the literatures on sustainability and governmentality support this. The international literature on sustainability increasingly recognizes that the ecological, economic and social pillars need to be complemented by an institutional dimension. The institutional dimension is important because it can guide and measure characteristics of ‘good governance’ and determine how well relationships at the local, regional and national level adhere to those standards (Dutta 2012). Although the importance of including an institutional dimension has gained appreciation, the governance literature states that in contrast to the ecological economic dimensions, it is not nearly as well articulated (Dahl 2012; Bostrom 2012; Begg et al 2015). The implications of a weak or absent institutional pillar are significant. As the grounded experience of the MAC demonstrated, without attention to institutional values there is risk that improvements to governance such as conflict resolution, transparency and accountability will be traded off unintentionally in favour of the other dimensions (in sensu Bostrom 2012).

The co-operation element recognizes that conflict in the marine environment is inevitable. The element also suggests that conflict should be addressed rather than missing the opportunity to resolve conflict or simply avoiding it.

Element	Indicators	Attributes
Co-Operation: best efforts are made to address conflicts between stakeholders.	Degree to which [co-operation criteria] exist.	Co-operation criteria: Disputed decisions; disputes resolved; availability and use of third party conflict resolution

		services; ministerial intervention.
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Arguably this is a strength in the Project 1.1 Fisheries Evaluation Framework and both my case study results and the literature support it. The analysis determined that the MRP was initially established to deal with conflict between actors in the Bay of Fundy who have a diversity of interests and values. Specifically, the provincial and federal governments intervened and brought marine resource users together to address power relationships between actors. They created a ‘power neutral forum’ whereby actors were given equal time to speak and information was shared amongst all user groups. As such, the power of all user groups was expanded, rather than allowing one group to dominate at the expense of others (in sensu Pirie 2000; Coleman 2000). The objective was to resolve disputes rather than avoid them. This was important because conflict between marine users was hindering governance and management of the planning area. Until the creation of the MRP, there was no comprehensive management approach that could effectively address these issues.

The literature in Chapters 2 and 6 state that conflict in the marine environment, particularly that which arises from ‘wicked problems’, is bound to happen. Given their complexity, the literature on adaptive co-management states that wicked problems require the development of innovative institutional arrangements that are explicitly dedicated to governance concerns such as conflict resolution (Hughes et al 2005; Folke et al 2005; Lemos and Agrawal 2006; Kearney et al 2007; Jentoft and Chuenpagdee 2009; Armitage et al 2009; Lockwood et al 2010; Jentoft 2011; Zips and Weilenmann 2011). In the absence of an innovative institution and a commitment to address conflict, two

consequences can arise. The first is a missed opportunity to deal with policy conflicts because of lack of capacity and unpreparedness. As discussed in Recommendation 1 to the MAC, a readiness for dealing with conflict enables conflict to be rendered technical and diagnosed, which enables actors to set the direction for solutions and for action (Rose 1999; Li 2005; also see Felstiner, Abel and Sarat 1980). The second consequence is avoidance. This occurs where an individual does not immediately address either their own concerns or those of the other person. This might take the form of diplomatically sidestepping an issue, postponing an issue until a better time, or simply withdrawing from a threatening situation. The literature on conflict resolution and governmentality states that while avoidance can have productive consequences⁴⁶, overall the results are unassertive and uncooperative and thus unconstructive (Thomas and Killman 2001; Coser 1956; also see Parlee 2011; Flyvbjerg 1998; Nader 2001; Nader and Mattai 2008). Alternatively, conflict should be valued and actors should commit to addressing it because it can revitalize existing norms, or develop new ones. Further, it can create personal and social change (Pirie 2000; Coser 1956; Nader 2001; Mattai and Nader 2008; also see Flyvbjerg 1998). Because the Project 1.1 Fisheries Evaluation Framework reflects this argument on how to address conflict, users and targets of the framework will be at an advantage in assessing co-operation.

The resources element and its indicators are a strength in the Project 1.1 Fisheries Evaluation Framework for two reasons. The first indicator “types of [Conflict Resolution

⁴⁶ Productive consequences include allowing for tensions to be reduced to a constructive level where perspective and composure can be recovered, or allowing time to generate information that outweighs the advantages of an immediate decision.

Approaches] available to deal with disputes” suggests that there should be several different approaches available to resolve conflict in the marine environment.

Element	Indicators	Attributes
<p>Resources: funding and other support is adequate and reliable.</p>	<p>Types of [Conflict resolution Approaches] available to deal with disputes.</p> <p>Level and duration of [Support] for [General Management Activity] amongst [Stakeholder Group].</p>	<p>Conflict Resolution Approaches: mediation; negotiation; rights based Court system; activist approach.</p> <p>Support: financial; human resources; technical; logistical.</p> <p>General Management Activity: planning; policy making; decision-making; communications.</p> <p>Stakeholder Group: Aboriginal communities; industry; resource users;</p>

		provincial and federal government.
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This resources element and its indicators are of value to the Project 1.1 Fisheries Evaluation Framework, as is supported by my research results and by the literature on governmentality and conflict resolution. The Analysis Chapter argued that MAC relied on ‘communicative rationality’ and that to a certain extent, rational discourse has helped the MAC to resolve issues that have been brought to the table. However, this might not always be the case. The governmentality and conflict resolution literature warns that solely relying on this approach could suppress dissent to the point where it finds an outlet with unexpected consequences. Therefore, both bodies of literature highlight the use of other practices (Flyvbjerg 1998; Nader 2001; Morris 2002; Pirie 2002; Mattai and Nader 2008). Although rights or entitlement-based approaches such as court adjudication are usually the first to come to mind, other legitimate processes include arbitration, negotiation, mediation, conciliation, and non-violent direct action such as activism and protests (see Morris 2002; Pirie 2002).

The other reason the resources element and its the indicators are an advantage to the Project 1.1 Fisheries Evaluation Framework is because of the link it makes between conflict resolution and support and resources. This is particularly evident in the second indicator “Level and duration of [Support] for [General Management Activity] amongst [Stakeholder Group]”. An attribute for a ‘general management activity’ could in theory and practice be conflict resolution. This is a connection that I have found in my research and that is articulated in the literature on adaptive co-management as well.

In the previous analysis chapter, the discontinuity between the MRP's stated objective to resolve conflict and how in fact the MAC has reduced conflict was partially attributed to the reluctance by both the federal and provincial government to commit resources. The literature on adaptive co-management states that the enactment of legislation for Integrated Management does not guarantee successful implementation. And while an institution specifically dedicated to governance concerns such as conflict resolution is instrumental, human and financial resources are indispensable to the process. Long-term commitment and support by both community organizations and government agencies are required to focus on coastal issues in a comprehensive, systematic and coordinated way. Further, when stakeholders lack the resources to support these efforts, burnout can jeopardizing the process (Melzer 1998; Kearney et al 2007; Koontz 2006; Armitage et al 2009).

In the table below, I have combined the two elements because I implicitly discussed them as co-dependent conditions in Chapter 6 on Analysis. Interestingly, if one were to look at a complete draft of the Project 1.1 Fisheries Evaluation Framework, the dimension delineates Transparency as a 'process' element, while Accountability is an 'outcome' element.

Element	Indicators	Attributes
Transparent: Open and transparent policies, procedures, decision, and supporting documentation	Degree to which there is [Transparency Criteria]	Transparency Criteria: availability of information; usability of information;

<p>Accountability: Explicit consideration of responsibility for actions, decisions and outcomes.</p>	<p>[Qualitative] evidence of [Accountability Criteria] as part of [General Management Activity].</p>	<p>public release of rationale for decision.</p> <p>Qualitative: survey; focus group; interview; public hearing; media article.</p> <p>Accountability Criteria: documented roles and responsibilities; explicit consequences for non-performance of duties.</p> <p>General Management Activity: planning; policy making; decision-making; communications.</p>
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Regardless of where these elements are in the Fisheries Evaluation Framework table, I would argue that they are an advantage to the Framework and this is supported by my case study. The adaptive co-management literature also confirms that accountability and transparency are central features of an effective governance processes. However, my research and the governmentality literature highlight a discrepancy in the adaptive co-management literature with respect to how these elements play out in partnership

arrangements of governance-beyond-the-state such as the MAC. The implications of this should be considered as they relate to the Fisheries Evaluation Framework as a normative tool.

The Analysis in Chapter 6 demonstrated that the ‘Hats Off at the Door’ policy enabled members of the MAC to resolve conflict. However, the policy also generated concern among informants about its influence on transparency, accountability and participation. Specifically, informants expressed concern that the MAC is not externally accountable because members are not representatives and they are not obligated to communicate back to their constituents about decisions they have made and activities that they are involved in. And MAC members have different opinions about organizing a response to their constituencies. This problem with accountability was made worse because members of MAC did not receive support from government for their communication plan. While transparency and accountability between members of MAC and the broader public were recognized as important, they were not inherently achieved as part of decentralized institutional structure and process.

In Chapter 6, the literature on conflict resolution was used to establish that the ‘Hats Off’ policy allowed members of the MAC to resolve conflict by “separating people from the problem” (Fisher, Ury and Patton 1991). When this occurs, stakeholders can have an open discussion within MAC settings, and without compromising their external relationships and this is a key element for resolving conflict from a collaborative perspective. Meanwhile, decentralized governance processes are also supposed to promote transparency and accountability (Folke et al 2005; Lemos and Agrawal 2006; Plummer et al 2013). In particular, external accountability is assumed to naturally occur

given the involvement of members of processes such as the MAC with other sectors of civil society, including their affiliated organizations, associations, and community groups (Swyngedouw 2005). From this perspective, involved members are supposed to tighten the tether between their activities and involvement with the state, and with the public (in sensu Fung 2003). However, this presumes that a plurality of interests and values are effectively incorporated into innovative governance institutions through equitable and representative participation (Pinkerton 1994; Carlsson and Berkes 2005 Jentoft et al 2009; Childs et al 2013).

As this case study demonstrates, and the governmentality literature argues, members involved in decentralized governance processes do not always participate as representatives and this has consequences for external accountability. The literature states that external accountability of decentralized governance processes often takes place in non-transparent, ad-hoc and context-dependent ways (Swyngedouw 2005; also see Keohane 2002; Dingwerth 2004). And, because these processes lack a 'government as centre' of authority, they do not have the same traditional capacity to realize transparency and accountability. As a result, constituents are left unable to learn about the decision-making process, including subject matter, structure and current status. Thus, societal goals related to higher levels of democratic participation including transparency and accountability are weakened (Keohane 2002; Lemos and Agrawal 2006).

Looking at the Project 1.1 Fisheries Evaluation Framework from this perspective raises questions about whether there are mechanisms for transparency and accountability in place for governance processes. This focuses on the 'what' question. Missing however, is the 'how' question (in sensu Miller and Rose 2008:6); an indicator is needed to

examine how transparency and accountability criteria emerge, in addition to the shortcomings or assets of specific practices. These concerns need to be thought about and captured. Therefore, I propose that the following indicator be added to the Transparency element as a process dimension:

Element	Indicators	Attributes
Transparent: Open and transparent policies, procedures, decision, and supporting documentation.	<i>[Qualitative] evidence of how [Transparency Criteria] came about and/or strengths and weaknesses of those criteria.</i>	Qualitative: survey; focus group; interview; public hearing; media article. Transparency Criteria: availability of information; usability of information; public release of rationale for decision.

The discussion about the implications of the ‘Hats Off at the Door’ policy also raises the question as to whether ‘representativeness’ (in sensu Backstrand 2006) should be addressed more directly and explicitly in the Project 1.1 Fisheries Evaluation Framework. Recall that the ‘Hats Off’ practice enabled the members of the Government Secretariat to determine who could participate and how and it rendered members of the MAC non-representative. Both of these influenced how members engaged with governance processes. Swyngdouw (2005:1999) reminds us that while the concept of ‘stakeholder’ is supposed to be inclusive, actual governance processes are often limited in terms of who can, or will be allowed to participate and how. Therefore, the structure and type of

representation in decentralized governance processes is of crucial importance and must be accounted for in the Project 1.1 Fisheries Evaluation Framework. The Project 1.1 Fisheries Evaluation Framework does contain the element ‘Inclusive’ which relates to participation. It is described in the table below:

Element	Indicators	Attributes
<p>Inclusive: Inclusive processes that support participation.</p>	<p>Degree to which [Inclusivity Criteria] exist.</p> <p>[Qualitative] evidence of [Stakeholder Group] participation in [General Management Activity] and/or [Fisheries Management Activity].</p>	<p>Inclusivity Criteria: access to funding; access to other resources; attendance at meetings; membership in stakeholder groups.</p> <p>Qualitative: survey; focus group; interview; public hearing; media article.</p> <p>Stakeholder Group: aboriginal communities; industry; resource users; regional government; community groups; environmental interests. Provincial government.</p>

		<p>General Management</p> <p>Activity: planning; policy making; decision-making; communications.</p> <p>Fisheries Management</p> <p>Activity: monitoring; enforcement; stock assessment; research; habitat monitoring; habitat protection; harvest management.</p>
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The description of inclusive in the Project 1.1 Fisheries Evaluation Framework does prescribe that processes should encourage participation. While the element has several indicators (two of which are shown here), I would suggest that none of these capture what is meant by ‘representativeness’. Backstrand (2006:294) states that ‘representativeness’ concerns the extent to which partnerships include various stakeholder interests. While this provides some substantive direction, the analysis of the case study and the literature suggest this term is much more complex and loaded than Backstrand suggests. The ‘Hats Off’ practice both enabled and hindered MAC member participation in governance and conflict resolution. Where participation was hindered and whether this relates to ‘representativeness’ requires examination and attention in the

Project 1.1 Fisheries Evaluation Framework. Backstrand (2006) maintains that to assess this in decentralized governance processes, the following question should be asked: “to what extent is an appropriately wide range of stakeholder groups participating formally in the network, as lead or participating partners” (ibid). Perhaps an even more important question for the Project 1.1 Fisheries Evaluation Framework would be: “how are stakeholder groups represented”? And: “to what extent does this influence their participation”? In order to strengthen the inclusive element from this perspective, I would suggest that the following indicator and attributes be added:

Element	Indicators	Attributes
Inclusive: Inclusive processes that support participation.	<i>[Qualitative] evidence of [Stakeholder Type] and influence on participation in [General Management Activity] or [Fisheries Management Activity].</i>	Stakeholder Type: <i>representative; individual expert; manipulation; informing; consultation; delegated power (in sensu Arnstein 1969; Hallstrom and Bostrom 2010).</i>

7.3. What does this Case Study suggest about the Adaptive Co-Management Literature?

The final section of this chapter will focus on the literature on adaptive co-management and on what my case study contributes to knowledge in this field. The recommendations will be developed using the grounded experience of the MAC and the literature on adaptive co-management, governmentality and conflict resolution.

Recall that adaptive co-management as an approach to Integrated Management (IM) attempts to support the sustainability human use of the marine environment through collaborative planning processes that seek to expand the role of community participation in decision-making and to address the interests of multiple stakeholders and resources being managed (Hughes et al 2005; Folke et al 2005; Lemos and Agrawal 2006; Kearney et al 2007; Jentoft and Chuenpagdee 2009; Armitage et al 2009; Lockwood et al 2010; Jentoft 2011; Zips and Weilenmann 2011). Although my analysis of governance was limited by the focus on conflict and power dynamics, I would argue that I am able to provide insight on the role of conflict in either enabling or hindering innovative institutions for adaptive co-management.

Thus far, two significant gaps have been identified in the adaptive co-management literature. First, the literature favours a Habermasian approach to dealing with conflict, as opposed to a Foucauldian approach. As the case study and the literature on governmentality demonstrate, this one dimensional approach suppresses dissent rather than legitimizing it, and this can become a significant threat to governance processes (Flyvbjerg 1998; Nader 2001; Mattai and Nader 2008; Takeda and Ropke 2010). This raises the question as to whether a composite of the Habermasian and Foucauldian approaches to conflict might address the weakness found in the adaptive co-management literature. I would argue that this requires consideration as the literature moves forward.

Second, the adaptive co-management literature views non-representation as a weakness in governance processes. Additionally, the literature assumes that innovative institutions such as the MAC fundamentally encourage 'representativeness', which results in accountability and transparency (Folke et al 2005; Lemos and Agrawal 2006;

Plummer et al 2013). In contrast, this case study, taken together with the literature on conflict resolution, facilitated an understanding of the advantages of non-representation or the 'Hats Off at the Door' policy. The governmentality literature also demonstrated that members of decentralized governance processes are not always representatives, and that accountability and transparency are not natural by-products of participatory exercises (Keohane 2002; Benner et al 2004; Swyngedouw 2005; Hallstrom and Bostrom 2010; Lockwood et al 2010). This indicates that the literature on adaptive co-management must recognize that practices influencing participation, such as the 'Hats Off at the Door' policy, are multidimensional. The diverse characteristics that accompany these practices should not be taken as a given, but rather they need to be identified and deconstructed in order to understand their implications.

This case study material and three bodies of literature clearly illustrate that "while these innovative figures of governance often offer the promise of greater democracy and grassroots empowerment, they also exhibit a series of contradictory tendencies" (Swyngedouw 2005:1992). Arguably the adaptive co-management literature has failed to consider the Janus-faced nature of the role of conflict in both enabling and hindering innovative institutions for adaptive co-management. On the one hand, conflict has created new institutions and empowered new actors to assess risk and to co-operate to solve problems. On the other hand, conflict has profoundly restructured the parameters of political democracy (ibid:1993), particularly as seen in the capacity of the MAC to resolve conflict, their mechanisms of participation and their ability to be both transparent and accountable. Perhaps this outcome can be partly attributed to a failure by proponents of the adaptive co-management literature to acknowledge that there is a distinct

difference between the technical or ideological considerations of liberal democracy and innovative institutions of governance beyond-the state, which are often characterized by *real politik*.

If the down-scaling of governance to ‘local’ practices and arrangements such as the MAC is going to continue, is important that the adaptive co-management literature teases out the contradictory way in which the role of conflict both enables and hinders innovative institutions for adaptive co-management and how it impacts the democratic content of decentralized processes (ibid). An explicit focus must be placed on how conflict resolution, participation type and transparency and accountability come about, and the strengths and weaknesses of particular approaches. This requires an assessment of the formal requirements of democracy against the practices of innovative institutions. From this, the contradictory nature of new arrangements can be identified and understood, including both their positive and negative implications (ibid). Furthermore, one can determine the web of relations and practices that result in particular ways of governing, in addition to the specific ways of seeking to shape the conduct of individuals and groups (Miller and Rose 2008: 7; also see Burchell 1991). Ultimately the complex hybrid form of government/governance, which involves the state and civil society and characterizes innovative institutions for adaptive co-management such as the MAC, must be critically analyzed. This examination must take into consideration Foucault’s perspective that “power is an omnipresent dimension in human relations, power in a society is never a fixed and closed regime, but rather an endless and strategic game” (Burchell et al 1991:5).

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Appendix 1

Interview Schedule for present and past MAC Members and the Government Secretariat

1) Opening

- Hi my name is Courtenay Parlee and I am a PhD student at the University of New Brunswick and a student with Project 1.1 of the Canadian Fisheries Research Network. One of our objectives with Project 1.1 is to identify what new information is needed in order to govern to achieve a broader range of sustainability outcomes.
- Purpose: My interest in this project is to undertake thesis research information that can contribute to better social and governance outcomes in fisheries management, and to find case studies where such information is being incorporated into the management process. Because of your involvement with the Bay of Fundy Marine Advisory Committee, I would like to ask you questions and have a discussion about: the governance processes in connection with the MAC (MRP) and government secretariat, the role of the community values criteria that have been developed, risk and risk management and of conflict and conflict resolution.
- I invite you at any point to interrupt me with anything you think is important.
- Motivation: This semi-structured interview can be an opportunity to discuss past and current successes of the MAC and government secretariat in addition to any continuing problems with the processes that have taken place. I hope to use this information to study and understand the situation and then write a dissertation.
- I value what you have to say and will not pass any judgement on your responses and comments.
- Informed Consent: I am handing you a letter of informed consent. I ask that you carefully read it and sign it if you would like to continue participating in this interview (give them 5 minutes to read). Do you have any objections to the audio recording of this session? Are you aware that there is a tape recorder here?
- Thank you for providing me with your consent to continue with this discussion. This interview should take approximately one hour and let me know when you think we should break. Do you have any questions or comments before we start?

Transition: I really appreciate your participation in this interview and would like to start by learning a bit about your background.

2) Introductory and Context Questions

- What kinds of issues and problems brought you to the MAC table in the first place? Were you invited to participate?
- What did you see as being your role in this group?
- How much time and commitment did it require?
- What stakeholder group would you classify yourself under?

Transition: I am interested in the relationships between stakeholders and the formal processes involved in the management of a planning area such as the Southwestern New

Brunswick portion of the Bay of Fundy. Can you describe what sectors were present during the MRP phase and what sectors are participating at this stage in the MAC process?

3) Governance (Governmentality) Questions

- In your view, what were the original goals of the MRP when it started? Did those change?
- What did/do you hope to get out of the MAC?
- How transparent is the MAC process? Do you think there is accountability within the MAC process?
- Do all MAC members, including the secretariat, have full access to information? How about equal opportunity for participation?
- Did the government secretariat encouraging collaboration, group problem solving and the discussion of diverse beliefs, values and needs?
- Did the MRP address conflict?
- Where you still involved in the MRP when the community values criteria were developed? Describe your understanding of the way that the CVC were intended to be used.
- What do you consider to be a risk to the natural or social environment that is associated with the fisheries and Oceans in Southwest New Brunswick?
 - * What is a situation or something of human value that has been put at stake and where the outcome is uncertain?
- What do you consider to be important management outcomes in the Southwest New Brunswick Bay of Fundy planning area?

4) Questions about the model

- You suggested that you had concerns about the model of the MRP, can you explain what that model is?
- Why did you have issues with this type of model?
- What type of model do you think would work in this situation?
- Are there examples of this type of model?

5) The Closing

- Before we finish up here, I was wondering how you would like to see the information from this research returned to you or the community at large? What do you think would be the best use of this information?
- Also, I want to make sure that I get a point of view from all stakeholder groups and I don't know who to contact from education, transportation or energy. Do you have any suggestions?
- Again, thank you so much for your participation in this research. If you have any questions or comments about this research or what was discussed here today, please feel free to contact me by email or by telephone. This information is on the letter of consent that I provided you with at the beginning of the interview.

Appendix 2

CVC Focus Group Questions

Introductory Questions

- First perhaps can we start with a brief description on how each of you became involved with the MAC and specifically with developing the community values criteria?
- What did you see as being your role in the group?

Process Questions

- Can you explain the process of developing the CVC?
- 1) As the first step, did you translating principles into broad objectives? Can you explain this process to me?
 - 2) As the second step, did you translate broad objectives into operational objectives? Can you explain this process to me?
 - 3) As the third step, did you translate broad objectives into indicators and performance measures?
 - How did you combine the information collected from community consultations that were held by the MAC?
 - When developing the CVC did you refer to or plan on trying to conform to international and national obligations?
 - What is the link between the objectives in the CVC and federal or provincial policy?
 - How did you intend the CVC to be used?
 - What kind of structural (institutional, governance) support do you think is required in order for the CVC to be used for its intended purposes?
 - What do you think are the benefits of a framework such as the CVC?
 - Why did you choose to use this framework approach?
 - Can you explain the standardized measurement method used in the CVC?
 - What is its intended use? What is the benefit of including it? How can a statement about a value be transformed into a number?
 - Can you explain how the CVC can help with discussions of trade-offs among activities?

Appendix 3

COMMUNITY VALUES CRITERIA

1 - 5 High- low impact objective +/- unknown	#1 HABITAT	#2 SPECIES	#3 CHEMICAL/ BIOLOGICAL	#4 PHYSICAL	#5 CLIMATIC IMPACT	#6 CULTURAL IMPACT	#7 Cultural	#8 Cultural	#9 Social	#10 Social	#11 Social	#12 Economic	#13 Economic	#14 Economic	#15 Economic	#16 Economic
<p>To be applied to other Marine Uses Development</p> <p>Will it occur in or near 'sensitive' habitat (e.g. spawning/nursery area, areas of high productivity), and/or those supported by the public and others (e.g. Wetlands, Bay Lesques, Quoddy Region)?</p> <p>Will it impact on non-target species and/or SAMS?</p> <p>Will it use hazardous material, risk of transfer of the repetitive use of nutrients known for enrichment, eutrophication?</p> <p>Will it alter physical environment (e.g. noise, light, structural modifications, water circulation)?</p> <p>What amount of activity/development is in the area?</p> <p>Will it impact on a marine area of archaeological interest (e.g. shipwrecks, pilings)?</p> <p>Is it consistent with local natural and heritage?</p> <p>Will it impact Indigenous traditions/ceremonial harvest?</p> <p>Will it provide equitable shoreline and marine space for social activities?</p> <p>Will it contribute to community growth (e.g. human growth opportunities)?</p> <p>Public Perception</p> <p>Will it support local employment/prosperity?</p> <p>Will it impact on an existing local economic future or opportunities (active/cost benefit analysis)?</p> <p>Is it financially self-sufficient and sustainable?</p> <p>Will it support new local economic attraction/overship?</p> <p>Will it create new local economic spin-offs?</p>	<p>EXAMPLE INDICATORS</p> <ul style="list-style-type: none"> 1 - Occurs within 100m of known area 1 - does not occur within 100m of known area 	<p>EXAMPLE INDICATORS</p> <ul style="list-style-type: none"> 1 - long-term measurable negative impact 5 - No measurable negative impact 	<p>EXAMPLE INDICATORS</p> <ul style="list-style-type: none"> 1 - debris, oil spillant or petroleum factor 5 - No known petroleum contaminant factor 	<p>EXAMPLE INDICATORS</p> <ul style="list-style-type: none"> 1 - permanent and/or irreversible negative impact on the environment 5 - No measurable impact on the physical environment 	<p>EXAMPLE INDICATORS</p> <ul style="list-style-type: none"> 1 - Active/Highly cumulative impacts 5 - Not likely to add to cumulative impacts 	<p>EXAMPLE INDICATORS</p> <ul style="list-style-type: none"> 1 - Occurs in or on, and will likely disturb a known archaeological site 5 - Preserves or supports a known archaeological site 	<p>EXAMPLE INDICATORS</p> <ul style="list-style-type: none"> 1 - Does not support opportunities 5 - Does support opportunities 	<p>EXAMPLE INDICATORS</p> <ul style="list-style-type: none"> 1 - Impact use patterns 5 - No impact on use patterns 	<p>EXAMPLE INDICATORS</p> <ul style="list-style-type: none"> 1 - creates a permanent shoreline and/or marine space access 5 - creates no shoreline and/or marine space access 	<p>EXAMPLE INDICATORS</p> <ul style="list-style-type: none"> 1 - does not provide for local "human investment" 5 - provides for local "human investment" 	<p>EXAMPLE INDICATORS</p> <ul style="list-style-type: none"> 1 - High negative of local MRP office 5 - High positive 	<p>EXAMPLE INDICATORS</p> <ul style="list-style-type: none"> 1 - no support of local employment/prosperity 5 - significant employment and prosperity 	<p>EXAMPLE INDICATORS</p> <ul style="list-style-type: none"> 1 - Negative local economic future 5 - Positive (Enhancement) 	<p>EXAMPLE INDICATORS</p> <ul style="list-style-type: none"> 1 - Development is dependent on external support 5 - No external support required 	<p>EXAMPLE INDICATORS</p> <ul style="list-style-type: none"> 1 - No benefits to local economy 5 - Yes 	<p>EXAMPLE INDICATORS</p> <ul style="list-style-type: none"> -Foreign investment 1 - Low 5 - High

Appendix 4

Questions for Focus Group 2

1. At the meeting you had mentioned that the secretariat had tried to bring issues to the table and they weren't taken up by the MAC. Can you elaborate on this?
 - Offshore oil and gas
 - After SABS library closure suggestion was made to have SABS director come in and go through key science program activities that take place at the station

2. Is the Aquaculture Liaison Group associated with recommendations and advice provided to the secretariat on Marine Debris? If so, what is their mandate? Who sits on it? If not, has any progress been made on developing a multi-stakeholder group to address Marine Debris?

3. Could you explain whether policies and politics are based on short term or long term decisions?
 - For example, every year does government re-negotiate their budget and then decide whether they can continue to support something like the MAC or not? I'm trying to get at the temporal nature of influencing policies but also the temporal nature of politics and the predictability of commitment by government to commit to initiatives like the MAC.
 - Another example, one article I read said that in the United States 2- or 4-year voting cycles drive many policy processes.

Appendix 5

BRIEFING NOTE FOR THE BAY OF FUNDY MARINE ADVISORY COMMITTEE AND THE GOVERNMENT SECRETARIAT

The purpose of this briefing note is to provide information to members of the Southwest New Brunswick Marine Advisory Committee and Government Secretariat on results from my research to date.

SUMMARY

Since 2012 I have been utilizing the grounded experience of the Bay of Fundy Marine Resource Planning Initiative (MRP) and the Bay of Fundy Marine Advisory Committee (MAC) to determine “How we can improve co-management by asking questions about how a co-management committee has dealt with conflict and power dynamics”. This research is in partial fulfillment of the requirement for the degree of a Doctorate in the Philosophy of Interdisciplinary Studies at the University of New Brunswick.

At the onset of the MAC process it was determined that a formal evaluation would be conducted at the end of the three-year period based on expected outcomes developed by the Government Secretariat.

With this 2015 deadline for an evaluation and these expected outcomes in mind, I have analyzed my data and have been asked to present my results at the December 9th, 2015 MAC Meeting in St. George, New Brunswick. The release of my analysis and recommendations coincides with a three-year external review conducted by a consultant.

BACKGROUND

Canada’s Oceans Act S.C. 1996, c. 31 “The Minister, in collaboration with other ministers, boards and agencies, with provincial and territorial governments and with affected aboriginal organizations, coastal communities...should facilitate the development and implementation of a national strategy for management...based on principles of b) integrated management.” The Oceans Action Plan (DFO 2002) states that “Integrated management is a comprehensive way of planning and managing human activities so that they do not conflict with one another... It is an open, collaborative and transparent process”. This is consistent with what is going forward in Southwest New Brunswick (SWNB).

In 2004 the SWNB Marine Planning Initiative was established in order to address management challenges associated with conflict between marine users. In 2012 the name and mandate of the MRP changed. The MRP became the SWNB Bay of Fundy Marine Advisory (MAC) and they were authorized to provide recommendations and advice to government on issues related to policy. In its current state as an advisory committee, members do not believe it is the proper venue to deal with conflict. Despite this, the MAC is resolving disputes in the process of developing recommendations and advice for government. Failure to recognize this is hindering the MAC from adopting a resilient

model that prepares them to effectively deal with conflict, which is having unintended and unanticipated consequences for local governance.

The results and recommendations presented here are based on four approaches to data collection including: 1) the analysis of documents and records of meetings generated by the MRP/MAC and the Government Secretariat; 2) participatory observation; 3) 29 individual semi-structured interviews involving past and present members of the MAC and Government Secretariat; and 4) two one and half hour long focus group sessions.

I used a qualitative approach to data analysis called grounded theory. In grounded theory, the analysis of data drives the discovery of theory, thus, the first step in my research was to focus on a clear question about which I could collect data from informants, rather than starting with a hypothesis (Reichertz 2009). I began with a research question that had no obvious solutions (Schvaneveldt and Cohen 2010). By first collecting data from informants about this question, and then asking how well various hypotheses would explain the available evidence, I arrived at some answers that address my question. Ultimately, under this principle, an explanation or solution is valid if it is the best possible explanation for a set of data (Lipton 2000).

Pertinent literature for the analysis of data in this research derives from governmentality (Burchell et al 1991; Flyvbjerg 1998; Miller and Rose 1998; Dean 2010), conflict resolution (Moore 1996; Coleman 2000; Pirie 2000; Fisher, Ury and Patton 1991), and adaptive co-management (Folke et al 2005; Kearney et al 2007; Jentoft and Chuenpagdee 2009; Armitage et al 2009). The literature provides theoretical tools for analysis to explain the nature of each specific theme.

ANALYSIS

There are three major themes that have emerged thus far from the data. The first is “Dealing with Conflict”. On the one hand federal and provincial governments developed the MRP to address conflict; on the other hand the MAC as an advisory committee is not considered an appropriate venue for dispute resolution. Despite this, the MAC is in fact addressing contentious issues. Using rational discourse they have dealt with Infectious Salmon Anemia and developed recommendations for government on topics that have caused conflict in the past including Marine Protected Areas and Marine Debris. These processes also included collaboration and communication between MAC members and the broader community who have authority and jurisdiction on the issue, and the use of local knowledge. Their approach is not consistent with conflict resolution literature, which states that conflict types need to be identified so that they can be addressed both conceptually and procedurally using a process that is consistent with each conflict type. This suggests discontinuities between the MRP’s stated objective to resolve conflict and how in fact the MAC has reduced conflict. The source of the discontinuity could be the reluctance by both the federal and provincial government to commit resources and give power over conflict resolution to the MAC. Arguably the governments are trying to suppress non-consensual forms of conflict in favour of rational discourse, cooperation and consensus. However, there is a danger that this approach will stifle dissent, and create resistance, struggle,

contestation, and exclusion. If dissent is too tightly repressed, it will find another outlet, and have the opposite effect to that intended by the Government Secretariats.

The second theme is the 'Hats Off at the Door Policy', where MAC members sit as individuals with knowledge or expertise in a specific area rather than as representatives of their stakeholder group. Informants argue that this practice has helped reduce conflict because they are not bound by organizational policy and they do not have to sacrifice personal values in favor of group values, but can instead exercise personal judgement. It ultimately enables people to engage in 'constructive controversy' and 'separates people from the problem'. The literature however, advocates representative participation because it promotes accountability. Interestingly, informants raised concerns about the influence of this practice on participation, accountability and transparency. Specifically, they suggested MAC members are not obligated to communicate with 'constituencies' and this poses problems for 'external' accountability. MAC members have widely diverging mechanisms for deciding how their members will receive feedback. And because they are not representatives, it is difficult for their 'constituencies' and the broader public to disentangle the lines of participation and mechanisms of consultation and accountability. This is particularly problematic when the Government states that they would like to use existing mechanisms such as the MAC in 'consultations' relating to marine activities. This accountability dilemma is exacerbated by the fact that the MAC did not receive support for their communication plan from the Government Secretariat. Because the MAC members practice the 'Hats Off' policy and do not have a mechanism to satisfy individuals who want to learn about the decision making process, the MAC's aim to achieve accountability and transparency is severely weakened.

The third theme is 'The Role of Government at the Table'. Integrated management is supposed to be driven by DFO in collaboration with others. A key consideration is inclusiveness, which refers to opportunities available for stakeholders to influence problem articulation, problem solving and decision-making. The role of government at the MAC table is understood by informants to be both procedural and substantive and the literature states this is assumed to be a neutral role. However, the 'Hats Off' policy does not apply to government and therefore they cannot be neutral. This government role enables the MAC to resolve conflict because the Secretariat members are able to promote MAC recommendations with other agencies and governments (eg. RCCOM). It also requires the Secretariat to report back to the MAC about how recommendations are being addressed. 'Hats On' for government members also hinders the MAC from engaging in governance. Informants noted that a provincial member of the Secretariat blocked a stakeholder from the conservation/environment sector from participating because they had challenged the environmental practices of the aquaculture industry in the past. It was argued that they did not meet criteria to participate in a "constructive fashion". This Secretariat member was not able to 'take his hat off' and "separate people from the problem" and this in turn influenced who could participate and how. 'Hats On' by government members also effected agenda setting. Informants stated that they had difficulty getting the SABS library issue placed on the agenda and addressed. In response a federal member of the Secretariat argued that government had already made the decision based on budget considerations. In this case 'Hats On' limited the ability of this federal member of the Secretariat to respond

effectively, thus preventing the MAC from addressing the SABS library issue to member's satisfaction.

RECOMMENDATIONS

Government and other members of the MAC have achieved higher levels of public engagement through the MRP and MAC processes. If both levels of government and members of the MAC want to maintain these high levels of public engagement they need to recognize the deficits identified in this analysis and address them.

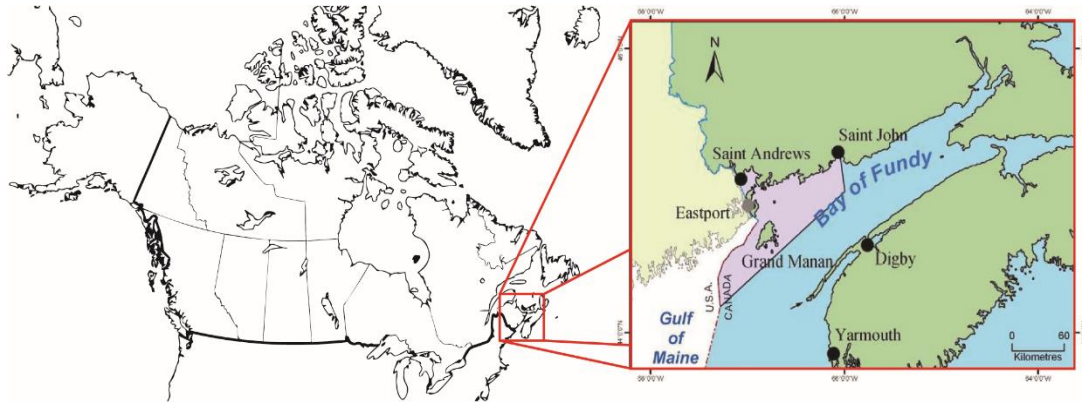
To mitigate deficits, I recommend that the following changes need to be made: recognition of and commitment to a conflict resolution body; allow for the possibility that consensus may not be the only viable outcome and that resistance and contestation might be productive ways to move forward; if members of the MAC retain 'Hats Off at the Door' policy, it is important that support be provided by government for the development and implementation of a communications plan; give explicit consideration to the fact that the Government Secretariat members cannot take their 'Hats Off at the Door' and of the implications this has for their role at the table.

If there are questions about the results and recommendations presented here, or if members of the MAC and Government Secretariat would like assistance implementing these recommendations, I am happy to be part of the discussion.

Courtenay E. Parlee
November 13th, 2015
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Appendix 6

Map of Canada with a focus on the Bay of Fundy Marine Advisory Committee Geographic Planning Area⁴⁷.



⁴⁷ This map has been modified from the original version which was published in Davies, Jessie and Herbert, Glenn (2011) The Southwest New Brunswick Marine Resources Planning (MRP) Initiative: Community and Government learning from one another. [Powerpoint] Presentation Prepared for the Coastal Community University Research Alliance (CURA) Conference, People in Places: Engaging in Integrated Resource Management, An international Conference in Halifax, Nova Scotia, Canada, June 27-29, 2011. Retrieved April 5, 2016 from: <http://www.coastalcura.ca/documents/DaviesHerbertSecured.pdf>

Appendix 7

Comparison of the Community Values Criteria to the 2.0 Fisheries Evaluation Framework

Green—Elements are the same in both frameworks
 Orange—Elements are similar in both frameworks
 Purple—Elements added for clarification or due to gaps in either one of the frameworks

Community Values Criteria	2.0 Framework –Goals	2.0 Framework–Indicators
ECOLOGICAL #1 HABITAT Will it [anthropogenic activity] ² occur in or near 'sensitive' habitat (e.g. commercial species spawning/nursery areas, areas of high biodiversity, productivity) and/or those areas identified by the public and supported by science (e.g. Wolves, Maes Bay Ledges, Quoddy Region)?	Substrate Quality: Changes to benthic geology and geomorphology	Proportion of sensitive [Benthic Species] ¹ subject to [Anthropogenic Activity] ²
ECOLOGICAL #2 SPECIES Will it [anthropogenic activity] ² impact on non-target species and/or species at risk?	Geographic Range: Fluctuations of species and population geographic range	[Status] ³ of [Resource Demographic Category] ⁴ within a [Resource Geographic Region] ⁵
ECOLOGICAL #3 CHEMICAL/BIOLOGICAL Will it [anthropogenic activity] ² use hazardous material, risk of invasive species, or the repetitive use of materials known to influence enrichment, eutrophication?	Water Quality: Changes to water quality	[Quantification] ⁶ of Anoxic zones in a [Resource Geographic Region] ⁵ [Eutrophication evidence] ⁷ in a [Resource Geographic Region] ⁵

ECOLOGICAL #4 PHYSICAL Will it [anthropogenic activity] ² alter natural physical environment (e.g. noise, light, structural, sedimentation, water circulation)?	Substrate Quality: Changes to benthic geology and geomorphology	Proportion of habitat types impacted, and the degree of impact, by [Anthropogenic Activity] ²
ECOLOGICAL #5 CUMULATIVE IMPACT What amount of activity/development is in the area?	Substrate Quality: Changes to benthic geology and geomorphology	Proportion of habitat types impacted, and the degree of impact, by [Anthropogenic Activity] ²
CULTURAL #6 Will it [anthropogenic activity] ² impact on marine area/site of known heritage/archeological interest (e.g. shipwrecks, parks)?	Access Stability: Stability of access to resource benefits Costs & Benefits: Equitable distribution of benefits and costs	Distribution of [Access] ⁸ by [Human Geographic Region] ⁹ , [Human Population] ¹⁰ , [Sector] ¹¹ , [Operator Type] ¹² [Quantification] ⁶ of major changes to [Access] ⁸ conditions over [Time Period] ¹³ [Benefit Axis] ¹⁴ by [Socio-economic distribution axis] ¹⁵ [Cost Axis] ¹⁶ by [Socio-economic distribution axis] ¹⁵
CULTURAL #7 Is it [anthropogenic activity] ² consistent with local, natural and cultural heritage?	Rules: Legal, regulatory and policy framework is appropriate	[Qualitative] ¹⁷ evidence of consistency between the [Institutional Arrangement] ¹⁸ and [Legislation/Regulation] ¹⁹ and [Human Population] ¹⁰ norms and values
CULTURAL #8 Will it [anthropogenic activity] ² impact Indigenous Traditions (Ex. Ceremonial Harvest)?	Rules: Legal, regulatory and policy framework is appropriate	[Qualitative] ¹⁷ evidence of consistency between the [Institutional Arrangement] ¹⁸ and [Legislation/Regulation] ¹⁹ and [Human Population] ¹⁰ norms and values

SOCIAL #9 Will it [anthropogenic activity] ² provide equitable access to shoreline and marine space for social activities?	Stability: Stability of access to resource benefits	Distribution of [Access] ⁸ by [Human Geographic Region] ⁹ , [Human Population] ¹⁰ , [Sector] ¹¹ , [Operator Type] ²⁰ [Quantification] ⁶ of major changes to [Access] ⁸ conditions over [Time Period] ²¹
SOCIAL #10 Will it [anthropogenic activity] ² contribute to community health and human growth (e.g. opportunities)?	Risk and Rewards: Equitable distribution of risks and rewards. Human Capital: Development and maintenance of Human Capital	[Risk Axis] ²² by [Socio-economic Distribution Axis] ¹⁵ [Human Demographic Axis] ²³ by [Occupational Axis] ²⁴
SOCIAL#11 Public Perception	Collaborative: Collaborative relationships within and between governments and other parties.	[Qualitative] ¹⁷ evidence of [Stakeholder Group] ²⁵ and [Human Population] ²⁶ perception of collaboration by [Collaboration Type] ²⁷
ECONOMIC #12 Will it [anthropogenic activity] ² support local employment and local prosperity?	Human Capital: Development and maintenance of Human Capital	[Human Demographic Axis] ²³ by [Occupational Axis] ²⁴
ECONOMIC #13 Will it [anthropogenic activity] ² impact an existing or local economic livelihood or future opportunities/activity (e.g. provides cost benefit analysis)?	Human Capital: Development and maintenance of Human Capital Costs & Benefits: Equitable distribution of benefits and costs	[Human Demographic Axis] ²³ by [Occupational Axis] ²⁴ [Benefit Axis] ¹⁴ by [Socio-economic distribution axis] ¹⁵ [Cost Axis] ¹⁶ by [Socio-economic distribution axis] ¹⁵
ECONOMIC #14	Financial Viability: Financial Viability of fisheries enterprises.	

Is it [anthropogenic activity] ² financially self-sufficient and can it show sustainability?		
ECONOMIC #15 Will it [anthropogenic activity] ² support new local economic diversification and ownership?	Labour: Sustainability of the labour force.	Distribution and mean of [Compensation] ²⁸ by [Occupational Axis] ²⁴ , [Fishery Category] ²⁹ , [Gear] ³⁰ and [Human Geographic Region] ³¹
ECONOMIC #16 Will it [anthropogenic activity] ² create new investment/local economic spin-offs?	Financial Viability: Financial Viability of fisheries enterprises. Economic sustainability: Sustainability of profits at all stages of the value chain Costs & Benefits: Equitable distribution of benefits and costs	Investment stock/flow in fishery, by [Fishery Category] ²⁹ , [Operator Type] ²⁰ and [Gear] ³⁰ Distribution of [Value Type] ³² by [Value Chain Element] ³³

2.0 Framework Attributes	
1.	Benthic Species: corals; sponge; crystalline algae
2.	Anthropogenic Activity: harvesting; shipping; tourism and recreation; oil and gas extraction/processing; mining; forestry; aquaculture; construction; residential development; legislation; policy; management plan.
3.	Status: Bt/Btarget; Bt/Blim; Bt/B0; Probability of Extinction; COSEWIC/SARA designated unit status
4.	Resource Demographic Category: species; population; stock; size; sex; age class
5.	Resource Geographic Region: province; country; Exclusive Economic Zone; region; management area; marine area; river system; lake; watershed
6.	Quantification: proportion; number; frequency; total area; total volume; presence/absence; ratio
7.	Eutrophication evidence: nutrient concentrations; hypoxia; algal blooms; changes phytoplankton communities; fish kills.
8.	Access: open access; licence; quota; individual property right; hereditary right; communal property right
9.	Human Geographic Region: country; province; region; community; First Nation territory
10.	Human Population: general human population; fisheries participants; aboriginal people; youth; women; coastal communities.
11.	Sector: commercial; recreational; food; cultural
12.	Operator Type: processor with fisheries access rights; non-participating access owner (investor); owner-operator; active fishermen without ownership access
13.	Time Period: day; week; month; season; year; decade; century
14.	Benefit Axis: employment; access (quota, licence); physical capital (e.g., vessels); income; revenue; food; opportunity
15.	Socio-economic Distribution Axis: gender; age; sector; fishery; region; community; enterprise; vessel; harvester; individual.
16.	Cost Axis: loss of capital; loss of human life; human health impacts; habitat loss; ecosystem service losses; opportunity costs; foregone revenues
17.	Qualitative: survey; focus group; interview; public hearing; public inquiry; study; legal proceedings; media article
18.	Institutional Arrangement: legislation; regulation; policy; programs; management structures
19.	Operator Type: processor with fisheries access rights; non-participating access owner (investor); owner-operator; active fishermen without ownership access
20.	Time Period: day; week; month; season; year; decade; century
21.	Risk Axis: ecological; financial; economic; health; cultural
22.	Human Demographic Axis: age; sex; place of residence; aboriginal status; education; income level
23.	Occupational Axis: skipper; deckhand; tenderman; diver; shoreworker; technician; fisheries observer; fisheries scientist; processor; fisheries manager; fisheries researcher

24.	Stakeholder Group: Aboriginal communities; Industry; Resource Users; Regional government; Community groups; Environmental interests; Provincial Government
25.	Human Population: general human population; fisheries participants; aboriginal people; youth; women; coastal communities
26.	Collaboration Type: public-private partnerships; private-social partnerships; co-management
27.	Compensation: payment; wage; share; bonus
28.	Fishery Category: fishery (by species, gear, market); fleet (by vessel size, ownership, gear).
29.	Gear: nets; traps; hooks; longline; trawl; troll; gillnet; seine; trap; hook and line; dive
30.	Human Geographic Region: country; province; region; community; First Nation territory
31.	Value Type: landed value; export value; wholesale value; retail value
32.	Value Chain Element: producer; processor; wholesaler; retailer; consumer; investor

Curriculum Vitae

PERSONAL INFORMATION

Name: Courtenay E. Parlee

Languages Spoken and Written: English (Native) and French (Bilingual)

Work Address: Department of Anthropology

University of New Brunswick

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Canada

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EDUCATION

Present Interdisciplinary PhD Candidate, University of New Brunswick, Fredericton NB, Canada.

Supervisor: Dr. Melanie G. Wiber

Expected date of Completion: May 2016

2011-2012 160-hour Third Party Neutral Program Certificate
Canadian Institute for Conflict Resolution, College of Extended Learning,
University of New Brunswick, Fredericton, NB, Canada.
Conferred April 2012

2008-2011 Master of Philosophy in Policy Studies (MPhil), Alternative Dispute Resolution
Stream, University of New Brunswick, Fredericton, NB, Canada.
Supervisors: Dr. Melanie Wiber and Dr. Linda Neilson
Conferred September 2011

2001-2006 Bachelor of Arts, History (Honours), Acadia University, Wolfville, NS, Canada.
Supervisor: Dr. Gillian Poulter
Conferred May 2006

1996-2001 St. Michael Catholic Secondary School, Stratford, ON, Canada.

SCIENTIFIC INTERESTS

Governance, marine management, neo-liberal globalization, food security, public policy, conflict and conflict resolution.

AWARDS/HONOURS

Present Natural Sciences and Engineering Research Council of Canada Doctoral
Internship Grant

2013-2015 Social Sciences and Humanities Research Council of Canada Doctoral
Fellowship

2011-2013 Natural Sciences and Engineering Research Council of Canada Doctoral
Internship Grant

2011-2014 University of New Brunswick President's Doctoral Tuition Award

2011-2012	University of New Brunswick Magee Third-Century Postgraduate Merit Award
2011	Nominee for Governor Generals Gold Medal Award
2011-2012	Graduate Academic Assistantship
2011-2012	Graduate Research Assistantship
2011-2012	Graduate Teaching Assistantship
2008-2010	Coastal Community University Research Alliance Internship Grant
2008	University of New Brunswick Internal Tuition Scholarship

TEACHING and LECTURING EXPERIENCE

2015	<p>Guest Lecture Entitled “Policy Challenges and Opportunities in the Southwest New Brunswick Bay of Fundy Area”.</p> <p>Environmental Policy, School of the Environment, Saint Mary’s University, Halifax, Nova Scotia.</p>
2012	<p>Guest Lecture Entitled “Principles of Conflict Resolution”.</p> <p>Faculty of Nursing, Nurse Practitioners Stream, University of New Brunswick, Fredericton, New Brunswick.</p>
2012	<p>Guest Lecture Entitled “Can Alternative Dispute Resolution Advance the State Policies of Integrated Coastal Zone Management in Canadian Fisheries and Oceans?”.</p> <p>Philosophy of Public Policy, Alternative Dispute Resolution Stream, University of New Brunswick, Fredericton, New Brunswick.</p>
2012	<p>Teachers Assistant to Dr. Melanie Wiber, Department of Anthropology Anthropology of Gender – 3114; Anthropology Theory and Methods- 5701</p> <p>University of New Brunswick, Fredericton.</p> <ul style="list-style-type: none"> ■ Led classroom sessions and facilitated discussion while Dr. Wiber was away.
2010	<p>Research Co-supervisor</p> <p>Co-supervisors: Dr. Melanie Wiber, University of New Brunswick, Fredericton, NB, Canada. Dr. Anthony Charles (Adjunct Professor), Dalhousie University, Halifax, NS, Canada.</p> <ul style="list-style-type: none"> ■ Co-supervised Marine Affairs Program graduate students conducting preliminary research for a Fisheries Management course (MARA 5021) project. ■ Based on a topic that emerged from my Masters Research, students were asked to examine what would be required for clams in Southwest Nova Scotia to be issued an eco-label and to discuss the potential benefits or drawbacks of Eco-labelling. ■ Through partnership development and participatory research, the project sought to repair the economic health of the clam industry in Southwest, Nova Scotia.

LEADERSHIP AND COLLABORATIVE EXPERIENCE

- 2016- Present Volunteer Member of the Board of Directors,
Back to the Sea Aquarium,
Halifax, Nova Scotia.
- Assist in completing the non-profit registration status
 - Assist in establishing the mission and vision for the organization
 - Oversee the organizational leadership to establish a catch-and-release marine interpretive centre
- 2016- Present Volunteer Member of the Board of Directors,
Fishermen and Scientists Research Society,
Halifax, Nova Scotia.
- Participate in the review of the FSRS's mission and objectives and in the development of a strategic plan.
 - Participate in the approval of the annual budget and monitor the financial performance of the Association.
 - Help establish, review and monitor operational policies.
- 2012- Present Volunteer Mediator and Facilitator
- Office of Human Rights and Positive Environment,
University of New Brunswick, Fredericton.
- Mediation and conflict resolution services for students of UNB who are facing disputes.
 - Facilitation of discussion or decision making by groups.
 - Workshops and information sessions on conflict resolution strategies.
- 2013-Present Student Representative,
NSERC Canadian Fisheries Research Network Scientific Committee.
- The Scientific Committee is responsible for developing a plan for the Network research annually; submitting progress reports to the Board of Directors and NSERC; monitoring research progress and recommending any changes; identifying actions needed to reach Network goals and objectives.
 - Report to CFRN student colleagues on activities of the scientific committee and bring issues and concerns raised by students to the scientific committee for discussion.
- 2014-Present Volunteer Member Fishermen and Scientists Research Society,
Scientific Program Committee,
Halifax, Nova Scotia.
- Review proposals for scientific merit and value to fishermen and assess whether they are acceptable for communities
 - Examine proposals and determine how they should be implemented
 - Assist fishermen to implement projects
 - Collect and communicate ideas of interest to FSRS members
- 2013-2015 Co-Project Leader for NSERC Canadian Fisheries Research Network Student Indicator Working Group.
- Managed, co-ordinated and contributed to the expansion of a Fisheries Evaluation Framework and the completion of workshop materials.

- Administered responsibilities to student colleagues and offered advice and assistance when required.
 - Co-facilitated a workshop on the Fisheries Evaluation Framework held for CFRN Project 1.1 Members in September of 2014.
- 2013-2014 Organizing Committee Member for ‘Predator Pit’,
NSERC Canadian Fisheries Research Network 4th Annual General Meeting.
- Managed, co-ordinated and participated in the ‘Predator Pit’ challenge.
 - Collaborated with student colleagues to develop and operationalize the ‘Predator Pit’ Challenge concept.
 - Engaged in interdisciplinary partnership to co-produce and present a proposal entitled “Building Interdisciplinary and Stakeholder Participate into DFO Fisheries Management Decision Making Processes: A Comparison of the Effectiveness of Bayesian and Frequentist Approaches”.
- 2010 Learning Community Facilitator,
Digby, Nova Scotia, Canada.
Supervisor: Dr. Melanie Wiber, University of New Brunswick, Fredericton, NB, Canada.
- Facilitated eco adventure/learning group for *People of the Tides Project* of Brazil and traditional clam harvesters (Nova Scotia).
 - Organized a follow up round table meeting involving representatives of various fisheries to discuss methods of management and governance issues.

NON ACADEMIC WORK EXPERIENCE

- 2008 Yellow Pages Group, Saint John, New Brunswick.
- I analyzed incoming consumer requests and entered data for first time customers.
 - This job required the use of both French and English.
- 2007-2008 Sirius Satellite Radio Canada, Saint John, New Brunswick.
- I was required to register customer’s radios, to inform customers about the product and to assist them with technical problems.
 - This job required the use of both French and English.
- 2004-2007 Grand Pré and Wolfville Visitors’ Information Centers, Nova Scotia.
- I assisted tourists with inquiries about the area.
 - This position required me to be conversant in both French and English.

REVIEWER FOR JOURNALS

- 2013- Present Journal of Legal Pluralism
2011 Journal of Society and Natural Resources

MEMBERSHIP IN PROFESSIONAL SOCIETIES

Commission on Legal Pluralism

PUBLICATIONS

Parlee, Courtenay E. and Wiber, Melanie G. (2011) Power and Legal Pluralism in Lobster Traceability. *Journal of Legal Pluralism and Unofficial Law* 64: 121-148.

Parlee, Courtenay E. (2013) Can Alternative Dispute Resolution Advance the Stated Policies of Integrated Coastal Zone Management in Canadian Fisheries and Oceans? Oceans and Coastal Network (OCN) – *Canada Policy Briefs* 3(1): 11-16.

Parlee, Courtenay E. and Wiber, Melanie G. (2014) Institutional Innovation in Fisheries Government: Adaptive Co-management in situations of legal pluralism. *Current Opinion in Environmental Sustainability*, 11: 48-54.

Parlee, Courtenay E. and Wiber, Melanie G. (2015) Whose audit is it? Harnessing the power of audit culture in conditions of legal pluralism. *The Journal of Legal Pluralism and Folk Law*. 47 (1): 96-111.

CONFERENCE PRESENTATIONS

- 2015 Poster Presentation at University of New Brunswick Research Showcase, Fredericton, New Brunswick, September 25th.
The Sustainability Challenge—Which Values Should Management Support?
- 2015 People and the Sea VIII- Geopolitics of the Oceans, Amsterdam, Holland, June 24th-26th.
The Compulsion to Act in Southwest New Brunswick Canada: Local knowledge about risk in the Marine Environment.
- 2015 Poster Presentation at Fishermen and Scientists Research Society 22nd Annual Conference, February 19th-20th, Halifax, Nova Scotia.
The Role of Values in Enhancing Marine Sustainability: Two Case Studies.
- 2015 Canadian Fisheries Research Network Annual General Meeting, November 17th-20th, Halifax, Nova Scotia.
Resolving Conflict Over Risk Management in the Marine Environment: Strengthening Governance Institutions.
- 2014 Canadian Fisheries Research Network Project 1.1 Annual General Meeting, St. Andrews, New Brunswick, September 29-31st.
Fisheries Evaluation Framework: Looking Forward and Looking Back.
- 2014 Resilience 2014—Resilience and Development: Mobilizing for Transformation Montpellier, France, May 4-8th.
Community Values in Resource Governance: A Case Study from New Brunswick, Canada.
- 2014 Canadian Fisheries Research Network Project 1.1 Annual General Meeting, Ottawa, Ontario February 1st-2nd.
Project Update: How does my research link to Project 1.1 and the Framework?
- 2014 Canadian Fisheries Research Network Annual General Meeting, February 19th-21st, Montréal, Québec.
Resolving Conflict Over Risk Management in the Marine Environment: Strengthening Governance Institutions.
- 2013 The International Union of Anthropological and Ethnological Sciences Commission on Legal Pluralism, Manchester, England, August 5th- 10th.

Whose Audit Is It? Harnessing the Power of Audit Culture in Conditions of Legal Pluralism.

- 2013 People and the Sea VII- Maritime Futures, Amsterdam, Holland, June 26th -28th. Indicators in Fisheries Management: Barriers or Bridges to Sustainability?
- 2012 Association for Conflict Resolution Conference: New Orleans, Louisiana, September 12-15th. Panel Presenter- Research Colloquium: What Practitioners Need to Know and Apply Alternative Dispute Resolution: Can it Advance the Stated Policies of Integrated Coastal Zone Management?
- 2012 Commission on Legal Pluralism Conference: Cape Town, South Africa, September 8-10th. Who is Governing Food Systems?: Legal Pluralism, Power and Traceability.
- 2011 Conference of the International Association for the Study of the Commons: Hyderabad, India, January 10-14th. Stinting the Intertidal Zone: The Many Dimensions of Privatizing a Commons.
- 2008 BoFEP 8th Bay of Fundy Workshop: Wolfville, Nova Scotia, May 26th-29th. Mediation as a Preventative Measure in the Atlantic Canadian Fisheries.

ACADEMIC REFERENCES

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